

# STATE MODELS FOR ADDRESSING OPIOID USE DISORDERS:

## *Recovery Support in Integrated Care Settings*



NATIONAL  
COUNCIL  
for Mental  
Wellbeing

### CENTER OF EXCELLENCE

### for Integrated Health Solutions

*Funded by Substance Abuse and Mental Health Services Administration  
and operated by the National Council for Mental Wellbeing*

 **NASADAD** National Association of  
State Alcohol and Drug Abuse Directors

# ACKNOWLEDGEMENTS

This paper was written for the Center of Excellence for Integrated Health Solutions. The authors wish to acknowledge the Single State Agency (SSA) alcohol and drug service staff that contributed to its contents. Specifically, we would like to acknowledge Linda McCorkle, director of treatment and recovery services for the Tennessee Department of Mental Health and Substance Abuse Services, and Ivan Bhardwaj, branch chief of the community services division for the California Department of Health Care Services, for providing insight and expertise that greatly assisted this effort. This document was prepared by Jose Silva, MPH, MSW, research analyst, and Melanie Whitter, deputy executive director, National Association of State Alcohol and Drug Abuse Directors (NASADAD).



## CENTER OF EXCELLENCE for Integrated Health Solutions

*Funded by Substance Abuse and Mental Health Services Administration  
and operated by the National Council for Mental Wellbeing*



*This report was supported by the National Council for Mental Wellbeing's Center of Excellence for Integrated Health Solutions and funded by a grant award from the Substance Abuse and Mental Health Services Administration and managed by the National Council for Mental Wellbeing. The views, opinions and content expressed in this presentation do not necessarily reflect the views, opinions or policies of the Center for Mental Health Services, the Substance Abuse and Mental Health Services Administration or the U.S. Department of Health and Human Services.*

# OVERVIEW

For the last three decades, the United States has been struggling with an [opioid epidemic that has occurred in three waves](#). The first began in the late 1990s with increased prescribing of opioids for pain. The second started around 2010 when the country saw an increase in heroin use and deaths. The third wave began in 2013 with significant increases in drug overdoses and deaths from synthetic opioid use, particularly illicitly manufactured fentanyl. [Data from 2020](#) indicates that nearly 75% of the nation's 91,799 drug overdose deaths involved synthetic opioids, a shift that is consistent with **trends indicating a worsening drug overdose epidemic**.

As the epidemic evolves, states have sought more effective solutions to reduce and treat opioid use disorders (OUD) and prevent overdose. [Integrated care models](#) offer an effective solution; a **research-based approach** to manage chronic conditions like OUD, enhancing access to care and ensuring clients receive individualized services. OUD is a chronic relapsing condition that necessitates integrated forms of health and social service provisions to improve continuity of care.

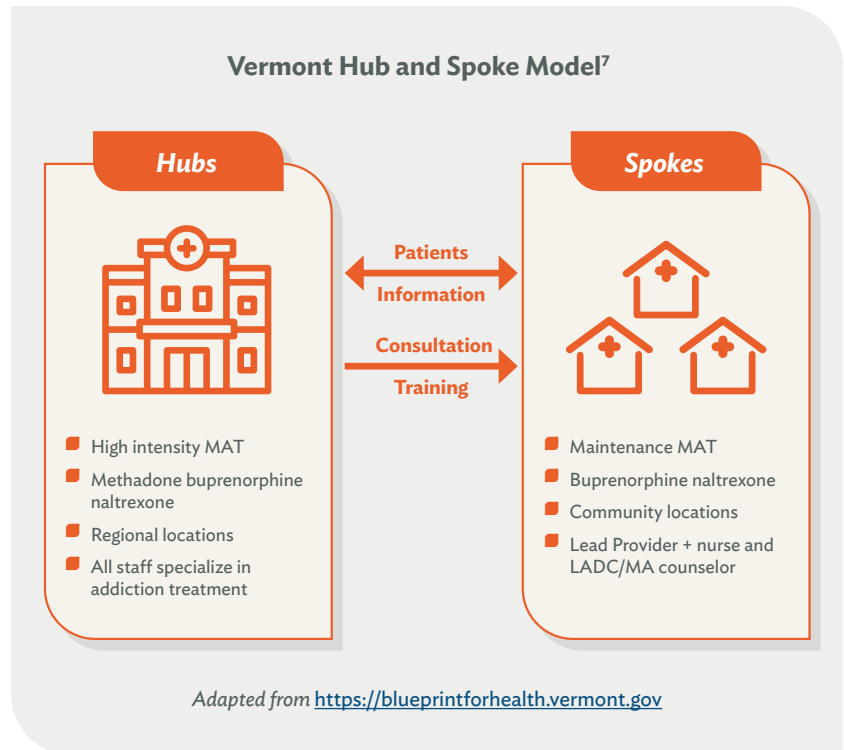
Too often, OUD treatment providers function in isolation from other health care sectors. The opioid epidemic further highlighted the need for more integrated service delivery among opioid treatment programs (OTPs), Drug Addiction Treatment Act of 2000 (DATA 2000) practices, mental health and substance use treatment programs and primary care settings. Research has shown that individuals with OUD benefit most from an integrated and comprehensive system of care.

This issue brief will address two integration approaches that are implemented by states to improve clinical and recovery outcomes for individuals with OUD, the “hub and spoke” and “bridge” models. Both leverage recovery support services that assist individuals and families working toward recovery from substance use challenges through a spectrum of general health, mental health, social, legal and other services. [Recovery support services](#) provide assistance in engaging clients in comprehensive care, through their valuable role in supporting a client's general health and wellbeing and by helping clients live self-directed lives.



# HUB AND SPOKE MODEL

In the early 2000s, [prescription painkillers fueled an opioid epidemic](#) in the State of Vermont. Due to the increased misuse of prescription opioids and limited provider capacity, Vermont began experiencing challenges meeting the demand for OUD treatment services. Shortages in these services signaled the need for [a new model of OUD care](#) across the state and the Vermont Hub and Spoke opioid network was created. This [integrated care model establishes a system to treat OUD](#) that is similar to treatment of other chronic illnesses. It was first developed by John Brooklyn, M.D., a family medicine doctor, certified in addiction medicine and medical director of Opioid Treatment Programs in the State of Vermont. The [hub and spoke model](#) combines specialty clinical settings that provide access to medications for OUD and behavioral therapies as the hubs with a network of general medical settings that provide office-based opioid treatment (OBOT) as the spokes.



Hubs typically dispense methadone, buprenorphine and naltrexone; provide assessment and treatment services; and offer wrap-around medical, vocational, educational and mental health services either onsite or by referral. Examples of hub settings can include:

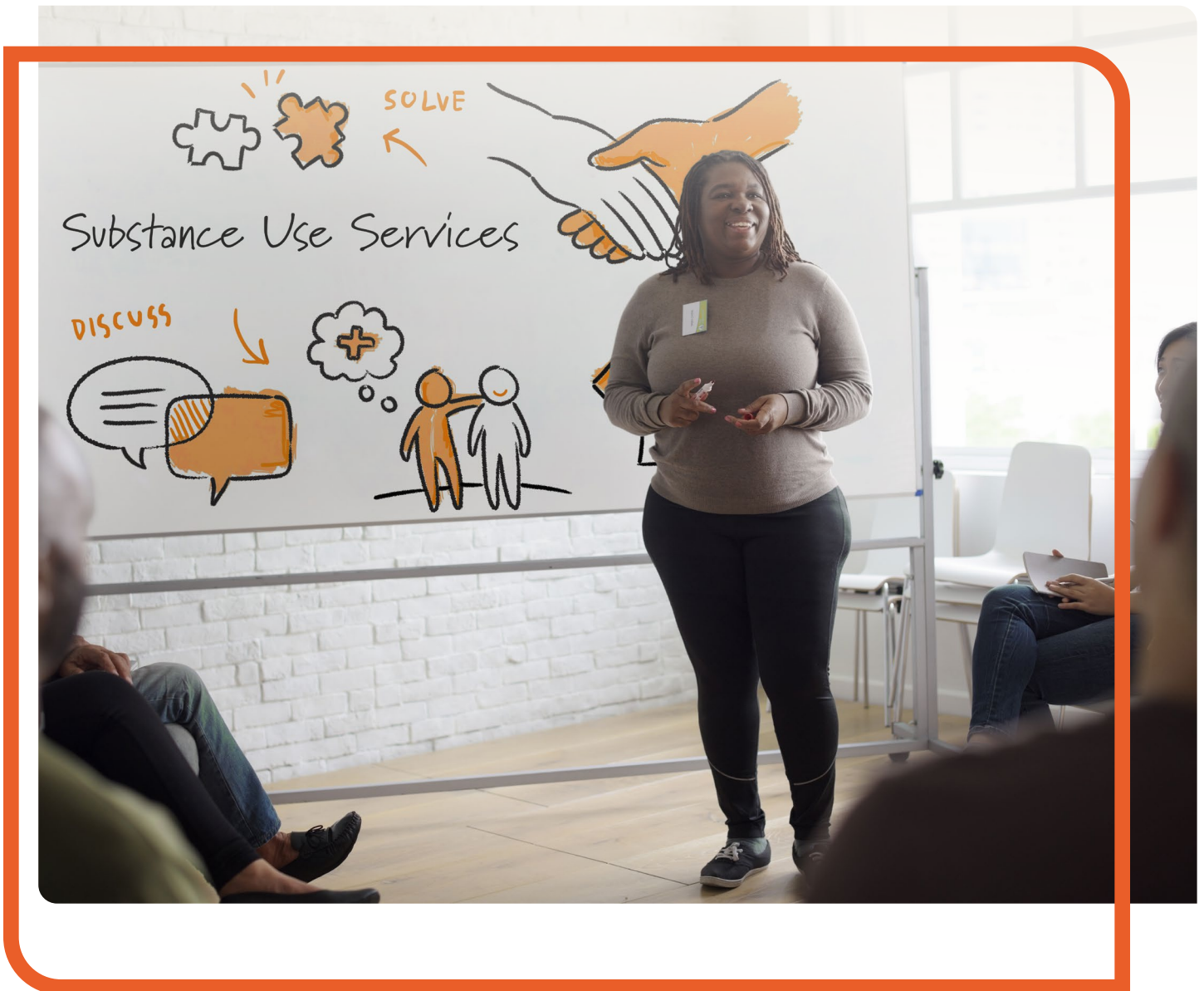
- Hospital emergency departments
- Substance use disorder (SUD) residential treatment programs
- Corrections institutions
- Federally Qualified Health Center (FQHC) or other health centers
- Mental health and substance use treatment programs

In the spokes, ongoing OUD treatment and recovery support services are fully integrated with general health care and wellness services. [Some of these services](#) may include medication management, coordination of recovery supports, counseling, contingency management and case management services. Spoke providers and practices can be comprised of:

- Prescribing physicians
- Nurses
- Peer support specialists
- Counselors
- Primary care offices
- Obstetricians-gynecologists (OB-GYNs)
- Independent psychiatrists
- Outpatient SUD treatment providers
- FQHCs
- Tribal health centers
- Community mental health centers

The success of Vermont’s Hub and Spoke model has served as a blueprint for other states. These cross-network collaborations have improved the ability to integrate and provide wrap-around recovery support services within OBOTs and other appropriate settings. Adopting this model has been associated with significant increases in the state’s OUD treatment capacity. [Results of a retrospective review indicated that between 2012- 2016](#), there was a 64% increase in physicians waived to prescribe buprenorphine, a 50% increase in clients served per waived physician and bidirectional transfers of clients between hubs and spokes based upon clinical need. [Recent data indicated similar trends](#) with 10,741 individuals between the ages of 18-64 receiving MOUD in 2019 – more than double the 4,655 recipients in 2012.

Many states have adopted this OUD-focused model of care, allowing them to expand services and support long-term recovery from an OUD. By implementing a hub and spoke model for OUD treatment, many states have increased the number of providers, delivered more appropriate tailored services and enhanced the overall capacity for care and sustained recovery.



# STATE EXAMPLE

## The Tennessee Hub and Spoke System

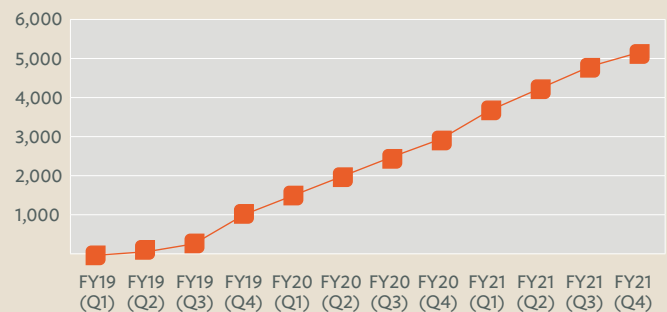
In 2018, with the award of the Tennessee Department of Mental Health and Substance Abuse Services (TDMHSAS) first State Opioid Response (SOR) grant, the state sought to improve their clinical treatment and recovery support system for individuals with OUD. After researching various models of care and identifying the state's highest areas of need, TDMHSAS selected the hub and spoke model and established four regional networks to implement it. Within the networks, the hubs serve as regional specialty treatment centers that provide the [health homes model](#), which integrates physical health, mental health, substance use treatment and social support services, providing team-based care coordination between a network of providers for Medicaid beneficiaries. The selected hubs included an OTP, a clinical treatment and recovery services provider, an FQHC and a hospital with MOUD access and SUD treatment services. Spokes included clinics in the community that provide MOUD and recovery support services.

By implementing the hub and spoke model, Tennessee sought to provide holistic services. Individuals are provided MOUD, clinical treatment, recovery support (e.g., job training, education) and general health services. This approach was made possible by integrating pathfinders and recovery life coaches in each one of their hub networks. These positions require a minimum of a bachelor's degree or education and experience equivalent to the responsibilities of the position, as well as training on alcohol, tobacco, and/or other substance use. Pathfinders help individuals navigate and obtain services to address barriers to independence and recovery and ensure that individuals are referred to appropriate MOUD, treatment services and social supports (e.g., housing and food assistance). Recovery life coaches can be someone with lived experience, but it is not required. In addition to encouraging individuals to envision a new life rooted in recovery, recovery life coaches provide a range of case management and support for primary care, dental, employment skills training, health and wellness services, transportation, relapse prevention services and recovery housing.

### SYSTEMS IMPACT

Through 2021, [hub and spoke providers](#) in Tennessee have delivered MOUD and recovery support services to **5,154** individuals statewide. The network hubs have reached clients residing in 90 of Tennessee's 95 counties, including nine of 11 rural designated counties with low population densities, limited health infrastructure and elevated risk for health disparities.

New Clients Enrollment by Quarter n=5,154<sup>12</sup>

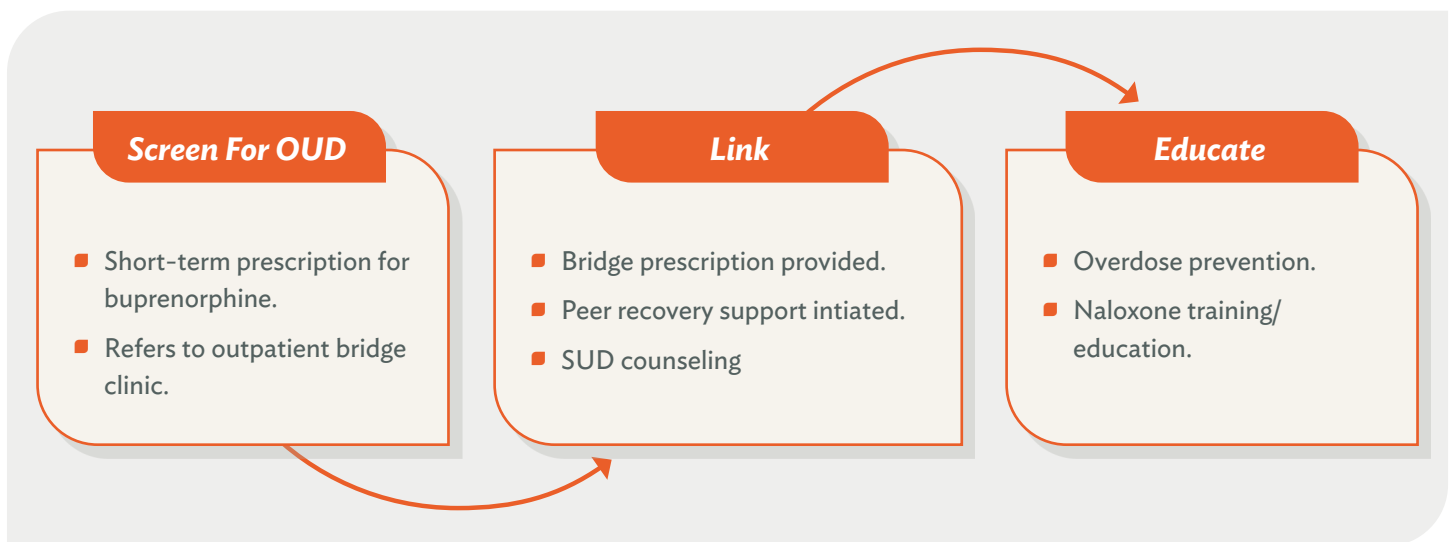


Adapted from <https://www.tn.gov/behavioral-health.html>

## THE BRIDGE MODEL

Transitions in care after hospitalization can be complex and difficult to navigate. Due to high readmission rates among older adults and inadequate care coordination across medical and social services, the Health & Medicine Policy Research Group and additional health care agency partners joined in 2008 to develop and implement the [Bridge Model of Transitional Care](#). Utilizing an interdisciplinary framework centered on intensive case management to provide continuity of care, the bridge model was designed as a social work-based intervention to assist individuals safely transition from hospitals to their homes and other social services in the community. This model of care has since been adopted by many states' hospital emergency departments (EDs) and prehospital emergency care to help initiate treatment for individuals with OUD.

The [bridge model](#) initiates care for individuals with OUD who present to a hospital ED after experiencing an overdose or other medical problems due to opioid use. The goal of bridge programs is to use the time spent in the hospital to engage the individual in treatment and provide access to treatment and recovery support services. [Studies conducted in EDs](#) have shown that buprenorphine initiation for OUD was associated with increased treatment engagement and retention. In these programs, the ED prescribing physician screens clients for OUD, provides a short-term prescription for buprenorphine and refers the client to a bridge clinic in the hospital or community. Bridge clinics prescribe MOUD, provide peer support, SUD counseling and ongoing treatment that is immediately accessible following discharge from the ED.



Bridge clinics provide a range of comprehensive services to individuals, including:

- MOUD
- Medication management
- Counseling
- Nurse care navigation
- Recovery support services
- Overdose prevention and naloxone training

Peer recovery support specialists provide valuable assistance in engaging clients in the hospital, connecting them to bridge clinics and providing ongoing recovery support. Many states have implemented the bridge model due to its success in rapid, low-barrier access to MOUD.

# STATE EXAMPLE

## The California Bridge Program

The California Department of Health Care Services (DHCS) implemented the [California \(CA\) Bridge program](#) in February 2018 – launching at 52 hospitals with a grant from the [MAT \(Medication-assisted Treatment\) Expansion Project](#). Key elements of the CA Bridge model include a low-threshold buprenorphine treatment, active client navigation from ED care to outpatient treatment and recovery support and harm reduction interventions that include overdose education and naloxone distribution.

Implementation at each hospital is led by a multidisciplinary team that includes at least one provider champion and a navigator. A provider champion may be self-selected or recruited by leadership and is usually a clinical provider who specializes in addictions. Hospital department champions may include an obstetrician; hospitalist; surgical specialist, including pediatrics and cardiology; and outpatient bridge clinic partners. Provider champions receive in-person trainings on buprenorphine treatment, harm reduction and implementation strategies. Their duties include supervising the navigators, training colleagues and removing administrative barriers.

Navigators are a vital component of the CA Bridge program, as they build strong relationships with incoming clients and collaborate closely with recovery support providers. Although not a requirement, navigators can be peers from the community, often with lived experience of their own or a family member. Navigators may be certified drug and alcohol counselors or licensed clinical social workers, but their most important skills are being nonjudgmental, energetic and positive. Navigators are trained to use a strength-based harm reduction approach that incorporates motivational interviewing and reduces stigma and discrimination. To build a system of individualized care, they advocate for their clients and provide a variety of services that may include obtaining insurance, arranging follow-up appointments, finding transportation and addressing other challenges, such as homelessness. A strong collaboration between the provider champion and navigator is critical to the development and sustainability of each bridge program.

### SYSTEMS IMPACT

Through 2021, the CA Bridge program has extended its network to 208 health care facilities statewide.

#### CA Bridge Program Outcomes: 2021

**48,000**

*Clients connected  
with navigators in EDs*

**24,191**

*Clients identified  
with OUD*

**10,471**

*Clients prescribed MOUD  
during initial encounter*

In 2022, the CA Bridge program received a new state appropriation of \$40 million and plans to launch a CA Bridge navigator program that will enable 330 hospital EDs to provide 24/7 high-quality care to people with SUD.





## WHAT CAN WE LEARN FROM THESE MODELS?

The often-chronic nature of an OUD requires [integrated service models](#) that can remove access barriers and improve service quality. The hub and spoke and bridge models offer integrated and comprehensive care delivery by connecting individuals in primary care to specialty SUD treatment and recovery support services (RSS). These models are similar to those used to treat other chronic conditions, such as diabetes or hypertension, that require evidence-based medications and a team approach to care. Another important and noteworthy aspect of the models and state examples highlighted in this paper is the inclusion of RSS to initiate and support long-term recovery from an OUD. The hub and spoke and bridge models offer key learnings for states seeking to expand and improve their services for individuals with an OUD, which include:

- **An integrated network increases system capacity to treat OUD.** Establishing networks increases the number of primary care, specialty SUD and RSS providers that are available to intervene during an acute episode, provide treatment and sustained recovery support services. Through integrated networks, professional development opportunities can also be offered to providers to address the training needs of the workforce.
- **MOUD is critical to treating OUD.** Medications are an effective tool to stabilize clients – allowing connections to other services such as mental health therapies and substance use recovery supports. Access to low-threshold MOUD is particularly important to reduce barriers, such as lengthy assessments or treatment planning prior to initiating MOUD.
- **Comprehensive care improves client experience and health outcomes** by addressing the holistic needs of clients with OUD. Clients are offered an array of tailored services including MOUD, counseling, case management and peer support, eliminating the need for numerous care transitions. Through comprehensive models, clients receive coordinated attention to substance use, medical, psychiatric and social problems. Additionally, providers are able to share data in an efficient, effective way that improves client outcomes.
- **Multidisciplinary teams provide the expertise** required to meet individuals' wide ranging and complex needs. Team members may include clinical SUD treatment providers, recovery coaches, peer recovery support specialists, navigators, hospitalists and surgical specialists (e.g., pediatric cardiology). Teams provide direct services, coordinate care and deal with issues such as managing insurance claims.
- **Recovering support services greatly enhances care** for individuals with an OUD. RSS are essential to engage individuals, connect them to services, assist with transitions and support their recovery. Peer support specialists, recovery coaches and navigators provide assistance with scheduling appointments, assistance with basic necessities (e.g., housing, transportation, job attainment) and recovery goal achievement. Peer-based recovery support services help to reduce client stigmatization, foster hope and support long-term recovery.

The hub and spoke and bridge models serve as two successful examples of integrated models that incorporate RSS to address OUD. Based on their success, they are increasingly being implemented and adapted by states to create additional entry points and safety net structures to treat and support recovery for individuals with OUD.

# REFERENCES

- Brooklyn, J. R., & Sigmon, S. C. (2017). Vermont hub-and-spoke model of care for opioid use disorder: Development, implementation, and impact. *Journal of Addiction Medicine*, 11(4), 286–292. <https://doi.org/10.1097/ADM.0000000000000310>.
- Centers for Disease Control and Prevention. (2022, June). *Understanding the opioid overdose epidemic*. U.S. Department of Health and Human Services. <https://www.cdc.gov/opioids/basics/epidemic.html>.
- Center for Health Care Strategies and Mathematica. (2022). *Medicaid health homes: An overview*. Centers for Medicare & Medicaid Services. <https://www.medicaid.gov/state-resource-center/medicaid-state-technical-assistance/health-home-information-resource-center/downloads/hh-overview-fact-sheet.pdf>.
- Medicaid Innovation Accelerator Program. (2019, April). *Collaborative models for medication-assisted treatment: Key elements of Vermont's hub-and-spoke system*. <https://www.medicaid.gov/state-resource-center/innovation-accelerator-program/iap-downloads/reducing-substance-use-disorders/mat-key-elements-vt.pdf>.
- State of Vermont. (n.d.). *Vermont Blueprint for Health*. <https://blueprintforhealth.vermont.gov/>.
- Jones, C. M., Logan, J., Gladden, R. M., & Bohm, M. K. (2015). Vital signs: Demographic and substance use trends among heroin users - United States, 2002–2013. *MMWR Morbidity and mortality weekly report*, 64(26), 719–725. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4584844/>.
- Langabeer, J. R., Champagne-Langabeer, T., Yatsco, A. J., O'Neal, M. M., Cardenas-Turanzas, M., Prater, S., Lubner, S., Stotts, A., Fadiel, T., Khraish, G., Wang, H., Bobrow, B. J., & Chambers, K. A. (2021). Feasibility and outcomes from an integrated bridge treatment program for opioid use disorder. *Journal of the American College of Emergency Physicians Open*, 2(2), e12417. <https://doi.org/10.1002/emp2.12417>.
- Martin, A., Butler, K., Chavez, T., Herring, A., Wakeman, S., Hayes, B. D., & Raja, A. (2020). Beyond buprenorphine: Models of follow-up care for opioid use disorder in the emergency department. *Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health*, 21(6), 257–263. <https://doi.org/10.5811/westjem.2020.7.46079>.
- Mattson, C. L., Tanz, L. J., Quinn, K., Kariisa, M., Patel, P., & Davis, N. L. (2021). Trends and geographic patterns in drug and synthetic opioid overdose deaths - United States, 2013–2019. *MMWR Morbidity and mortality weekly report*, 70(6), 202–207. <http://dx.doi.org/10.15585/mmwr.mm7006a4>.
- McGranahan, D. & Parker, T. (2021, April). *The opioid epidemic: A geography in two phases*. U.S. Department of Agriculture, Economic Research Service. [https://www.ers.usda.gov/webdocs/publications/100833/err-287\\_summary.pdf?v=458](https://www.ers.usda.gov/webdocs/publications/100833/err-287_summary.pdf?v=458).
- Tennessee State Government. (n.d.). *Welcome to the Tennessee Department of Mental Health and Substance Abuse Services*. <https://www.tn.gov/behavioral-health.html>.
- Murtagh, S., McCombe, G., Broughan, J., Carroll, Á., Casey, M., Harrold, Á., Dennehy, T., Fawsitt, R., & Cullen, W. (2021). Integrating primary and secondary care to enhance chronic disease management: A scoping review. *International Journal of Integrated Care*, 21(1), 4. <https://doi.org/10.5334/ijic.5508>.
- Shaw, W. S., Roelofs, C., & Punnett, L. (2020). Work environment factors and prevention of opioid-related deaths. *American Journal of Public Health*, 110(8), 1235–1241. <https://doi.org/10.2105/AJPH.2020.305716>.
- Stoller, K., Stephens, M., & Schorr, A. (2016, July 13). *Integrated service delivery models for opioid treatment programs in an era of increasing opioid addiction, health reform, and parity*. American Association for the Treatment of Opioid Dependence. <http://www.aatod.org/wp-content/uploads/2016/07/2nd-Whitepaper-.pdf>.
- Vermont Department of Health. (2021, April). *Medication assisted treatment in Vermont hubs and spokes quarterly report: 4th quarter 2020*. <https://www.healthvermont.gov/sites/default/files/documents/pdf/ADAP-MAT-HubSpoke-QuarterlyReport.pdf>.
- Xiang, X., Robinson-Lane, S. G., Rosenberg, W., & Alvarez, R. (2018). Implementing and sustaining evidence-based practice in health care: The bridge model experience. *Journal of Gerontological Social Work*, 61(3), 280–294. <https://doi.org/10.1080/01634372.2018.1445154>.