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EXPLORING MODELS FOR THE IMPLEMENTATION OF MEDICATION-ASSISTED TREATMENT FOR OPIOID USE DISORDER: KNOWLEDGE AND APPLICATION

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Introduction

Opioid and heroin use disorders are major public health crises. According to the National Survey on Drug Use and Health, almost 2 million people had an opioid use disorder (OUD) involving prescription opioids, and more than half a million people had a heroin use disorder in 2014.

Medication-assisted treatment (MAT) is the most effective means of supporting people with an OUD in recovery. Effective treatment requires a comprehensive approach that addresses all needs of the individual. MAT for OUD is an evidence-based treatment that includes the use of Food and Drug Administration-approved medications (i.e., buprenorphine, methadone, and oral and extended-release injectable naltrexone) combined with counseling and behavioral therapies as well as social, peer, and other recovery support services.² Despite its proven effectiveness, existing evidence base, and promising models in a variety of settings and for a range of populations, MAT remains highly underused. Expanding the use of MAT is key to addressing the opioid epidemic and improving individual and population health and well-being related to OUD.²

Purpose of this Summary Report

At state and local levels, agencies have expressed a dire need for increased access to OUD treatment to encourage individuals to enter long-term recovery. This factsheet provides concise, practical guidance to facilitate decision-making for MAT expansion. It builds on the Agency for Healthcare Research and Quality (AHRQ) technical brief titled Medication-Assisted Treatment Models of Care for Opioid Use Disorder. This AHRQ technical brief describes background and research for promising and innovative MAT models in primary care settings; it provides an overview of the models and identifies gaps in the evidence base.

The examples of evidence-based and promising practice MAT models in this factsheet are drawn from the Substance Abuse and Mental Health Services Administration (SAMHSA) Medication Assisted Treatment—Prescription Drug and Opioid Addiction (MAT-PDOA) grantee implementation sites

(e.g., opioid treatment programs [OTPs], community mental health centers [CMHCs], federally qualified health centers [FQHCs], hospitals, substance use disorder [SUD] treatment centers). The MAT-PDOA program expands and enhances access to MAT services for people with OUD.

This document focuses on the practical experiences of MAT-PDOA grantees with regard to the implementation or expansion of the models that are highlighted in the AHRQ paper. It gives single state agencies, state opioid treatment authorities, and OUD treatment providers essential information to consider when adopting and implementing models to enhance access to MAT for OUD. Additional tailored support may be needed for adopters of these models to ensure they implement the models to meet the needs of their organization and local system of care.

Five models are described: Hub and Spoke model, Comprehensive Opioid Response With Twelve Steps (COR-12™), office-based opioid treatment (OBOT), integrated prenatal care, and one-stop shops. The factsheet summarizes key elements and components of the models (knowledge) and describes ways grantees have implemented the models (application). The descriptions highlight six important implementation considerations for each model:

- 1. Pharmacologic component:** Describes the medications that were involved in the model rollout. This component is important because regulations vary for the three different MAT medications, and these variations may affect a program's ability to adapt the model to include different or additional medications.
- 2. Essential service component:** Identifies core services necessary to maintain fidelity to a model. This component highlights the specific services that programs need to replicate the model with fidelity and experience success.
- 3. Facilitators for successful implementation and operation component:** Explores situations that ease and encourage

success. This component helps programs identify strengths that can assist them in implementing the model.

4. Staffing needs component: Describes additional staff members who may be necessary for implementing the model and appropriate staffing levels for incorporating components into existing service delivery. This component is important for identifying needed space and estimating additional costs.

5. Payment or reimbursement mechanisms for the services component: Explains how organizations can pay for services. A mix of grant- and billing-based remuneration can influence decision-making.

6. Interagency collaboration component: Highlights interagency collaborations that are essential and without which the model cannot work. Important relationships need to be built and can affect the feasibility of the model, particularly in certain geographic areas.

The first part of this factsheet provides a brief explanation of MAT and its effectiveness. This section is followed by descriptions of the five models and implementation case examples of each; the case examples describe methods that programs used to adapt and enhance the models to fit their communities' needs. The last section of the document presents lessons learned, steps for getting started, and topics for future research and evaluation.

Acronym Definitions

AHRQ	Agency for Healthcare Research and Quality
CBT	Cognitive Behavioral Therapy
CMHC	Community Mental Health Center
COR-12	Comprehensive Opioid Response with Twelve Steps
DATA 2000	Drug Addiction Treatment Act of 2000
DBT	Dialectical Behavior Therapy
FQHC	Federally Qualified Health Center
IDU	Injection Drug Use
IMAP	Indiana Medication-Assisted Treatment Project
HRSA	Health Resource and Services Administration
MAT	Medication-Assisted Treatment
MAT-PDOA	Medication-Assisted Treatment–Prescription Drug and Opioid Addiction
MET	Motivational Enhancement Therapy
NCM	Nurse Care Manager
NIDA	National Institute on Drug Abuse
OBOT	Office-Based Opioid Treatment
OTP	Opioid Treatment Program (SAMHSA certified)
OUD	Opioid Use Disorder
PM	Program Manager
SAMHSA	Substance Abuse and Mental Health Services Administration
SBIRT	Screening, Brief Intervention, and Referral to Treatment
SUD	Substance Use Disorder
TSF	Twelve-Step Facilitation
SMARTS	Supporting Mothers to Achieve Recovery through Treatment and Supports
VT-P&P	Vermont Department of Parole & Probation
VT-DCF	Vermont Department of Children & Families

MAT and the Benefits of MAT

MAT involves using one of three medications—methadone, buprenorphine, or naltrexone—in combination with psychosocial support to treat an OUD. MAT is the most effective means of supporting people with an OUD in recovery.² In addition to increasing treatment retention and reducing illicit substance use, MAT provides important population-level benefits. For example, methadone and buprenorphine treatment can reduce overdose death rates. MAT has also been shown to reduce criminal justice system involvement and increase employment rates.

MAT Access

Unfortunately, a large unmet need for MAT remains. According to the Treatment Episode Data Set, only 28 percent of people with a heroin use disorder have treatment plans that include MAT. Nearly every state in the country has higher OUD rates than availability of OUD treatment, and approximately 75 percent of OTPs in the vast majority of states are operating at close to capacity.³

MAT is subject to ongoing negative attitudes and bias toward this type of treatment despite the robust evidence base supporting it.³ These attitudes may hinder the expansion of MAT that is so urgently needed and may impede patients' recovery process. For example, one study showed that only one-third of patients engaged in methadone-based MAT feel comfortable telling their sponsors or support groups that they take methadone. In addition, medical providers and community members may have concerns about the diversion of legally prescribed MAT medications from their original intended medical purpose to illicit use. Thus, effective expansion of MAT requires addressing unfounded biases about MAT as well as implementing comprehensive program models that meet the needs of the patient and limit diversion of the medications in the community.

MAT medications for OUD may be prescribed or dispensed in a variety of treatment settings. OTPs that are certified by SAMHSA, have current accreditation status and are registered with the Drug Enforcement Administration dispense Methadone.



By law, methadone used to treat an OUD can only be dispensed by a SAMHSA-certified OTP. Some OTPs also provide buprenorphine and naltrexone. Although methadone is available only at OTPs, buprenorphine and naltrexone are available at a wide range of treatment settings. Practitioners must complete buprenorphine-waiver training to prescribe buprenorphine. Any individual who is licensed to prescribe medication can prescribe extend-release injectable naltrexone. Thus, all OTPs provide MAT, but not all MAT is delivered by OTPs. This distinction is important when deciding on which MAT model to implement because different rules and regulations apply to different medications. This variance, at times, has complicated MAT expansion that involves methadone.

*Implementing or Expanding MAT Public Health, Integration, and Chronic Care Approach

Comprehensive drug addiction treatment consists of several key components. At the core, treatment should include of an individualized assessment according to the American Society of Addiction Medicine criteria, client-centered treatment planning, monitoring, pharmacotherapy, behavioral health services, peer support, case management, coordinated access to medical services, and continued care.

According to Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and

Health, a public health approach to substance use will "address the broad individual, environmental, and societal factors that influence substance misuse and its consequences, to improve the health, safety, and well-being of the entire population." (page7-2) Fully integrating substance use screening (e.g., screening, brief intervention, and referral to treatment [SBIRT] practices) and treatment into regular health care not only can improve SUD-related health, but can also deliver efficient health care with higher quality, effectiveness, and safety. Because SUD treatment is not currently well integrated into the rest of health care, there is a lack of awareness, siloed and fractured continuity of care, lagging implementation of evidence-based practices, and infrequent holistic patient-centered care. Treatment for serious SUDs should be framed similarly to the treatment of other chronic conditions such as asthma and diabetes. Ongoing patient-centered evidence-based care for SUD achieves remission rates that are similar to remission rates for other chronic illnesses.

Models for MAT in Primary Care

Medication-Assisted Treatment Models of Care for Opioid Use Disorder in Primary Care Settings summarizes several MAT models. The authors identify several important innovations:

- Use of designated nonphysician staff to perform the key integration/coordination role
- Tiered care models with centralized intake and stabilization of patients with ongoing management in community settings
- Screening and induction performed in emergency department, inpatient, or prenatal settings with subsequent referral to community settings
- Community-based stakeholder engagement to develop practice standards and improve quality of care
- Use of Internet-based learning networks in rural settings

- The authors also identify barriers to implementing or expanding MAT for OUD:14
- Stigma
- Lack of institutional support
- Lack of prescribing practitioners
- Lack of expertise
- Inadequate reimbursement

In response to evolving MAT-PDOA grantee needs and experience, this factsheet discusses these innovations and barriers and how programs have addressed them when implementing the four models described in the AHRQ technical brief as well as an additional promising practice. The section below describes practical implementation issues that grantees considered and the valuable lessons that they learned.

Evidence-Based and Promising Practice MAT Models – Knowledge and Application

Hub and Spoke MAT – Knowledge

The Hub and Spoke approach includes care coordination and health promotion with integrated service delivery of mental and substance use disorder treatment to provide comprehensive and holistic care.

The Hub and Spoke model is characterized by two levels of care delivered by selected, specialized, regional OTPs working in close collaboration with general medical practices. Specializing in the treatment of complex addiction, regional centers (Hubs) provide intensive treatment to patients and consultation support to medical providers (Spokes) treating patients in general medical practices. After receiving initial treatment, patients whose conditions stabilize or have lower acuity (lower risk and complexity) are transitioned from Hubs to Spokes for ongoing care.

Components Elements

Pharmacologic Component

Methadone, buprenorphine, and extended-release injectable naltrexone

Essential Service Component

- Specialized OTPs provide care, including methadone, for patients requiring more intensive services (Hubs)
- Authorized physicians prescribe buprenorphine in settings supported by community health teams (Spokes)
- Integrated care is offered for co-occurring mental and substance use disorders

Facilitators for Successful Implementation and Operation Component

- Intentional and coordinated expansion of buprenorphine access in both Hubs and Spokes
- A system sufficiently fluid to allow transfers between OTPs (Hubs) and OBOT (Spokes) programs
- Payment methodologies to support community health teams, including need-based grants combined with traditional payers

Staffing Needs Component

One nurse and one licensed clinician case manager for every 100 MAT patients at Spokes

Payment or Reimbursement Mechanisms for the Services Component

Reimbursement built on the existing infrastructure of service provider configurations: separate methodologies and payment streams for Hubs (large proportion of government funds to support services) and Spokes (heavy reliance on insurers and private payers)

Interagency Collaboration Component

Ongoing collaboration between Hub and Spoke agencies, particularly with an OTP

Hub and Spoke MAT – Application

MAT-PDOA Grantee – Indiana

Indiana's MAT-PDOA program (Indiana Medication-Assisted Treatment Project [IMAP]) uses a regionally modified version of the Hub and Spoke model to treat rural populations at its two provider locations. Indiana's model encompasses six service domains to meet the needs of patients engaged in MAT.

IMAP targets two populations: (1) rural residents in several northwestern Indiana counties who fall below the poverty line and face barriers to accessing MAT services and (2) residents of Scott County in southeastern Indiana who are at risk for HIV, hepatitis C, or other infectious diseases because of injection drug use (IDU); have been diagnosed with an infectious disease such as HIV or hepatitis C; and/or face significant barriers to accessing MAT.



Patients are assigned to multidisciplinary teams that monitor recovery outcomes and physical and mental health symptoms, assist with referrals, encourage health promotion and wellness activities, and support recovery needs. Both MAT-PDOA implementation sites collaborate with primary care providers, mental health services, specialty care providers, and recovery support services. MAT patients receive

services to address co-morbidities such as HIV, hepatitis C, and mental health conditions; reduce negative perceptions about MAT; and develop tools to achieve and sustain recovery. Indiana provides gas cards for patients residing in rural areas and offers bicycles to alleviate patients' transportation issues. Staff members assist with finding affordable housing, purchasing food for families, finding homeless shelters, making appointments with medical specialists, and accessing health insurance.

Indiana has adopted the Integrating Dialectical Behavior Therapy (DBT) with Twelve-Step Facilitation (TSF) created by the Hazelden Betty Ford Foundation for its MAT implementation. Both are evidence-based treatment approaches with several conceptual similarities. DBT is a cognitive behavioral therapy (CBT) approach that was developed for clients with dual diagnoses and persistent and severe problems. The treatment has been effective for individuals with SUD, post-traumatic stress disorder, and eating disorders. TSF is an effective treatment approach for individuals with SUD that is grounded in the principles of Narcotics and Alcoholics Anonymous. It encourages the use of additional recovery supports in traditional 12-step groups to link recovery to other aspects of the individual's life. DBT-TSF focuses on four main areas: mindfulness, distress tolerance, interpersonal effectiveness, and emotion regulation. By adopting DBT-TSF, Indiana is taking advantage of faith-based practices in some rural communities.

MAT-PDOA Grantee – Vermont

Vermont's MAT-PDOA program focuses services on three populations: (1) individuals who are on parole or under probation supervision, (2) individuals who are involved in the child welfare system, and (3) individuals who have been wait-listed for MAT.

In its MAT-PDOA grant program, Vermont uses the Hub and Spoke model to provide services to MAT clients. Vermont's OTP Hubs are program entry points and offer methadone or buprenorphine. The Spokes are OBOT providers such as family medicine physicians who have Drug Addiction Treatment Act of 2000 (DATA 2000) waivers allowing them to prescribe buprenorphine. Individuals usually initiate care at the Hub locations, which possess

more intensive and specialized SUD treatment resources than the Spoke locations. The Hub uses a triage tool called the Treatment Needs Questionnaire. Depending on the level of care needed, patients either are stabilized first at the Hub and then transferred to a Spoke or are referred directly to a Spoke if no intensive ongoing treatment management is required.

Vermont MAT-PDOA providers include an interdisciplinary treatment team. Each provider convenes a team comprising representatives from the agencies involved in a client's treatment. The teams typically include MAT or primary care providers and may include:

- MAT prescribing physicians
- Behavioral health specialists
- SUD treatment nurses
- Client volunteers
- Peer recovery support specialists from the Vermont Recovery Network
- Representatives from local FQHCs
- Vermont Department of Parole & Probation (VT-P&P) officials
- Vermont Department of Children & Families (VT-DCF) caseworkers
- Other agency representatives working with clients

Vermont MAT-PDOA clients are often placed on wait lists. To initiate services as early in the recovery process as possible, incoming but wait-listed clients are connected with one of the state's local recovery centers and have the option of being paired with a pathway guide who is trained in providing peer recovery support services, has lived experience, and can introduce individuals to recovery support

groups. Other referral services include outpatient psychosocial groups as well as help finding a primary care physician.

The program provides services to individuals who are under the supervision of the VT-DCF or VT-P&P as well as individuals about to be released from one of three participating correctional facilities. By partnering with VT-DCF, the program can treat an individual's substance abuse and mental health conditions while addressing parenting and custody issues. Vermont plans to provide naltrexone to individuals before their release from correctional facilities; individuals will receive oral naltrexone for 3 days before they receive an extended-release injection 1 day before their release. A follow-up will be scheduled by the MAT coordinator at the Hub or Spoke.

COR-12 – Knowledge

COR-12 is a program that specifically treats OUD. It includes the integration of evidence-based psychosocial services (i.e., TSF, MET, and CBT) along with medications that have proved effective for OUD across multiple levels of care. It partners with patients, families, and third-party stakeholders in long-term engagement, actively involving them in making decisions about their care. The program has experienced increases in patient retention in long-term recovery management.

Patients follow one of three pathways: treatment with buprenorphine/naloxone, treatment with extended-

release injectable naltrexone, or treatment with no medications. Buprenorphine/naloxone is used because of the ease of access in most healthcare settings compared with methadone, which is also an effective medication for treating OUD. Patients are on medications for an extended period – 12 months at a minimum – before they can consider discontinuation.

This program follows a patient-centered approach that is led by a multidisciplinary team. The patient receives an individualized assessment that leads to a tailored treatment pathway. Patients are encouraged to follow one of the two medication pathways, but a no-medication option is available if patients prefer and request not to use medication. Practitioner training and organizational culture should be evaluated to ensure that all staff members are well versed in the three pathways to determine optimal treatment for each patient.

The program inherently acknowledges that OUD is accompanied by physiological symptoms that are different from other types of SUDs. Patients and families are taught that a SUD is a chronic condition and are encouraged to engage in long-term treatment. Specialized support, including recovery management services, is provided at each level of care. COR-12 can serve as a bridge for organizations that are adopting MAT while making the most of existing effective frameworks (e.g., 12-step support, mutual aid programs).

A potential barrier to COR-12 implementation is access to a prescriber with a DATA 2000 waiver for prescribing buprenorphine, which is a necessary component of the COR-12 program. SUD treatment organizations with no or limited prescribers will need to invest in DATA 2000 certification training or partner with prescribing medical professional with goals that fit the COR-12 model. Another barrier to a COR-12 model is the prejudice and bias associated with MAT. Some staff training and orientation may be warranted to address adverse reactions to MAT, particularly if the organization has not previously worked with this type of therapy.



Components Elements

Pharmacologic Component

Buprenorphine/naloxone and extended-release injectable naltrexone

Essential Service Component

- Leadership support and commitment
- Multidisciplinary service team
- A coordinator position
- A triage process with a medical practitioner, counselor, patient, and family to decide the best treatment pathway
- Transition services between levels of care

Facilitators for Successful Implementation and Operation Component

- Staff and stakeholder training to include change management, OUD, MAT and evidence-based therapies, implementation planning, and addressing biases
- Evidence-based psychosocial treatment
- Counseling services for opioid-specific group and family support and engagement
- Recovery coaching
- Connection and peer support
- Supportive living arrangements
- Active engagement in outpatient care for 12–18 months

Staffing Needs Component

Prescribing practitioner, coordinator, and counselor

Payment or Reimbursement Mechanisms for the Services Component

Medicaid, private insurers, and private payers

Interagency Collaboration Component

None required (unless prescribers are needed), although outcomes may be enhanced with collaboration

COR-12 – Application

MAT-PDOA Grantee – Kentucky

Kentucky's MAT-PDOA program (Supporting Mothers to Achieve Recovery through Treatment and Supports [SMARTS] program) targets pregnant and parenting women with OUD and their infants for up to 2 years after birth. Kentucky uses the COR-12 approach and the National Institutes of Health's National Institute on Drug Abuse (NIDA) Comprehensive Drug Addiction Treatment model for service delivery to patients with an OUD. Kentucky uses the model as a framework to enhance its system of care for clients with an OUD. Participating providers apply their evidence-based treatment strategies for SUDs and co-occurring mental health disorders along with the COR-12 approach to address the specific needs of MAT-PDOA clients. The program assesses the needs of the individual and provides wraparound supports in addition to COR-12 model components (e.g., child care; education/training; HIV, legal, mental health services) to enhance recovery.



During the first months of the implementation, trainings, presentations, and forums were held for clinicians, program leaders, and community members on the COR-12 approach. The initial trainings in Kentucky, where the focus has been primarily on abstinence, emphasized that certain medications can improve treatment engagement and long-term recovery outcomes for individuals with OUD.

Central to program development and implementation is a state implementation team comprising leaders in the field with a variety of backgrounds, including SUD treatment, behavioral health, public health, maternal and child health, and early childhood mental health. The state implementation team offers guidance, training, and technical assistance to local CMHCs and ensures coordination across the state's multiple initiatives aimed at meeting the needs of pregnant and parenting women with an OUD. CMHCs coordinate the activities of local implementation teams and oversee implementation of the program at the local level. Multidisciplinary implementation teams address the medical and behavioral health needs of the mother and the baby. Under the guidance of the implementation teams, treatment providers offer inpatient and outpatient treatment, including at least six months of continuing OUD treatment care. Clients receive tailored education, therapy, and peer support for themselves and their families. Multiple MAT options are available and tailored to each client's needs. Buprenorphine is offered to clients if they are pregnant. Following birth, clients are transitioned to either buprenorphine/naloxone or extended-release naltrexone. Naltrexone is not currently indicated for pregnant women. Clients also have the option of participating in COR-12 services without MAT. Decisions regarding the most appropriate medication are made by the client, provider, and obstetrician. Additional practices implemented to augment the COR-12 model for MAT include SBIRT to promote early identification of OUD among pregnant and postpartum clients.

OBOT – Knowledge

OBOT is a flexible model that combines MAT with behavioral health therapies and integrates primary care to better serve individuals who have chronic co-

occurring physical and behavioral health conditions. To support DATA 2000-waivered physicians in the delivery of MAT with buprenorphine in an office-based setting, providers at Boston Medical Center, in collaboration with the Massachusetts Department of Public Health, created the OBOT Collaborative Care Model (also known as the Massachusetts Model). The model deploys an interdisciplinary OUD treatment team that is led by an addictions nurse care manager (NCM) who serves as the point of contact for clients, develops a treatment plan in collaboration with a waived physician, and coordinates all services.

OBOT advantages are numerous. The full range of patients' healthcare needs can be addressed, particularly when incorporated into full-spectrum healthcare clinics. In the context of patients with complicated and/or chronic conditions that require case management for maximum benefit, some case management responsibilities can be shared across disciplines or diagnoses, resulting in cost savings. Given that OBOT is often implemented at existing health centers, it can extend access to MAT for individuals using insurance benefits and obtaining services in community health centers, such as FQHCs serving rural and other underserved individuals.

Health centers may face several barriers to launching an OBOT. A prescriber with a DATA 2000 waiver is required for prescribing buprenorphine-based medicines, and prescribers with a waiver have a patient limit. Although a health center may already employ prescribers, they might not have a waiver or extensive understanding of addiction and might not see an additional benefit to obtaining a waiver. Peer prescriber support may be warranted. Social, structural, and personal prejudice may play a role in a health center's decision to move forward with integrating addiction services. Some staff training and orientation may be warranted to address adverse reactions to people with a SUD, particularly if the clinic's staff has not previously worked with this population. Staff may need education on the benefits of treatment to their existing patient population. These benefits include retention in care, decreased emergency department visits and hospital events, and improved outcomes.

Components Elements

Pharmacologic Component

Primarily buprenorphine, extended-release injectable naltrexone, and assisted referral to OTP services providing methadone (collaborative relationship with OTP settings)

Essential Service Component

- Collaborative team of prescribers that is led by an NCM
- Integrated care for co-occurring mental and substance use disorders
- Staff training and technical support that address addiction, discrimination or prejudice, misinformation, challenging patients, complex issues, management support, red flags, and addiction basics
- Ongoing technical assistance in integrating buprenorphine treatment into practice at FQHCs (e.g., hands-on assistance, phone support, emails, conference calls, list server education)

Facilitators for Successful Implementation and Operation Component

- Chronic disease management approach that is individualized and based on patient need
- An addiction NCM team leader to facilitate ongoing management of patients
- Medicaid reimbursement to FQHCs for nurse-delivered OUD care management
- Increase in the number of waived providers to meet patient needs
- Treatment available at numerous locations and to some marginalized populations

- Development of in-house expertise in OUD treatment among physicians, nurses, and other staff members
- Performance expectations for continued OBOT implementation funding

Staffing Needs Component

One NCM and one medical assistant per 125 patients

Payment or Reimbursement for the Services Component

- Initial grant that expands the budget for NCM salary followed by Medicaid reimbursement for OUD care management
- Traditional reimbursement mechanisms for the physician and medication

Interagency Collaboration Component

Ongoing collaboration among OBOTs at FQHCs and OTPs and with state agencies and services

OBOT – Application

MAT-PDOA Grantee – Massachusetts

Massachusetts' MAT-PDOA program (Moms Do Care) targets pregnant and postpartum women for integrated MAT and coordinated delivery of prenatal and postnatal primary care, including SUD treatment, behavioral health care, and recovery



support services. The Moms Do Care program links women to buprenorphine and methadone providers in outpatient settings, including OBOT and OTPs. As described above, Massachusetts has considerable experience implementing and refining the OBOT model.

Patients are identified and offered services at selected primary care, obstetrics, and family medical settings, as well as in community-based treatment and recovery facilities. Clients are referred to the program through healthcare staff at partner sites. Word-of-mouth and self-referrals are also common. Once a referral to Moms Do Care is made, the program staff, including DATA 2000-waivered physicians, care managers, and recovery moms, screens women for eligibility; women must be age 18 or older, be pregnant, and meet Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), criteria for OUD. Physicians provide primary care and prescribe buprenorphine to MAT-PDOA clients. Care managers provide ongoing medication management, education, monitoring, counseling, and coordination of additional services as well as supervise recovery moms. Recovery moms provide support to mothers in navigating service systems and obtaining recovery support services.

Direct care staff members in the healthcare settings, including counselors, case managers, and peer recovery moms, are trained in screening for trauma symptoms, delivering trauma-informed services using Seeking Safety, and referring for additional treatment.

MAT-PDOA Grantee – Washington

Washington's MAT-PDOA grantee expanded access to MAT in two high-risk communities serving five predominantly rural counties in southwestern Washington and one hospital-based primary care clinic serving a primarily urban population. Several evidence-based and promising practices that offer comprehensive MAT services are provided.

Following the evidence-based Massachusetts OBOT approach, each site employs an NCM and a program manager (PM) to manage patients on MAT under the direction of a physician, who diagnoses

OUD, prescribes buprenorphine treatment, and oversees the medical management of patients. The PM conducts screening and follow-up, and the NCM assists the physician with prescriptions for buprenorphine and close follow-up, ensuring that services are coordinated along the continuum of care, from screening and assessment to behavioral health counseling and recovery supports.

Through the Johns Hopkins School of Medicine Collaborative Opioid Prescribing model, patients who need care beyond office-based treatment can access daily dispensing of buprenorphine through an OTP until they are stabilized and can be referred back to the NCM/physician. This model has facilitated collaboration between OTPs and primary care clinics and makes MAT part of the regular service menu provided through primary care.

The Washington MAT-PDOA program uses telehealth technology to provide MAT services in rural locations, support its clinicians, and reduce barriers to the provision of OBOT.

Integrated Prenatal Care and MAT – Knowledge

This model identifies women who may be appropriate candidates for MAT in a primary care or obstetrics setting using SBIRT or other screening and engagement methods. The approach extends the reach of MAT by screening women and providing referrals or treatment for their SUDs when they present for prenatal health care. Engaging in MAT during pregnancy improves maternal and infant



outcomes. Furthermore, when people are on buprenorphine and retained in primary care for an extended period, they are likely to receive broad preventive healthcare services.

An advantage of integrating prenatal care and MAT is that it can reach people who can benefit from MAT but were not explicitly seeking MAT. Also, when ongoing integrated care is established, people engaged in MAT via prenatal care receive sexual and reproductive health services following pregnancy and birth in addition to other preventive health care.

A critical consideration for integrating MAT and prenatal care is to deliver the SUD-related services in a way that does not inadvertently create barriers to people continuing to engage in prenatal care. For example, pregnant women may be concerned that they will face a legal or organizational sanction for screening positive for a SUD and fear consequences of returning for services.

Components Elements

Pharmacologic Component

Methadone and buprenorphine

- During pregnancy, buprenorphine alone is preferred over buprenorphine/naloxone
- Naltrexone is not recommended during pregnancy

Essential Service Component

- Primary or obstetric care service involvement to transition women who screen positive for substance use to MAT or to provide them with referrals to clinicians who can diagnose SUD and initiate MAT
- Training addressing staff biases to mitigate risk that pregnant women with an OUD will have a negative experience during treatment

- Trauma-informed care for women with co-occurring mental and substance use disorders
- Staff and patient education about the possibility of neonatal abstinence syndrome, which is a treatable condition
- Postpartum MAT plan

Facilitators for Successful Implementation and Operation Component

- Primary care or obstetric providers who have DATA 2000 waivers
- Extended treatment with a MAT primary care provider, rather than a psychiatrist (if there is an option)
- MAT provider access to experts or colleagues for case consultation
- Child care and transportation assistance to attend individual and group SUD treatment sessions
- Involvement of children or other family members in treatment to improve maternal, child, and family well-being

Staffing Needs Component

- Existing prescribing staff may obtain DATA 2000 waivers to expand capacity without adding new staff
- Case managers and licensed counselors and/or peer recovery support service providers

Payment or Reimbursement Mechanisms for the Services Component

- Traditional healthcare payment mechanisms such as Medicaid, private insurers, or self-pay

- Many states pay for initiatives for pregnant women with an OUD to prioritize entry into and payment for MAT, for example, programs funded by the Substance Abuse Prevention and Treatment Block Grants

Interagency Collaboration Component

Usually none required. A single healthcare provider could manage both pregnancy and OUD with buprenorphine. If the patient requires methadone, then collaboration may be required between prenatal provider and OTP. The healthcare provider may need to collaborate for counseling and peer support services.

Integrated Prenatal Care and MAT – Application

MAT-PDOA Grantee – Kentucky

Kentucky's SMARTS providers offer comprehensive services to women and their infants, ranging from residential, intensive outpatient, and outpatient treatment; targeted case management and peer support services; comprehensive medical services including obstetric, psychiatric, pediatric, and family medical care; counseling; life-skills coaching; and prevention, home visitation, and other recovery support services.

Using SBIRT and other screening tools, Kentucky identifies potential clients through three main sources: obstetricians or other primary care providers, emergency departments, and community health clinics. To assist with treatment engagement

and retention, peer support specialists – a Medicaid-billable service in Kentucky – meet with pregnant clients following a positive screening result. This warm hand-off increases the likelihood of treatment engagement and retention.

Through linkages established by local implementation teams and community partners, and in keeping with COR-12 principles and components of NIDA's Comprehensive Drug Abuse Treatment model, clients are assessed and receive additional needed recovery support services such as family services, child care, vocational training, other medical or behavioral health services, education, legal advocacy, financial planning, housing, and transportation. These complementary services are supported through grant funds, existing social services, community-based and philanthropic programs, and in-kind donations.

MAT-PDOA Grantee – Massachusetts

Massachusetts' Moms Do Care program treats women with OUD during pregnancy and six months postpartum using methadone or buprenorphine, continues to provide recovery support services, and facilitates referrals to relevant systems of care. A physician has regular appointments with Moms Do Care enrollees, and each enrollee is linked to integrated care services coordinated by a care manager and recovery mom.

The Moms Do Care initiative emphasizes peer recovery support service providers – recovery moms – who are assigned to the women enrolled in the program. Clients meet regularly with the recovery moms with whom they develop a nonclinical one-on-one relationship. Experienced recovery moms encourage, motivate, and support clients and help them navigate the systems they must interact with during and after their pregnancy. Recovery moms provide services and social support that may otherwise be lacking.

The Moms Do Care program offers parenting skills education groups for women in SUD treatment using an evidence-based curriculum, The Nurturing Program for Families in Substance Abuse Treatment and Recovery. This curriculum addresses the impact



that mental illness and traumatic experiences have on children and parents who are affected by substance abuse.

One-Stop Shop – Knowledge

In its broadest sense, a one-stop shop brings physical and behavioral health services as well as support services together under one roof. Systems are streamlined, services are integrated, and necessary referrals are provided. Some existing services have complicated eligibility criteria based on HIV status, housing status, gender, and other requirements, but those criteria for services are simplified in this model. A selected set of services and care is assembled so that a person's behavioral and physical health needs (e.g., HIV treatment, sexually transmitted disease prevention, reproductive health care, SUD treatment) can be met at one location. The goal is to maximize retention, improve cost-effectiveness, increase access to specialty services, and enhance overall well-being.



Clear advantages of one-stop shops for MAT are that they use existing infrastructure where MAT can be incorporated. Because existing MAT services can be rolled into the array of services that patients with SUDs are most likely already benefiting from, implementing a one-stop shop model from MAT can be considered a form of “inreach,” in which an organization focuses internally to identify MAT candidates, rather than outreach, where candidates are identified outside the agency.

A barrier to launching a one-stop shop is that, in the absence of an existing organizational infrastructure to support MAT, it can be an expensive model to initiate. Furthermore, the need for this type of model is often apparent in an environment where the lack of services is evident.

Components Elements

Pharmacologic Component

Methadone, buprenorphine, and extended-release injectable naltrexone

Essential Service Component

- Interdisciplinary service team
- Combined intakes and assessments
- Clear communication to share information
- Staff cross-training and trauma-informed care training
- Peer and licensed case managers who navigate support across services and coordinate with primary care providers

Facilitators for Successful Implementation and Operation Component

- Strategic imperatives and performance targets focused on care coordination that convey leadership commitment and expedite internal organizational implementation of new initiatives in an existing organization
- Support from local and state political representatives to remove barriers to implementation

Staffing Needs Component

- Existing prescribers, if any, with a DATA 2000 waiver to prescribe buprenorphine

- Additional navigation and coordination staff based on patient volume

Payment or Reimbursement Mechanisms for Services Component

- Healthcare services are reimbursable by insurers; some states also reimburse for co-located peer recovery support services
- Many one-stop shop programs depend on local, state, or federal public health grants for initial integration and ongoing staff members who do not deliver reimbursable services

Interagency Collaboration Component

None required, although collaboration is a benefit as services are brought under one roof

One-Stop Shop – Application

MAT-PDOA Grantee – Indiana

A one-stop shop was established in rural Indiana in the wake of a large outbreak in HIV and hepatitis C infections that was linked to sharing syringes. The one-stop shop is a component of IMAP and provides services to the target population in southeastern Indiana. IMAP aims to reduce the risk of HIV and hepatitis C by reducing IDU and needle sharing through the following activities:

- **Screening and Testing:** IMAP providers screen clients for IDU and high-risk sexual behaviors. They refer sex workers and clients who disclose needle sharing for HIV and hepatitis C testing.
- **Education:** Clients receive educational materials about HIV and hepatitis C at intake.
- **Accessible Services:** The southeastern provider is co-located with the Scott County Health Department, which administers a syringe exchange program.

In March 2015, after the outbreak was confirmed, the Governor issued a public health emergency

exemption to the state’s ban on syringe access and disposal programs. In the area where a majority of the cases were identified, the state opened an expanded outpatient dual diagnosis clinic. The clinic has increased access to addiction treatment and works with partner agencies including treatment centers and local primary care physicians to offer clients the full continuum of clinical services for SUDs, as well as co-morbid health and mental health issues. Through the CMHC, MAT-PDOA clients can access wraparound care including services for co-occurring disorders. Clients can receive referrals to intensive outpatient treatment, individual counseling, and psychological testing. They can also receive medication management and have access to a client advocate. Peer navigators and social workers provide coordination with offsite primary care providers.

Lessons Learned, Getting Started, and Research Needs

Lessons Learned

In the context of implementing or expanding MAT in the MAT-PDOA grantee states, several key lessons are apparent and important to consider for future programs:



- Integration of MAT with medical care, other psychosocial supports, community supports, and other systems where clients interact is important. The more profound the collaborative care (e.g., coordinated, co-located vs. integrated services), the better.

- Integrated or collaborative initiatives function better with an identified coordination lead (e.g., NCM, PM).
 - The utilization of a chronic care model is important.
 - Models established in urban centers may need to undergo considerable retooling to function well in rural settings. Time and distance may be addressed by increased roles for peer recovery support services and/or use of technology.
 - Efforts to educate the community-at-large and to address negative attitudes and biases should be considered for successful and sustainable programs.
 - People with an OUD are subject to considerably increased opioid poisoning or overdose mortality risk. Efforts to mitigate overdose risk, such as overdose prevention education and naloxone provision, should be interwoven into the MAT service delivery.
3. Create learning and action-based opportunities for myriad providers to meet and discuss implementing tiered care and adapting models and services
 4. Establish interagency networks for tiered care and satellite services in geographic areas
-
1. Incentivize practitioners to obtain DATA 2000 waivers so that they can prescribe buprenorphine
 2. Advocate for or implement Medicaid reimbursement for MAT and recovery support services
 3. Provide funding opportunities that prioritize integrated chronic care to people with an OUD
 4. Tackle biased attitudes about OUD and MAT
-

Getting Started: Easy and Advanced Steps for Systems- and Practice-Based MAT Expansion

This factsheet responds to urgent calls from across the United States for models that expand access to MAT for community members who have an OUD. Having reviewed this document, where should you begin to address the needs of your patients and community?

1. Initiate or participate in regular calls with care practitioners to informally discuss cases and share expertise
 2. Offer low- or no-cost continuing education opportunities that address MAT
1. Implement SBIRT in your organization
 2. Provide time and opportunity for all eligible practitioners, including physician assistants and advanced practice nurses, to apply for a DATA 2000 waiver to prescribe buprenorphine
 3. Provide continuing education for practitioners and counselors on SUDs, co-occurring conditions, and trauma-informed care
 4. Delegate appropriate MAT-related responsibilities to nonclinical staff
 5. Develop protocols and practices for medication induction in various settings
 6. Involve nontraditional stakeholders

7. Collaborate with local behavioral health and public health (e.g., HIV prevention, overdose prevention) agencies

-
1. Explore broader community collaborations (e.g., corrections, faith-based community, harm reduction, child welfare, homeless services)
 2. Implement tiered care
 3. Review all opportunities for reimbursement for services
 4. Obtain mechanisms for payment for peer services
 5. Adapt existing models to local context or specific populations (e.g., urban to rural adaptation using technology-based service delivery, care for pregnant women, programs for people who are homeless)
 6. Establish satellite services beyond the organization to extend the reach of services
 7. Tackle biased responses to MAT inside and outside your practice

Decisions in Recovery: Treatment for Opioid Use Disorder

Integrated Care Models

SBIRT: Screening, Brief Intervention, and Referral to Treatment

4. Staffing needs component

Providers' Clinical Support System for Medication Assisted Treatment

SAMHSA-HRSA Center for Integrated Health Solutions: Workforce

Peer Specialist Training and Certification Programs: A National Overview

5. Payment or reimbursement mechanisms for the services component

SAMHSA-HRSA Center for Integrated Health Solutions: Financing

State Policies for Behavioral Health Services Covered under the State Plan

6. Interagency collaboration component

Facing Addiction in American: The Surgeon General's Report on Alcohol, Drugs, and Health

Chapter 6. Health Care Systems and Substance Use Disorder – Describes key components of health care systems

Chapter 7. Vision for the Future: A Public Health Approach – Contains messages with accompanying policy and practice implications

Approaches to Recovery-Oriented Systems of Care at the State and Local Levels

Resources for Implementation Considerations

1. Pharmacologic component

SAMHSA-Health Resources and Services Administration (HRSA) Center for Integrated Health Solutions: MAT Overview

Treatment Improvement Protocol (TIP) 40: Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction

2. Essential service component

Medication-Assisted Treatment Models of Care for Opioid Use Disorder in Primary Care Settings

3. Facilitators for successful implementation and operation component

Future Research and Evaluation

The AHRQ technical brief Medication-Assisted Treatment Models of Care for Opioid Use Disorder highlights that “research is needed to clarify optimal MAT models of care and to understand effective strategies for overcoming barriers to implementation. (page vii)”¹⁵ This factsheet supports

these suggestions and identifies additional research areas that directly affect decisions about and implementation and expansion of MAT services:

- Initiatives that expand the entry points into MAT such as emergency department or inpatient-based initiation of buprenorphine and prenatal care
- Collaborative care models of bidirectional, stepped intensity care between OTPs and OBOT providers
- Roles and impact of care coordinators on client linkage to services and systems coordination, education, and client access
- Roles and impact of peers on MAT recruitment, outreach, and recovery
- Expansion of stage-based services to fully and formally include public health and harm reduction services (e.g., syringe access, overdose prevention, safe consumption options) for people actively using opioids before entry into MAT
- Payment and reimbursement mechanisms for peers and preventive public health services
- Cost-effectiveness and cost-savings of MAT models

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ATTC Related Resources

1. Taking Action to Address Opioid Misuse Resource Webpage

(<https://attcnetwork.org/centers/global-attc/taking-action-address-opioid-misuse>)

The Taking Action to Address Opioid Misuse resource webpage is an extensive collection of materials including online courses, training curricula and slides, recorded webinars, and print materials to help support opioid misuse prevention, early intervention and treatment. This curated library of ATTC and HHS products also includes information on SAMHSA's MATx Mobile App, MAT implementation support videos and fact sheets, training curricula and Addiction Science Made Easy (ASME) articles.



2. ATTC Educational Packages for Opioid Use Disorder

(<https://attcnetwork.org/opioid-educational-package-counselors-psychologists>)

A featured resource of the Taking Action website are the ATTC Educational Packages for Opioid Use Disorders, which are three competency-based guides to raise awareness of resources available to build the capacity of the workforce to address the opioid crisis. These digital guides are relevant to psychologists, counselors, social workers, peer support workers, and other behavioral health professionals who intersect with people at risk for misuse of, or who are already misusing, opioids. The digital guides have been designed to give the behavioral healthcare workforce information to be able to enhance their professional knowledge and skills so that all can have an appropriate, active role in preventing, treating, and/or supporting recovery from opioid use disorders.



3. BH-MEDS

The Mid-America ATTC will release the 2019 updated BHMEDS App, a mobile library of medications used in behavioral health and addiction treatment. The BHMEDS app, which is available FREE for iPhone, iPad and Android through the App Store or Google Play, is a convenient, electronic version of the helpful reference ATTC has published annually since 1999. The app provides up-to-date information on generic and brand name medications, including purpose, dosage and frequency, side effects, emergency conditions, cautions, considerations for pregnant women, and potential for abuse and dependency. BHMEDS downloads available information to the users device, which makes the entire resources library available without an Internet connection.



4. HealtheKnowledge Courses (<http://healtheknowledge.org/>)

The HealtheKnowledge platform is an online learning portal that offers a wide variety of free online learning and low cost continuing education courses for providers. The courses provided on this site cover a variety of topics in the areas of improving health and healthcare services, including courses on MAT. HealtheKnowledge is managed by The Collaborative to Advance Health Services at the University of Missouri-Kansas City School of Nursing and Health Studies. Each high-quality HealtheKnowledge course offers a free Certificate of Completion for participants upon successful completion of the course requirements. Continuing Education (CE) credit is available for most of the courses for \$5 per credit hour.

