



**The Nelson A. Rockefeller Center at Dartmouth College**

The Center for Public Policy and the Social Sciences

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### **MEDICATION ASSISTED TREATMENT PROGRAMS IN VERMONT STATE CORRECTIONAL FACILITIES**

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#### *Evaluating H.468 through a State by State Comparison*

Presented to the Vermont House Committee on Corrections and  
Institutions

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Prepared By:

Nicole Beckman

Hanna Bliska

Eliza Jane Schaeffer

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Contact:

Nelson A. Rockefeller Center, 6082 Rockefeller Hall, Dartmouth College, Hanover, NH 03755  
<http://rockefeller.dartmouth.edu/shop/> • Email: [Ronald.G.Shaiko@Dartmouth.edu](mailto:Ronald.G.Shaiko@Dartmouth.edu)



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## **EXECUTIVE SUMMARY**

Medication Assisted Treatment (MAT) is an addiction treatment program that pairs therapy with medication to treat substance use disorders. Currently, Vermont (VT) has an extensive MAT infrastructure consisting of regional treatment “hubs” and community-based “spokes.” The state legislature is considering legislating that MAT beneficiaries should continue treatment within the incarceration system if they become incarcerated within ninety days of their most recent interaction with the program. In making this decision, legislators should consider the successes and failures of other MAT programs across the country. This report provides background on the opioid epidemic, federal laws and regulations, the current treatment and corrections infrastructures in VT, and medications used to manage opioid addiction. In addition, it compares the MAT program in the state of VT to the MAT programs in five others U.S. states—Missouri, New Hampshire, Massachusetts, Kentucky, and Rhode Island—to show the differences and similarities that exist among these Department of Corrections MAT programs. This report also documents the concerns of stakeholders involved with the legislation of this program and makes recommendations for Vermont to expand its MAT treatment program.

## **1. INTRODUCTION**

The opioid crisis is an issue born out of the United States health system; between 1991 and 2011, the number of opioid prescriptions in the U.S. nearly tripled.<sup>1</sup> In 2015, two million people nationwide had a prescription opioid use disorder; 591,000 suffered from a heroin use disorder; 52,404 people died of drug overdoses; and 33,091 died of opioid overdoses specifically. Every day more than ninety Americans die from opioid overdoses.<sup>2</sup> In comparison, the age-adjusted death rate for drug poisoning for all races, all ages, and both sexes was 13.2 per 100,000 in 2011 and in 2016 was recorded to be 19.8 per 100,000.<sup>3</sup> While many opioid addiction disorders begin with the use of prescription opioids, most users later transition to heroin (eighty percent of new heroin users started by taking prescription opioids) or more potent synthetic opioids such as fentanyl and carfentanil, all of which are cheaper and more widely available than prescription opioids.<sup>4</sup> The opioid crisis is felt particularly drastically by the incarceration systems of states across the U.S.; notably, as of 2014, more than 65 percent of the incarcerated population in the U.S. meets the medical criteria for substance abuse addiction.<sup>5</sup>

While VT has not been able to evade this crisis, the state has responded with policy measures that have given it some of the highest rates of treatment capacity in the country.<sup>6</sup> One such measure is the implementation of a “hub and spoke” model, which administers Medication Assisted Treatment (MAT) as well as counseling.<sup>7</sup> MAT programs involve the use of opioid-like medications to manage and ultimately eliminate opioid dependence.<sup>8</sup> Beginning in 2004 in the state of Vermont, individuals who sought treatment prior to incarceration were allowed to continue MAT treatment for up to thirty days, after which they would be tapered off. After the implementation of a pilot project,



Vermont now allows individuals to receive treatment for 120 days while incarcerated if they sought treatment within the community within 90 days of becoming incarcerated. This project saw great success; over 97 percent of the individuals who enrolled completed the program. Due to the proven success of MAT programs, many states have implemented treatment programs in prisons and jails, providing inmates with the opportunity for recovery. Currently, the VT State House is considering a measure, H468, to expand upon a pilot program that tested the feasibility of administering MAT to the prison population<sup>9</sup> and authorize a MAT program across the seven prisons operated by the state.

## **2. NATIONAL REGULATIONS**

Medication Assisted Treatment (MAT) programs are widely used to treat Opioid Use Disorder (OUD) in the United States. MAT programs, and in particular, prison-based MAT programs, are strictly guided by national regulations. Facilities which comply with all of these regulations are certified as Opioid Treatment Programs (OTPs). The Vermont treatment program is not a full OTP but rather an Interim Maintenance treatment, which is more loosely regulated.

### *2.1 Overview of Medication-Assisted Treatment*

Estimates of the prevalence of Opioid Use Disorder (OUD) among incarcerated populations vary from 24<sup>10</sup> to 52 percent.<sup>11</sup> Prisoners who experience intensely painful detoxification are more likely to seek out opioids once released, continuing a vicious cycle of addiction and imprisonment. Additionally, prisons face an onslaught of contraband substances delivered to addicted inmates who are suffering from the effects of withdrawal.

The American Medical Association, the National Institute from Drug Abuse, and the Substance Abuse and Mental Health Services Administration (SAMHSA) approve Medication-Assisted Treatment (MAT) as a means of treating OUD. MAT involves using opioid-like medications, as well as therapy, to manage and ultimately eliminate opioid dependence.<sup>12</sup>

Medications include methadone and buprenorphine, which, as opioid agonists, mimic the effects of opioids and in sufficiently large doses can produce a high; opioid antagonists, such as Naloxone and Naltrexone (brand name Vivitrol), which are relatively new drugs that bind to opioid receptors in order to prevent the pleasurable high resulting from opioid abuse; and Suboxone, a mixture of buprenorphine and naloxone that mediates withdrawal symptoms while reducing cravings. Of these drugs, methadone is the most widely researched and most widely used; however, as a full opioid agonist, it can cause overdoses if not carefully regulated.<sup>13</sup> Federal regulation requires that methadone is administered orally and that the first dose does not exceed 30 milligrams.<sup>14</sup> Buprenorphine is less widely studied, but it has a “ceiling effect,” meaning that after a



certain point, taking more of the drug will not increase its effects.<sup>15</sup> This makes it more appealing to those worried about overdose or addiction to replacement drugs. However, because it is administered in tablet form, buprenorphine is more easily diverted to the prison black market, and treatment programs using buprenorphine have lower retention rates.<sup>16</sup> Naltrexone and Naloxone are similar in that they both block opioid receptors to prevent a high and reduce cravings, but Naloxone acts more quickly and is thus more frequently used in overdose situations.<sup>17</sup> Doses of these drugs are normally administered at the end of patient treatment to prevent abuse upon release.

Every U.S. state has a MAT program approved by SAMHSA, and every state has at least one buprenorphine clinic.<sup>18</sup> Though these programs have proven to be effective, corrections facilities have been reticent to use medication to treat OUD,<sup>19</sup> constrained by the doubt of the public<sup>20</sup> and stringent federal regulations.<sup>21</sup>

In 2000, the Drug Addiction Treatment Act expanded physician access to buprenorphine administration certifications, allowing physicians to request a waiver to prescribe the drug to up to 30 patients. After one year, the physicians may submit another waiver and prescribe the drug to up to 100 patients. This process is complicated, and only about half of waived physicians actively prescribe buprenorphine.<sup>22</sup>

Drug Enforcement Agency regulations describe further standards for transportation, storage, dosing of medication, transport of inmates, and continuity of care.<sup>23</sup> Federal Regulation 42 CFR 8 further regulates opioid treatment programs (OTPs) in the United States, requiring that each OTP has a certified medical director with at least one year of experience, who is responsible for prescribing and administering doses, and a program director, who is responsible for ensuring that the OTP complies with all federal, state, and local laws.<sup>24</sup> Advanced Practice Nurses, Physician Assistants, or Advanced Practice Pharmacists administer doses under the direction of the medical director.<sup>25</sup>

Vermont corrections facilities are not full-fledged OTPs. This means that patients do not receive the full benefit of comprehensive medical treatment, potentially decreasing the effectiveness of the program, but it also means that state prisons do not have to comply with complicated federal regulations surrounding OTPs. Full OTPs must conduct an initial medical examination of their patients consisting of tests for drugs and illnesses, laboratory studies, a cardiogram, and an EKG. Patients are then clinically assessed for psychological dependence, organ system damage, degree of dependence, and psychosocial morbidity. After reviewing these results, as well as patient medical histories, the physician designs individualized treatment plans. Patients must have been addicted for one year prior to admission, doses cannot be adjusted as a reward or punishment, programs cannot have dosage caps, programs must permit patients to receive treatment for as long as needed, and treatment plans must be unique to the patient. Programs are also required to maintain detailed electronic medical records, including a chain of custody record, a document containing the signatures of all people who have handled and administered the medication. If need be, OTPs can register an Independent



Medication Unit for storage purposes. Programs can also request exemption from specific regulations by completing a SMA-168 form.<sup>26</sup>

## *2.2 Interim Maintenance Treatment*

Under federal law, Vermont corrections facilities are classified as Interim Maintenance Treatment Programs (IM treatment). As such, they are not required to complete the initial medical assessment or provide a primary counselor and rehabilitative services. Initially designed for patients on OTP waiting lists, these programs purport to stave off withdrawal symptoms until full treatment is available. Patients can remain enrolled for a maximum of one hundred twenty days over the course of a 12-month period.<sup>27</sup>

Interim Maintenance Programs have proven to be effective in decreasing pressure placed on OTPs without compromising their effectiveness. OTPs facing long waitlists must choose between limiting the attention they can direct to each patient or delaying treatment for some individuals, putting them at risk for relapse. IM treatment offers a solution. In a study where patients on a waiting list were randomly assigned to full MAT or IM treatment, at four- and twelve-month follow-ups, there were no statistically significant differences in the extent of self-reported drug use, opioid and cocaine drug tests results, self-reported days of illegal activity, and arrests. Other benefits included reductions in hospital stays, arrests, jail time, and residential drug abuse treatment, as well as savings due to the fact that IM treatment is less expensive than OTPs. However, using IM treatment in correctional facilities is an unconventional treatment strategy, particularly because inmates with longer sentences still face an extensive period of involuntary detox during which they may be prone to relapse.<sup>28</sup>

To expand the treatment program to an Outpatient Treatment Program would require adherence to additional regulations such as: an initial treatment plan for all individuals, periodic treatment plans evaluations, and a primary counselor or rehabilitative services.<sup>29</sup> These additional services can be incredibly costly.<sup>30</sup> To become certified as an Opioid Treatment Program (OTP), would cost at minimum \$15,000 dollars per site.<sup>31</sup> Additionally, the site would need to compensate and hire for staffing, expertise and mission changes.<sup>32</sup>

## **3. VERMONT INFRASTRUCTURE**

Vermont implemented MAT for opioid addiction first in the community, later expanding into correctional facilities after a successful year-long pilot project. Before MAT was brought into the prison system, inmates suffering from OUD participated in a generalized substance abuse treatment program. Implementation required the cooperation of multiple state agencies.



### *3.1 Vermont Current Infrastructure*

Vermont has seven prisons and eleven community-based probation and parole offices.<sup>33</sup> All inmates suffering from substance abuse disorders may participate in the Intensive Substance Abuse Program (ISAP), which is carried out through probation and parole offices. ISAP participants attend group counseling sessions which convene three times per week—4.5 hours total—for six months, then transition to three months of aftercare, which consists of one group meeting per week.<sup>34</sup> Therapies offered must adhere to prevailing medical standards.<sup>35</sup> Participants can be referred by the court, by parole officers, or by the DOC in response to inmate self-reporting. The recidivism rate of ISAP participants is half of that of the prison population as a whole; however, little support infrastructure exists for prisoners once they are released.<sup>36</sup> Before lawmakers brought MAT into the corrections system, ISAP was the only treatment option for inmates suffering from OUD.

Outside of the corrections system, Vermont has a strong network of community MAT providers. This network, established in 2002 and dubbed the Hub and Spoke model, consists of nine regional hubs and 75 community-based spokes and serves over 6,000 people.<sup>37</sup> The hubs provide daily treatment for addicts with co-occurring substance abuse and mental health problems and are authorized to administer methadone, buprenorphine, and naltrexone, while the spokes handle less complex cases, are usually based out of a primary care practices or health center, and are only permitted to administer buprenorphine and naltrexone. Spokes must be staffed by at least one nurse and one mental health counselor per 100 patients. Clients enter the network at the referral of a physician, counselor, or court. They can also self-refer.<sup>38</sup> This system is innovative in that it allows bidirectional movement between hubs and spokes. If a patient were to start treatment at a hub, become stable, transfer to a primary care spoke, and relapse, they would be transferred back to their initial treatment center.<sup>39</sup>

Both hubs and spokes offer mental health treatment, substance abuse treatment, pain management, family support, life skills training, job development, and recovery support. These services are administered by the Care Alliance for Opioid Treatment, a partnership between the Division of Alcohol and Drug Abuse Programs within the Vermont Department of Health and the Blueprint for Health within the Department of Vermont Health Access, which tracks data and coordinates Medicaid funding. The program is largely funded by Medicaid and private insurance.<sup>40</sup>

### *3.2 Pilot Project and Expansion*

In 2004, the Department of Corrections issued Facilitation Directive 363.01, which said that individuals participating in MAT prior to incarceration could continue to receive treatment for up to 30 days, after which they would be tapered off.<sup>41</sup> In 2012 and 2013, Acts 195 and 67 respectively proposed and authorized a year-long demonstration project which commenced in 2014. During the demonstration project, detainees and sentenced



inmates who had received treatment prior to incarceration continued to receive MAT for up to ninety days, after which they were tapered off. These inmates could participate in substance abuse therapy available to other inmates, but the pilot did not include any new treatments specifically related to OUD. Participating inmates were also given overdose kits and instructions for using those kits just prior to release.<sup>42</sup>

Proper administration requires the cooperation and coordination of many actors. Nurses administer the medications, log the medications, and complete the urine screens for the inmates enrolled;<sup>43</sup> providers reorder the medications needed; and DOC officers transport the inmates to the providers to receive their medication.<sup>44</sup>

Involved in implementing and evaluating the pilot project were the Department of Corrections; the Division of Alcohol and Drug Abuse within the Department of Health, the Blueprint for Health within the Department of Vermont Health Access, the Howard Center, the Office of the Defender General Office, and Centurion—Vermont, a medical services contractor. VT Blueprint for Health provides project managers to monitor the quality of care received at each hub. Evaluation of the project unearthed both potential benefits and challenges involved in further expansion.<sup>45</sup>

The total cost associated with the pilot project was \$248,408. Overall, the program admitted 413 total clients and 323 unique clients. 56.7 percent of admitted individuals completed treatment on Suboxone, 40.9 percent of admitted individuals completed treatment on methadone, and 1.7 percent of participants discontinued treatment due to diversion. The one-year recidivism rate for participants was 28 percent. Seventy percent of repeat offenders returned once during the pilot period, and 30 percent of repeat offenders returned multiple times.<sup>46</sup>

#### **4. CASE STUDIES**

There are a wide variety of MAT programs in correctional facilities across the United States. Below, we discuss the programs of five states which either have innovative strategies for addressing opioid addiction or are demographically similar (see Appendix). In our discussion, we compare strategies employed by these programs to those employed in Vermont in order to gather information on best practices and areas for improvement.

##### *4.1 Massachusetts*

In the state of Massachusetts, the Medication Assisted Treatment Reentry Initiative (MATRI) program is available to individuals nine months before release.<sup>47</sup> Participants must have a documented alcohol or opioid addiction and must have participated in the Residential Substance Abuse Treatment Program while incarcerated.<sup>48</sup> Spectrum Health Services, the health system vendor for the MA DOC, screens eligible inmates, and participants must consent to treatment. The inmates apply for the MATRI program in a one on one appointment with a Spectrum Health Services employee. Once they agree to



participate, they are accepted. This treatment plan is consistent with the process of volunteering for treatment within the hub and spoke model in Vermont.

The Department of Corrections (DOC) of Massachusetts has 16 institutions between central and eastern Massachusetts.<sup>49</sup> The state is more densely populated than is Vermont, has a higher rate of opioid-related overdoses, and has a larger incarceration system than does Vermont. In comparison to the seven prisons that offer MAT in Vermont, 14 of the 16 institutions in Massachusetts offer the Medication Assisted Treatment Reentry Initiative (MATRI). Addicted individuals who enter an institution that does not offer the MATRI program are transferred to an institution that does.<sup>50</sup> Spectrum Health Services, a health services vendor, administers substance abuse programming<sup>51</sup> while DOC medical provider MBCH provides medical and mental health screening and injections for the program.<sup>52</sup> MBCH administers the injections, however, the medication itself is provided by Alkermes.

Between the nine-month mark in which the inmates are enrolled and the 45-day mark, offenders must remain in substance use treatment.<sup>53</sup> The DOC offers the Correctional Recovery Academy, a sixth month daily program, along with other, less-intensive programs. Offenders who complete those programs can move onto “graduate” programs that they will continue until release.<sup>54</sup> During the nine months leading up to release, inmates have one on one appointments with their substance use counselors in the prisons.<sup>55</sup> This program is similar to the Intensive Substance Abuse Program offered in Vermont (see “Current Vermont Infrastructure”).

Around six months prior to release, participants are paired with a recovery support navigator,<sup>56</sup> who is charged with helping the inmate to continue their treatment in the community after release.<sup>57</sup> Close communication between the DOC and the community-based partners is a central facet of the MATRI program, as it is in Vermont. The re-entry plan in MATRI is coordinated by a collaboration between security staff, case managers, and Spectrum. Once the inmate is released, Spectrum will provide care and support for up to one year through its recovery support navigator employee connecting with the released participant.

In the state, the DOC MAT program uses the medications Vivitrol and Naltrexone.<sup>58</sup> The inmates also receive counseling as a part of the MAT program.<sup>59</sup> Inmates are given naltrexone on days ten, nine, and eight of their pre-release week to make sure that the participants are feeling comfortable on the medication. On day seven to release, if they pass a drug test, the participants receive their first injection of Vivitrol. They are then connected with a community MAT provider.<sup>60</sup> Upon release, they receive monthly injections of Vivitrol. The recovery support navigator works with the provider to coordinate future injections, the first of which is paid for by Alkermes and the rest of which are paid for by MassHealth insurance.



There is no cap on the number of injections inmates may receive in the community; however, 12 months post-release, Spectrum Health stops caring for released inmates—they are entirely the responsibility of community providers.<sup>61</sup> The MATRI program is offered through the contract the MA DOC has with Spectrum Health Services.<sup>62</sup>

The Massachusetts Results First Initiative, a MAT treatment program implemented by the Massachusetts Department of Corrections, found that there was a net benefit of \$8,986 per inmate. For every dollar invested, there was a \$6.27 return. Additionally, there was an overall 9.7 percent reduction in crime.<sup>63</sup>

#### *4.2 New Hampshire*

The New Hampshire DOC began offering a MAT program in 2015. The state is very similar to Vermont in terms of population ethnicity, poverty rate, and age distribution,<sup>64</sup> however, the opioid overdose rate in New Hampshire is 234 percent greater than in Vermont.<sup>65</sup> New Hampshire has six correctional facilities, similar to Vermont.<sup>66</sup> The MAT program is paid for through the pharmacy funds portion of the NH DOC budget,<sup>67</sup> while the MAT program within the state of Vermont is funded through the general fund.

The DOC introduced its dual MAT program in the fall of 2015.<sup>68</sup> This program offers both an in-house, oral naltrexone track and a Vivitrol-based exit track. The Department worked with Alkermes, a pharmaceutical company that manufactures Vivitrol, to receive a free supply for the release injections. The pharmacy funds supply the oral naltrexone, but Alkermes, rather than the DOC, pays for the in-institution injections.<sup>69</sup>

In New Hampshire, in order to qualify for the MAT program of the DOC (both for the in-house oral naltrexone and pre-release Vivitrol), individuals must have a diagnosed substance use disorder, a demonstrated commitment to abstinence, six months of compliance with psychological and social treatments, and demonstrate a need.<sup>70</sup> In contrast, Vermont has an Interim Maintenance Treatment program, and so requires that participants have sought treatment in the community within the past ninety days.

In NH, the initial treatment in the MAT program involves behavioral, educational, and counseling components, and then is further expanded to include the medication component of the treatment. Six months later, screened and eligible inmates—who must consent to following program guidelines and pass a mental health evaluation—may begin to receive medication addition to these therapies.<sup>71</sup> Unlike Vermont, New Hampshire does not offer participants opioid agonists like methadone. The oral naltrexone track offers participants 50 mg of oral naltrexone per day to be taken within the institution, as according to the clinical guidelines of the NH DOC.<sup>72</sup>

The Vivitrol-based release track of the MAT program specifies timing of the Vivitrol injection with respect to release as participant injections need to be timed with their release date, which requires cross-agency coordination between the DOC, its Department



of Medical and Forensic Services, and parole officers.<sup>73</sup> Inmates receive an injection of Vivitrol upon release, subsequent to receiving a few days of oral naltrexone to insure tolerance before release.<sup>74</sup> Before program participants are released, a case manager must set up an appointment with a community provider so that released inmates may continue to receive injections of Vivitrol. The New Hampshire DOC also has a licensed alcohol and drug counselor specifically assigned to field follow-up with individuals re-entering communities who participated in the MAT program while incarcerated.<sup>75</sup> Vermont similarly emphasizes continuity of care in its MAT model. As of this writing, New Hampshire has not publicly released any data or reports on the success of their MAT program.

#### *4.3 Rhode Island*

The Rhode Island Department of Corrections (RIDOC) is a unified correctional system, in which all pretrial detainees and all sentenced offenders—regardless of sentence length or crime—are housed in one of seven facilities located on the same campus in Cranston, Rhode Island.<sup>76</sup> The RIDOC currently has about 3,000 prisoners.

In April of 2016, as part of an initiative by the Governor’s Task Force on Overdose Prevention and Intervention, the Gloria McDonald Women’s Facility became the first of the Rhode Island Department of Corrections’ (RIDOC) seven Adult Correctional Institutions (ACI) to offer expanded MAT to inmates in the form of a full, federally-regulated Opioid Treatment Program. The State of Rhode Island budgets \$2 million annually to support the MAT program at the RIDOC.<sup>77</sup>

The program was expanded to all RIDOC facilities in November of 2016, and currently, approximately 300 inmates receive MAT each day.<sup>78</sup> The RIDOC awarded the contract for implementing the program to CODAC Behavioral Healthcare, the oldest and largest non-profit provider of outpatient OUD treatment and recovery services in Rhode Island.<sup>79</sup> Unlike the MAT program within the Vermont correctional facilities, which is largely administered by VTDOC staff, the MAT program within RIDOC is mostly run by CODAC. CODAC provides medical directors, a project coordinator, a program director, three masters/licensed assessment clinicians, two MAT clinicians, a discharge planner, and peer support specialists (for post-release). One of the largest barriers to implementation CODAC faced was educating DOC staff on MAT. This has been an ongoing process. Looking back, many in the organization agree that providing this education before the program began may have lessened some of the resistance they faced. Without the cooperation of DOC nursing and security staff, the program would be virtually impossible to make a reality.<sup>80</sup>

Upon entering the facility, inmates are screened by CODAC and RIDOC physicians for OUD. If the inmate had been receiving MAT in the community, they are given the option to continue that treatment for up to a year (the length of time feasible given the budget with which the RIDOC operates).<sup>81</sup> Patients who screen positively, but have not received



MAT prior to incarceration, and have been sentenced for a year or less are also offered the option to participate in MAT.

If the inmate would like to participate in MAT, they are referred to complete a biological-psychological-social assessment.<sup>82</sup> If deemed eligible for MAT treatment, the inmate is referred to the CODAC physician, who handles admission and any dosing issues that may arise.<sup>83</sup> The RIDOC offers methadone, buprenorphine, Suboxone, and Vivitrol. CODAC prepares the methadone on-site and orders the Suboxone which arrives by courier. Vivitrol is not a popular option among RIDOC patients due to the lessened amelioration of withdrawal symptoms inherent to opioid antagonists. Suboxone in pill-form was used at the beginning of the MAT pilot program at RIDOC, however, it was time-consuming and caused security problems. Security issues arose with inmates attempting to distribute MAT drugs throughout the facility. The women's facility then shifted to Suboxone strips which melt on the tongue, thereby reducing drug distribution and security concerns.<sup>84</sup> As doctors enroll an increasing number of people, anecdotal evidence suggests that the black market for drugs behind the walls is waning.<sup>85</sup>

RIDOC also offers induction into the program over the ninety day period before an inmate is released. Patients receiving these inductions are often individuals who were on MAT before incarceration but who were incarcerated before the current program existed, who were on MAT on some point in the past, who have never been on MAT but have a documented history of OUD, or who struggled with opioid use while in prison.<sup>86</sup>

The RIDOC requires that patients receiving MAT participate in a behavior health groups run by CODAC. This is often in a group modality, but individual therapy is available if deemed clinically appropriate. New, and/or stabilizing patients are seen weekly, while stabilized patients are required to attend a minimum of one group every 30 days, per treatment requirements in community OTPs<sup>87</sup>.

The RIDOC also offers in-prison peer recovery coaching and certification. The State plans to double the number of recovery coaches for statewide and extended coverage. The RI Department of Health has a contract with Anchor Recovery through 2019 to provide peer recovery coaches to inmates upon release from the RIDOC and through targeted street outreach to state hotspots.<sup>88</sup>

Upon being released, patients are given a dose of one of three MAT drugs to ensure that the patient's tolerance level to drugs is sufficient should the patient relapse on street drugs. Patients can receive doses at The Providence Center, as well as CODAC Centers of Excellence located across Rhode Island. CODAC can also connect individuals to obtaining health insurance.<sup>89</sup> Inmates meet with a discharge planner (CODAC has one in each facility) to create a re-entry treatment plan. The discharge planner helps to identify recovery services such as primary care or specialty physicians, community clinics, and referrals for specialized healthcare needs. The discharge planner also provides help in



finding supports for housing, vocational training, transportation, education, legal support, and mental health services.<sup>90</sup>

A unique aspect to the Rhode Island program is that any inmate on methadone and/or Suboxone at the ACI is medicated by CODAC and therefore becomes a CODAC patient. Thus, if a patient is unexpectedly released from prison, as happens frequently, they can still receive doses at CODAC sites. Over half of CODAC inmates are awaiting trial, so they could be released at court or bailed out unexpectedly.<sup>91</sup>

#### *4.4 Missouri*

With a population of over six million distributed across nearly 70,000 square miles of land, Missouri is considerably larger than Vermont.<sup>92</sup> To meet this greater need, it has twice as many prisons and parole centers as Vermont, with 21 total correctional facilities of various security levels.<sup>93</sup> The Division of Probation and Parole operates 40 district offices and eight specialized facilities, as well as citizen advisory boards that provide substance abuse education and training. The Division also runs outpatient substance abuse treatment programs.<sup>94</sup>

Inmates enter substance abuse treatment at the referral of a court<sup>95</sup> or the Board of Probation and Parole.<sup>96</sup> Unlike Vermont, Missouri does not allow inmates the option of self-referral. Upon entering the prison system, prisoners undergo extensive testing and mental health screening, and within ten days of admission, they are prescribed a treatment plan.<sup>97</sup> Though treatment is optional, inmates who cooperate are granted a reduction in sentence time, an incentive which has been proven to be effective in increasing program participation.<sup>98</sup> Treatment programs, which are offered at ten facilities, are designed and overseen by the Gateway Foundation, a Chicago-based non-profit.<sup>99</sup> Gateway is an experienced provider of MAT in several states, and this public partnership is a unique—and thus far, effective—model for treatment delivery.

Patients participate in education groups and discussion groups, cognitive behavioral therapy, motivational interviewing, and employment readiness services. Patients are required to attend two one-hour discussion group sessions every week, and patients who will be incarcerated for more than six months must attend at least one hour-long session each month. Case workers meet with patients and regularly update their treatment plans.<sup>100</sup> The individualized nature of this model ensures that ineffective therapies are discontinued and that patient needs are met.

In 2012, Missouri began offering MAT at three institutions with the goal of reducing the recidivism rate, an objective very similar to that of the demonstration project conducted in Vermont prisons in 2015. Just prior to release, inmates received one dose of Vivitrol. This drug acts to block opioid receptors in the brain so that opioid consumption does not result in addiction-reinforcing euphoria. It must be prescribed by a licensed physician or pharmacist.<sup>101</sup>



Within three days of release, a Post-Release Case Worker, overseen by the Re-Entry Case Manager, meets with the client to confirm that they would like to receive treatment in the community. Within the first two visits, the Post-Release Case Worker reviews the MAT status and treatment plan of the client, updating both if needed. They are required to have at least two hours of face-to-face contact with each client within 60 days of release. After that, they must maintain weekly contact, with at least one face-to-face meeting each month. Every other week, the Post-Release Case Worker reviews and updates the treatment plan, which typically consists of monthly doses of Vivitrol.<sup>102</sup> In this way, the Missouri DOC is highly attentive to the individual needs of its inmates. The close, one-on-one relationship between providers and clients is not a defining feature of post-release MAT treatment in Vermont as it is in Missouri. However, access to post-release MAT services is limited to two facilities.<sup>103</sup>

Since experimenting with MAT in 2012, Missouri has steadily expanded access in response to the encouraging results of evaluative studies—now, eight facilities house MAT services.<sup>104</sup> The recidivism rate for participants is 20 percent, compared with a recidivism rate of 40 percent for nonparticipants.<sup>105</sup> The recidivism rate for Vermont participants is significantly higher at 28 percent.<sup>106</sup> Additionally, 59 percent of participants remained sober, up from the 19.5 percent who were sober at the time of admission. This increase is comparable to that which was present in the non-MAT population, which is significant because MAT programs deal with higher-risk inmates.<sup>107</sup>

These positive externalities have contributed to significant cost savings. The Gateway Foundation estimates that every dollar spent on MAT has a return on investment between \$1.03 and \$3.76.<sup>108</sup> The Missouri Department of Corrections spends about 9.5 million dollars on substance abuse programming annually, far more than does Vermont.<sup>109</sup> This discrepancy can be accounted for by both the scale and comprehensiveness of treatment, as well as data collection efforts.

#### *4.5 Kentucky*

Kentucky does not regulate community-based MAT programs, so their structures vary greatly.<sup>110</sup> These facilities exist and operate entirely separately from the corrections system, unlike Vermont, where corrections-based treatment is essentially an extension of community-based treatment.

The Kentucky Department of Corrections operates twelve prison facilities and contracts out to 76 county jails that house both misdemeanor offenders and felony offenders. The Division of Probation has four operating regions and twenty supervision districts.<sup>111</sup> This is in marked contrast to Vermont, where there are fewer total facilities and where all facilities are under the control of the state. Though the Department of Corrections has little say over how counties run their jails, it does fund and operate—and therefore regulate—substance abuse treatment programs in county jails.<sup>112</sup>



Because Substance Abuse Programming has consistently delivered recidivism reductions and cost savings, Kentucky has gradually expanded programming by over 1,300 percent since it was first offered in 2004.<sup>113</sup> The adoption of MAT is one such expansion. Unlike Vermont, the statewide adoption of MAT was a response to county and facility-based innovation rather than the successes of a pilot project.<sup>114</sup> It is now available at eight prisons, the 24 jails which offer substance abuse treatment, and community centers.<sup>115</sup>

Inmates who would benefit from substance abuse programming are contacted approximately six months prior to the date of their release. If they are eligible for treatment—as determined by a physical and mental health screening, consent, and a clean drug test and their facility does not offer MAT—they are transported to facility that does. They then attend classes about chemical dependency, participate in a twelve-step therapy program, and practice cognitive strategies for relapse prevention. This latter treatment—cognitive behavioral therapy—is not used in Vermont prisons. Participants are subjected to random drug testing, as sobriety is a prerequisite for participation.<sup>116</sup> All care is coordinated by a case manager.<sup>117</sup> Opioid-addicted inmates may elect to receive an initial injection of naltrexone five weeks prior to release and a second injection one week prior to release.<sup>118</sup> Naltrexone, an opioid antagonist, is less frequently used in Vermont treatment facilities, which rely more heavily on opioid agonists like methadone and buprenorphine.

While on parole, patients continue to receive monthly injections of naltrexone for a minimum of six months.<sup>119</sup> Additional therapies vary based on the needs of the patient, as determined by their social service clinician (SSC) after reviewing their record of drug and alcohol abuse and disciplinary evaluations, criminal history, time served, parole status, and mental health evaluations.<sup>120</sup> The DOC offers day programs, intensive outpatient programs, general aftercare, and relapse prevention support groups.<sup>121</sup> Patients with severe psychological problems which would interfere with treatment and patients who have a serious disciplinary violation from the last 60 days are not eligible to receive further treatment. Though participation is voluntary, the DOC offers incentives for cooperation in the form of ninety-day reductions in sentence length.<sup>122</sup> The DOC has no means of formally connecting release inmates with community treatment programs.<sup>123</sup>

The Office of Alcohol and Drug Abuse Programs within the DOC funds and administers treatment in correctional facilities and county jails in conjunction with the Kentucky Agency for Substance Abuse Policy (KY-ASAP), and the Office of Drug Control Policy within the Justice and Public Safety Cabinet allocates state funds for MAT. The DOC is responsible for purchasing naltrexone for in-facility treatment programs, while Medicaid covers treatment costs for parolees.<sup>124</sup> Total spending on MAT in Kentucky amounts to approximately \$24 million annually, 100 times more than what Vermont budgets for MAT.<sup>125</sup>



For every one dollar spent on corrections-based substance abuse treatment, there was an estimated \$4.46 cost offset.<sup>126</sup> Individuals with untreated addictions cost the community corrections facilities far more than does treatment. Thus, Kentucky has found that treating substance abuse disorders through a combination of therapy and medication has both improved the lives of treatment recipients and saved money for the state.

These cost savings are made possible through reductions in the recidivism rate of program participants, among other 355 randomly-selected inmates one year post-release. Those who participated in substance abuse programming—normally, a high-risk population with a higher recidivism rate—had a recidivism rate of 28.5 percent, close to the prison-wide rate of 27.3 percent and close to the Vermont MAT recipient recidivism rate of 28 percent. Significantly, those who participated in treatment while on parole were most likely to stay out of prison, with a recidivism rate of 11.6 percent. Further, one year post-release, 52.1 percent were sober and 76.6 percent were attending twelve-step meetings. Both statistics represent a shifted mentality and a commitment to sobriety.<sup>127</sup> Though these data reflect the attitudes and growth of substance abusers in general rather than just those suffering from opioid use disorder, a majority of patients in treatment for substance abuse, 55.2 percent, were opioid users.<sup>128</sup>

## **6. CONCLUSION**

Vermont officials face several concerns as they consider expanding MAT programming in correctional facilities. Currently, Vermont prisons follow the Interim Maintenance Treatment model, primarily because IM treatment providers face fewer federal regulations than do OTPs and can therefore deliver services for a lesser cost. These programs are used by other states to prevent relapse amongst patients on Opioid Treatment Program waitlists. In this context, they have been proven to be just as effective as full treatment. OTP regulations require an initial treatment plan for all individuals, periodic treatment plans evaluations, and a primary counselor or rehabilitative services.<sup>129</sup> The transition process involves additional costs. The benefits of transitioning to a full OTP include more thorough treatment and removal of the need to transport patients between facilities for medication doses. In the case of program expansion, Rhode Island officials recommend generating buy-in from all key stakeholders prior to taking action.

Currently, Vermont offers patients either methadone or Suboxone, which is a combination of naltrexone and buprenorphine. In this regard, it differs from nearly all of the states we examined. With the exception of Rhode Island, these states rely primarily on naltrexone, an opioid antagonist, rather than opioid agonists like methadone and buprenorphine. Though antagonists are less popular among inmates because they do not produce a high and therefore provide less relief from the discomforts of withdrawal, they are less prone to diversion. Rhode Island has reduced diversion by administering buprenorphine via dissolvable tongue strips rather than pills; this may be a safer option for OTPs that provide opioid agonists.



Vermont officials have expressed concerns about cost; however, officials in states with established programs do not share these concerns. To the contrary, they have found that MAT has led to cost-savings due to reduced recidivism rates and improved functioning upon release. For every dollar spent on substance abuse programming, Missouri saved \$1.03 to \$3.76, and Kentucky saved \$4.46.

Increased treatment time was a key correlate of success. Programs achieved this through incentives, in the form of reductions in sentence time, and through reentry programs that guarantee continuity of care upon release. The Vermont DOC closely coordinates with Hub and Spoke providers, connecting inmates upon release and sharing information across agencies. Continuing this individual focus and open communication in the future would be benefit addicted inmates.

Another change Vermont may consider is establishing a partnership with a research institution, as do Kentucky, Missouri, and Rhode Island. An evidence-based approach has been proven to result in better public policy.

**APPENDIX**

**Table 1: State Demographics**

| State         | Opioid-Related Overdoses (per 100,000) | Ethnicity (% white) | Population Density (people per square mile) | Age (% under 18; % 65+) | Poverty (%) |
|---------------|--|---------------------|---|-------------------------|-------------|
| Vermont       | 13.4                                   | 94.6%               | 67.9  | 19%; 18%                | 11.9%       |
| Missouri      | 11.7                                   | 83.2%               | 87.1  | 22.8%; 16.1%            | 14%         |
| Rhode Island  | 23.5                                   | 84.4%               | 1,018.1                                     | 19.7%; 16.5%            | 12.8%       |
| Massachusetts | 23.3                                   | 81.8%               | 839.4                                       | 20.2%; 15.8%            | 10.4%       |
| Kentucky      | 21                                     | 88.0%               | 109.9                                       | 22.8%; 15.6%            | 18.5%       |
| New Hampshire | 31.3                                   | 93.8%               | 147.0                                       | 19.5%; 17%              | 7.3%        |



**Table 2. Comparative Correctional MAT Programs**

|                        | Vermont   | New Hampshire   | Missouri  | Kentucky  | Rhode Island   | Massachusetts   |
|------------------------|---|---|---|---|--|---|
| Availability           | Inmates must have received treatment in the community; available in all 7 facilities          | Inmates must commit to sobriety; available in 3 of 6 facilities   | Offered in 8 of 21 facilities   | Offered in 8 of 12 prisons, 24 jails, and all community centers   | Offered in all 7 facilities  | Offered in 14 of 16 institutions  |
| Medication and Dosage  | Methadone and Suboxone 120 days prior to release  | Oral naltrexone at 50mg/daily for the duration of the program; Vivitrol injection just prior to release | One Vivitrol injection just prior to release  | One dose of Vivitrol 5 weeks prior to release; one dose 1 week prior to release   | Suboxone, Vivitrol, Methadone; may receive treatment for up to year upon incarceration; may receive medication for 90 days pre-release | initial dose of oral naltrexone within 10 days of release to check comfort; Vivitrol injection on day 7 to release            |
| Therapies Offered      | DOC Intensive Substance Abuse Program therapy   | Education; behavioral therapy   | Cognitive behavioral therapy; employment readiness services; motivational interviewing; group therapy | Education on chemical dependency; 12-step program; cognitive behavioral therapy   | Required behavioral health groups; Individual counseling as needed   | Variety of substance abuse counseling options offered, depending on need; release preparations start 45 days prior to release |
| Treatment Plan         | Individualized; coordinated with community providers  | All patients receive 50 mg doses of naltrexone  | Individualized; managed by caseworker; Updated every 45 - 90 days                                     | Coordinated by a case manager   | Individualized; coordinated with community provider  | Substance abuse treatment counselors conduct 1:1 therapy sessions   |
| Post-Release Treatment | Connected with community provider upon release; receive overdose prevention kit with naloxone | Connected with community provider upon release  | 2 facilities offer post-release services  | Connect with community provider; Social service clinician coordinates care; monthly doses of Vivitrol for a minimum of 6 months while on parole | Community-based discharge planner identifies resources; enrolled in community program upon release                                     | Connected with community counselors upon release; Recovery Support Navigators guide through transition                        |



### Definitions 1: MAT Programs

**Medication Assisted Treatment (MAT):** An addiction treatment program that pairs therapy with medication to treat substance use disorders

- **Opioid Treatment Program (OTP):** Each Opioid Treatment Program screens patients with an initial biological-psychological-social evaluation. The physician then designs an individualized treatment plan for the patient. All OTPs have a certified medical director responsible for prescribing and administering doses, as well as a program director responsible for ensuring that the OTP complies with federal, state, and local laws. Advanced Practice Nurses, Physician Assistants, or Advanced Practice Pharmacists administer doses under the direction of the medical director.
- **Interim Maintenance Treatment Program (ITP):** Current model of Vermont correctional facilities. Initially designed to serve patients on OTP waiting lists, these programs do not require the completion of the initial evaluation. Additionally, ITPs are not required to provide a primary counselor or rehabilitative services. Patients can remain enrolled for a maximum of 120 days over the course of a 12-month period.

### Definitions 2: Medication Types

- **Opioid Agonists:** Medications which mimic the effects of opioids and in sufficiently large doses can produce a high
- **Opioid Antagonists:** Medications which bind to opioid receptors in order to prevent the high resulting from opioid abuse

### Definitions 3: MAT Medications

- **Methadone:** Full opioid agonist; most widely used and researched medication, but can cause overdoses if not carefully regulated
- **Buprenorphine:** Partial opioid agonist; produces effects such as euphoria, but weaker than those of methadone; “ceiling effect” where opioid effects of the drug increase with each dose but eventually level off, even with further dose increases
- **Suboxone:** Partial opioid agonist; mixture of buprenorphine and Naloxone (4:1 ratio); mediates withdrawal symptoms while reducing cravings
- **Naltrexone (brand name: Vivitrol):** Opioid antagonist; blocks opioid receptors in the brain for one month at a time
- **Naloxone:** Opioid antagonist; life-saving drug (i.e. for emergency usage); brings a patient out of an opiate overdose by stripping the opiate from the opiate receptor



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