REPORT OF THE JOINT COMMISSION ON HEALTH CARE

ADDICTION RELAPSE PREVENTION PROGRAMS IN THE COMMONWEALTH

TO THE GOVERNOR AND

THE GENERAL ASSEMBLY OF VIRGINIA



REPORT DOCUMENT NO. 270

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Code of Virginia § 30-168.

The Joint Commission on Health Care (the Commission) is established in the legislative branch of state government. The purpose of the Commission is to study, report and make recommendations on all areas of health care provision, regulation, insurance, liability, licensing, and delivery of services. In so doing, the Commission shall endeavor to ensure that the Commonwealth as provider, financier, and regulator adopts the most cost-effective and efficacious means of delivery of health care services so that the greatest number of Virginians receive quality health care. Further, the Commission shall encourage the development of uniform policies and services to ensure the availability of quality, affordable and accessible health services and provide a forum for continuing the review and study of programs and services.

The Commission may make recommendations and coordinate the proposals and recommendations of all commissions and agencies as to legislation affecting the provision and delivery of health care.

For the purposes of this chapter, "health care" shall include behavioral health care.

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Preface

By letter of request, Delegate Kory asked the Joint Commission on Health Care (JCHC) to study programs in Virginia that offer assistance to persons who have successfully completed substance abuse recovery regimens and been released to the community, with a particular focus on preventing relapse of opioid addiction. The JCHC Executive Subcommittee and members approved the study for 2018.

The study found that a wide variety of Substance Use Disorder treatment and recovery programs exist, with many focused on specific populations such as Medicaid beneficiaries, justice-involved individuals, pregnant and parenting women, and individuals with barriers to employment. The study also found, however, that public awareness of the availability of these programs could be improved.

Nine policy options were presented to members of the Joint Commission on Health Care for consideration. The members approved two options:

- Introduce a budget amendment to support the placement of Day Reporting Centers in three DOC probation and parole districts (Richmond City, Norfolk City, Buchanan/Tazewell), with the Day Reporting Centers offering non-pharmacological substance use disorder (SUD) treatment and recovery services as well as wraparound supports to offenders in need of initial or ongoing SUD services.
- By Letter of the JCHC Chair, request that the Secretary of Health and Human Resources (HHR) and the Secretary of Public Safety and Homeland Security (PSHS) to convene a workgroup to study the current alignment and coordination of information made available through State agencies on substance use disorder treatment and recovery resources, making recommendations to the General Assembly and JCHC by November 1, 2019 on legislation and/or budget amendments required to improve alignment and coordination of SUD treatment/recovery resource information made available by State agencies.

Joint Commission members and staff would like to acknowledge and thank those who assisted in this study including representatives from the Department of Behavioral Health and Developmental Services, Department of Corrections, Department of Criminal Justice Services, Department of Medical Assistance Services, Department of Social Services, the Secretary of Health and Human Resources, and the Virginia Department of Health.

The study and this report was assigned to and completed by Andrew Mitchell, Senior Health Policy Analyst at the Joint Commission on Health Care. He may be contacted at amitchell@jchc.virginia.gov.

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Executive Summary

By letter of request, Delegate Kory asked the Joint Commission on Health Care (JCHC) to study programs in Virginia that offer assistance to persons who have successfully completed substance abuse recovery regimens and been released to the community, with a particular focus on preventing relapse of opioid addiction. The JCHC Executive Subcommittee and the full Commission approved the study for 2018.

Addiction – the most severe form of Substance Use Disorders (SUDs) – is considered to be complex, chronic, and prone to relapse. Although risk of relapse is inherent in addiction, there is no consensus on its definition. Similarly, data on objective measures of relapse – such as drug screen results – are difficult to collect routinely, leaving various proxy measures to be commonly used as indicators of relapse. A variety of interventions exist to treat and promote recovery from SUDs. These include pharmacotherapy for certain SUDs (e.g., Opioid Use Disorders), as well as a range of psychosocial interventions.

Programs in Virginia most directly connected to recovery and relapse prevention and available to the general public include recovery housing, recovery community organizations and peer support services. State agencies support several SUD recovery-oriented programs focused on specific populations, including justice-involved individuals, high-need Medicaid beneficiaries, pregnant and parenting women, and individuals whose SUD creates a barrier to employment. Although recent State-level initiatives have been taken to coordinate various programs and initiatives focused on SUD treatment and recovery, information provided by State agencies to the public on their availability does not appear to be well-coordinated or -aligned. Additionally, while barriers to accessing SUD programs have been reduced for some populations, and recent State-level initiatives seek to improve quality of SUD treatment and recovery services by clinicians, barriers to accessing SUD services continue to exist for other segments of the population. Also, barriers to the certification and employment of Peer Recovery Specialists remain.

Nine policy options were presented for consideration by the Joint Commission on Health Care and the members approved the following two options:

- Introduce a budget amendment to support the placement of Day Reporting Centers in three DOC probation and parole districts (Richmond City, Norfolk City, Buchanan/Tazewell), with the Day Reporting Centers offering non-pharmacological SUD treatment and recovery services as well as wraparound supports to offenders in need of initial or ongoing SUD services.
- By Letter of the JCHC Chair, request that the Secretaries of HHR and PSHS to convene a workgroup to study the current alignment and coordination of information made available to the public through State agencies on substance use disorder treatment and recovery resources, making recommendations to the General Assembly and JCHC by November 1, 2019 on legislation and/or budget amendments required to improve alignment and coordination of SUD treatment/recovery resource information made available by State agencies.

ADDICTION RELAPSE PREVENTION PROGRAMS IN THE COMMONWEALTH

Study Mandate

By letter of request, Delegate Kory asked the Joint Commission on Health Care (JCHC) to study existing programs in Virginia that offer assistance to persons who have successfully completed substance abuse recovery regimens, with a particular focus on preventing relapse of opioid addiction. Specific questions included:

- How do former addicts maintain addiction-free or relapse-free lives?
- What are reported rates of success and failure and how is success defined and tracked?
- Is there a best practices model?
- What is needed to "cure" addiction in terms of pharmaceutical management?
- What role does counseling play and what are requirements for success? (e.g., What training/technical assistance is needed for peer counselors? What are the costs?)
- What cost-effectiveness data exist (e.g., is there a formula to equate time out in the community addiction-free with any savings as compared to the cost of recidivism)?
- If Virginia data are scarce, what does the national picture indicate (especially states with similar demographics to Virginia)? If insufficient data are available in Virginia, how can we effectively collect it?

The JCHC Executive Subcommittee and the full Commission approved the study for 2018.

Background

There is a general consensus that addiction is complex, chronic, and prone to relapse. Many refer to addiction as a "disease" (e.g., The American Psychiatrists Association and National Institute on Drug Abuse), while others use the term "condition" (American Psychiatric Association 2018; National Institute on Drug Abuse (NIDA) 2018). According to the Diagnostic and Statistical Manual (5), addiction is synonymous with a severe Substance Use Disorder (SUD), characterized by an individual having six or more indicative symptoms (American Psychiatric Association 2012).ⁱ Although there is no known "cure" for addiction, studies suggest that there may be a natural life course to addiction and at least some individuals are able to achieve long-term remission. Synthesizing this literature, a recent meta-analysis found that 33 - 50 percent of individuals with SUDs achieved remission after a 17-year average follow up period (Fleury et al. 2015).

Although risk of relapse is inherent in addiction, the term "relapse" is not defined in DSM-5 and is used conceptually in various ways. Some consider relapse possible after an initial detoxification, while others use the term relapse only in the context of an initial period of abstinence that is accompanied by a desire to remain abstinent. Examples of definitions for relapse include: continued substance use following initial lapse after initial period of abstinence; a process that gradually leads to substance use after initial period of abstinence; a return to substance use requiring treatment after period of abstinence (recidivism) (Maisto et al. 2016). Many consider departure from "continuously abstinent" and/or recurrence of use requiring

medical care to constitute "relapse". However defined, relapse is commonly viewed as an expected part of the recovery process and an opportunity to evaluate the appropriateness of intensity and/or frequency of Substance Use Disorder (SUD) treatment services received.

National survey data estimate that 7.2 percent of the U.S. population 12 years or older (19.7 million people) have a SUD, with adults representing 95 percent of that population. Of adults with a SUD, almost three-quarters (74%), have an alcohol use disorder, over one-third (38%), have an illicit drug use disorder, and 11 percent have an Opioid Use Disorder (OUD). Polysubstance use is common among some substance users (e.g., an estimated 45 to 93 percent of opioid users also use other substances), as well as co-occurring mental illness (e.g., around 45 percent of adults 18+ years of age with a SUD are also diagnosed with mental disorder) (Substance Abuse and Mental Health Services Administration (SAMHSA) 2018; Winkelman et al. 2018).



Figure 1. Number of People Aged 12 or Older with a Past Year SUD, 2017

Note: Individuals with SUD for more than one substance can be counted more than once Source: SAMHSA 2018

In terms of SUD treatment, around 20 percent of individuals nationally (4.0 million persons) meeting SUD criteria received any SUD treatment in 2017, and around 13 percent of those individuals (2.5 million persons) received treatment at specialty facilities (e.g., residential facilities; outpatient care) (SAMHSA 2018). Based on available data, three consistent findings are that most people with a SUD do not receive any kind of treatment services; almost half of those receiving treatment services do not receive services through facilities specializing in clinical treatment (self-help groups, for example, are the most widely used setting to receive any treatment); and most of those receiving treatment services in specialized facilities. For example, in

Virginia around 80 percent of those admitted to specialty facilities received SUD treatment on an outpatient basis in 2015 and around 20 percent received residential treatment (SAMHSA 2018).



Figure 2. SUD Treatment Locations Among People Aged 12 or Older (2014)

In Virginia, the rate of treatment-seeking for SUDs is highest in the far southwest region, with other pockets in the Tidewater region and Blue Ridge. Geographic clustering of treatment-seeking for OUDs appears to be different for heroin and non-heroin opiates (see Figure 3 and Figure 4).

Figure 3. Intake for SUD Services at CSBs: All Substances



Source: Department of Behavioral Health and Developmental Services (DBHDS), 2018

Source: Batts et al. (2014)

Figure 4. Intake for SUD Services at CSBs: Opioids Intake for SUD services: non-heroin opiates



Source: Department of Behavioral Health and Developmental Services (DBHDS), 2018

Relapse – Data and Statistics

Nationally, an analysis conducted in the early 2000s gave rise to a widely cited estimate that relapse occurs for 40 to 60 percent of those with a SUD, in line with other chronic diseases (see Figure 5). However, collecting data on direct measures of relapse is significantly hampered by

federal rules governing sharing of information on SUD services received. Although laboratory-based drug screen data offer a direct measure of relapse, the federal regulations that protect the disclosure of patient substance userelated data (42 CFR Part 2) create significant barriers to collecting that

Figure 5. Percentage of Patients Who Relapse

TTPE I DIABETES			
	30 TO 50%		
DRUG ADDICTION			
	40 1	0.60%	
HYPERTENSION			

Source: National Institute on Drug Abuse (NIDA), 2018

information through clinical services payers' administrative claims data.

In Virginia, due to 42 CFR Part 2, the Department of Medical Assistance Services (DMAS) does not currently capture drug screen results in its data systems as capturing data would require providers to obtain patient authorization to release SUD records to the Department. DMAS expressed several concerns with instituting policy changes to require patient consent to share drug screen results with DMAS, including: a "chilling effect" on patient initiation or continuation of SUD services; increased administrative costs (up to 14 additional full-time equivalents); increased capitated payments to the health plans to account for additional administrative costs (e.g., modifications to Electronic Health Records data elements); extensive managed care organization contract modifications; legal liabilities and data security issues; and a lack of perceived positive effects for patients.

Indirect or proxy measures of relapse include self-reported use of substances collected by surveys, as well as service utilization data related to retention in treatment, readmission rates, and follow up care. For example, as indicated in Figure 6, between 2010 and 2015, around 58 percent of admissions at SUD residential/inpatient SUD treatment facilities in Virginia were repeat admissions, compared to 70 percent nationally and 23 to 77 percent among neighboring States.ⁱⁱ While readmissions in Virginia are lower than the national average, those data alone cannot shed light on reasons why.



Figure 6. SUD Treatment Facility Readmissions

For Virginia's Medicaid population, DMAS is participating in a pilot to review required Center for Medicare Services (CMS) indicators as part of its Section 1115 demonstration waiver: Addiction, Recovery, Treatment Services (ARTS). Table 1, below, describes indicators that are currently being piloted and may be considered proxy measures of relapse. As of October, 2018, DMAS was awaiting draft versions of indicators from CMS to review and provide feedback.

Source: SAMHSA 2018

Table 1. Selected AK15 multators Related to Relapse	
ndicator	Expected relationship to relapse
Continuity of pharmacotherapy for OUD (percent of adults with OUD pharmacotherapy with at least 180 days continuous treatment)	Inversely correlated
Readmission for SUD (acute inpatient readmission for SUD within 30 lays of initial inpatient admission)	Positively correlated
Follow-up after ED discharge for Mental Health or SUD (percent of ED visits with mental illness/SUD diagnosis with follow-up visit within 7 and 30 days)	Inversely correlated

Table 1. Selected ARTS Indicators Related to Relapse

Source: Department of Medical Assistance Services, 2018a

Although ARTS indicators have not yet been finalized, data on continuity of pharmacotherapy for OUD had already begun to be analyzed in 2018 in conjunction with an ARTS program external evaluation. As depicted in Figure 7 below, continuity of pharmacotherapy for OUD is 2 to 3 percent higher since the introduction of ARTS compared to the previous year.



Figure 7. Continuity of Pharmacotherapy for OUD (ARTS)

Source: Virginia Commonwealth University, 2018a

In terms of individuals receiving SUD services paid by insurers in the commercial markets, Table 2 below, summarizes data on indicators that are similar to those that DMAS anticipates collecting as part of ARTS. For instance, 37.5 percent of commercially insured adults with OUD pharmacotherapy had at least 180 days of continuous treatment, compared to approximately 55 percent of Medicaid members (see Figure 7, above). These data-points alone cannot shed light on reasons behind the differing percentages.

Table 2. Relapse-related indicators for Commercially insured ropulations (2013-2010)		
Indicator	Percentage	
Continuity of pharmacotherapy for OUD (percent of adults with OUD pharmacotherapy with at least 180 days continuous treatment)	37.5%	
Readmission for SUD		
14-day hospital readmission	24%	
 180-day residential readmission 	16%	
Follow-up after ED discharge for Mental Health or SUD		
Within 7 days	76%	
Within 30 days	80%	

Table 2 Relanse-related Indicators for Commercially Insured Populations (2015-2016)

Source: Virginia Health Information 2018

Treatment/Relapse Prevention for SUDs – Best Practices

While there are myriad distinct forms of SUD treatment and recovery services, the National Institute of Drug Abuse (NIDA) suggests a variety of key principles are needed for SUD treatment to be effective (NIDA 2014, 2018).ⁱⁱⁱ Among these principles are:

- "[D]etoxification is only the first stage of addiction treatment and by itself does little to change long-term drug abuse"
- "Treatment varies depending on the type of drug and the characteristics of the patients...[T]he earlier treatment is offered in the disease process, the greater the likelihood of positive outcomes"
 - "Recovery from drug addiction is a long-term process and frequently requires multiple episodes of treatment"
 - "Lapses during treatment do occur...As with other chronic illnesses, relapses to drug abuse can occur and should signal a need for treatment to be reinstated or adjusted"
- "Behavioral therapies are the most commonly used forms of drug abuse treatment"
 - "Medications are an important element of treatment for many patients"
- "Continuity of care is essential for drug abusers re-entering the community"
- "Many drug-addicted individuals also have other mental disorders"
- "Treatment must address the individual's drug abuse and any associated medical, psychological, social, vocational, and legal problems"

As described in Figure 8 below, SUD treatment approaches exist along a continuum from outpatient services to varying intensities of residential treatment. American Society of Addiction Medicine (ASAM) addiction treatment criteria are based on patient assessment over six dimensions (e.g., withdrawal potential, readiness to change, recovery/living environment). These criteria are used to place patients in the most appropriate level of specialized SUD care. ASAM criteria are evidence based and, compared to other criteria to determine appropriate level of SUD treatment, are associated with improved substance use outcomes (i.e., predictive validity) and lower resource utilization (e.g., number of inpatient hospital days) (Magura et al. 2003; Sharon et al. 2004).

Figure 8. ASAM Levels of Care



Pharmacological Interventions

FDA-approved pharmacological interventions for SUDs are limited to OUDs (methadone, buprenorphine/naloxone, naltrexone), Alcohol Use Disorders (AUDs) (acamprosate, disulfiram, naltrexone) and Tobacco Use Disorders.^{iv} For OUDs, there is strong evidence of effectiveness of methadone and buprenorphine maintenance therapies (MMT and BMT) on treatment retention and substance use suppression, and a growing evidence base to compare extended-release naltrexone to MMT and BMT. Specifically, studies indicate that methadone is more effective than non-pharmacological approaches in treatment retention and abstinence from heroin use. Buprenorphine has been found to be effective in treatment retention for heroin, although methadone is more effective (Carroll & Weiss 2017; Mattick et al. 2009; Mattick et al. 2014; Thomas et al. 2014; Fullerton et al. 2014). Finally, clinical trials have found that sustained release (injectable) naltrexone reduces return to heroin use, with research growing on its real-world effectiveness as well as comparative effectiveness with methadone or buprenorphine (Lee et al. 2017; Lott 2017; Nunes et al. 2015). Strong evidence indicates that, for naltrexone in its oral form, poor treatment retention inhibits real-world effectiveness (Minozzi et al. 2011).

For AUDs, there is evidence of moderate effects of naltrexone on relapse compared to placebo, mixed evidence for acamprosate, and inconsistent evidence for disulfiram. Specifically, metaanalyses on naltrexone consistently indicate modest efficacy effect sizes on reducing heavy drinking (standardized mean ranging from 0.15 to 0.2) although not in promoting complete abstinence (Swift & Aston 2015). Evidence of effectiveness on acamprosate on AUD outcomes appears to vary systematically between studies conducted in U.S. and those in Europe. Finally, there are few gold standard studies of the effectiveness of disulfiram on alcohol use despite its application to AUD for over 60 years (Swift & Aston 2015; Pettinati et al. 2006; U.S. Department of Health and Human Services (HHS) 2016).

For other substances, such as stimulants and cannabis, there is little evidence of efficacy for any pharmacological treatments. For cocaine, a systematic review (2016) found no clear evidence of efficacy of any pharmacological treatment for cocaine dependence, while multiple meta-analyses found no evidence supporting use of antidepressants modafinil or topiramate in increasing abstinence or retention for cocaine use (Castells et al. 2016; Pani et al. 2010)(Sangroula et al. 2017; Singh et al. 2016). A recent review on methamphetamine found little/no effect of pharmacotherapy on Methamphetamine-Related Disorders on the basis of low-quality studies (Gouzoulis-Mayfrank* et al. 2017). Recent reviews on cannabis have found non-significant associations with most classes of pharmaceutical agents used to treat cannabis use with abstinence and/or incomplete evidence of effectiveness (Marshall et al. 2014; Walther et al. 2016).

For the justice-involved population, evidence on the effectiveness of MAT on substance use and recidivism appears to be mixed. Some reviews conclude that there is consistent evidence that MAT is associated with reduced substance use/recidivism – especially when there is continuity of care post-incarceration – while others conclude that there is little evidence on reduced substance use. However, most studies on this population have significant methodological limitations and/or are low quality, making it difficult to draw firm conclusions (Perry et al. 2015; de Andrade et al. 2018).

Psychosocial Interventions

Psychosocial interventions are defined as interpersonal or informational approaches targeting behavioral, social and/or environmental factors. For most SUDs, psychosocial interventions are the primary form of treatment and/or recovery promotion. While there is no widely accepted categorization of psychosocial interventions, a variety of evidence-based approaches are commonly used (IOM (Institute of Medicine) 2015). These range from one-time interventions of 30 minutes or less – such as Motivational Interviewing (MI) – to multiple therapeutic sessions over weeks, months, or longer – such as numerous interventions based in Cognitive Behavioral Therapy (CBT), one of which is known specifically as Relapse Prevention. Table 3 below, summarizes a variety of commonly used psychosocial interventions for SUDs.

_ 1 6	able 5. Indstrative SOD I Sychosocial Interventions		
C	inical Interventions	N	on-clinical Interventions
•	Brief Interventions (e.g., Motivational	•	Contingency Management
	Interviewing)	•	Peer support
٠	Clinical counseling/medical management	٠	Vocational Rehabilitation
•	Cognitive Behavioral Therapy (e.g., Relapse	•	Mutual Support/12-Step Groups
	Prevention, Community Reinforcement Approach)	•	Therapeutic Communities
٠	Behavioral Couples Therapy	٠	Recovery Housing

 Table 3. Illustrative SUD Psychosocial Interventions

As illustrated in Figure 9 below, evidence on the effectiveness of psychosocial interventions on SUD outcomes suggests that quantified effects range from small to moderate, and effects vary both by the type of intervention and substance (Dutra et al. 2008; Huhn et al. 2014; Darker et al. 2015; Davis et al. 2015; Knapp et al. 2007). These findings are consistent with one of NIDA's key principles suggesting that the appropriateness of specific interventions is highly individualized.

Figure 9. Effect Sizes of Selected Psychosocial Interventions

FIGURE 1. Mean Effect Sizes Across Substance Use Disorders Under Treatment





Source: Dutra et al. 2008

In terms of specific interventions:

• Motivational Interviewing/Enhancement (Series of brief counseling sessions [e.g., 1 to 4 sessions of 1-hour each] to explore/reinforce client's intrinsic motivation to change behaviors and whose purpose is not to impart information/skills]): meta-analyses and reviews have found modest short- and medium-term effects on decreased substance use compared to no treatment for both adults and adolescents, although the quality of evidence is low (Barnett et al. 2012; Smedslund et al. 2011)

- Cognitive Behavioral Therapy (CBT) (Intervention that orients clients towards a meaningful goal, teaches skills to successfully achieve goal, and establishes plans to address potential relapses): meta-analyses and reviews have found small effects on substance use across range of substances (e.g., 58 percent of patients receiving CBT had better substance use outcomes than comparison approaches) (Hofmann et al. 2012; Magill & Ray 2009)
- Contingency Management (CM) (Provision of financial incentives [e.g., vouchers] contingent on evidence of changed behavior): extensive literature indicates strong degree of evidence of moderate to large effect sizes on substance use during treatment, and small effect sizes after CM discontinuation (Davis et al. 2016)
- Mutual Support/12-Step Groups (Non-treatment-oriented/non-clinical self-help groups offering participants social, emotional and informational support and model of abstinence): while data from long-term observational studies primarily of AUDs indicate that participation in mutual support groups is associated with better long-term (e.g., 16-year) outcomes compared to non-participants, meta-analyses of experimental studies indicate that "there is no conclusive evidence to show that [mutual support groups] can help to achieve abstinence, nor is there any conclusive evidence to show that it cannot" (Beck et al. 2016; Ferri et al. 2006; Moos & Moos 2006; Mendola & Gibson 2016)
- Therapeutic Communities (Drug-free residential settings for non-violent justice-involved individuals that emphasize adherence to community norms to change behavior): there is consistent evidence that Therapeutic Communities are associated with short-term reductions in recidivism, although less consistent evidence on short-term reductions in substance use. However, most studies have significant methodological limitations and/or are low quality, making it difficult to draw firm conclusions (Perry et al. 2016; de Andrade et al. 2018)

Combined Pharmacotherapies and Psychotherapies

For SUDs with pharmacological interventions, combining pharmacological and psychosocial interventions is usually considered clinical standard of care. For OUDs in particular, including psychosocial interventions with pharmacotherapy is inscribed in Federal requirements that require providers to offer counseling when prescribing methadone and the ability to refer patients to counseling when prescribing buprenorphine. To date, however, there is little evidence that *specialized* psychosocial approaches, such as several of the specific clinical interventions listed in Table 3, improve OUD outcomes beyond general clinical counseling (what some term as medical management) (Amato et al. 2011; Department of Veterans Affairs & Department of Defense 2015; Dugosh et al. 2016).

In Virginia, Medicaid's ARTS benefit incentivizes provision of psychotherapies alongside buprenorphine- and/or naltrexone-based MAT through higher reimbursement rates for "preferred OBOTs" which are settings with co-located psychotherapeutic services. As indicated in Table 4 below, between April and September of 2017, approximately 20 percent more patients received psychotherapeutic OUD services when receiving services in preferred OBOT locations compared to other provider settings. This finding suggests that ARTS may be achieving its objective of encouraging combined psychosocial therapy with pharmacotherapy.

OUD Somios residual	Setting where buprenorphine received			
(April – September, 2017)	Preferred OBOT	Other network provider	Out-of-network provider	
Any other OUD service	72%	51%	36%	
Counseling/psychotherapy /physician evaluation	63%	43%	23%	
Urine drug screen	55%	35%	26%	

Table 4. Combined Pharmacotherapies and Psychotherapies forOUDs under ARTS

Source: Virginia Commonwealth University 2018b

Case Management

As suggested in Figure 10 below, successfully treating an individual's SUD often requires addressing a broader set of factors that affect recovery, from employment to family conditions to transportation. Case management services assist patients and family members in accessing clinical, social, educational, vocational, recovery and other supports to address that broader set of barriers to recovery. Literature indicates that case management is effective as a strategy linking individuals with SUD to community/treatment. However, as expected, no clear association with reduced substance use compared to other psychosocial interventions, but knowledge base on extent and sustainability of case management on outcomes remains limited (Penzenstadler et al. 2017).



Figure 10. "Components of Comprehensive Drug Abuse Treatment"

Source: National Institute on Drug Abuse (NIDA) 2018

SUD Recovery/Relapse Prevention Programs in VirginiaAppendix

Table 9 in the Appendix provides an overview of programs in Virginia with the most direct connections to substance abuse recovery and relapse prevention. The following section highlights selected programs.

Recovery Housing

Recovery housing, also known as recovery residences and sober living homes, encompasses a range of residential environments intended to promote recovery through self-help, peer support and social reinforcement for members transitioning back into communities (California Research Bureau 2016). While abstinence has historically been an emphasis of recovery residences, attitudes towards MAT have evolved over recent years and acceptance of MAT currently varies from organization to organization or house to house. Least structured (or "peer run") recovery houses are democratically-run with no paid positions and include such services as house meetings or encouragement to attend self-help groups. Moderately structured (e.g., "monitored" or "supervised") recovery houses may have paid managerial positions, documented policies and procedures, and both in-house peer run groups and outside clinical services. Under the most structured (or "service provider") model, houses have credentialed staff, may be licensed by the State, and often offer in-house clinical services and programming (National Association of Recovery Residences 2018). A literature review of recovery housing found a moderate level of evidence for the effectiveness of recovery housing on decreased substance use and increased employment. However, the same review also found that it is difficult to draw conclusions based on limited literature with few methodologically rigorous study designs (Reif, George, et al. 2014).

Because recovery housing members who have diagnosed SUDs are considered disabled under federal law and enjoy a wide range of protections, States are limited in oversight authorities such as licensing or zoning regulations. As a result, the number and placement in Virginia – as in other States – are largely unknown. An exception relates to "Oxford Houses", which adopt the peer-run (i.e., least structured) model. The Department of Behavioral Health and Developmental Services (DBHDS) contracts with Oxford House International (OHI) for approximately \$100,000 per year to support administrative costs for Oxford Houses in Virginia. This provides a limited set of data-points on recovery housing in the Commonwealth. DBHDS data indicate that approximately 800 individuals per month reside in OHI units. According to 2017-2018 data reported by the houses, 91 to 94 percent of residents remained abstinent for one month, while 43 percent of monthly departures were due to relapse (Department of Behavioral Health and Developmental Services 2017). Figure 11 below, depicts the placement of OHI-supported Oxford Houses in Virginia.

Figure 11. Locations of Oxford Houses in Virginia (overlaid on intake of SUD services at CSBs)



Sources: Department of Behavioral Health and Development Services (DBHDS) 2017; Oxford House International 2018

In the setting of higher education, two universities in Virginia have established recovery housing units for students. Under Virginia Commonwealth University's "RAMS in Recovery" program, 50 to 60 students annually access a range of recovery support services and take a one-credit course focused on substance use. As of October, 2018, six students were living in recovery housing. Under Washington & Lee University's "Washingtonian Recovery Community" program, ten to 15 students participate in recovery support services, with four students living in recovery housing as of October, 2018. However, stakeholders cited a number of factors that mediate the ability of university-based recovery housing to meet recovery goals. Recovery housing, by itself, is not likely to meet students' recovery goals unless it is embedded in a broader recovery program and recovery-oriented environment with associated resources; and low levels of student demand for housing may make it difficult to sustain recovery housing. Also, allocating campus housing for recovery housing units represents a trade-off with reserving

housing for the broader student population given the high demand for campus housing (State Council of Higher Education for Virginia 2017).

State-Level Regulation of Recovery Housing

Because recovery housing is largely unregulated, concerns have been expressed and investigated at both the State and Federal levels about possible misleading practices and exploitation of residents by some recovery residence operators. Although States are limited in their authority to license and/or restrict recovery residences, or regulate their placement through zoning regulations, 14 States have taken a variety of legislative actions to increase oversight over recovery residences over the last 15 years. Actions include providing a definition of recovery housing (nine States); requiring State-operated, -funded and/or -licensed treatment providers to refer patients only to voluntarily certified recovery residences (seven States); requiring requiring a registry or website of voluntarily certified recovery residences (three States); and requiring recovery residences to be certified (three States, although all are facing legal challenges to this requirement) (National Council for Behavioral Health 2018).

In Virginia, DBHDS is in the process of convening stakeholders to consider increased oversight measures, beginning with a Virginia-specific recovery housing definition and mechanisms by which residences may voluntarily register. Additionally, recovery housing is an allowable cost under DBHDS' Federal State Opioid Response (SOR) grant, providing a potential source of funding in future years. As of October, 2018 DBHDS indicated that it was planning to use SOR grant funds in SFY 2019 to support recovery environments in higher education institutions.

Recovery Community Organizations

Recovery Community Organizations (RCOs) are self-labeled independent, non-profit, organizations led and governed by people in recovery and that provide non-clinical recovery services and supports. Examples of services can include recovery housing, peer support counseling, and a forum for mutual support meetings. Based on an Internet search, at least four Virginia organizations self-identified as RCOs as of October, 2018. Although a national RCO association exists, there is currently no DBHDS licensing mechanism for non-clinical services provided by RCOS, and RCOs in Virginia do not have a clear pathway to become Medicaid providers for reimbursement of services delivered by Peer Recovery Specialists. However, some RCOs are exploring Medicaid reimbursement for peer support services through contractual arrangements with current Medicaid providers.

Peer Support Services

The use of peers to promote recovery from SUDs is becoming increasingly prevalent in the United States. Peer support services encompass non-clinical activities provided by peers with "lived experience" of substance abuse. A review of the literature found "moderate" evidence of effectiveness of peer support services on reduced SUD relapse and increased treatment retention. However, studies of peer providers in the context of SUD services are less common than in

mental health, and methodological weaknesses of most studies "temper our ability to draw strong conclusions" (Reif, Braude, et al. 2014).

In Virginia, individuals who pass DBHDS training and complete supervised experience requirements can be certified as Peer Recovery Specialists (PRS). Under Medicaid's ARTS benefit, peer support services provided by PRS who are registered with DHP are eligible for reimbursement as long as provision of those services meets certain conditions (e.g., PRS provide services under the supervision of a credentialed addiction treatment professional and billed by a Medicaid provider). According to an analysis conducted by DMAS, reimbursement to providers for peer support services delivered by certified PRS are in line with national rates (Department of Medical Assistance Services 2016).^v Beyond Medicaid's ARTS benefit, DBHDS has used federal Opioid Prevention, Treatment and Recovery (OPT-R) grant funding to establish non-crisis SUD Warmlines across the State staffed by PRS, and to establish MOUs with six hospitals to support delivery of peer support services in Emergency Departments (EDs). In the first year of OPT-R funding (2017), 764 calls have been fielded statewide across 10 Warmlines, and 208 ED follow-up calls were made.

Programs for Justice-Involved Populations

Department of Corrections (DOC)

Community Corrections Alternative Program

The Community Corrections Alternative Program (CCAP) was initiated in 2017 and provides a structured residential environment with various programming for non-violent, medium/high risk offenders in the prison system. Programming covers treatment motivation, cognitive restructuring, and substance abuse. Three CCAPs specialize in intensive substance use programming lasting nine to 12 months (Department of Corrections 2017b). Beginning this year, certain CCAP graduates may be eligible to receive MAT services through a DOC/DBHDS pilot project (described below).

MAT pilot

DOC and DBHDS are jointly funding a one-year pilot project to provide MAT (Vivitrol) and aftercare services to inmates released to three DOC probation and parole districts – Richmond City, Norfolk City, Buchanan/Tazewell – that have been identified as high-need for OUD services based on rates of positive opioid drug test results and overdoses among individuals on state probation supervision (all three districts rank in top five positive tests for opioids) (Department of Corrections 2017a). Recovery support navigators – who will be Masters-level clinicians – will provide case management services to facilitate re-entry/uptake of SUD treatment and recovery services.

Therapeutic Communities

Since 1994, DOC has operated Therapeutic Communities (TCs). TCs are drug-free residential settings for non-violent offenders that emphasize adherence to community norms to change behavior. Two TCs provide non-medication-assisted SUD treatment services to male offenders (capacity of 979 individuals) and female offenders (capacity of 159 individuals) with a treatment

duration of two years (Department of Corrections 2018a). In recent years, between 3 and 4 percent of total offenders have been are eligible for participation in TCs (Department of Corrections 2018b).

Day Reporting Centers

Day Reporting Centers (DRCs) are community-based facilities into which offenders report daily or regularly for rehabilitative programming (non-SUD-specific) and supervision. The DOC established DRC pilots in 1993/1994 with State General funds in Fairfax, City of Richmond and Norfolk to serve 300 to 400 offenders in each (\$375,000 per DRC). Two additional DRCs were funded by federal sources. By the 2000s, DRC services were available in 12 districts (capacity: 1,150 offenders). In 2009, the DRC program closed due to DOC budget reductions.

Nationally, literature has found mixed evidence of associations between DRC participation and reduced recidivism, although the knowledge base on DRCs remains limited, especially on substance use outcomes (Carr et al. 2016). In Virginia, the Department of Criminal Justice Services (DCJS) evaluations of the three initial Day Reporting Center pilots concluded that they were largely achieving goals (e.g., ensuring public safety; providing treatment/rehabilitative services) and expansion and/or prioritization of SUD treatment services was needed to improve program effectiveness (DCJS 1996; 1997a; and 1997b).

Department of Criminal Justice Services

Model Addiction Recovery Program

Since 2017, VA Code §9.102(53) directs DCJS to develop a model addiction recovery program to be in local and regional jails. Awards (\$48,000 per jail) are composed of State GFs (75%) and local funds (25%). In SFY 2018, 110 inmates received recovery services in four jails (Franklin, Newport News, Norfolk, Riverside). Given the current funding level and recentness of program initiation, no formal evaluation of effectiveness is currently being planned by DCJS.

Residential Substance Abuse Treatment

The federal Bureau of Justice Assistance (BJA) Residential Substance Abuse Treatment (RSAT) grant funds are used by DCJS to support residential substance abuse treatment services in correctional settings, community re-integration, and community-based aftercare services for offenders. RSAT programs can implement three types of programs: residential, jail-based, and aftercare. In SFY 2017, DCJS awards of approximately \$324,000 supported SUD services for 147 inmates in two jails (jails provide 25 percent matching funds). RSAT aftercare programs are required to report on standardized performance measures (e.g., # individuals who complete jail-or prison-based RSAT program and released to community referred to an aftercare program) (Department of Criminal Justice Services 2018).^{vi} While DCJS requires grantees to coordinate and provide aftercare service, current RSAT grantees do not receive BJA aftercare funds and do not report on BJA aftercare indicator.

Supreme Court of Virginia

Drug Treatment Courts

Drug Treatment Courts (DTCs) are alternatives to incarceration wherein justice-involved individuals are court-ordered to obtain SUD services. A seminal multi-State Drug Treatment Courts study found that participation was associated with reduced substance use relapse (i.e., fewer self-reported use days per month) (Rossman et al. 2011). A body of evidence also exists that indicates that Drug Treatment Courts participation is associated with reduced recidivism, and DTCs are cost-effective in terms of reduced recidivism. However, few studies assess substance use outcomes after Drug Treatment Courts participation, and most literature on DTCs is methodologically weak (Mitchell et al. 2011; Wilson et al. 2018; Jewell et al. 2017).

As of SFY 2017, there are 49 DTC dockets operating in Virginia which are administratively overseen by the Supreme Court of Virginia (Office of the Executive Secretary 2018). Since 2016, State budget language has authorized funding for MAT (Vivitrol) pilots, with Norfolk, Henrico and Bristol Adult Courts currently taking part. Since 2017, MAT has been provided to 16 participants. Virginia's Drug Treatment Courts have been estimated to save \$20,000 in costs per participant due to lower recidivism (Cheesman et al. 2016).

Programs for High-Need Medicaid Beneficiaries

Substance Use Disorders are the most common behavioral health conditions among the homeless population, and co-occurring psychiatric disorders among this population is associated with higher SUD severity, more intensive treatment needs, and lower treatment participation. In this context, Permanent Supportive Housing (PSH) is a direct service that helps adults with mental and substance use disorders who are homeless or disabled identify and secure long-term, affordable, independent housing. Meta-analyses and reviews have found PSH to be associated with improved outcomes on housing (e.g., lengthened tenure) and non-behavioral health measures (e.g., reduced hospitalizations). However, existing evidence has not found consistent associations between PSH and reduced substance use (Smelson et al. 2016; Rog et al. 2014; Somers et al. 2015).

House Bill 5002 (2018) directs DMAS to develop a supportive housing and employment benefit targeting high-need Medicaid beneficiaries with mental illness, SUD, or other complex, chronic conditions. At the time of the writing of this report, DMAS' proposed Section 1115 Demonstration Waiver (i.e., Medicaid expansion) application details anticipated eligibility criteria and scope of included services.

Housing Services	Employment Services
Included	Included
 Transition (e.g., budgeting assistance for living expenses) 	 Education (e.g., subsidies for industry certification)
 Sustaining tenancy (e.g., entitlement assistance) 	 Pre-employment (e.g., pre-vocational assessment)
Excluded	 Sustaining employment (e.g., job
Rent, utilities, etc.	coaching)
	Excluded
	 Wages, personal care services, etc.

Table 5. Medicaid Expansion Proposed Housing and Employment Supports

Source: Department of Medical Assistance Services 2018b

Programs for Pregnant and Parenting Women

Three Department of Behavioral Health and Developmental Resources (DBHDS) initiatives focus on SUD treatment and recovery for pregnant and parenting women. First, through GFs in SFY 2019/2020 (\$8.26K and \$1.7M, respectively), DBHDS will provide Permanent Supportive Housing (PSH) services such as housing stabilization assistance, treatment support, and rental assistance for up to 75 pregnant and parenting women with SUDs. The Department anticipates: leveraging experience with current PSH initiatives for individuals with Serious Mental Illness and national experts to adapt the model to SUD context; exploring connections between PSH services with Project Link services; drawing from pregnant/parenting women who have completed residential treatment programs but face barriers to relocating to permanent housing; and collecting data from participants on self-reported substance use practices.

Second, since 2001, the Department of Behavioral Health and Developmental Resources has supported Project Link to provide funds to local interagency teams (e.g., CSBs, DSS office, health department) to coordinate care to pregnant and parenting women at risk of – or currently abusing – substances through intensive case management and support services (e.g., home visiting, prenatal care, SUD treatment, social supports). Project Link's annual budget of \$850,000 (\$250K in General Funds and \$600K from SAMHSA) funds teams in nine CSB regions. State funds – whose levels have remained unchanged since 1992 – are allocated at \$75,000 to \$100,000 per CSB region. In SFY 2017, Project Link's nine sites provided services to 1,215 women and families, including 2,200 home visits. Studies have found statistically significant associations between parental substance use education during home visiting and improved parental behaviors (Filene et al. 2013). According to DBHDS data, CSB SUD service utilization by pregnant and parenting women is higher in Project Link sites compared to other sites (see Table 6 below). While these data are descriptive and do not imply causality, they nonetheless are consistent with Project Link's goals.

	CSB Region Utilization			
CSB SUD Service	With Project Link	Without Project Link		
Case management	45%	33%		
Outpatient	37%	32%		
Residential treatment	40%	29%		

Table 6. CSB SUD Service Utilization Among Pregnantand Parenting Women

Source: Department of Behavioral Health and Development Services (DBHDS) (2017)

Finally, the Department of Behavioral Health and Developmental Resources administers a SAMHSA pilot grant: Project Link for Pregnant and Post-partum Women. Building on the Project Link model, its goals are to increase engagement and retention of women in SUD treatment – including peer support services and MAT/psychosocial services for women with OUDs – in Project Link CSB regions. Funded through \$1.1M for three years, in 2017 (Year 1), around 800 women were served and 243 children treated.

Programs for SUD-Diagnosed Individuals with Barriers to Employment

Research on substance use and employment outcomes has generally found negatively reinforcing associations. SUDs/problematic substance use are associated with increased unemployment and decreased likelihood of finding or retaining employment. In turn, unemployment is a risk factor for substance use/development of SUD and relapse after treatment (Compton et al. 2014; Henkel 2010; Hser et al. 2015). However, research on the role of vocational-focused interventions on employment outcomes remains under-developed. For example, a 2004 review highlighted difficulties in identifying characteristics of more versus less effective vocational rehabilitation initiatives, and a sparse body of literature has since emerged (Magura et al. 2004).

Substance Abuse Vocational Counselors

Since 1988, under a Memorandum of Understanding with DBHDS, Virginia's Department of Aging and Rehabilitative Services (DARS) has employed specialized Substance Abuse (SA) Vocational Counselors. Funded through \$1.1M in GFs (SFY 2019) and \$350,000 for case services (e.g., vocational evaluation; job coaching), SA Counselors provide vocational rehabilitation services for clients with SUDs that act as barriers to employment. There are currently 19 counselors who provide these services to individuals with a SUD diagnosis that creates a barrier to employment, along with any other disabilities that constitute barriers to employment. According to the Department of Aging and Rehabilitative Services, the current average caseload for SA counselors is 68 clients, with a reasonable counselor caseload capacity of around 100 clients (ranging from 20 to 154). As illustrated in Figure 12, caseload data collected by DARS indicate that case-related outcomes of individuals served by specialized SA counselors are favorable compared to outcomes for individuals with SUDs served by generalist counselors.^{vii}



Figure 12. Outcomes of Clients Serviced by SA Vocational Counselors

Source: Department of Aging and Rehabilitative Services 2018

In SFY 2017, federal vocational rehabilitation funding – which accounts for 78 percent of program funds – allowed DARS to serve around 4,000 clients. However, around 1,970 eligible participants are currently waitlisted due to lack of funding for services, with around 15 percent of those having a SUD diagnosis. Unfortunately, even though most Substance Abuse Vocational Counselors have the capacity to take on additional cases, increasing funds for SA Counselors probably would not address the waitlist of clients with a SUD because the State has little ability to target additional State funds in this way. According to federal funding regulations, any additional State funds that exceed the required 22 percent match would be required to be used for highest-priority clients. While some of those individuals may have a SUD, it is likely that many would not.

Virginia Initiative for Employment Not Welfare

Participants in the State's Temporary Assistance for Needy Families (TANF) program who also experience problems obtaining/retaining employment, including those in a SUD treatment program, the Virginia Initiative for Employment Not Welfare (VIEW) program authorizes local Department of Social Services (DSS) offices to support education, vocational, or apprenticeship training. In SFY 2017, around 265 participants per month received vocational education/training or job skills training. However, DSS does not collect data on how many participants receiving training were also receiving SUD treatment services.

State Coordination and Public Awareness of SUD Recovery/Relapse Prevention Programs in Virginia

A variety of efforts are being undertaken by Virginia State agencies to help ensure the coordination of various components of programs and initiatives focused on SUD treatment and recovery. For example, the Governor's Advisory Commission on Opioids and Addiction, established on September 26, 2018, currently has five workgroups with each one focusing one of the following areas: treatment and recovery, harm reduction, justice-involved interventions, prevention, and supply prevention. Participants of the workgroups include representatives of 16 State agencies and five associations.

For justice-involved populations, DBHDS and DCJS are developing a statewide plan to engage jail-involved individuals in OUD treatment and recovery services, focusing on re-entry into the community. Through a \$100,000 federal Bureau of Justice Assistance (BJA) Comprehensive Addiction Recovery Act (CARA) grant, the plan involves the placement of individuals in OUD treatment and recovery services at five "intercept" points, with a focus on re-entry into community from jail (Intercept 4) and community corrections (Intercept 5). DBHDS is currently leading a stakeholder process to map the availability of services for offenders and local priorities. The two Departments anticipate submitting an application for a BJA implementation grant by end of 2018.

Targeting individuals in the higher education institution setting, 2018 legislation added Virginia Code language creating the Virginia Institutions of Higher Education Substance Use Advisory Committee (§4.1-103.02). The purpose of the Committee is to develop a statewide strategic plan for substance use education, prevention, and intervention at public/private higher education institutions. At the time that this JCHC study was being conducted, the Committee was in process of convening stakeholders to develop a work plan.

While the above-referenced mechanisms help coordinate State agency SUD initiatives, information provided by the State to the public on available SUD treatment and recovery resources does not appear to be well-coordinated. Some States have created State-supported platforms by which to help their State's citizens in locating SUD treatment and recovery resources. Kentucky's Office of Drug Control Policy, for example, allocates a portion of its budget appropriation to support a one-stop shop for locating such services. In Virginia, by contrast, at least five different State agencies (and one State-affiliated organization) provide information to the public on substance use treatment and recovery resources, with two focused on opioids, three focused on substances more broadly, and one intended for those serving the criminal justice population (Figure 13 below, illustrates the difference between Kentucky's "one stop shop" for information on treatment and recovery resources [top screenshot] and the multitude of agency websites containing treatment and recovery resource information in Virginia [bottom screenshot]). Having multiple State-affiliated entry points for the public to obtain treatment and recovery information isn't problematic if the information that each provides is well-aligned or -coordinated. However, this does not appear to be the case. Over 260 SUD treatment/recovery resources are listed by three State-connected websites: Virginia 211 (205

resources), Hardest Hit VA (126), and Disability Navigator^{viii} (107). Of these, fewer than 20 percent of resources are listed by all three and, excluding cross-listed Community Services Boards, fewer than 10 percent are listed by all three.^{ix} Additionally, criteria used to determine which treatment and recovery resource is listed appear to vary from agency to agency. Examples of criteria cited by agency contacts ranged from listing organizations: funded by the agency; having a non-profit organizational status (with exceptions to that rule); that are Medicaid network providers; recommended and/or vetted by local stakeholders; and that do not have any open investigations with State Police or DHP.

Figure 13. Snapshot of Kentucky's and Virginia's SUD Treatment and Recovery Resources Websites



Source: https://odcp.ky.gov/Pages/Treatment-Resources.aspx





Sources: https://disabilitynavigator.org/taxonomy/menu-zone/substance-abuse-0; http://www.easyaccess.virginia.gov/; http://www.dbhds.virginia.gov/office-of-recovery-services; https://hardesthitva.com/resources/; http://curbthecrisis.com/recovery/; https://www.211virginia.org/consumer/index.php; https://www.vadoc.virginia.gov/community/

Awareness of Programs in the Hospital Setting

For patients receiving inpatient services, studies have found higher rates of inpatient readmission among those with a SUD compared to those without (Walley et al. 2012). While there are many drivers of high readmission rates, lack of awareness of where to go for continuing care has been found to be a risk factor for readmission (e.g., one study of general admissions found lack of awareness of whom to contact after discharge accounted for 6 percent of preventable readmissions (Auerbach et al. 2016)). With reducing preventable readmissions being a concern more generally, studies from the chronically ill and general patient populations have found that improving the patient discharge planning process, including improved patient education, can reduce the risk of readmissions. For example, transitional care programs (e.g., coaches, enhanced patient education, comprehensive discharge planning) can modestly reduce risk of readmissions and improved discharge planning can reduce risk of readmission by 15 percent (Bauer et al. 2014; McMartin 2013).

To improve inpatient discharge planning among individuals at high-risk of preventable readmission, Rhode Island code requires all hospitals and free-standing EDs to implement minimum comprehensive discharge planning standards, including: SUD assessment for patients with indication of a SUD; recovery planning tools for patients with substance-use disorders; and

providing the patient information about clinically appropriate inpatient and outpatient SUD services, including recovery coaches (State of Rhode Island 2016). Virginia Code does not have analogous requirements.

Economic Analyses of SUD Interventions

There are several challenges in conducting economic analyses of substance abuse interventions. These include a lack of comparability of treatment approaches due to their high variability, a multitude of potential treatment outcomes (e.g., use of substances, health status, crime rates, employment status), and a high drop-out rate of participants in substance use treatment interventions which reduces generalizability of findings (Sindelar et al. 2003; French et al. 2002). Nonetheless, a variety of cost-effectiveness and cost-benefit analyses have been applied to a wide range of SUD interventions.^x In terms of cost-effectiveness of OUD treatment interventions, for example, there is consistent evidence that Methadone Maintenance Therapy (MMT) is cost-effectiveness for Buprenorphine Maintenance Therapy and Naltrexone (Murphy & Polsky 2016).

Although cost-benefit analyses of SUD interventions are even more challenging to conduct than cost-effective analyses, economic evaluations provide insights into SUD treatment writ large as well as specific interventions. A seminal study conducted in the early 2000s using data from a demonstration project implemented in the state of California concluded that every \$1 invested in SUD treatment is associated with \$7 in benefits (with 75 percent of the benefits due to crime reduction) (Ettner et al. 2006).

For evidence on specific SUD interventions, Washington State's Institute for Public Policy (WSIPP) provides an informative set of data-points. Since 2008, the WSIPP has modeled costs and benefits associated with State-level policies and programs at the direction of its State legislature. Table 7, on the following page, summarizes findings from several cost-benefit analyses of pharmacological and psychosocial SUD interventions that are based on Washington State-specific costs and benefits monetized from outcomes published in peer-reviewed literature (Washington State Institute for Public Policy 2017). According to WSIPP analyses, two of three MAT interventions are cost-beneficial. In terms of psychosocial interventions, both recovery housing and peer support services have positive cost:benefit ratios, although neither meet WSIPP's criteria to be considered "evidence-based". Among SUD interventions for justice-involved populations, Day Reporting Centers are considered an evidence-based, cost-beneficial intervention.

Intervention	Costs	Cost:Benefit Ratio [*]	Chance benefits > costs	Level of Evidence
Pharma	cological Int	erventions		
Methadone maintenance treatment	\$3,769	\$2.19	88%	EB
Buprenorphine maintenance treatment	\$4,633	\$1.75	86%	NC
Injectable naltrexone	\$17,409	-\$0.05	0%	NC
Psycho	osocial Inter	ventions		
Contingency management [†] (opioids, substances broadly)	\$250 - \$356	\$9 - \$23	59% - 100%	RB – EB
Contingency management ^{††} (substances broadly)	\$19,455	\$34	77%	EB
Recovery housing	\$287	\$5	70%	NC
Motivational Interviewing / Motivational Enhancement	\$367 - \$342	\$17 - \$26	61% - 63%	P – RB
CBT (alcohol, amphetamines)	\$210 - \$266	\$22 - \$34	60% - 61%	RB
12-step therapy	-\$323 [‡]	n/a	60%	RB
Relapse prevention (CBT)	\$0	n/a	56%	RB
Peer support	\$2,815	\$1	51%	RB
CBT (opioids)	\$538	-\$1	42%	Р
Justice-Involv	ed Populatio	on Intervention	S	
Outpatient/non-intensive drug treatment (community-based)	\$768	\$13.47	100%	EB
Outpatient/non-intensive drug treatment (during incarceration)	\$749	\$14.10	99%	EB
Inpatient/intensive outpatient drug treatment (during incarceration)	\$1,289	\$10.18	98%	EB
SUD Therapeutic Communities (during incarceration) [†]	\$2,199	\$5.03	96%	EB
SUD Therapeutic Communities (community-based)	\$3,783	\$2.51	79%	EB
Day reporting centers	\$3,987	\$1.95	75%	EB
Injectable naltrexone (criminal justice population)	\$16,671	-\$0.01	0%	NC

Table 7. Cost-benefit Analysis Results of Selected SUD Interventions

* Benefits monetized: crime; labor market earnings; property loss; health care

** EB: Evidence-Based; RB: Research-Based; P: Promising; NC: No Classification; see Figure 13 in the Appendix for further detail on criteria for classifications

[†] Lower-cost interventions; ^{††} Higher-cost intervention; [‡] comparison: 1-hour individual CBT Sources: Washington State Institute for Public Policy (2018); Wanner (2018); Miller et al. (2016) Additionally, the 2008 study "Mitigating the Costs of Substance Abuse" by Virginia's Joint Legislative and Audit Review Committee (JLARC) provided Virginia-specific cost-benefit estimates for selected SUD interventions for justice-involved individuals. As illustrated in Figure below, relative to inmates not receiving or completing SUD services, Therapeutic Communities were found to be cost-beneficial in terms of reduced recidivism or increased employment/earnings for some justice-involved populations.

	Other Indicators ^b		ndicators ^b
	Net Cost Impact ^a	Recidivism	Employment and Earnings
Department of Corrections			
Inmates in Therapeutic Communities	\oplus	••	
Inmates in Transitional Therapeutic Communities	Θ	€	()
Adults on State Probation	\oplus	Ð	\oplus
Local and Regional Jails		 	
Inmates in Therapeutic Communities	\oplus	•	()
Inmates in Other Services	Θ	Ð	\oplus
Inmates in Therapeutic Communities vs. Other Ser	vices 🕀	Θ	Θ
Outcome of Population that completed treat	tment:		
Better: imposed lower costs, had lower n Worse: imposed higher costs, had higher (+/-) Mixed: had an average difference of less	ecidivism rates, or had higher e r recidivism rates, or had lower t han 5 percentage points acro	mployment rates and ea employment rates and e ss three measures of rec	mings. samings. sidivism
or had mixed employment and earnings	outcomes.		

Figure 14. Summary of Cost-Benefit Results for Virginia's Justice-Involved Populations

Source: Joint Legislative Audit and Review Commission (2008)

SUD Treatment and Recovery: Access and Workforce Considerations

Access to SUD treatment and recovery resources

Despite the existence of a variety of SUD treatment and recovery resources in Virginia described in the section "SUD Recovery/Relapse Prevention Programs in Virginia", the ability to pay for those services may be a barrier to access. For Virginia's Medicaid population, these barriers have been reduced through the ARTS benefit that covers services delivered at all American Society of Addiction Medicine (ASAM) levels of care, as well as for SUD case management (with or without clinical services) and peer support services. For individuals covered by commercial insurance, however, coverage of two services most directly related to recovery and relapse prevention – peer support and case management – remains variable. Specifically, while commercial insurers in Virginia report universally covering almost all ASAM levels of care, they also report variation in coverage of substance use case management, peer support services, and clinically managed low-intensity residential services (Level 3.1).

Availability of SUD Treatment/Recovery Providers

Clinical Providers

Availability of providers specializing in addiction remains modest in Virginia. As of the writing of this report, there are 48 physicians in Virginia board-certified in an addiction sub-specialty (Department of Health Professions 2018b). As indicated in Table 8, in 2017, between 3 to 19 percent of licensed clinical psychologists, clinical social workers and professional counselors specialized in SUDs (Healthcare Workforce Data Center 2017a; 2017b; 2017c). In 2018, the Department of Health Professions registered 86 PRS (DHP 2018a).

Table 8. Number of Licensed AddictionSpecialists (selected professions) (2017)

Provider	Substance Abuse Specialty*		
	#	%	
Licensed Clinical Psychologist	71	3%	
Licensed Clinical Social Worker	627	13%	
Licensed Professional Counselor	708	19%	

Source: Healthcare Workforce Data Center 2017a, 2017b, 2017c)

Recent State-level provider education

initiatives have targeted the clinician prescriber workforce to improve quality of SUD treatment and recovery services. In terms of provider pre-service education, HB 2161 (2017) directed the Secretary of Health and Human Resources to develop pre-service core curricula for health professions with prescription authority in safe and appropriate use of opioids in pain management while minimizing risks of addiction and substance abuse. At the time of this report, the Department of Health Professions indicated that it plans to distribute core competencies, developed with health training institution input, to Deans of all relevant professional schools. In terms of in-service education, since 2016, HB 829 mandated the Board of Medicine to require two hours of Continuing Education (CE) for physicians in pain management and diagnosis/management of addiction. At the time of this report, the Department of Health Professions indicated that 99 percent of renewing physicians had reported fulfilling CE requirements, although the Department does not collect data on the number of physicians whose CE hours included CE on pain management/addiction. In a second in-service initiative, since 2017, Project Echo has supported addiction telehealth mentoring between three academic hubs and practicing primary care clinicians. Additionally, DBHDS, DHP, and VCU are also developing a 4-hour on-line version for in-service instruction pursuant to HB 2161.

Non-Clinical Providers

There continue to be barriers to the certification and employment of Peer Recovery Specialists. While 825 PRS have received DBHDS training for certification as of January, 2018, stakeholders cited several barriers to increasing the supply of peer support services by certified PRS. These included: 500 supervisory experience hours – the equivalent of three months of fulltime work or six months of part-time work – that are required for certification are not reimbursable by Medicaid; some potential employers (e.g., hospitals) have expressed concerns about the liability implications of contracting or employing PRS; and Medicaid's level of reimbursement for PRS services is not incentivizing to potential employers.

To address barriers to Peer Recovery Specialist certification, DBHDS applied for a U.S. Department of Labor (DOL) \$3.2M grant to support PRS in obtaining required supervisory experience hours in 2018. However, the application was not approved. As of the writing of this report, DBHDS indicated that a workgroup that had been formed to apply for the DOL grant would continue exploring other funding opportunities.

A different but related set of barriers exists for employment of PRS. Virginia Code §37.2-416 and §37.2-506 prohibit employment by DBHDS-licensed private providers and CSBs, respectively, job applicants convicted of most barrier crimes codified in §19.2-392.02. Virginia is in the minority of States in elevating to statute barrier crimes. Across the U.S., only 11 other States have codified barrier crimes lists applicable to employment in CSB-equivalent facilities. While there is no data source to quantify the percentage of PRS with barrier crime convictions, stakeholders emphasized that individuals with the requisite skills to become PRS – including lived experience with SUDs – are likely to have had barrier crime convictions (e.g., possession of controlled substances). Data collected by DBHDS suggest that barrier crimes listed in §37.2-416 and §37.2-506 affect substantial numbers of job applicants. From January, 2015 to January, 2018, 632 job applicants to any position at CSBs and private providers had convictions for barrier crimes listed in §37.2-416 and §37.2-506.

For job applicants to substance use and mental health treatment programs, exceptions exist that offer pathways to employment for those convicted of some barrier crimes. First, convictions for certain barrier crimes listed in §§ 37.2-416 and 37.2-506 are eligible for an external screening review. A job candidate who has been offered a job but whose background check reveals a barrier crime conviction can nonetheless be determined to be eligible for employment if, among other conditions, the conviction was related to substance use, the individual has been determined to have been rehabilitated and is not a risk to others. If the candidate is determined to be eligible for employment, the potential employer has the option of hiring the job applicant, although the potential employer is not required to do so. At the current time, only three State-designated screeners are available to contract with individuals convicted of barrier crimes to determine their employment eligibility. Second, barriers to two sets of crimes are removed after five years (felony possession of a controlled substance) and 10 years (misdemeanor assault and battery).

While the existence of these exceptions to barrier crime convictions hold the potential to lower this barrier to employment for PRS, available data suggest that these exceptions affect relatively few job applicants. DBHDS data indicate that, in 2017, only five job applicants to substance use or mental health programs had reviewable barrier crime convictions. Stakeholders suggested that the modest number of individuals able to take advantage of this pathway to employment likely reflects hesitation by those with barrier crimes to apply for jobs in substance abuse or mental health programs. Possible reasons include erroneous assumptions made by job applicants that a conviction for any barrier crime listed in statute will disqualify them from employment, as well

as the dissuasive nature of the external screening process which carries a financial burden (i.e., the job applicant has to pay for screening review), may be protracted, and holds a highly uncertain outcome.

Policy Options and Public Comment

Nine policy options were provided for consideration and no comments were received.

Option 1: Maintain Status Quo
 Option 2: Introduce a budget amendment to support the placement of Day Reporting Centers in 3 DOC probation and parole districts (Richmond City, Norfolk City, Buchanan/Tazewell) that experience the highest rates of positive opioid drug tests results and overdoses among individuals on state probation supervision, with the Day Reporting Centers offering non-pharmacological SUD treatment and recovery services as well as wraparound supports to offenders in need of initial or ongoing SUD services. DOC estimates an annual cost of \$660,000 per Day Reporting Center (\$1,980,000 total) DOC anticipates seeking funding for additional Recovery Support Navigators in 11 probation and parole districts
Option 3: Introduce a budget amendment to expand Project Link into 5 new CSB sites that have the highest rates of Neonatal Abstinence Syndrome (Mount Rogers, New River Valley, Northwestern, Horizon, Crossroads) DBHDS estimates an annual cost of \$100,000 each (\$500,000 total)
Option 4 : Introduce a budget amendment for 1 VDH FTE to align and coordinate information made available through State agencies on opioid use disorder treatment and recovery resources on the Curb the Crisis website
Option 5 Amended : Introduce legislation (Uncodified Act) requiring By Letter of the JCHC Chair, request that the Secretaries of HHR and PSHS to convene a workgroup that includes representatives of DBHDS, DHP, DMAS, VDH, DARS, DSS, DCJS, DOC, the Attorney General's Office, VSP and DVS to study the current alignment and coordination of information made available to the public through State agencies on substance use disorder treatment and recovery resources, making recommendations to the General Assembly and JCHC by November 1, 2019 on legislation and/or budget amendments required to improve alignment and coordination of SUD treatment/recovery resource information made available by State agencies Option 6 : Introduce legislation (Uncodified Act) requiring DBHDS to convene a workgroup that includes representatives of VDH, DHP,

	minimum comprehensive discharge planning standards for inpatient
	admissions with indication of a substance-use disorder, opioid
	overdose, or chronic addiction at all hospitals and free-standing
	Emergency Departments. The workgroup will report the outcomes
	of its activities to the JCHC by October 1, 2018 with recommended
	policy options
	Option 7 : Introduce legislation to amend Title 38.2 of the Code of
	Virginia to require that plans regulated by the Bureau of Insurance
	include as covered services for members diagnosed with
	a Substance Use Disorder: 1) SUD case management services
	a Substance Use Disorder. 1) SOD case management services
A again to SUD	piovided by DBHDS-incensed case management providers, and 2)
Access to SUD	Support services provided by Registered Peer Recovery
recovery services	Specialists, with reimbursement rates at least equivalent to those the
	plan has for case management/peer support services for non-SUD
	diagnoses (e.g., mental health diagnoses). For plans that do not
	currently cover case management and/or peer support services for its
	members, reimbursement rates would be at least equivalent to those
	provided by the Medicaid ARTS benefit.
	Option 8 : Introduce legislation to amend Title 37 of the Code of
	Virginia to limit the duration of the barriers to employment
	eligibility of barrier crimes listed in § 37.2-506 and § 37.2-416 to:
	• Option 8a: 5 years for all crimes; OR
	• Option 8b: 5 years for crimes that currently are of limited
	duration (possession of controlled substances); 10 years for
	all other crimes
	OR
	Option 9 : Introduce legislation to amend Title 37 of the Code of
Health Workforce –	Virginia to:
Peer Recovery	• Remove all barrier crimes listed in § 37.2-506 and § 37.2-
Specialists	416; and
L.	Require DBHDS to: 1) develop agency-specific barrier crime
	regulations through Administrative Code that balance public
	safety/health concerns with maximizing access to qualified SUD
	service providers: 2) summarize its rules to the JCHC by October 1.
	2019: 3) include data on the outcomes of candidates
	with barrier crimes $-$ including the number of candidates
	disqualified in that SFY because of harrier crimes: the number of
	candidates with harrier crimes that were not discualified in that
	SEV: and a characterization of the types of herrier crimes in either
	si in ita annual reporta thereafter
	case – in its annual reports thereafter.

Subsequent Actions by the Joint Commission on Health Care

During the Joint Commission's 2018 Decision Matrix meeting, JCHC members voted to take action on two policy options:

- Option 2: Introduce a budget amendment to support the placement of Day Reporting Centers in three DOC probation and parole districts (Richmond City, Norfolk City, Buchanan/Tazewell), with the Day Reporting Centers offering non-pharmacological SUD treatment and recovery services as well as wraparound supports to offenders in need of initial or ongoing SUD services.
- Option 5 (member-amended): By Letter of the JCHC Chair, request that the Secretaries of HHR and PSHS to convene a workgroup that includes representatives of DBHDS, DHP, DMAS, VDH, DARS, DSS, DCJS, DOC, the Attorney General's Office, VSP and DVS to study the current alignment and coordination of information made available through State agencies on substance use disorder treatment and recovery resources, making recommendations to the General Assembly and JCHC by November 1, 2019 on legislation and/or budget amendments required to improve alignment and coordination of SUD treatment/recovery resource information made available by State agencies.

The Budget amendment language was not included in the final budget (HB 1700, Chapter 854); however, the Secretary of Health and Human Resources and the Secretary of Public Safety and Homeland Security have created the requested work group and are on schedule to provide a report to the JCHC and the General Assembly by November 1, 2019.

JCHC Staff for this Report

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^{iv} Tobacco Use Disorders are not a focus of this report.

^v While hourly rates for PRS vary from employer to employer, a national PRS compensation analysis found average PRS compensation to be \$14.72/hour in neighboring States and \$15.42/hour nationally (ranging from approximately \$13.50 - \$17.75). In Virginia, Medicaid reimburses Medicaid providers for peer support services delivered by PRS

ⁱ Criteria for a severe SUD diagnosis are met if at least six of the following symptoms are present: taking the substance in larger amounts or for longer than you're meant to; wanting to cut down or stop using the substance but not managing to; spending a lot of time getting, using, or recovering from use of the substance; cravings and urges to use the substance; not managing to do what you should at work, home, or school because of substance use; continuing to use, even when it causes problems in relationships; giving up important social, occupational, or recreational activities because of substance use; using substances again and again, even when it puts you in danger; continuing to use, even when you know you have a physical or psychological problem that could have been caused or made worse by the substance; needing more of the substance to get the effect you want (tolerance); development of withdrawal symptoms, which can be relieved by taking more of the substance.

ⁱⁱ These datapoints draw upon the Treatment Episode Data Set (TEDS). TEDS data include records for approximately 1.5 million substance abuse treatment admissions from facilities that receive State alcohol and/or drug agency funds. Facilities excluded from TEDS include: those not licensed through the State substance abuse agency (e.g., private for-profit agencies, hospitals, State correctional system) and facilities operated by Federal agencies (the Bureau of Prisons, the Department of Defense, and the Veterans Administration).

ⁱⁱⁱ A meta-analysis of seven of NIDA's 13 principles of drug addiction treatment found that five are supported by evidence (Pearson et al, 2012).

at \$26 / hour for individual-level peer support and \$10.80 / hour / individual for group-level peer support (with a maximum of 10 individuals / group). According to a DMAS analysis, \$26/hour for individual peer support would allow for a 46% overhead for the Medicaid provider to pay the PRS \$17.75/hour (67% overhead for the Medicaid provider to pay the PRS \$17.75/hour (67% overhead for the Medicaid provider to pay the PRS \$17.75/hour (67% overhead for the Medicaid provider to pay the PRS \$17.75/hour (67% overhead for the Medicaid provider to pay the PRS \$17.75/hour (67% overhead for the Medicaid provider to pay the PRS \$17.75/hour (67% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (57% overhead for the Medicaid provider to pay the PRS \$17.75/hour (

^{vi} Federal Code (42 U.S. Code § 3796ff–1(C)) defines specific requirements of an "aftercare component" (e.g., coordination of correctional facility treatment program with other human service and rehabilitation programs, such as educational and job training programs).

^{vii} Clients with a SUD disability who are likely to be complex cases are usually served by generalist Counselors. These data alone are therefore limited in indicating the degree to which differences in case outcomes is due to being served by specialists versus other factors.

^{viii} While Disability Navigator is not a State agency, it is cross-referenced on State agency websites and is part of a suite of websites that serves as the technological platform for the Virginia's No Wrong Door program administered by DARS.

^{ix} Specifically: of all SUD resources, fewer than 19% are listed by three sources, 30% are listed by two sources, and 51% are listed by one source; excluding CSB listings, 10% are listed by three sources, 31% are listed by two sources, and 60% are listed by one source.

^x Cost-effectiveness analyses compare non-monetized outcomes of interventions – such as reduced substance use – to the relative costs of those interventions. Cost-benefit analyses compare monetized outcomes of interventions – such as reduced costs of imprisonment due to SUD-related incarceration – to the relative costs of those interventions.

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Appendix

Table 9. Overview of SUD Recovery Programs in Virginia

SUD Program	Focus Population	Oversight Agency	Date of inception	Funding source	SUD Service			Casaranhia	
					Clinical*	Recovery**	Wrap- around [†]	Coverage	Notes
Substance Abuse	Individuals with	DARS /	1988	Public			Х	19	
Vocational	significant barriers	DBHDS		(State/				Counselors	
Rehabilitation	to employment			Federal)				statewide	
Counselors									
Peer support services	General	DBHDS	2017	Public		Х		Statewide	OPT-R
(SUD Warmlines)	population			(Federal)					grant-
									funded
Peer support services	General	DBHDS	2017	Public		Х		6 hospitals	OPT-R
(ED-based Peer	population			(Federal)					grant-
Recovery Specialists)									funded
Permanent	Pregnant /	DBHDS	2019	Public			Х	Up to 75	
Supportive Housing	parenting women		(anticipated)	(State/				women	
				Federal)				statewide	
Project Link	Pregnant /	DBHDS	1992	Public	Х		Х	9 CSB	Links
	parenting women			(State/				regions	women to
				Federal)					clinical Tx
Project Link for	Pregnant /	DBHDS	2017	Public	Х	Х	Х	9 CSB	SAMHSA
Pregnant and Post-	parenting women			(Federal)				regions	pilot grant
Partum Women								(same as	
								above)	
Recovery housing	General	DBHDS	1990	Public			Х	~ 1,065 beds	DBHDS
(Oxford House	population			(Federal)				statewide	supports
model)									admin
									costs
Model Addiction	Justice-involved	DCJS	2017	Public	Х	Х	Х	4 jails	
Recovery Programs	population			(local/					
				State)					

	Focus Population	Oversight Agency	Date of inception	Funding source	SUD Service			Communitie	
SUD Program					Clinical*	Recovery**	Wrap- around [†]	Coverage	Notes
Residential Substance	Justice-involved	DCJS	1994	Public	Х	Х	Х	1 jail; DOC	
Abuse Treatment	population			(State/				(1 grant)	
Program				Federal)					
Housing/employment	Medicaid (high-	DMAS	2019	Public			Х	Statewide	Part of
supports	need beneficiaries)		(anticipated)	(State/				(phased-in	Medicaid
				Federal)				regionally)	expansion
Clinic-based	Medicaid	DMAS	2016	Public	Х		Х	Statewide	ARTS
treatment programs*	members			(State/					benefit
				Federal)					
Clinic-based	Non-Medicaid	N/A	N/A	Private	Х		Х	Statewide	Services
treatment programs [*]	population			(insur-					covered
				ance;					vary by
				self-pay)					insurer
Peer support services	Medicaid	DMAS	2016	Public		Х		Statewide	ARTS
	members			(State/					benefit
				Federal)					
Peer support services	Non-Medicaid	N/A	N/A	Private		Х		Statewide	
	population			(insur-					
				ance;					
				self-pay)					
Therapeutic	Justice-involved	DOC	1994	Public	Х	Х		2 facilities	
Communities	population			(State)					
Community	Justice-involved	DOC	2017	Public	Х	Х	Х	Statewide	3 provide
Corrections	population			(State)					intensive
Alternative Programs									SUD Tx
Day Reporting	Justice-involved	DOC	1993	Public	Х	Х	Х	12 Probation	Program
Centers (discontinued	population			(State)				and Parole	closed in
in 2008)								districts	2009

SUD Program	Focus Population	Oversight Agency	Date of inception	Funding source	SUD Service			Casarankia	
					Clinical*	Recovery**	Wrap- around [†]	Geographic Coverage	Notes
Prison MAT pilot	Justice-involved population	DOC / DBHDS	2018	Public (State)	X	X	х	3 Probation and Parole districts	
Vocational/job training	Individuals with significant barriers to employment	DSS	1999	Public (local / State/ Federal)			х	Statewide	
Recovery housing and/or Recovery Support Organizations	General population	N/A	N/A	Private		X	Х	Statewide	
Mutual support/12- step groups	General population	N/A	N/A	Private / free		Х		Statewide	
Drug Treatment Courts	Justice-involved population	Supreme Court	2004	Public (local / State/ Federal)	X	X	X	38 Courts statewide	

* Examples: MAT, psychotherapy, etc. provided in inpatient/residential, outpatient clinics, etc.

** Examples: peer support, mutual support groups, recovery housing

† Examples: case management, vocational rehabilitation

Figure 13. WSIPP's Decision Tree for Evidence-Based, Research-Based, and Promising Practices Inventories



*Considered promising if based on a logic model or well-established theory of change. RCW 71.24.025

Source: Cramer et al. (2018)