



Rural Opioid Prevention and Treatment Strategies: The Experience in Four States

John A. Gale, MS, Anush Y. Hansen, MS, MA, Martha Elbaum Williamson, MPA

BACKGROUND

Although opioid use rates are comparable in rural and urban counties, rural opioid users tend to be younger, unmarried, have lower incomes, and are more likely to lack health insurance, all vulnerabilities that may negatively impact their ability to seek treatment and recover.¹ Little is known about what states with large rural populations are doing to combat opioid use disorders (OUDs) in rural communities. In addition to the multiple socio-economic vulnerabilities of rural residents, the rural healthcare system is characterized by numerous resource, workforce, access, and geographic challenges that complicate the delivery of specialized care for OUDs in rural communities. The nature of the opioid crisis varies across rural communities and requires multifaceted, community-based strategies to address the problem. Based on interviews with key stakeholders in four states, this qualitative study identifies rural challenges to the provision of OUD prevention, treatment, and recovery services, and explores promising state and community strategies to tackle the opioid crisis in rural communities.

METHODS

Key informant interviews were conducted in Indiana, North Carolina, Vermont, and Washington State, with the overall objective of identifying strategies states and communities are taking to address OUDs in rural areas, and the challenges they face in doing so. A multi-disciplinary advisory panel was convened that included substance use experts from federal agencies, state government, and policy centers. With the panel's input, the study team selected the four states based on two main criteria: (1) evidence of significant rural opioid problems, and (2) a history of recent and ongoing significant initiatives or actions that included rural community interventions.

Key Findings

The rural opioid crisis is exacerbated by limited access to services, workforce shortages, low adoption of evidence-based prescribing guidelines, stigma, lack of collaboration, and the economic challenges of developing sustainable services in low-volume environments.

Rural community-based engagement and partnership strategies are essential to align the expertise and resources needed to address the complex problem of Opioid Use Disorders (OUDs).

A coordinated community system of care for OUDs must include prevention, treatment, and recovery services.

Washington's *Project ROAM* and Vermont's hub and spoke model provide strategies to improve access to services by integrating community providers in OUD systems of care.

Washington's Telepain Program and emergency department opioid prescribing protocols can promote the adoption of evidence-based prescribing guidelines and reduce the non-medical use of prescription opioids.



**Rural Health Research
& Policy Centers**

Funded by the Federal Office of Rural Health Policy
www.ruralhealthresearch.org

For more information about this study,
contact John Gale at
john.gale@maine.edu

View or download the [full report](#)

We interviewed four to six key informants in each state (N=22) between September 2015 and January 2016. Interviewees included state government and public health officials, clinicians, OUD professionals, prescription drug monitoring program representatives, and law enforcement officials. Interviews focused on each state's: rural opioid problems; OUD infrastructure; prescription drug monitoring program (PDMP); challenges in addressing rural opioid use and service gaps; state or community strategies; and perceived impact of their strategies on opioid use problems.

Interview data were analyzed within and across states for key themes. Relevant publicly available documents, including reports, data summaries, evaluation studies, and plans produced by state government, community agencies, and substance treatment and prevention programs were also reviewed. Data were synthesized and summarized to identify common rural themes and challenges, to describe promising strategies for addressing rural OUDs, and to recognize policy and practice implications.

FINDINGS

Rural Challenges to the Prevention and Treatment of Opioid Use Disorders

The following challenges to the prevention and treatment of OUDs in rural communities emerged from our interviews:

Workforce. Recruitment and retention difficulties make it difficult to maintain an adequate rural prevention and treatment workforce. These workforce shortages limit the development of comprehensive opioid and substance use treatment services. Rural communities frequently lack the critical mass of patients necessary to sustain an adequate substance use workforce.

Access. Timely access to substance use and mental health treatment services in rural areas is another continuing problem due to limited capacity and lack of specialized services. Patients must often leave their communities to obtain substance use care. The resulting

transportation and cost burdens can impede service use, especially those services that require daily encounters, such as methadone treatment.

Evidence-based prescribing. Many primary care and specialty providers practicing in rural areas are not fully informed about or do not use current evidence-based protocols for prescribing opioids. Interviewees expressed concern that negative publicity regarding prescribing practices may discourage rural primary providers from prescribing pain medications. Others noted that provider efforts to reduce opioid prescriptions can have a negative impact on providers' patient satisfaction ratings.

Stigma. The stigmatization of opioid use is an ongoing rural problem that takes many forms. The view of opioid use as a "moral failing" or criminal activity, rather than a chronic disease, is still common in many rural communities. Stigma discourages individuals from seeking treatment and contributes to local residents' perception of treatment programs as magnets that attract "addicts" to the community. It can also discourage legislators from developing programs and interventions necessary to address the opioid crisis. Although stigma is an issue in rural and urban communities, it has a disproportionate impact in rural areas given the social and environmental characteristics of rural communities and the lack of anonymity for the people who live in them.

Lack of Collaboration. Lastly, interagency collaboration to address opioid problems can be difficult in poorly-resourced rural areas. Respondents noted that substance use, mental health, and physical health systems have not worked well together in the past, making integration of care challenging.

Promising Strategies for Addressing Opioid Use in Rural Areas

The results of our interviews identified several promising strategies to OUD prevention and treatment that are relevant to rural areas. Key informants described strategies for addressing

the opioid crisis that span community-based prevention, harm reduction, treatment, and recovery. Specific state strategies that emerged include the following:

Engaging the Local Community to Address Opioid Issues, including Broad-based Coalitions. Focusing on the local community and its resources is a central tenet of a public health approach to addressing the current opioid crisis. *Project Lazarus* offers a model community engagement strategy that has been successfully adopted in rural communities throughout North Carolina and in other states.² This model takes a balanced approach to OUD treatment and support services to prevent overdose deaths, while providing responsible pain management to those in need.

Project Lazarus engages residents, schools, law enforcement, human services, hospitals, and medical providers and educates them about the local opioid problem and potential solutions. It helps build treatment resources for providers; enhances linkages between medical providers, pain programs, and substance use treatment services; works with state and local entities to better fund mental health services; and educates the public to combat stigma.

Using Telehealth to Support Primary Care Providers' Use of Buprenorphine to Treat OUD Patients. *Project ROAM (Rural Opiate Addiction Management)* represents a telehealth-based model to support buprenorphine services in rural communities. Developed through the collaboration of the University of Washington School of Medicine's (UW-SOM) Department of Family Medicine and Washington State University, the project was implemented in 2010 to support rural physicians prescribing buprenorphine. Funded by tobacco settlement money, it offered a "virtual" clinical grand rounds on buprenorphine and addiction issues as well as a training curriculum to meet the requirements for the Substance Abuse and Mental Health Services Administration's (SAMHSA) buprenorphine waiver. To further support rural physicians, *Project ROAM* paired course participants and instructors in

a mentoring relationship, provided practice management consultation on billing issues, use of clinical protocols and reporting forms, and staff training. Participants could also present challenging cases and obtain feedback from the group. The sustainability of *Project ROAM* and similar initiatives depends on grant funding, as the service is not third party reimbursable.

Encouraging Rural Prescribers to Adopt Evidence-based OUD Prescribing Guidelines to Treat Chronic Pain. Lacking specialty pain management training, many rural providers are not aware of, or do not adhere to the latest evidence-based opioid prescribing guidelines. To address this problem, the UW-SOM's Division of Pain Management developed a "TelePain" program to increase primary care providers' pain management and opioid prescribing skills. The program includes weekly videoconferences using pain management specialists, including didactic presentations, case presentations from community clinicians, interactive consultations with pain specialists, and the use of measurement-based clinical instruments to assess treatment effectiveness and outcomes. According to key informants, the TelePain Program increases community providers' access to educational and consultative support for pain management, improves patient outcomes, and enhances patient and provider satisfaction. Sustainability is an issue as the program relies on grant funds for support and is not third party reimbursable.

Implementing Hospital Emergency Department (ED) Protocols to Manage Access to Opioids. In 2008, the Washington State Department of Health established an interagency workgroup to develop guidelines for opioid prescribing in EDs. Members were recruited from state agencies; emergency, pain, and addiction providers; health plans; law enforcement; public health; and the UW-SOM. The resulting guidelines included limitations on the prescription of opioids in EDs and the concept of an "oxy-free zone" (in which the ED would limit prescribing of the class of drugs that include OxyContin and replacing lost or stolen opioid prescriptions). The initiative has helped

to reduce the rates of ED visits by “frequent users” seeking opioid prescriptions by individuals with low-acuity diagnoses.³ The Medicaid program has estimated ED savings in their non-managed care population at \$33.6 million. Interviewees noted that hospitals were pleased with this strategy but some experienced early reductions in patient satisfaction scores related to pain management.

Supporting Community Buprenorphine Prescribers through Hub and Spoke Models.

Stakeholders across the four states reported problems in accessing methadone treatment services in specialty outpatient treatment programs (OTP) or buprenorphine services in primary care and other settings. Primary care-based buprenorphine treatment is widely promoted as an evidence-based model for rural communities as buprenorphine has a lower abuse potential than methadone and can be prescribed by primary care and other physicians that obtain the appropriate SAMHSA waiver.

Under its Blueprint for Health framework, Vermont has collaborated with local health, addiction, and mental health providers to implement the statewide Care Alliance for Opioid Treatment initiative, a comprehensive system that includes medication-based treatment, behavioral support, and recovery services. Using a “hub and spoke model,” this initiative has:

- Designated regional specialty treatment centers as the “hubs” responsible for coordinating the care of individuals with complex OUDs and co-occurring substance use and mental health disorders. Hubs provide a full range of OUD care and support community providers by providing consultative support to primary care and other providers prescribing buprenorphine.
- Designated physicians prescribing buprenorphine and collaborating health and addictions professionals to serve as “spokes”. Community-based spoke

providers dispense buprenorphine, monitor adherence to treatment, coordinate access to recovery supports, and provide counseling, contingency management, and case management services.

- Adopted Vermont’s Community Health Team model to offer in-office supports to spoke physicians through embedded clinical staff. These staff provide health home services, including clinical and care coordination support to individuals receiving buprenorphine.
- Expanded access to methadone treatment by opening a new service in southwest Vermont and supporting providers to serve all appropriate patients who were on waiting lists.

With the implementation of this initiative, Vermont has increased the number of physicians certified to prescribe buprenorphine and willing to treat opioid patients. Key informants report that some primary care practices have doubled the number of patients they will carry for treatment. According to key informants, preliminary Medicaid data show that the quality of care has increased, even in rural areas.⁴ They attribute their success to additional staffing and support provided by the community health teams and improved access to specialty substance use support and treatment services.

Harm-Reduction Strategies. The rapid spread of HIV and HCV in rural Scott County, Indiana due to injection drug use highlights the importance of needle exchanges as a harm reduction strategy for injection drug users. Public health stakeholders in Indiana stressed the important role of expanding access to clean needles through needle exchanges in reducing the spread of HIV and HCV among injection drug users in Scott County.^{5,6} Since 2015, needle exchanges have also been implemented in Madison and Monroe Counties and another 20 counties are exploring their development based on local injection drug use.⁶ Public health stakeholders have noted a number of implementation issues that can hinder the

effectiveness of needle exchanges. These include inadequate funding to support the purchase of sterile needles by the exchange, requirements that injection-drug users register with their initials and date of birth to obtain needles, limited operating hours, and the ongoing prosecution of unregistered injection-drug users for carrying syringes. Indiana’s experience in implementing needle exchanges provides important lessons for other states interested in adopting this important harm reduction strategy.

Developing Models to Support Recovery and Reduce Relapse in Rural Communities.

Interviewees emphasized the importance of recovery services to support individuals with opioid issues after treatment. The Vermont Recovery Network offers a model that can be adopted in rural communities. The Network’s 11 Turning Point Recovery Centers are supported with state and SAMHSA grant funds and serve communities across the state. The Network provides facilitation, oversight, and basic infrastructure, and facilities are “local, consumer driven, non-residential programs which provide peer supports, sober recreation activities, volunteer opportunities, community education, and recovery support services.”⁶⁷

Recovery Centers provide non-clinical services to assist people with substance use disorders to find employment, housing, and other needed social services. Some centers also offer services and groups that target specific populations (e.g., youth and adolescents, veterans, parents of youth with substance use disorders, individuals undergoing MAT or drug court, and individuals with co-occurring disorders) or certain aspects of recovery.⁸ The centers also offer social and recreational programming, parenting skills training, and writing groups.

IMPLICATIONS FOR POLICY AND PRACTICE

The complexity of opioid use in rural communities calls for community-based organizing and engagement strategies that tap into the expertise of local, rural stakeholders to reduce OUDs and related harms. Although

discussions of OUD treatment often focus on the expansion of buprenorphine use as an important rural strategy, traditional substance use treatment, mental health, and care coordination services are equally important treatment strategies. Prevention strategies to reduce OUDs, harm reduction initiatives to reduce overdose deaths and exposure to bloodborne infectious diseases, and recovery resources to support individuals in maintaining the gains made during treatment are critical components of substance use systems of care. Additional research and funding are necessary to expand and tailor prevention, harm reduction, treatment, and recovery strategies to the unique needs of rural communities. Federal and state governments and foundations can make important contributions to addressing the opioid crisis in rural communities by funding evidence-based strategies and programs, providing or expanding access to evidence-based interventions, supporting research into best practices and dissemination activities, and strengthening the use of telehealth technology to improve access to direct care and consultative services to support rural clinicians.

View or download the [full report](#), which is also available from the [Maine Rural Health Research Center’s website](#).

View or download the associated [Research & Policy Brief](#) on the prevalence and user characteristics of rural opioid abuse.

ENDNOTES

1. Lenardson JD, Gale JA, Ziller EC. [*Rural Opioid Abuse: Prevalence and User Characteristics*](#). Portland, ME: University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center; February, 2016. PB 63-1.
2. Brason F. Project Lazarus: An Innovative Community Response to Prescription Drug Overdose. *NC Medical Journal*. 2013;74(3):259-261.
3. Washington State Hospital Association. *ER is for Emergencies: Seven Best Practices*. [web page]. 2015, January Available at: http://www.wsha.org/wp-content/uploads/er-emergencies_ERisforEmergenciesSevenPractices.pdf. Accessed July 19, 2016.
4. Mohlman MK, Tanzman B, Finison K, Pinette M, Jones C. Impact of Medication-Assisted Treatment for Opioid Addiction on Medicaid Expenditures and Health Services Utilization Rates in Vermont. *J Subst Abuse Treat*. 2016;67:9-14.
5. Strathdee SA, Beyrer C. Threading the Needle--How to Stop the HIV Outbreak in Rural Indiana. *N Engl J Med*. Jul 30 2015;373(5):397-399.
6. Rural Center for AIDS/STD Prevention, Indiana University School of Public Health. *Syringe Exchange: Indicators of Need & Success*. Bloomington, IN: Indiana University School of Public Health. Updated April 20, 2015.
7. Vermont Recovery Network. *Vermont Recovery Center Network*. [web page]. n.d. Available at: <https://vtrecoverynetwork.org/network.html>. Accessed July 19, 2016.
8. Vermont Recovery Center Network. *Recovery Solutions*. [web page]. n.d. Available at: <https://vtrecoverynetwork.org/solutions.html>. Accessed July 19, 2016.

This study was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number CA#U1CRH03716, Rural Health Research Center Cooperative Agreement to the Maine Rural Health Research Center. This study was 100 percent funded from governmental sources. This information or content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsement be inferred by, HRSA, HHS or the U.S. Government.