

The Medication Assisted Treatment and Re-entry Initiative Year 1 Report

Submitted to
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Chapter I. Introduction

The Medication Assisted Treatment (MAT) and Re-entry Initiative was one of a portfolio of projects funded in 2018 by the Center for Substance Abuse Treatment (CSAT), Substance Abuse and Mental Health Services Administration (SAMHSA) to expand capacity to deliver Medication Assisted Treatment (MAT) to treat opioid use disorder. In Massachusetts, the SAMHSA grant was awarded to the Franklin County Sheriff's Office (FCSO) to conduct the program over a three-year period. FCSO contracted with the University of Massachusetts Amherst (UMass) to conduct the research and evaluation of the program.

This report, composed of seven chapters, documents the history, implementation, and findings of the FCSO MAT and Re-entry Initiative during the project's first year, from October 2018 to September 2019. Chapter I provides information on the organization of the report. Chapter II contains a review of the relevant literature upon which the research and evaluation design is based. Chapter III offers an overview of the study design, a summary of the status of data collection, and a description of the sample sizes used in the analyses. Chapter IV presents the perspectives and experiences of jail staff and other key stakeholder members who are responsible for implementing the program. Chapter V describes the characteristics of program participants at intake. Chapter VI provides information on services provided during incarceration. Finally, Chapter VII summarizes next steps and recommendations for continued implementation and evaluation of the program, based on the lessons learned from the first year of implementation.

Chapter II. Review of the Literature

Opioid Epidemic

The national opioid epidemic is a public health crisis in many communities across the U.S. (Brady et al., 2015; Han et al., 2015; Kolodny et al., 2015; Paulozzi et al., 2015). From 1999 to 2016, opioid related overdose deaths increased five-fold (Hedegaard et al., 2017). In 2017, over 47,600 deaths involved opioids (National Institute on Drug Abuse [NIDA], 2018; Rudd et al., 2016; Scholl et al., 2019). Illicit fentanyl in street drugs has exacerbated the crisis, and further amplified overdose rates (Barry, 2018; Rudd et al., 2016; NIDA, 2018; Scholl et al., 2019). Massachusetts (MA) has been especially affected, with more than 4.6% of the population estimated to have opioid use disorder (OUD), and 2,056 opioid overdose deaths in 2017 (Scholl et al., 2019; Massachusetts Department of Public Health [MDPH], 2017; MDPH, 2018; Barocas et al., 2018). For every fatal overdose, about 20 nonfatal overdoses occur (Darke et al., 2003); in Massachusetts, this translates to 40,000 nonfatal overdoses annually. It is in this context that key stakeholders have recognized the need for urgent action to expand access to evidence-based treatment, especially for populations that are at high risk of overdose such as those leaving jail or prison.

People Involved with the Criminal Justice System are at Higher Risk

Persons with OUD leaving jail or prison are at particularly high risk for overdose (Binswanger et al., 2013; Binswanger et al., 2007; Binswanger et al., 2016; MDPH, 2017; Pizzicato, 2018). In some states, overdose is the leading cause of death for people who have been involved in the criminal justice system (Binswanger et al., 2013). Nationally, individuals recently released from jail have a 12 times higher risk of fatal overdose than age-matched peers (Binswanger et al., 2007). In Massachusetts, the opioid related overdose death rate is 120 times higher for formerly-incarcerated persons than the general population (MDPH, 2017). Increases in overdose deaths after release from incarceration are largely due to decreased drug tolerance from opioid abstinence during incarceration (Stang et al., 2003).

Medications to Treat Opioid Use Disorder (MOUD)

A current key strategy to address the opioid epidemic among criminal justice populations is to increase access to Medication Assisted Treatment (MAT), also known as medications for opioid use disorder (MOUD) (Sordo et al., 2017; Krupitsky et al., 2011; Binswanger et al., 2013; Binswanger et al., 2007; Binswanger et al., 2016; Curran et al., 2012; Han et al., 2015; Paulozzi et al., 2015). The FDA has approved three types of MOUD: the opioid agonists buprenorphine and methadone, and the antagonist naltrexone. Research has shown the benefit of MOUD across a range of outcomes, including treatment retention, suppression of opioid use, and, for the agonist medications buprenorphine and methadone, reduced opioid overdose deaths (Sordo et al., 2017; Krupitsky et al., 2011; Mattick et al., 2009; Mattick et al., 2014).

Historically, access to any MOUD has been limited (Larochelle et al., 2018), which has been associated with inability to achieve and maintain long-term recovery from OUD (Hser et al., 2015; Evans & Hser, 2019). Until recently, fewer than 30 of the nation's 5,100 jails and prisons offer MOUD during incarceration or in preparation for their return to the community (Mattick et al., 2009; Mattick et al., 2014). Instead, individuals with OUD who are incarcerated are usually forced to withdraw from opioids, which can produce severe psychological distress and physical discomfort, and may result in unwillingness of individuals to re-start MOUD in the community (Rich et al.,

2015; Maradiaga et al., 2016). Furthermore, most of the correctional facilities that do offer MOUD are large urban jails (e.g. New York City, San Francisco, Albuquerque) or state prisons (e.g., Rhode Island, Vermont); many of these only offer naltrexone, and generally only upon release (not during incarceration) (Han et al., 2015; Brady et al., 2015).

Limited evidence suggests that when agonist treatment is provided during incarceration, treated individuals are more likely to reenter community SUD and MOUD treatment and less likely to use heroin and engage in high-risk behaviors (Sharma et al., 2016). Also, findings thus far suggest that the extent to which re-entry services can bridge the gap between MOUD treatment in jail and community MOUD initiation will be a major determinant of the effectiveness of jail delivery of MOUD in improving treatment outcomes.

Unique Settings: Two Counties in Western Massachusetts

The Franklin County House of Corrections (FCSO) in Greenfield, Massachusetts is one of the few jails in the nation to first treat OUD with MOUD during incarceration (Brinkely-Rubenstein et al., 2018; Bureau of Justice Assistance, 2018; Franklin County Opioid Task Force [FCOTF], 2018; Freyer, 2019; The National Reentry Resource Center [NRRRC], 2019). FCSO is located in a federally designated rural county in Western Massachusetts, an epicenter of the opioid epidemic (MDPH 2017). Franklin County is sparsely populated (pop 80,336), with most residents living in four towns in two distinct social and economic centers—south-central Greenfield/Montague and eastern Orange/Athol. Adjacent to Franklin County is Hampshire County—an area with a similar rural demographic, but more populous (pop 160,000) and inclusive of a small city and a large town. Both county seats (Greenfield and Northampton) fall on an established opioid trafficking route—Interstate 91 (the “heroin highway”). Jail inmates of both counties are poorer, less educated, less employed and, largely due to the opioid epidemic, in much worse health (i.e., greater risks for co-occurring mental health conditions, premature mortality, infectious disease [HIV, hepatitis C]) than their non-incarcerated peers (MA Dept of Public Health, 2018).

The rural regions of both counties are resource-constrained, making it hard for individuals to successfully access community-provided services. Challenges faced by residents with OUD include: long wait times for community-provided MOUD and mental health services, long geographic distances and limited transportation infrastructure to access dispersed and under-resourced health and social services, few living wage jobs, unaffordable and inaccessible housing, and limited opportunities for social integration. For many county residents with OUD, the criminal justice system represents the first opportunity to receive MOUD and needed behavioral healthcare.

The House of Corrections in both counties receive individuals with OUD that have complex behavioral health needs. The FCSO average daily inmate census is 240 men and 30 women. The Hampshire County House of Corrections (HSO) maintains an average daily census of 220 men. The proportion of FCSO inmates who self-report heroin/opioids as their primary problem is steadily increasing, from 30% in 2016 to 39% in 2017 and 40.2% in 2018 (1st quarter). Most FCSO inmates have severe childhood trauma (per CDC-recommended Adverse Childhood Experiences screener) and about 85% meet diagnostic criteria for co-occurring opioid and mental health disorders. At HSO, about 88% report a substance use disorder, and 38% report problems with opioids.

FCSO initiated its MOUD program in 2015 to treat the approximately 46% of FCSO inmates with a prescription opioid or heroin use disorder (FCOTF, 2018; NRRRC, 2019). As of April 2018, FCSO had provided MOUD to 252 individuals: 83 had been treated with extended release naltrexone and 169 with buprenorphine. In contrast, during this same era, HSO provided only extended release naltrexone and typically in preparation for community re-entry.

The Present Project

Starting in 2015, FCSO developed and refined the protocols, knowledge, and skills that are critical for safe delivery of MOUD in a rural jail setting. It is in this context that the current project was funded by SAMHSA to implement two broad goals.

The first goal of the present project is to adapt FCSO's MOUD-related policies, protocols, and technology for the HSO jail, thereby expanding regional capacity to deliver MOUD to a vulnerable and underserved criminal justice-involved population. The project is guided by the SAMHSA Addiction Technology Transfer Model to gradually adopt and implement a range of MOUD delivery options. An immediate goal is for HSO to provide buprenorphine during incarceration to individuals who already have a prescription for it. By year three of the project, HSO will offer buprenorphine induction to individuals during the initial jail intake process. Also, HSO will learn from FCSO how to deliver evidence-based treatment to address the co-occurring mental health problems of inmates with OUD.

A second overall goal of the project is to implement in both sites a comprehensive community reentry program that will link individuals with OUD who are exiting jail to community-based providers of MOUD and other health and social services. Prior to implementation of the present project, HSO offered no community reentry services. At FCSO, there were limited community reentry services and these were reserved for sentenced inmates (e.g., those who exit jail after 30+ days of incarceration). A population with a critical unmet need for reentry services are presentenced individuals with OUD. At FCSO, most buprenorphine-treated individuals (83%) are provided the medication while presentenced, remaining in MOUD an average of 4 days before reentry. These short-term detainees are at high risk for overdose and death. Thus, the project seeks to fill these service gaps, i.e., support engagement with community-provided MOUD and other health and social services, focusing on sentenced and pre-sentenced detainees exiting both FCSO and HSO.

Finally, MOUD is known to pose specific challenges when implemented in criminal justice settings (Friedmann et al., 2007; Friedmann et al., 2012; Friedmann et al., 2015; Mitchell et al., 2016; Taxman & Belenko, 2012). The effectiveness of MOUD in criminal justice systems is likely to depend on the organizational capacity and culture of the systems to implement and sustain them (Gleicher, 2017; Landenberger & Lipsey, 2005; Taxman & Belenko, 2012). For example, transformative leadership, community partnerships, staffing, and funding (e.g. reactivation of Medicaid post-release) have been identified as key contextual influencers of MOUD implementation and sustainment in criminal justice settings (Ferguson, 2018; Ferguson et al., 2019; Guerrero et al., 2018). The current project offers the opportunity to understand contextual factors that facilitate and impede delivery of MOUD in jail and community care coordination, and best practice strategies that optimize MOUD provision and linkage to community care.

Summary

Individuals with opioid use disorder (OUD) who are released from correctional settings are at high risk for overdose, infectious diseases (HIV, hepatitis C), and premature death. A potential key strategy to address the opioid epidemic among correctional populations is to increase access to medications for opioid use disorder (MOUD), particularly buprenorphine. Implementation of MOUD is uncommon in U.S. jails and prisons. The present project will expand capacity to deliver

MOUD to jail populations and provide insights on the challenges, benefits, and facilitators of delivering a MOUD program in jail settings.

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Chapter III. Overall Program Design and Status

The Franklin County Sheriff's office, in collaboration with the Hampshire County Sheriff's Office, is working to accomplish two overarching goals: (1) implement a program to expand capacity to provide medications to treat opioid use disorder to jail detainees (n=300) and (2) implement a comprehensive community reentry program. The project has formed multi-sectoral collaborations with key community partners to ensure a continuity of care and an integrated behavioral health and opioid use treatment approach. Standardized client assessment tools are being used by jail staff to collect data on individuals at intake into jail, during treatment while in jail, at discharge from jail, and at follow-up post-exit from jail. An additional participant interview is being conducted at three months post-exit from jail by research staff at the University of Massachusetts Amherst.

This chapter presents the evaluation design. First, we describe the two evaluation components. Next, we describe the study's target client population, data collection procedures, schedule, and instruments/measures. We review the status of data collection and analysis. We delineate the methodological limitations of the study. We conclude with comments on the evaluation design.

Evaluation Design

The evaluation utilizes a mixed methods pre-post research design to evaluate project implementation and assess its effectiveness. The evaluation consists of two components: (1) an Implementation and Process Study and (2) an Outcome Study. Each component is described below.

Evaluation Component 1: Implementation and Process Study

The Implementation and Process Study is designed to understand how to expand capacity to provide MOUD to the target population. This study has the following aims:

1A. Describe and monitor:

- i. plans and strategies to adapt for implementation in HSO the protocols, knowledge, and skills that are currently being used to deliver MOUD in FCSO
- ii. plans and strategies for supporting MOUD engagement and retention in jail and in the community and
- iii. the characteristics of the target population.

1B. Assess changes in criminal justice processes, clinical practices, and organizational adaptations in response to program implementation, identifying factors that enable or impede the ability of criminal justice institutions to collaborate with community-based health and social services agencies to provide comprehensive treatment and recovery support services.

1C. Assess to what extent program activities are implemented as intended and result in desired outputs.

To accomplish these aims, a formal qualitative study was conducted from March-December 2019, involving focus group discussions and one-on-one interviews with a total of 30 key stakeholders. The results of the study are presented in Chapter IV.

Evaluation Component 1: Outcome Study

The Outcome Study is designed to assess MOUD utilization and outcomes, both during and after incarceration. This study has the following aims:

2A. Assess offenders' utilization of MOUD and other health and social services

- i. while incarcerated as measured in-person at jail intake, 3- and 6-months post-intake, and jail exit (discharge) and
- ii. in the community within 3 months after jail exit.

2B. Assess health and social outcomes (e.g., opioid, alcohol, tobacco, and other substance use; physical and mental health status; employment and housing; recidivism; infectious disease risk [HIV, hepatitis C]; social support) of a randomly selected sub-sample of offenders via an in-person follow-up interview (self-reported with urine test for opioid and other substance use) conducted 3 months post-exit from jail.

2C. Assess outcomes of all offenders at 3-, 6-, and 12-months after jail exit as documented in existing administrative data, i.e., electronic health records (e.g., MOUD type, dosage, duration; physical and mental health diagnoses), criminal justice system (e.g., recidivism), and public health (e.g., date and cause of death) data systems. Analyses will be conducted to identify predictors of health services utilization and outcomes and health disparities, i.e., the extent to which outcomes vary depending on offenders' socio-demographic characteristics (e.g., age, gender, race/ethnicity, SES), comorbid physical and mental health conditions, social support, and utilization of MAT and other health and social services.

Target Client Population

All adult clients with OUD admitted to the participating jail facilities in the designated counties were to be included in the evaluation, with the exception of: (1) clients who entered the jail for a brief period of time as part of the jail's function as a regional lock-up; (2) clients who were discharged or transferred from jail prior to completing an intake assessment or release of information forms; and (3) clients who refused to release their information to the research team for evaluation purposes. During implementation, however, it happened that clients who did not provide consent for their information to be shared with the research team for research purposes were not asked to complete the intake assessment and thus were omitted from the evaluation. In effect, the intake sample is a census of all clients with OUD who gave consent to participate in research. Staff estimated that approximately 30% of individuals with OUD who were admitted to the jail during the first year of the project refused to participate in research and were thus omitted from the evaluation. All clients entered into the SPARS data system during this period were targeted for data collection, including invitation to participate in the 3-month post-exit follow-up interview.

Data Collection Procedures, Schedule, and Instruments/Measurements

Staff at participating jails were asked to assess all entering adult clients with OUD using the study instruments (described in detail below) as part of the normal admission process. This data collection began on April 1, 2019. Program staff were also responsible for completing 3-month and 6-month post intake interviews (only with individuals who were still living in jail at these time-points), and for recording and reporting services received by these clients while in jail, and for assessing clients at exit from jail. Client data collected by jail was electronically transmitted to SAMHSA by data entry into the SPARS database.

In addition, staff recruited eligible clients for the follow-up interview by explaining the study and obtaining clients' informed consent to be contacted at a later date by UMass researchers for phone interviews at 3 months post-exit from jail. Staff asked clients who consented to participate for locator information. Those who completed the follow-up interview were paid \$20 in the form of a gift card mailed to their designated addresses.

The project's standardized instruments were reviewed, modified and finalized as part of the start-up phase. Comparable standardized data were collected at each time-point during the project to measure change. Appendix A presents a copy of the data collection forms and consent forms. Appendix B presents a copy of the materials that were created to inform prospective participants about the re-entry component of the MOUD program.

Intake

Baseline Interview at Intake

Jail staff aimed to complete intake/baseline interviews using the SAMHSA GPRA form within 3 days to 7 days after jail entry. Data was collected on paper and then data entered into the SAMHSA SPARS database. If an individual had been incarcerated for all of the 30 days prior to intake, for example due to transfer from one jail to another, staff adjusted the interview questions to ask about the time period prior to the current incarceration. The GPRA intake/baseline interview date was used to determine when the subsequent 3-month and 6-month post-intake interviews were due.

Recruiting Clients for the Follow-up Study

Jail staff were also responsible for recruiting clients for the 3-month post-exit-from-jail telephone interview. Staff were to explain the study and review the Informed Consent Form (ICF) with each eligible client. If the client agreed to participate, he or she signed the ICF, signed the Release of Information for research purposes form, and then provided information for the Locator Form. The ICF is a document that explains the follow-up study to eligible client participants and obtains permission for later contact and interviewing. The Locator Form collects information that UMass staff used to contact clients who agreed to participate in the follow-up study. Providers were asked to recruit clients into the follow-up study any time after intake, but ideally within the first 3 days after intake.

While Living in Jail

3-Month and 6-Month Post-Intake

Jail staff completed follow-up interviews at 3-months and 6-months post-intake with those individuals who were still living in jail at these time-points. Staff used the GPRA form for these interviews and data entered the information into SPARS. A significant proportion of individuals were released from the participating jails before these interviews were due. Staff did not seek to complete these interviews if individuals were not living in jail when these interviews were due.

Discharge from Jail

Jail staff completed a discharge record when a participant exited jail. "Discharge" was defined as the point at which participants stop receiving services at a single jail site. Staff did not discharge

and readmit a client who transferred from one program to another within the same jail. Individuals without a discharge record have not yet exited jail.

Responses to discharge items were collected at exit from jail. Staff “administratively discharged” a participant who was not available for an exit interview by filling out the discharge items to the best of their ability. The date of the last face-to-face encounter and services provided was filled in from information contained in administrative jail records. The jail exit date was used to calculate when the subsequent 3-month post-exit from jail interview was due.

Sample sizes

Not all data elements were complete for all clients at each of the assessment points. Thus, sample sizes in this report vary depending on the combination of data elements and specific time points at which the analyses were conducted. To maximize the sample size and data utilization, we used the maximum number of clients for whom the complete data relevant to specific research questions were available. Table 3.1 provides information on the numbers of clients who had data at each time-point from April 1, 2019, when data collection began, to November 18, 2019, when data were last extracted for the present report.

Table 3.1. Sample size at each time-point			
	Franklin	Hampshire	Total
Intake	76	86	162
3-month post-intake	9	12	21
6-month post-intake	0	0	0
Discharge	50	43	93
3-month post-discharge	10	8	18
As of November 18, 2019.			

Follow-up Interview at 3 Months Post-Discharge

The 3-month post-discharge time frame was chosen to: (1) capitalize on the clients’ ability to recall specific services received while in jail and after community re-entry and accurately rate satisfaction/treatment received; (2) allow researchers to stay in touch with clients and thereby increase the follow-up rate; and (3) allow a brief assessment of clients’ status.

UMass interviewers conducted by phone one follow-up interview, lasting approximately 45 minutes, with clients at 3 months post-discharge from jail. To re-contact individuals for follow-up, UMass staff utilized methods presented in the SAMHSA Staying in Touch manual. The interview is composed of GPRA items and the In-Treatment Experience Survey. The survey also includes questions about clients’ treatment satisfaction and treatment services received using the Treatment Services Review (TSR) (McLellan, Alterman, Cacciola, Metzger, & O’Brien, 1992) which surveys clients with respect to the different types and frequencies of treatment services received in the past 3 months (both within and outside of the program). Data provide information on health services utilization and outcomes in the time-period after exit from jail.

Follow-up Rates for the 3-Month Interview

In this section, we present information on the follow-up rates for the 3-month post-exit-from-jail interview conducted by UMass staff. Rates reflect efforts made to date (as of December 19, 2019), with the understanding that interviewing will continue in Year 2 and Year 3 of the project. Of the 89 clients who have entered the 3-month post-discharge follow-up window and are thus now eligible to complete this interview: 21% completed an interview, 4% were contacted but refused to participate, 9% were contacted and scheduled for an interview but did not complete it yet, 33% were not contacted yet, and 33% could not complete an interview because they were re-incarcerated (30%) or deceased (3%). If the latter group of people (i.e., those who could not complete the interview due to re-incarceration or death) were excluded from the denominator for calculation of the follow-up rate, then 32% of eligible participants have completed the 3-month post-exit from jail follow-up interview.

Software Employed for Statistical Analyses

Quantitative data management and statistical analysis were conducted in STATA, a widely used statistical program for complex data management and multivariate analysis. Statistical analyses include descriptive statistics (frequency, percentage, mean, correlations), and comparative analysis (e.g., paired t-tests, ANOVA). Qualitative data management and statistical analysis were conducted in ATLAS.ti. Detailed descriptions of analyses conducted for addressing specific research questions are provided in the respective chapters.

Limitations of the Evaluation

Several practical limitations were considered in interpreting the results of the evaluation. Major issues are described here. Other issues that pertain to specific components of the evaluation are detailed in the corresponding chapters of this report. Clients under the age of 18, regional lock-up clients, and clients who exited jail prior to completing an intake assessment, and clients who refused participation in research have not been included in the evaluation. Therefore, no inferences should be drawn from the data regarding these client populations. The project includes jails located in two counties in Western Massachusetts who volunteered to participate in the program. Thus, the generalizability of the evaluation findings may be limited.

Chapter IV. Implementation Study

In this chapter we present the perspectives and experiences of jail staff and other key stakeholder members regarding the factors that influence the implementation and sustainment of the MOUD program.

Conceptual framework

To inform our work, we drew on concepts provided by conceptual frameworks that are commonly used by dissemination and implementation research in health (Brownson et al., 2018), that is, the EPIS (Exploration, Planning, Implementation, and Sustainment) framework (Aarons et al., 2011) and the Diffusion of Innovations in Health Service Delivery and Organization (Greenhalgh et al., 2004) framework. Together, these frameworks can be used to help identify the factors that determine whether and how the MOUD program is implemented and sustained (for example, see Ferguson et al., 2019). A key assumption that underlies this work is that the MOUD program is an example of the diffusion of an innovation in criminal justice settings.

In Diffusion of Innovations, Greenhalgh and colleagues consider the nature of innovations within healthcare settings. In their work, they draw on concepts from Diffusion of Innovations Theory (Rogers, 1995) and other relevant research to identify the set of behaviors, routines, and ways of working that enable an innovation to improve health outcomes and yield other beneficial impacts. In the nearly two decades since Diffusion of Innovations was published, it has been used to understand the nature of innovations in a wide range of health-related fields. Today, it is recognized as a foundational text for fostering the implementation of health services research findings into practice (Damschroder et al., 2009).

There are several overarching principles of these conceptual frameworks that distinguish them. First, innovation is conceptualized as a *process*, rather than an event or a fixed state. A critical implication is that as an innovation the MOUD program moves through the different stages of adoption and implementation, it generates different capacities and concerns. This means, for example, that at each stage of the program's life span, it requires different resources, skills, and other inputs to operate, it is characterized by different strengths and limitations, and there is variation in its outcomes and impacts. Second, the success of an innovation is determined by a set of *complex interactions*. Therefore, by its nature, the success of the MOUD program is dynamic, changing depending on its stage of implementation and the ways in which several factors operating at different levels of influence combine to facilitate or impede implementation. Third, the innovation is made up of three general components: (1) the innovation, (2) the intended adopters, and (3) a particular context. These components, and the concepts included within them, interact at different levels of influence to determine the extent to which the MOUD program is successful.

More broadly, the MOUD program may also be understood as a public health innovation that depends on multiple health, policy, and social services systems that together function as an "*open system*." An open system framework is useful in examining how organizations respond to a changing external environment and the dynamics of collaboration. The "open systems" perspective, derived from biology, builds on the principle that organizations, like organisms, are open to environmental influences rather than being isolated from them, or "closed," as in a mechanical system (Katz & Kahn, 1966; von Bertalanffy, 1956, 1968). As an open system, we expect that the MOUD program continually strives to strategically adapt to changes within its external environment. It draws on the environment for inputs such as funding, expertise, stakeholder support, and data. These inputs are "transformed" through the creation and

maintenance of the MOUD program. Symmetrically, the MOUD program creates outputs such as surveillance data and outcome data that affect, or are used by, the larger environment. The environment, however, is not simply passive in this exchange. Changes and stresses in parts of the environment occurring outside the MOUD program, like the recent influence of fentanyl flooding the illicit drug market (Springer et al., 2019) or the mandate that jails in Massachusetts provide all three forms of FDA-approved medications to treat opioid use disorder (i.e., Chapter 208), may create demands and constraints that affect the MOUD program's internal processes. Similarly, the outputs from the MOUD program may have significant effects for the outside environment that cause it to react in ways that again affect the MOUD program (feedback loops).

Participants

To understand the factors impacting implementation of the MOUD program, a total of 30 staff were recruited from the two participating jails. Staff who operated the MOUD program, and thus were most knowledgeable about its implementation, were eligible to participate. Participants included those individuals who represented different aspects of MOUD program operation including medical health care staff (e.g., physicians, nurses), behavioral health care staff (e.g., clinicians, therapists), correctional staff, re-entry staff, and administrative staff.

Data collection and analysis

Utilizing a mixed methods design, a semi-structured focus group (3-6 participants per group) was conducted in-person, after which participants completed a demographic questionnaire. Focus groups were supplanted with individual interviews when needed. Interviews explored barriers and facilitators of program implementation, challenges faced, and lessons learned.

Data were collected from March 2019 to December 2019. Each discussion lasted 1.5 to 2.0 hours and was held in a private room at each participating jail. Participants were compensated \$100. Individuals who could not receive compensation were offered to have payment donated to their choice of charity. To maintain confidentiality, participants were assured that findings would be anonymized. Interviews were digitally recorded, professionally transcribed, and transcripts were reviewed for accuracy. All procedures were approved by the UMass Institutional Review Board.

Using grounded theory methods (Corbin & Strauss, 1990; Glaser & Strauss, 1967), three research staff coded each transcript independently using Atlas.ti software, and then met to compare codes and resolve discrepancies through discussion. We analyzed patterns within and across the transcripts and identified major themes as informed by our conceptual framework while allowing the data to dictate analytical categories. We grouped common responses, and chose quotations that best illustrated salient ideas. The resulting summary of themes was reviewed by the entire research team. To check for accuracy and resonance with experiences, we solicited feedback on preliminary results from key participants.

Results

Demographics of participants

This study examines data from a non-random convenience sample consisting of 30 individuals. Table 4.1 presents information on participant demographics. Most participants were female (63%) and 80% was White. Half of participants had attained a graduate degree or higher. About one-third had training in addictions and 53% were licensed. Most participants had many years of

experience working with individuals with OUD or with criminally-involved populations. Participants represented the diversity of roles needed to operate the MOUD program.

Table 4.1. Participant demographics (n=30)		%
Gender	Female	63
Race and Ethnicity	White (non-Hispanic)	80
	Hispanic & Mixed Race	10
	Missing	10
Education	High School & Associates	23
	Bachelor's Degree	27
	Graduate Degree or Higher	50
Training	Licensed	53
	Concentration/Certification in Addictions	37
Experience with OUD or SUD	0 – 4 years	20
	5 – 10 years	47
	11+ years	33
Experience with Criminal Justice	0 – 4 years	30
	5 – 10 years	43
	11+ years	27
Role	Medical	13
	Behavioral Healthcare	33
	Correctional	23
	Re-entry, casework	17
	Administration	13

Factors impacting implementation and sustainment of the MOUD program

The success of an innovation is determined by a complex set of interactions that occur among its general components. In this section, we provide a summary of the barriers, facilitators, and challenges of program implementation and sustainment as they pertain to three broad domains: jail staff, the jail as an organization, and the external context. We only present broad themes. In future work, we will further contextualize these results with illustrative quotes and discuss implications for policy and practice.

Factors that facilitate program implementation among jail staff

- Buy-in from leadership to line staff - achieve common vision, mission, goals
 - Champions - sheriff, medical director, boundary spanners
 - Different reasons for buying into the MOUD program
 - people with OUD are “our people” - “it’s the right thing to do” - desire to eliminate discrimination and achieve health equity
 - “it’s your job” - value of separating personal views vs. professional roles
- Education, training

- Multi-modal methods: provided by knowledgeable and trusted peers/experts; 1:1 and in groups; train the trainer models
- Didactic learning environments
 - Experts and peers; formal and informal; mandatory and voluntary
 - Ex topics: what is OUD and MOUD; non-stigmatizing language; confidentiality, privacy; eligibility; assessment; deciding MOUD type; dosing protocols; criteria for changing MOUD type and dosage amount
- Applied practice in learning environments
 - Onboarding processes
 - Match new staff to peers who can model practices
 - Conduct weekly case reviews
- Enable staff to co-create policies and procedures
 - Draw on expertise, knowledge, creativity
 - Draw on desire to make a difference and/or do a good job

Factors that challenge program implementation among jail staff

- MOUD ambivalence/concerns/opposition – need to affirm and address directly
 - Role conflicts – public safety vs. public health - old school vs. new school
 - Staff are unsure what is best for patient with OUD
 - Desire to be respectful of patient preferences
 - Uncertain re health impacts of long-term MOUD (e.g., liver functioning)
 - Conflicts between staff lived experiences/observations re MOUD vs. MOUD research
 - Staff perceptions that outcomes are better with naltrexone or no MOUD
 - MOUD does not address non-OUD substance use disorder (e.g., cocaine use disorder)
- Steep and swift learning curve
- Too few staff wearing many hats and stretched thin
- Data capture needs, redundant data – staff concerns re impacts on clinician-participant rapport
- Staff turnover, burnout, vicarious trauma

Factors that facilitate program implementation by the jail as an organization

- Recognize MOUD program as a culture shift
 - Designate a “change team”
 - Learn from peer jails – do on-site visits for observation and training
- Jail is receptive to change, has capacity to absorb new knowledge and put it into action
 - Learning organization – risk-taking is OK, experiment, learn from mistakes, adapt, rapid PDSA cycles (plan, do, study, act)
- Create a flow chart - recognize there are multiple complex pipelines
 - Ex: sentenced vs. pre-trial; MOUD continuation vs. MOUD induction; MOUD type (buprenorphine, methadone, naltrexone); main institution vs. satellite sites
- Create processes
 - Track the flow - data systems, master lists, check lists
 - Recognize key components of the flow: screen, assess, treat, monitor, re-entry
 - Use evidence-based protocols to determine dosing - tailored to each person (not fixed) as informed by: national guidelines, expertise of medical director, participant report, biological testing, PDMP records, community clinic records, safety issues
 - Use protocols to minimize diversion
- Provide diverse array of services, tailored to each person, at each stage
 - Recognize that treatment is more than MOUD. Offer 1:1 therapy, groups, EBPs
 - Offer all 3 types of MOUD; match dosing to need; develop capacity to do continuation and induction
 - Draw on community providers to expand care
 - Monitor high-risk participants more closely
- Increase communication
 - Staff-staff: huddles, in-person meetings, shared data systems, warm-hand offs across shifts, team-based care
 - Staff-participant: dosing as example re value of clear communication and rapport building between participants, correctional staff, and nursing staff
 - Participant-participant: participants can teach each other about the value of MOUD, which creates buy-in
- Highlight win-wins
 - The MOUD program has enhanced organizational capacity such as improved communication, shared data systems, diversified funding streams

- Participants on MOUD are more cooperative and avoid opioid withdrawal symptoms. This translates into fewer disciplinary actions, cleaner living pods, and reduction of contraband
- The MOUD program is a chance for staff to learn something new, do a good job, feel valued, reduce recidivism, save lives, and make a difference

Factors that challenge program implementation by the jail as an organization

- Diversion of MOUD in jail – potential for bullying, violence
- Pre-trial individuals – they are in the jail for a very short time. Thus it is hard to build rapport, arranging for dosing, or plan for re-entry
- Methadone capacity – to provide methadone in jail requires a DEA-approved clinic, which requires navigation of burdensome regulations and policies. To provide methadone via community provider requires navigation of many logistics (e.g., transport of the methadone or of participants each day)
- Jails have limited physical space and were not designed to deliver MOUD. This makes it hard to offer MOUD, to hold groups, to offer separate housing
- Dosing processes can identify person as being on MOUD, disrupt rapport, feel dehumanizing, place enemies in the same room, and interfere with other programming
- Inadequate staffing and funding to operate the MOUD program at an individualized level
- Staff are learning how to handle participants who refuse MOUD, ask to switch MOUD type, want to taper off MOUD, have misconceptions re MOUD types
- Some participants have health and social issues that cannot be addressed directly by MOUD (ex: trauma, mental health, cocaine and other substance use)
- Re-entry program (see next section)

Re-entry is a critical program component and a work in progress

- Re-entry begins at intake
 - Plan for re-entry well before release – orient participants and reduce anxiety
 - Have community partners deliver programming inside the jail pre-release – “in-reach”
 - Integrate the re-entry team with other jail staff: medical, behavioral, correctional, administrative
- Re-entry utilizes creative solutions by design
 - Examples: same day or next day MOUD dosing, bridge-dosing, e-prescribing, state IDs, participants released to another county or state, navigating siloed systems, transportation

- Useful characteristics of re-entry staff
 - Ally, cheerleader, patient, persistent, empowering, trusted by community assets, treats participants as humans not as inmates
 - Goals: be point-person who coordinates services post-release; place participant in best position to succeed post-release
- Concerns/challenges of re-entry team
 - Large caseloads, short stays, uncertain release dates – all of these factors make it hard to build rapport or make individualized plans
 - Person no shows to MOUD in community, sells/misuses MOUD after release, on MOUD but still uses other substances (cocaine), has unrealistic expectations re MOUD, lacks social support, lacks housing, ashamed and doesn't ask for help post-release
 - Participant is transferred to another criminal justice setting that does not offer MOUD
- Needed activities, tools
 - System to know release dates – impact of “good time,” when released from court
 - System to give warm hand-offs to MOUD clinics on same day as release or next day
 - Qualified to give overdose training, has naloxone kits
 - Can connect to other services - housing, primary care, social support
 - Able to provide transportation
 - Collaborates with other agencies: probation, parole, courts, child welfare, mental health
 - Does check-ups with participants more than 2 days after release

Characteristics of the external context that facilitate program implementation

- A legal mandate is helpful, however it's important that the “MOUD in jail” program is a choice and not a top down mandate
- Recovery resources and assets
 - Community treatment is accessible, trustworthy, collaborative, knowledgeable
 - CJ system (courts, probation, parole, prisons) buys-in to MOUD, provides monitoring and structure, communicates with team
 - Universal health insurance that covers MOUD – MassHealth
- Community culture of collaboration

- Can pick up phone and get help from peer institutions (e.g., community MOUD, pharmacies, probation)
- Well-developed opioid task force
- Peer jails that collaborate more than they compete

Characteristics of the external context that challenge program implementation

- The jails are located in contexts in which there is limited system capacity for health/social services
 - Methadone deserts
 - Limited mental health treatment facilities
 - Lack of housing: sober housing, long-term residential housing
- Participants face MOUD-related stigma
 - Internalized by participants
 - Enacted in several domains
 - Community, family, friends
 - Health care providers
 - Mutual-help groups
- Sex trafficking in the community impacts women with OUD in particular
- Competing programs are being implemented in jails – CARE Act, others

Current issues impacting program sustainment

- Uncertainty among staff about aspects of MOUD itself
 - Which MOUD type is best for whom?
 - How balance participant preferences re MOUD type, taper, switching or refusal of MOUD?
 - Should we induct onto MOUD those people who have not used opioids for some time?
 - What are the reasons to change MOUD type and/or MOUD dose?
 - What are the reasons to administratively discontinue participants from the MOUD program?
 - Possible exclusion criteria: uses drugs while on MOUD, refuses group-based treatment, poses safety threat to others
- How to better treat sub-groups of participants

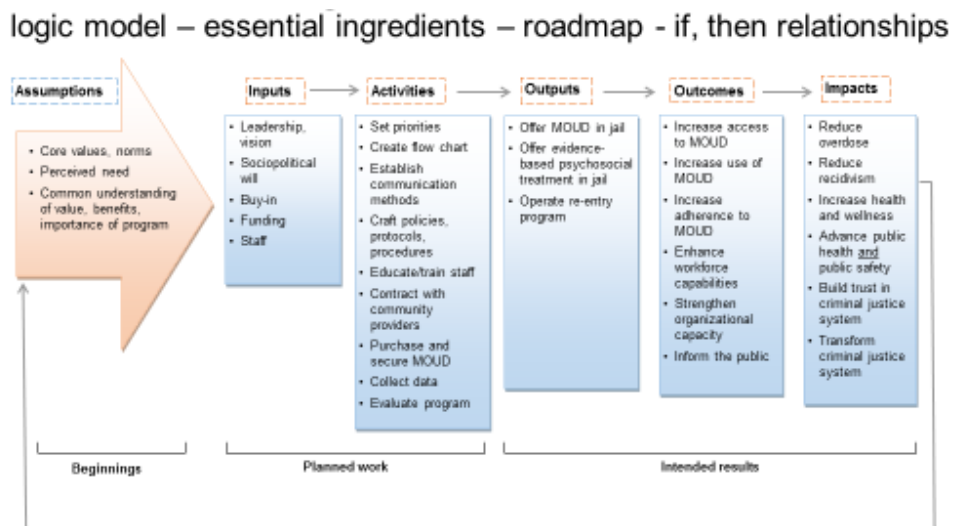
- Pre-trial individuals
- Women with needs for gender-specific programming
- Individuals in jail who don't have OUD but do have another type of SUD
- Uncertainty regarding whether the MOUD program is working
 - How to balance short-term harm reduction with long-term recovery? The goal of the program should be to save lives, reduce recidivism and achieve good quality of life. What is the best way to achieve those outcomes?

Discussion

Logic model for the delivery of a MOUD program in criminal justice settings

Results revealed several key components of the MOUD program. As presented in Figure 4.1, we mapped the key components onto a logic model. The logic model is a map of what jail staff and jails as organizations do in relation to the implementation and maintenance of a MOUD program, why they do it, what they hope to achieve, and how to measure achievement. The logic model illustrates how a MOUD program that is delivered in criminal justice settings is intended to produce outcomes and impacts.

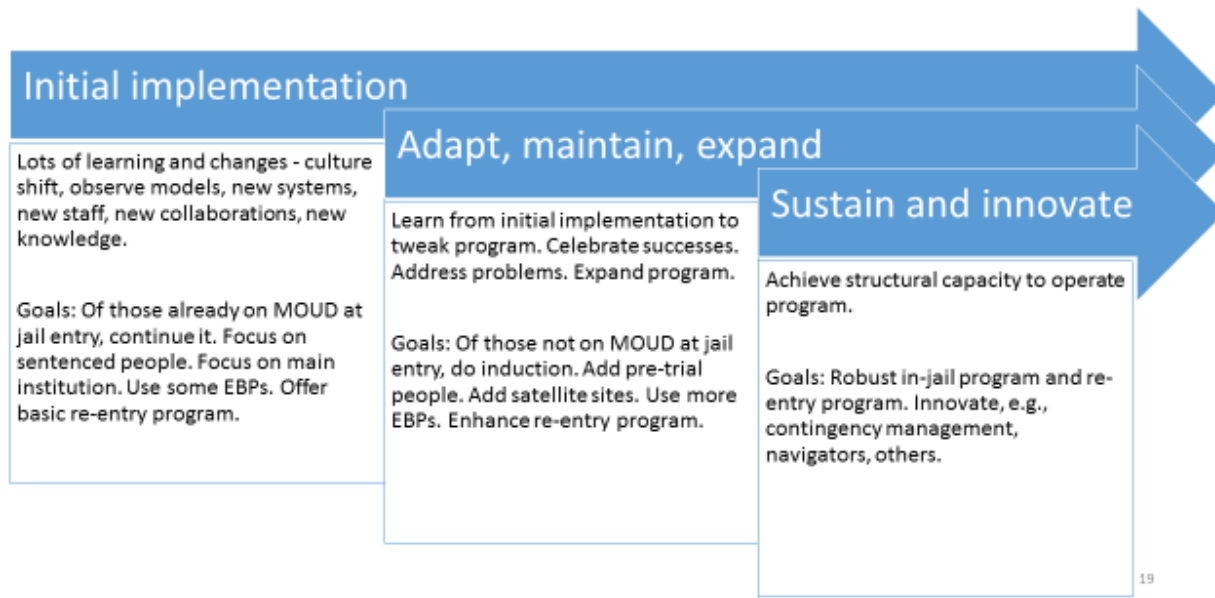
Figure 4.1. Key components of the MOUD program



Implementation of the MOUD program occurs in stages and on a continuum

Results also indicated that MOUD program implementation and sustainment in jail settings is a complex and dynamic process that occurs in stages and changes over time. In Figure 4.2, we present examples of program goals and activities by each stage. By using this concept, staff who design and implement a MOUD program in criminal justice settings can better plan for short-term and long-term goals and structure activities to achieve them.

Figure 4.2. Example goals and activities by stage of MOUD program implementation



Houses of Correction as public health hubs

Each jail that is participating in this program is providing universal and integrated health and social services to a vulnerable population, i.e., staff have created a healthcare delivery system that does not exist outside the jails. Each jail is delivering MOUD and also acts as a public health hub for delivery of related services. It is in this sense that the MOUD program represents a major paradigm shift. Participants expressed that going forward, several other paradigm shifts are needed, including the following suggestions:

- Delivery of methadone in jail requires federal fixes
- Addiction-related arrest records should be expunged once participants are released from jail
- Non-violent individuals should be routed to receive MOUD in the community and not to MOUD in jail
- There is a need to re-visit 42CFR to ease or mandate the sharing of OUD diagnosis across systems

Strengths and limitations

Findings are based on a non-random convenience sample of 30 individuals implementing a MOUD program in one of two jails located in Western Massachusetts. Small sample sizes are the norm in qualitative research (e.g., Mallory & Stern 2000) and are not intended to support generalizations, but rather provide depth of information (Curtis et al., 2000). Some participants shared experiences that program implementers are actively working to address, and therefore these issues may not be as salient for current programming. A strength is that we solicited perspectives regarding MOUD programming from individuals who are implementing it, a population that previously has been little studied. Also, the study is set in Massachusetts, which has a large and growing program for MOUD delivery inside jails and prisons. Finally, we employed

qualitative methods to explore the experiences of key stakeholders. We thereby gain insight into the complex set of factors that shape MOUD program implementation in correctional settings.

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Chapter V. Characteristics of Clients

Staff collected data from participants at jail intake to assess for each participant their health and social status and needs. We examined the socio-demographics and other characteristics and experiences of program participants as reported at the intake assessment. For most variables, participant status was reported in relation to “the past 30 days” or “currently.” The characteristics and experiences of program participants were mostly similar by site. When differences by site occurred, they usually reflected that more of the intake assessments in Hampshire than in Franklin were completed more than 30 days after participants had entered jail. Thus, in this chapter we mostly summarize data on the total participant population, and we highlight differences by site only when relevant. Finally, we summarize the most prevalent characteristic within each domain. Data for all categories that are encompassed by each variable are presented for reference in the tables and figures that are appended to the report (Appendix C).

Sociodemographic characteristics

Table 5.1 presents sociodemographic characteristics of participants.

Gender

Most participants, 84.5%, are men, and 15.5% are women. There are gender differences by site. The Franklin House of Corrections serves both men and women, whereas the Hampshire House of Corrections serves only men. This explains why 100% of the participants in Hampshire are men. In Franklin, 67.7% of the participants are men, and 32.3% are women.

Race and ethnicity

Participants are predominantly White (73.0%), followed by Hispanic (11.1%), Black (7.9%), other race/ethnicity (7.1%), and Asian (0.8%). Compared to Franklin, Hampshire has more participants who are White (75.8% vs. 70.0%) or Hispanic (16.7% vs. 5.0%), and few participants who are Black, Other, or Asian.

Age

Participants are 35 years old on average. By age category, 44.2% of participants are age 25-34, followed by age 35-44 (31.8%), and 18-24 (10.1%), and 45-54 (9.3%). Relatively few participants are age 55-64 or older.

Education

Nearly half of participants have a high school diploma or GED (49.2%), about one-third have attained less than a high school education (29.4%), and 16.7% have attained some college. More participants in Hampshire than in Franklin have a high school education or GED (56.7% vs. 40.7%), and fewer have attained some college (7.5% vs. 27.1%).

Employment

Most participants are not in the labor force (60.3%) or unemployed (21.4%), with 11.9% working full-time and 4.8% working part-time. More participants in Franklin than in Hampshire are working full- or part-time (28.8% vs. 6.0%), and fewer are not in the labor force (32.2% vs. 85.1%).

Income: Source, amount, and meeting basic needs

Approximately one-third of participants receive income from public assistance (33.3%), 21.4% receive income from employment, and 17.5% receive income from family or friends. The average monthly income from all sources is \$395.13. More than half of participants report that their income is not at all or only a little of what is needed to meet basic needs.

Housing

Most participants lived in an institution (48.4%) in the prior 30 days, 27.0% lived in their own residence, and 13.5% lived in someone else's apartment. Participants are generally satisfied or very satisfied with their living space.

Military service

Few participants, only 2.3%, are military veterans.

Parental status

Most participants, 75.4%, have children. The average number of children per participant is between 2 and 3 children. Slightly less than 10% of participants have one or more children living with another person by court order. One-quarter of participants have lost their parental rights to one or more children.

Opioid and other substance use

Table 5.2 presents participant self-reported use of opioids, other drugs, and alcohol. Most participants self-reported illegal drug use (81.0%) in the prior 30 days. About 38.9% reported use of alcohol and illegal drugs on the same day.

Opioids

More than half of participants self-reported use of any opioids (61.1%) in the prior 30 days. Participants self-reported use of heroin (52.4%), followed by Percocet (15.9%), morphine (4.0%), OxyContin or Oxycodone (4.0%), Dilaudid (3.2%) and Tylenol 2, 3, 4 (1.6%). About 5.6% reported use of non-prescription methadone.

Other drugs

More than half of the participants self-reported use of cocaine/crack (59.5%) and cannabis (57.1%). Participants also reported illegal use of benzodiazepines (15.1%), hallucinogens/psychedelics (8.7%), other illegal drugs (6.4%), methamphetamine or amphetamines (5.6%), other tranquilizers (1.6%) and inhalants (1.6%). More participants from Franklin than Hampshire reported use of cocaine (67.8% vs. 52.2%) and cannabis (59.3% vs. 55.2%).

Alcohol

About 42.1% of participants self-reported any alcohol use in the prior 30 days. About one-third of participants reported use of alcohol to intoxication with 5 or more drinks in one sitting (32.5%).

Fewer participants reported alcohol to intoxication with 4 or fewer drinks in one sitting and feeling high (6.4%).

Impacts

When asked whether alcohol or drug use caused stress in the prior 30 days, 41.1% of participants reported being extremely stressed, 14.5% were considerably stressed, 21.0% were somewhat stressed, and 7.3% were not at all stressed. Half of participants reported alcohol or drug use caused them to give up important activities to an extreme (29.8%) or considerable degree (21.0%). About 45% reported that alcohol or other drug use caused considerable or extreme emotional problems.

Opioid and other substance use disorder

Table 5.3 presents participant self-reported diagnosis of a substance use disorder by type of substance. All participants have a diagnosed opioid use disorder (100%). In addition, 46.4% have an alcohol use disorder, 32.6% have a cocaine use disorder, and 18.6% have a cannabis-related use disorder.

Medications to treat opioid or alcohol use disorder

Table 5.4 presents participant self-reported utilization of medications received in the 30 days prior to intake to treat opioid or alcohol use disorder. Approximately 46.9% of participants enter jail already on buprenorphine to treat opioid use disorder, 6.3% are receiving methadone, 3.1% are receiving extended-release naltrexone, and less than 1% are receiving naltrexone. More participants in Franklin than in Hampshire are entering jail on buprenorphine (70.5% vs. 25.4%). Very few participants are receiving medications to treat alcohol use disorder.

Crime and involvement with the criminal justice system

Table 5.5 presents participant self-reported criminal activity and interactions with the criminal justice system in the 30 days prior to intake. Most participants, 84.1%, reported having committed a crime, 62.7% were arrested, 38.0% were arrested for a drug-related offense, and almost all had spent a night in jail or prison (95.2%). More than two-thirds of participants were awaiting charges, trial, or sentencing (74.6%) and 38.7% were currently on parole or probation.

Mental health conditions and symptoms

Table 5.6 presents mental health diagnoses and symptoms.

Over half of participants screened or tested positive for co-occurring mental health and substance use disorder. More participants in Franklin than in Hampshire screened positive (98.3% vs. 40.3%), but fewer tested positive (20.3% vs. 34.3%).

Few participants had a recorded mental health diagnosis. Specifically, 1.6% had a mood and anxiety disorder diagnosis, 1.6% had a childhood onset diagnosis, and 0.8% had a personality disorder diagnosis.

In contrast, many participants self-reported symptoms of serious anxiety or tension (85.7%), depression (69.1%), and trouble understanding, concentrating, or remembering (54.0%). About 9.5% self-reported hallucinations. Few (0.8%) had attempted suicide in the prior 30 days. About

40.5% of participants were prescribed medication for psychological or emotional problems in the prior 30 days. Most participants were moderately to extremely bothered by their psychological or emotional problems.

Exposure to violence and trauma

Table 5.7 presents experiences of violence or trauma in the lifetime. Many participants (79.2%) reported having experienced violence or trauma in their lifetime. Of those that had ever experienced violence or trauma, many reported experiencing mental and physiological effects. Specifically, 84.7% reported they had nightmares or thought about it when they did not want to, 84.9% reported they tried hard not to think about it or went out of the way to avoid situations that reminded them of it, 75.8% reported they were constantly on guard, watchful, or easily startled, and 70.8% reported they felt numb and detached from others, activities, or surroundings.

About 20.6% of participants reported being hit, kicked, slapped, or otherwise physically hurt a few times in the prior 30 days.

HIV risk behaviors and testing

Table 5.8 presents self-reported data on participants' HIV risk behaviors, prevalence of HIV testing, and knowledge of HIV test results.

Sexual behavior

About half of the participants reported engaging in sexual activity in the past 30 days (58.9%). Of those participants, 87.7% reported engaging in unprotected sex, 29.7% engaged in unprotected sex with an injection drug user, and 54.7% engaged in unprotected sex with someone high on some substance.

Injection behavior

Many participants self-reported having injected drugs in the prior 30 days (42.1%). About one-quarter of participants, 24.5%, had recently used drug paraphernalia (e.g., syringe/needle, cooker, cotton, or water) that someone else had used.

HIV testing and knowledge of HIV test results

Most of the participants reported having been tested for HIV (96.8%). Most participants knew the results of the HIV testing (98.4%).

Social support

Table 5.9 presents information on source or social support and satisfaction with relationships. Many participants (79.4%) had interactions with family and/or friends that are supportive of their recovery. Participants most commonly attended support groups hosted by non-religious or faith based organizations (42.1%) or other organizations that support recovery (26.2%). About half of participants reported turning to a family member when having trouble (52.8%). About 12.4% of participants had no source of social support. About half of participants were satisfied or very satisfied with their personal relationships.

Perceived health, wellness, and quality of life

Table 5.10 presents participants' self-reported perceptions of their health, wellness, and quality of life.

Most participants rated their overall health as good (37.3%), were satisfied with their health (50.8%), mostly or completely had enough energy for everyday life, were satisfied with ability to perform daily activities, were satisfied with self, and reported a good quality of life.

Health services utilization

Table 5.11 presents recent use of health services by modality (inpatient, outpatient, emergency room). Participants self-reported that they received outpatient treatment in the past 30 days (35.7%), inpatient treatment in the past 30 days (21.4%), and emergency room treatment in the past 30 days (20.6%). More participants from Franklin reported inpatient treatment in the past 30 days than Hampshire (32.2% vs. 11.9%) as well as emergency room treatment in the past 30 days (23.7% vs. 17.9%).

Participants reported inpatient treatment for physical complaints (1.6%), mental or emotional difficulties (7.9%), and alcohol or substance abuse (18.3%). Participants reported outpatient treatment for physical complaints (4.0%), mental or emotional difficulties (10.3%), and alcohol or substance abuse (28.6%). Participants reported emergency room treatment for physical complaints (9.5%), mental or emotional difficulties (4.0%), and alcohol or substance abuse (7.9%).

Chapter VI. Services Provided

Jail staff collected data at jail exit to document for each participant the health and social services that were provided during incarceration. In this chapter, we summarize those data (see Table 6.1 in Appendix C). It is important to note that in most cases, staff extracted information from existing administrative jail records to document services provided. In this process, staff encountered challenges due to differences in the definitions of codes, uncertainty regarding where and how to document services provided, and variation by site in documentation practices. Staff are currently working to perform data quality checks to improve the accuracy, reliability, and validity of these data. Given this reality, the data presented in this chapter serves as a tool to perform data quality improvement activities, and should not be interpreted to accurately represent provision of services.

Modality

In relation to modality type, all participants were provided with case management and most received residential treatment, aftercare, and recovery support. All Franklin participants received day treatment and 75% of Hampshire participants received day treatment. No Franklin participants received methadone and 4.2% of Hampshire patients received methadone. Most Franklin participants received residential rehab services (97.4%); few Hampshire participants received these services (8.3%). For after care and recovery support, 92.1% of Franklin participants received these services. About 58.3% of Hampshire participants received recovery support and 45.8% of Hampshire participants received after care services. For Hampshire participants, 66.7% received other modalities of treatment.

Treatment

Treatment screening was provided to all Franklin participants and 95.8% of Hampshire participants. Brief intervention services was provided to 76.3% of Franklin participants and 41.7% of Hampshire participants. More Hampshire participants than Franklin participants received referral treatment services (79.2% vs. 29%). Many participants received treatment assessment (87.1%) and treatment recovery and planning (79.0%). More participants received individual counseling at Hampshire (70.8%) than at Franklin (21.1%). Both sites offered group counseling to many participants (71.0%). Hampshire delivered family and marriage counseling to 4.2% of participants. More Franklin participants received co-occurring treatment and recovery services than Hampshire participants. For both sites, most participants received pharmacological treatment interventions. Hampshire participants received HIV and AIDS counseling (16.7%).

Case management

Participants received case management services in a number of areas. At Hampshire, participants received family case management services (8.3%), pre-employment services (33.3%), employment coaching (54.2%), individual coordination (20.8%), transportation (50.0%), HIV and AIDS services (16.7%), and supportive transitional drug-free housing (16.7%). At Franklin, participants received transportation (65.8%), pre-employment case management services (2.6%), and employment coaching (2.6%).

Medical

All Franklin participants (100%) and 87.5% of Hampshire participants received medical care on site. Most participants received alcohol and drug testing (85.5%). Only Hampshire delivered HIV and AIDS medical support and testing (33.3%).

After care

Aftercare services delivered by Hampshire included continuing care (41.7%), relapse prevention (45.8%), recovery coaching (12.5%), self-help and support groups (45.8%), and spiritual support (8.3%). Franklin participants received continuing care (13.2%) and relapse prevention (7.9%).

Education

Most participants received substance abuse education (72.6%). About half of Hampshire participants received HIV and AIDS education (58.3%).

Peer-to-peer recovery support

Both sites delivered peer-to-peer support services such as housing support (11.3%), alcohol and drug free social activities (11.3%) and information and referral services (33.95). Hampshire delivered peer coaching and mentoring services (20.8%).

Chapter VII. Next Steps and Recommendations

This report documents the history, implementation, and findings of the delivery of a MOUD program to jail detainees in two Houses of Correction during the first year of a three-year project. In this chapter, we provide a summary of the next steps and recommendations for implementation and evaluation in the upcoming time-period.

Next steps

Implementation study

Data collected in Year 1 of the project provides critical insights into the barriers, facilitators, and challenges of MOUD program implementation and sustainment during the early stages of the project. Thus far, we have analyzed these data to identify broad themes. In future work, we will further contextualize these results with illustrative quotes and discuss implications for policy and practice. In Years 2 and 3 of the project, we will collect new qualitative data from stakeholders to assess how key implementation factors change over time and to identify the emergence and implementation of new program elements.

Outcome study

In Years 2 and 3 of the project, data collection will continue at each site, per the established protocols, to assess participant status at jail intake, 3-months and 6-months post-intake, and jail discharge. Also, UMass staff will continue to re-contact eligible participants and complete a 3-month post-exit from jail interview. In addition to this work, in the upcoming year, UMass will initiate plans to collect biological samples from a random subset of individuals during the 3-month post-exit interview. Also, UMass will arrange to obtain administrative data on participants as maintained in jail records and other sources. Finally, all data will be analyzed to assess health services utilization and outcomes.

Recommendations

Implementation study

Participating sites are among the first Houses of Correction in the nation to implement a comprehensive MOUD program. Lessons learned during the project thus far could help criminal justice settings in Massachusetts and elsewhere to implement similar programs. Thus, it is recommended that the team disseminate findings via presentations, reports, publications, and other engagement activities and work together to translate results into policy and practice.

Outcome study

Given the client flow and pace of data collection thus far, it is expected that sites will collect intake and discharge data on the target number of participants (n=300) during the life of the project. However, the evaluation sample represents an estimated 70% of the population being served by the MOUD program. Thus, results generated from the evaluation sample may not generalize to

the broader population. It is for these reasons that it is recommended that the team consider methods to increase detainee enrollment in data collection activities.

Staff identified that the data collected at the discharge interview thus far may not accurately represent the types of services that are provided to program participants. It is recommended that the team conduct data quality assessments and identify strategies to improve the reliability and validity of these data.

Regarding the 3-month post-exit from jail interview, it has been challenging to re-contact individuals after jail exit. Also, a significant proportion of prospective participants cannot be re-contacted because of re-incarceration (30%) or death. To increase the re-contact and follow-up rates, it is recommended that UMass staff work more closely with jail staff to better inform prospective participants prior to jail exit about the purpose and nature of the post-discharge follow-up interview. It is also recommended that the team explore options to complete this interview in incarcerated settings with individuals who have been re-incarcerated.

APPENDICES¹

Appendix A: Instruments and Consent Forms¹

Appendix B: Client Brochures

Appendix C: Tables and Figures

¹ Appendix is available upon request from the authors.