Behavioral Health in Rural America: Challenges and Opportunities

Principal authors:

John Gale, MS

Jaclyn Janis, BSN, RN, MPH

Andrew Coburn, PhD

Hanna Rochford, MPH

Prepared by the RUPRI Health Panel:

Keith J. Mueller, PhD

Alana Knudson, PhD

Jennifer P. Lundblad, PhD, MBA

A. Clinton MacKinney, MD, MS

Timothy D. McBride, PhD

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LIST OF ABBREVIATIONS AND ACRONYMS

American Indian/Alaska Native: AI/AN

Behavioral Health: BH

Behavioral Health Disorders: BHDs

Community Health Worker: CHW

Community Recovery Specialist: CRS

Critical Access Hospital: CAH

Human Immunodeficiency Virus: HIV

Hepatitis C Virus: Hep C

Medication Assisted Treatment: MAT

Mental Health: MH

Mental Health Conditions: MHCs

Opioid Use Disorders: OUDs

Substance Use: SU

Substance Use Disorders: SUDs

Veteran's Administration: VA

INTRODUCTION

Mental health conditions (MHCs) and substance use disorders (SUDs), collectively referred to here as behavioral health disorders (BHDs), affect individuals from all sectors of society. However, the prevalence of certain diagnoses and unmet treatment needs are not equally distributed, with place of residence being one factor associated with these differences.[1] Although overall prevalence rates for BHDs are similar across urban and rural areas, their prevalence varies within specific sub-populations and/or across rural areas.[2] Moreover, the rural context has proven challenging for ensuring the availability of and access to BHD prevention, diagnosis, treatment, and recovery services in rural areas. Given the increased health burden that already exists in rural areas compared to urban areas,[1] attention to the patterns of BHDs and needs among rural people is essential to improving the health of rural populations and communities.

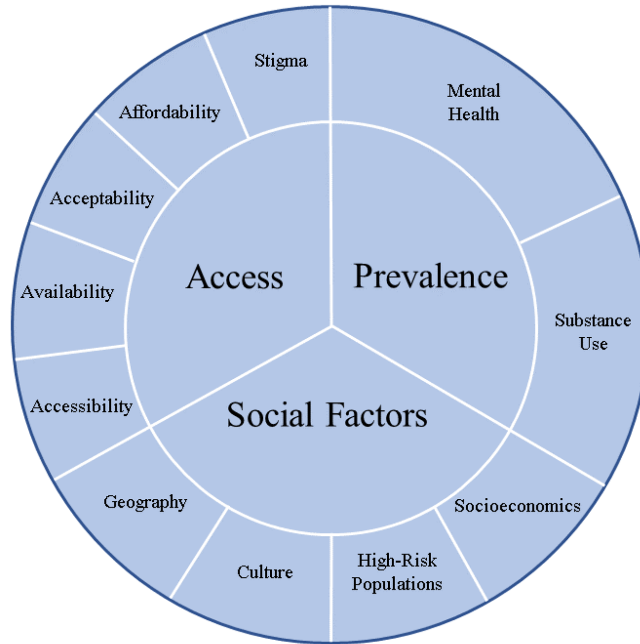
This paper provides an overview of behavioral health (BH) in rural America. The goal is to help rural leaders and providers understand the issues related to rural mental health (MH) and substance use (SU) and give them resources and tools to develop targeted strategies to address the unique needs of their communities. In the first section, we discuss the prevalence of BHDs in rural populations generally and among certain high-risk population groups (e.g., veterans, children). We then review what is known about rural access to BH services, focusing on the challenges of providing prevention, treatment, and recovery services in rural areas. The third section focuses on promising program and policy strategies that have been tested in rural communities targeting improvements in rural BH systems. We conclude with a discussion of opportunities for policy and system changes to improve rural BH systems and outcomes.

I THE PREVALENCE OF BEHAVIORAL HEALTH DISORDERS AND THE RURAL CONTEXT

The framework for this paper is illustrated in Figure 1, which delineates key dimensions that define the challenges of rural BH that will be discussed. The inner circle of the figure shows the core factors related to addressing BH issues in rural areas: the **prevalence** of BHDs, **access to care**, and **social factors** affecting both access and prevalence. Relevant **social factors** include rural-urban geography, high-risk populations, socioeconomic conditions in rural areas, and rural culture(s). **Access** to BH services in rural areas are a function of what has been termed, the “4As and an S”: accessibility, availability, acceptability, affordability, and stigma.[3] As a matter of

principle, this paper assumes that rural residents should have access to the same continuum of services and care as urban people do, including prevention, treatment, and recovery. **Prevention** strategies focus on reducing the onset of BHDs, mitigating the exacerbation of existing conditions, and minimizing related harms. **Treatment** focuses on providing care for individuals with BHDs, many of whom have co-occurring MH and SU issues. Treatment includes screening for BHDs in primary care settings, integrating BH services into medical care settings, and collaboration across providers and service systems to address the complex needs of individuals with BHDs. **Recovery** interventions offer individuals with BHDs a "second chance" to live healthy and productive lives by managing their conditions through education, peer support, vocational training, housing, and other opportunities to break the cycles and patterns of behavior that exacerbate their conditions. This paper discusses the effects of long-standing rural shortages of specialty BH services, the rural challenges of long travel distances to obtain treatment, and the impact of stigma and cultural/societal attitudes on efforts to ensure access to the full range of BH services in rural areas.

Figure 1: The Context for Understanding Rural Mental Health and Substance Use



The Prevalence of Rural Mental Health Conditions

Although the overall prevalence of MHCs is similar across rural and urban areas,[4] the prevalence of some conditions, such as suicidality and depression, differ.[5] For example, the difference in suicide rates among rural and urban residents is particularly alarming: in 2013-2015, the suicide rate was 55 percent higher in rural areas (19.7 per 100,000 population) than in large urban areas (12.7 per 100,000 population).[6] Rural areas also experienced higher increases in suicide rates over time. From 2001-2015, the rural suicide rate increased by 27 percent, from 15.5 to 19.7 per 100,000. By contrast, the large urban rate increased by 13 percent during this same period, from 11.2 to 12.7 per 100,000.[6] The reasons for higher rates of suicide in rural areas include limited access to MH services, high levels of SU, greater availability of firearms, and reduced access to timely health care and emergency medical services.[7,8] There are also variations within some rural sub-populations and communities in the rates of depression, suicidality, disease burden, and mental distress, including among women, low-income children, veterans, non-Hispanic blacks, and American Indian/Alaska Natives (AI/ANs).

The downstream effects of untreated MHCs burden rural residents and communities disproportionately. For individuals, these consequences include exacerbation of the symptoms and severity of their illnesses as well as increased risk for SUDs (related to self-medication), chronic diseases, suicidality, family erosion, homelessness, employment instability, arrest/incarceration, and victimization.[9-11] Societal costs include lost productivity and increased demand on limited health and social services; hospitals, clinics, schools, courts, jails, and social services strain to serve the needs of individuals who would be better served through appropriate and timely BH treatment.[9,10]

Rural Substance Use Disorders

Rates of SUDs (which often co-occur with MHCs) also differ by rural-urban residence. Alcohol is the most commonly used substance nationally, with higher use rates among rural 12 to 20 year old (37.8 percent) than their small and large metro area peers (35.3 and 34.3 percent, respectively).[12] Rural young people are also more likely than their urban peers to engage in risky alcohol-related behaviors, including binge drinking (consuming five or more drinks within two hours for men and four or more for women) and driving under the influence of alcohol.[12,13]

Although the prevalence of illicit drug use is similar across rural and urban areas,[14] many rural areas and populations have disproportionately suffered from a growth in the use of opioids, heroin, prescription medications, and methamphetamines (meth).[15,16,17,18] Rural youth have 35 percent greater odds of having misused prescription opioids in the past year than their urban peers.[17] Although meth availability has received less attention recently, it has been rising nationally since 2013 and is at an all-time high.[18,19] Reports describe a resurgence in meth use in rural communities in states such as Minnesota, Missouri, Ohio, Oregon, Pennsylvania, Texas, and Wisconsin.[18,20-31] SU experts are increasingly calling meth our “second” drug epidemic and point to alarming trends in its co-occurring consumption by opioid users.[23,29,32-35]

The consequences of greater opioid use in rural areas include increases in opioid-related overdose deaths and increased exposure to human immunodeficiency virus (HIV) and hepatitis C virus (HCV).[36,37] The overdose death rate in rural areas surpassed that in urban areas in 2015; it had previously been similar to or lower than the urban rate. Between 1999 and 2015, the overdose death rate in rural areas increased by 325 percent.[14] The surge in overdose deaths involving meth, often in combination with opioids and other drugs, is of growing concern.[37-39]

Many SU experts are concerned that the high rates of injection drug use, the relative lack of HIV surveillance resources, and the resistance to needle exchange programs also pose an ongoing and growing risk to many rural communities.[40,41]

Socioeconomic and Other Factors Contributing to Rural Behavioral Health Needs

Rural-urban BH disparities are closely linked to the socioeconomic characteristics of rural and urban populations and communities. Rural areas have a higher proportion of families living below the poverty level, more unemployment, and a greater percentage of residents who have public insurance or are uninsured than do urban areas.[42,43] These characteristics are all risk factors for BHDs. Rural individuals also experience a greater sense of stigma, a higher sense of isolation and hopelessness, lower education rates, and higher rates of chronic illnesses. Addressing BH disparities that are so deeply rooted in socioeconomic stressors is a significant challenge for rural health systems.[44,45]

Rural Subpopulations at High Risk for Behavioral Health Conditions

Rural disparities often disproportionately impact at-risk subpopulations who have their own unique health and cultural needs that impact their willingness and/or ability to obtain the services and support they need.

Rural Women*:* Rural women as a whole and pregnant women in particular are at greater risk for BH issues than those living in urban communities.[46] Rural women exhibit twice the rates of depressive symptoms of women in urban areas and are more likely to experience a range of MHCs.[47] A study of rural and urban pregnant women entering a hospital-based detoxification program highlighted significant differences in SU by geographic residence. Compared to urban women, rural women in this study were almost six times more likely to report injection drug use, eight times more likely to report illicit opiate use, and about three times more likely to report use of multiple illicit substances in the past 30 days.[48]

Children and adolescents*:* Children and young adults living in rural areas have higher rates of MHCs. For example, children ages 2-8 years in rural areas have a higher prevalence of mental, behavioral, or developmental disabilities (18.6 percent) than do those in urban areas (15.2 percent).[49] Rates of serious mental illness, adolescent major depressive episodes, serious psychological distress, and suicide are higher in rural areas than in urban.[1] Additionally, children

from low-income rural families experience higher rates of depression and other MHCs.[50] Rural youth are also more likely to use alcohol and meth than urban youth, with higher levels of use reported by those living in more rural areas.[51] Rural youth are also more likely to exhibit high risk behaviors such as driving under the influence of alcohol and other drugs.[51] Among people who reported past-year opioid use, individuals living in rural areas are more likely to be under age 20 than those living in urban areas. High school students living on farms had higher rates of alcohol, smokeless tobacco, inhalant, and other illicit drug use than those living in towns.[52] Students living on farms were also exposed to a greater number of risk factors associated with SU than were those living in rural towns, including higher levels of poverty, economic uncertainty, geographic and social isolation, community norms favorable towards use of alcohol and other substances, and a lower perceived risk of using alcohol and drugs. [52]

Veterans: There are 4.7 million veterans living in rural areas; 58 percent of rural veterans are enrolled in the Veteran's Administration's (VA's) health care system compared to 37 percent of urban veterans.[53] Although rural veterans have lower rates of MH issues than urban veterans, they report a lower quality of life and greater disease burden.[54,55] Veterans experience more MHCs, SUDs, and post-traumatic stress disorders than the general population,[56] and rural veterans are at increased risk for additional stress related to MHCs.[57-59] The receipt of MH services differs for rural veterans compared to urban. The barriers to accessing care by rural veterans include long travel distances, fewer specialty care options and local providers, and transportation issues (including loss of license and limited public transportation).[60]

Minority, Ethnic, American Indian, and Alaska Native Populations: Racial and ethnic minorities in rural areas also face additional health disparities.[61] In addition to having a higher prevalence of self-reported fair or poor health (compared to non-Hispanic whites), non-Hispanic blacks and AI/ANs report higher rates of frequent mental distress.[61] Suicide and alcohol use disorders are particularly high among AI/ANs.[61,62] Differences in health care access compound these disparities: fewer non-Hispanic blacks and Hispanics have insurance compared to non-Hispanic whites, and more non-Hispanic blacks, Hispanics, and AI/ANs report not being able to see a physician because of cost.[61] Many individuals also face cultural barriers that discourage them from seeking care, including the lack of culturally sensitive providers.[63]

Older Adults: Older adults are disproportionately represented in rural populations, with 19 percent of the population aged 65 or older compared to 15 percent in urban areas.[64] Rural older adults experience higher rates of depression, suicidality, and alcohol misuse than do their urban peers.[65] Although older adults in rural areas suffer from many of the same BH access issues as other rural residents, they also struggle with their own unique issues, including transportation (for those who can no longer drive), social isolation, and dramatic shortages of geriatric BH specialists.

Individuals with Co-occurring Conditions: As noted, MHCs and SUDs are frequently co-occurring. Close to nine million adults are estimated to have a diagnosis of a co-occurring disorder (COD) (requiring a diagnosis of at least one MHC **and** one SUD that can both be diagnosed independently).[66] Although current data on the differences in the prevalence of CODs across rural and urban areas are limited, past studies found that rural residents were more likely to meet the diagnostic criteria for CODs and less likely to seek treatment for their conditions.[67] Despite recognition of the need for integrated care for CODs, evidence suggests MH and SU treatment services are still siloed in rural areas, with MH services commonly available through primary care settings while SU treatment services are provided through specialty treatment settings.[68]

II ACCESS TO BEHAVIORAL HEALTH SERVICES

The high burden of BH diagnoses in rural areas requires a comprehensive, accessible health care infrastructure that is often not available to rural populations. As noted earlier and in Figure 1, barriers to BH care in rural areas have been summarized as “4As and an S”: accessibility, availability, acceptability, affordability, and stigma.[3] The barriers affect rural communities in the following ways:

Accessibility: As an overriding value, rural people should have the same access to BH services (e.g., emergency response, early identification and screening, diagnosis, treatment, and recovery) as those living in urban areas. Given long-standing shortages of specialty BH providers, limited specialty services, and long travel distances, achieving this goal will require creative policy responses, such as regionalizing systems of BH care, encouraging the integration of BH and acute care medical services, expanding use of telehealth, and using team-based care.

Availability: The development of rural BH systems of care that ensure the accessibility of care is predicated on the availability of an appropriately trained BH workforce. A recent study projects general shortages through 2025 of psychiatrists; clinical, counseling, and school psychologists; MH and SU social workers; school counselors; and marriage and family therapists.[69] Advocates, experts, and policymakers have long bemoaned the scarcity of psychiatrists and psychologists serving rural areas. A study of MH shortage areas showed that rurality and per capita income were the best predictors of MH workforce shortages. Increasing rurality was associated with an increasing unmet need for MH providers.[70] The reasons for these shortfalls are complex and include chronic underfunding of the BH safety net, historically low salary levels, high case-loads, low reimbursement rates, and limited reimbursement for supporting services such as care coordination, community BH workers, and peer recovery workers.[71] Coupled with the ongoing maldistribution of BH professionals that favors urban areas, these shortages suggest the need for strategies to maximize the use of scarce clinical resources by expanding the workforce, developing team-based care, using community BH workers and care managers, and developing innovative ways to deliver care.

Prescribing capabilities for MATs are also limited in rural areas: about 60 percent of rural counties in 2017 did not have a physician who could prescribe buprenorphine for opioid use disorders (OUDs).[72] Rural Federally Qualified Health Centers are less likely to express interest in expanding the availability of buprenorphine treatment compared to those in urban locations.[73] The limited BH treatment workforce and capacity in rural areas has meant that rural primary care providers have become the front line for addressing BH problems in rural communities.

In addition to the burden on primary care resources, BH workforce and capacity problems deeply affect other rural service providers, including the criminal justice system. Thirty-five jail administrators, clinicians, and staff in Minnesota, Montana, Texas, and Vermont reported that 20 to 55 percent of jailed individuals in their facilities have a MHC and that their facilities have inadequate resources to address their populations' needs.[74]

Acceptability: Care must be provided in settings that are most likely to be used by rural residents. This concept of acceptability is closely linked to stigma: the relative lack of anonymity in rural communities discourages individuals from seeking care in specialty BH settings, such as community MH centers or SU treatment facilities. Hence, BH services that are integrated into

primary and acute care services and facilities are critical. At the same time, acceptability calls for the delivery of culturally sensitive services. Rural BH treatment settings frequently rely on BH generalists and primary care providers. Rural shortages of BH providers and the lack of specialization for specific conditions limit choice for individuals seeking care. This lack of choice may discourage the use of available services by rural individuals with unique cultural and/or clinical needs, such as AI/ANs, veterans, victims of domestic violence, and individuals with eating disorders.

Affordability: The ability to afford the cost of BH care is a significant factor related to its use. Rural residents are more likely to be uninsured or underinsured, less likely to be insured through an employer, and more likely to receive Medicaid than are urban residents.[1] While Medicaid expansion under the Affordable Care Act has been particularly important for rural areas, where residents have lower incomes and less access to affordable employer-sponsored coverage, approximately two-thirds of the rural uninsured population live in states that did not expand Medicaid.[43] Among those covered by private insurance, rural residents are more likely than urban residents to have a high deductible health plan and less likely to have an associated health savings account.[75] Increased cost sharing has been associated with forgoing necessary BH treatment, and higher costs of services can result in a lower likelihood of accessing MH services.[76] At the same time, some BH providers may not participate in provider panels for commercial health plans, which shifts a greater burden to those using their services. Finally, some BH providers, such as opioid treatment programs, have typically operated as "cash only" services, which further limits access to those services in rural areas.[40]

Stigma: Stigma is a complex problem that is difficult to overcome in rural communities. External societal misconceptions, stereotypes, and prejudices perpetuated by misinformation and the popular media about people with BHDs reinforce feelings of shame, failure, low self-esteem, and other issues experienced by people suffering from these problems.[77,78] These stereotypes create special problems in rural communities, where the relative lack of anonymity is a well-documented barrier to care-seeking.[79,3]

Facilities

The substantial burden of BHDs in rural areas is compounded by long-standing, chronic shortages of specialty BH treatment services. Rural residents have limited access to acute BH

treatment facilities. When they do have access, they frequently must travel farther than urban residents to access care and typically have less choice when selecting services and providers.

A national shortage of psychiatric inpatient services extends to rural and frontier areas, most of which have no inpatient psychiatric beds.[80] Of the 595 psychiatric hospitals operating in the United States, only 73 (12 percent) are located in rural areas.[81] Among 1,054 short-term acute care hospitals that operate prospective payment-exempt psychiatric units, 232 (22 percent) are located in rural areas.[81] Additionally, only 95 of 1,350 Critical Access Hospitals (CAHs) operate distinct part psychiatric units.[82] Rural areas also lack detoxification services; 82 percent of rural residents live in a county with no detoxification service provider.[83] About 80 percent of SU treatment facilities are located in urban areas, and the number of inpatient or residential treatment beds per capita was 27.9 per 100,000 population in rural areas compared to 42.8 per 100,000 in urban areas.[84]

Telehealth is increasingly discussed as a tool for addressing the lack of rural BH treatment services[85] and is more likely to be used for MH purposes in rural community-based health centers than in urban health centers.[86] While telehealth provides a viable strategy for increasing access to BH treatment services, its adoption and utilization rates remain very low. There are numerous barriers to widespread telehealth adoption, including the lack of specialty psychiatric and addiction consultation resources in urban areas, reimbursement challenges, the lack of high-speed internet capacity and/or access, cross-state professional licensing issues, and challenges incorporating telehealth in primary care, hospital, and specialty care settings.[86]

Rural-Urban Differences in the Use of Behavioral Health Services

Research suggests that the patterns of BH service use differ in rural and urban areas. For example, compared to urban residents, rural residents are more likely to be prescribed a psychotherapeutic medication for MH treatment and less likely to use office-based visits.[76] Rural residents with MHCs are more likely to receive pharmacotherapy and less likely to receive psychotherapy for depression.[87] Rural residents who report their MH as fair or poor are less likely to use MH services than urban residents with the same characteristics.[88] People living in rural areas with a past-year diagnosis of anxiety, mood, impulse control, and SU disorders were significantly less likely than their urban counterparts to receive treatment; additional underserved groups include older adults, racial-ethnic minorities, low income individuals, and uninsured

individuals.[89] Rural residents using substances in Arkansas, Kentucky, and Ohio with high levels of recent and lifetime use greatly underutilized treatment services.[90] As discussed earlier, rural veterans were less likely than urban veterans to receive psychotherapy and had 70 percent lower odds of receiving any MH treatment, such as outpatient services and prescription medications.[91,92]

Given the limited formal BH services in rural areas, rural consumers are most likely to access services through primary care providers (including Rural Health Clinics and Federally Qualified Health Centers); general acute care hospital emergency, inpatient, and outpatient settings; schools; the criminal justice system; and faith-based organizations. Travel distance to services limits rural access to all services, including BH treatment. The longer the travel distance to treatment facilities, the less likely an individual is to complete SU treatment.[88] The integration of BH and general medical care is one solution to increasing access, especially for the significant percentage of lower acuity BH care that can be addressed in primary care settings. Although the integration of BH and primary care has substantial support among providers and policymakers, it is not without challenges, including provider supply (both primary care and specialty BH providers), reimbursement rates and other payment barriers, practice patterns, and the development of effective and efficient approaches to integration, among others.[93] Additionally, many primary care providers are not equipped to treat SUDs, as evidenced by the urban-rural disparity in buprenorphine prescribing capacity.[73]

III DEVELOPING COMPREHENSIVE BEHAVIORAL HEALTH SERVICE SYSTEMS

Addressing the BH needs of rural residents is a complex undertaking that must reflect the unique challenges facing rural communities. As reflected in Figure 1, the factors influencing the prevalence of BHDs in rural America are a multifaceted mix of personal and environmental characteristics as well as risk and protective factors. The obstacles to developing appropriate strategies to reduce the onset of BHDs and moderate their impact (prevention), providing services to those individuals with BHDs (treatment), and helping them to lead productive and satisfying lives (recovery) are significant, chronic, and difficult to overcome. At the same time, there are long-standing access barriers that make it difficult for rural residents to obtain the services they need. These factors complicate the development of programs targeting BHDs in rural areas and call for a coordinated community response engaging health care providers, local

government, schools, business leaders, residents, faith-based communities, individuals suffering from BH disorders, law enforcement, and other stakeholders to implement multipronged strategies focused on prevention, treatment, and recovery.[94]

Community Engagement

Community engagement is a critical strategy for engaging these diverse stakeholders in a coordinated set of interventions to target the social and economic disparities that contribute to BHDs, address the stigma that discourages individuals from seeking treatment, and develop an infrastructure to implement critical prevention, treatment, and recovery programs.[40,95-98] Evidence from community engagement and coalition-building programs suggests that broad-based coalitions can significantly improve BH services in local communities.[95,99,100]

Project Vision provides an example of a community engagement process implemented in a rural Vermont community.[101] Appendix A provides a link to information on Project Vision as well as other community engagement models that have been implemented in rural communities, including Project Lazarus, Communities That Care, Drug Free Community Coalitions, and SAMHSA's (Substance Abuse and Mental Health Services Administration's) Tribal Training and Technical Assistance Center.

Project Vision, Rutland, Vermont: Rutland, a community located in rural southwestern Vermont, has struggled with an influx of heroin due to its location on a major drug trafficking route.[102,103] In response, key stakeholders implemented a community collaboration and engagement program known as Project Vision (Viable Initiatives & Solutions through Involvement of Neighborhoods) in late 2012 based on a drug market intervention model to reduce the supply of heroin in the community. Project Vision engages stakeholders through three subcommittees: Building Great Neighborhoods; Substance Abuse, Prevention, and Treatment; and Crime and Safety.[104] These stakeholders represented diverse sectors of the community including housing, social services, media, law enforcement, health care, businesses and employers, schools, government, consumers, and community leaders.

The initiative was developed in response to a US Department of Justice, Bureau of Justice Assistance, grant program announcement. Although not selected for funding, the stakeholders implemented their proposed structure with the voluntary engagement and in-kind contributions of the Rutland City Police Department, local government, and a number of

nontraditional partners. Their guiding principle is that SU, domestic violence, child abuse, MH, crime, and quality of life in the community are interconnected and require an integrated response. Project Vision has engaged more than 100 local, state, and federal stakeholders in its work. Its website reports reductions in drug-related crimes, increases in treatment options, and development of recovery programs.[101] This effort exemplifies what can be accomplished if key stakeholders come together to identify and address local needs.

Prevention

As previously discussed, BHDs negatively impact a person's day-to-day functioning, cause emotional suffering, and contribute to a diminished quality of life.[94,105] They also have significant negative social and economic impacts on communities through lost productivity and increased homelessness and unemployment, and they place increased demands on health care, academic, criminal justice, and social service systems. Evidence-based prevention strategies provide a cost-effective way of addressing and minimizing the individual and societal costs of BHDs.[94,105-111]

The implementation of evidence-based prevention strategies is not without challenges, including stigma experienced by individuals with at-risk characteristics, infrastructure limitations, limited access to a trained prevention workforce, funding and resource constraints, and difficulty adapting prevention strategies to the unique needs of rural communities and populations.[94,105] Prevention strategies should address the prevention needs of high-risk populations and the general population. To be effective, prevention strategies must target modifiable risk and protective factors identified in the community and must be adapted to the unique characteristics of each rural community.[107,112,113,94]

The following are broad examples of successful prevention strategies that rural communities may consider:[114]

- Laws, regulations, and community education to reduce harmful alcohol use;
- Laws and regulations to reduce access to lethal means of suicide;
- School-based social and emotional learning programs to prevent the onset of BHDs and promote BH in children and adolescents;
- Community-based parenting programs, particularly during infancy and early childhood;

- Training programs to help gatekeepers identify people with mental illness;
- Broad-based community-based coalitions; and/or
- Needle/syringe exchange programs.

As discussed below, the Fostering Futures project, implemented in rural areas of Wisconsin, is an example of a prevention strategy.[115] Appendix B provides a link to information on the Fostering Futures Projects as well as other innovative BH prevention models that have been successfully implemented in rural communities, such as the 4P's Plus Pregnancy Support Project, Madison Outreach and Services through Telehealth, and Keepin' it REAL Rural.

Fostering Futures Project: The Menominee Indian School District's and Menominee Tribal Clinic's participation in Wisconsin's statewide Fostering Futures project focuses on building resilience and mitigating the negative effects of adverse childhood experiences among tribal children.[115] The clinic's staff and trauma-informed care coordinator facilitate trainings and other strategies through the schools and community organizations. Children have access to a trauma coach, safe zones/peace rooms, medication, and mood check-ins through the schools. General education campaigns focus on culturally relevant reproductive health and support services; the promotion of sobriety, positive parenting, strength-based language, and kindness; and trauma issues for parents and families. Since the onset of the project, there has been an increase in BH service utilization as well as decreases in school suspensions and expulsions, SU rates, and teen births. There have also been increases in staff understanding of trauma issues, student health, student resiliency levels, and graduation rates.

Treatment

Rural systems of BH care should provide rural residents with coordinated, evidence-based services appropriate for their conditions and personal circumstances. Given the previously discussed challenges facing rural systems of care, key strategies to improve access to BH services include the integration of specialty BH and primary/general medical care services, the development of regionalized systems of care through health systems or "hub-and-spoke" models, the use of telehealth and other technologies to connect rural patients with specialty providers, or some combination of the above.

The most common model of the **integration of BH and primary/general medical care services** puts specialty MH providers, such as social workers, psychologists, or professional

counselors, into primary care and acute care settings to address less complex MHCs such as depression and anxiety. The models used to integrate these services have ranged from referral agreements, shared space arrangements, contractual agreements with independent MH providers, and employment arrangements in which the MH staff function as full team members employed by the practice.[116-120] Under these models of integration, primary care providers screen for BHDs and prescribe necessary psychotropic medications, while the counselors and psychologists provide individual counseling and psychotherapy. In more advanced integrated models, specialty MH providers consult with the medical providers and staff on BH issues and remain available to accept a “warm hand off” in which the medical providers introduce patients to specialty BH providers during the course of their visits to facilitate patient engagement.

A more recent trend has involved the integration of MAT into primary/general medical care settings.[121,122] Barriers to the integration of BH and primary care/general medical services include reimbursement issues, workforce shortages, stigma, and differences in treatment cultures.[119,123,124] SAMHSA and the Health Resources and Services Administration have collaborated on the Center for Integrated Health Solutions that provides resources and tools to encourage the adoption of integrated medical and BH services.[122]

Example of a Rural Integrated Service: Cherokee Health Systems serves rural communities in Tennessee by embedding BH consultants, typically psychologists or clinical social workers, in primary care teams.[125,126] The primary care providers screen all patients for BHDs and co-manage those who screen positive with the BH consultants. Staff also have access to consultation with a psychiatrist, often via telephone or telehealth. BH consultants serve as members of the clinical care team. Coordination of care is facilitated through a shared electronic health record. Cherokee has expanded its integrated service to include MAT and SU treatment. Cherokee’s integrated model has the following features: (1) shared care delivery functions across the entire team, (2) guaranteed access to BH expertise throughout their system of care, (3) enhanced communication and care coordination, (4) health management support, and (5) supported patient engagement.

Regionalization of services supports the delivery of services through linkages between local rural providers (who provide BH services for less complex patients) and specialty BH providers (who provide consultative support and access to more intensive specialty services).

The goal of regionalization is to build a system of care that is sustainable at each level of delivery and avoid unnecessary competition for specialty services that require a larger population base to be viable. Examples of regionalized models of behavioral care include larger health/hospital systems with inpatient and other specialty BH services that provide consultative support and access opportunities for patients served by their rural partners. An example of this type of system is the Avera Health system serving states in the upper Midwest.[127]

A more recent example is the hub-and-spoke model used to support the provision of medication-assisted treatment for OUDs in states such as Vermont, California, Washington State, and West Virginia.[128-132] In the hub-and-spoke model, the spokes are the local service providers waivered to prescribe buprenorphine for OUDs and the hubs are larger specialty providers offering consultative support to the spokes as well as a referral source for patients with more complex needs than can be addressed by the spoke providers.

Hub-and-Spoke Network Treatment Examples: Washington State and West Virginia have implemented hub-and-spoke networks for MAT delivery to support treatment access for rural persons with OUD. The program in West Virginia has established five hubs providing consultative support to 13 spoke facilities. The treatment model is multidisciplinary and combines group-based medication management with psychosocial therapy. The hubs lead training and mentoring for teams providing MAT treatment at the 13 spokes.[132] The hubs also provide access to treatment for more complex patients. Washington State's program aids in making opioid addiction medications more available by creating a "help network" in which the hub facilities' staff provide consultative and specialty care services to support the spokes that provide direct services, including MAT.[131,133] The spokes may be housed within tribal medical facilities, therapists' offices, primary care practices, drug courts, or emergency departments.

Tele-behavioral health provides a third option for expanding access to BH care in rural areas as it allows effective care management, provides expanded access to services, and facilitates the integration of primary/general medical and BH services.[134-138] Although the technology is readily available, the implementation of tele-behavioral health services is complex and requires providers to think differently about how they organize and deliver care. Barriers to the expanded use of tele-behavioral health include coverage and reimbursement policies, cross-state professional licensure issues, practice regulations, inadequate broadband access, workforce

supply, issues related to the exchange and security of patient information, changes to professional training and care delivery models, and hype (enthusiasm for the potential for telehealth that exceeds practice realities and challenges).[139-141] Telehealth can be used to improve access to and the delivery of the following BH services: evaluation and diagnosis; case consultation; treatment; medication management; continuing care; and provider education. Telehealth can be used to provide direct patient care services as well as care management, and can facilitate peer recovery services. Despite the challenges of implementing tele-behavioral health services, many successful programs are serving rural communities, including the Wyoming Trauma Telehealth Treatment Clinic, the Madison Outreach and Services through Telehealth (MOST) Network, and the Emergency Department Telepsychiatry Consultation Program.[142]

Example of Tele-behavioral Health Services: The Wyoming Trauma Telehealth Treatment Clinic serves survivors of domestic violence and sexual assault using telehealth to connect them with psychology doctoral students.[143] The services are a partnership of the University of Wyoming Psychology Department and the University of Wyoming Center for Rural Health Research and Education funded by the State of Wyoming. Doctoral students who have been trained in trauma intervention theory and techniques provide services under the supervision of doctoral-level psychologists. The students gain valuable experience, while the patients receive needed therapy at no cost.

Appendix C provides a link to information on these and other models of integrated care, regionalized systems of care, and tele-behavioral health services that have been successfully implemented in rural communities. Appendix C also provides links to resources and tools to assist rural systems of care in adapting these models to their own unique needs.

Recovery

Recovery services are designed to help individuals suffering from MHCs or SUDs lead healthy, productive, and fulfilling lives.[144,145] Both MHCs and SUDs are chronic, long-term health conditions. Recovery for those suffering from either MHCs or SUDs is most appropriately viewed as a process rather than an end state. Given that SUDs are chronic, relapsing conditions, the definition of recovery for individuals with SUDs includes the ability to maintain a sober, substance-free lifestyle. The following characteristics support recovery: good relationships,

financial security, satisfying work, personal growth, the right living environment, developing one's own cultural or spiritual perspectives, and developing resilience to possible adversity or stress in the future.[146]

Support for recovery can be provided through self-help groups (e.g., Alcoholics Anonymous, Recovery, Inc., Schizophrenics Anonymous), peer support programs, recovery support services, Recovery Oriented Systems of Care (ROSC), and the development of recovery centers.[147-149] Recovery programs for individuals with MHCs can include club or social house models and peer recovery programs. Regardless of an individual's condition, recovery in a rural community can be more difficult given the stigma and relative lack of anonymity experienced by those with MHCs and SUDs. That being said, recovery services are essential to allowing people to get a "second chance" to reclaim their lives. Developing a supportive environment for recovery begins with community education programs on the realities of BH and reinforcing the understanding that individuals with MHCs and SUDs can recover and lead productive lives.

The Personal Helpers and Mentors (PHaMs) service, a nonclinical, community-based Australian Government initiative designed to increase opportunities for recovery for people affected by mental illness, is one example of an MH recovery program that has been successfully implemented in rural areas.[150,151] The Vermont Recovery Network offers similar services for substance users across the state of Vermont.[40,152] Peer recovery and support programs provide another recovery model that is applicable to rural communities. These programs provide the support of peer recovery coaches, individuals who have experienced issues with MHCs and/or SUDs and are in recovery themselves, to support others struggling with these disorders.[153] Peer recovery coaches are similar to community health workers (CHWs) with the exception of their lived experience with their own BH issues. Peer recovery coaches can help clients complete paperwork, provide transportation, and find community resources. Examples of a peer recovery program implemented in rural communities include the Centra Wellness Network,[154] the Marquette Peer Recovery Drop-In Center,[155] and START - Sobriety Treatment and Recovery Teams.[156,157] Recovery services are important throughout the process of grappling with MHCs and SUDs, including the contemplation phase (when individuals are deciding to seek treatment; prior to, during, and following active treatment; and in later recovery stages.[157] Examples of recovery models implemented in rural communities are described in Appendix D.

Example of Peer Recovery Services: The Marquette Peer Recovery Drop-In Center provides peer recovery support services, including peer mentoring and coaching, resource connecting, facilitating recovery groups, and building a safe community for members. The Drop-In Center serves multiple rural counties in Michigan's Upper Peninsula[155] by providing an environment where people from the community who are living in recovery can work with people who are currently receiving treatment for an SUD. These peer recovery specialists serve as a resource and support system for others who are currently in treatment and who are living in recovery. They also provide support to family members and others affected by SUDs. The Drop-In Center provides peer mentoring or coaching, connection to recovery resources, recovery group facilitation, and help making new friends and building healthy social networks through events and pro-social activities.

IV POLICY OPTIONS TO ADRESS BEHAVIORAL HEALTH DISORDERS

As noted throughout this paper, the rural context has proven challenging for ensuring rural access to comprehensive prevention, diagnosis, treatment, and long-term management services for BH disorders. Yet, the opioid epidemic has brought a critical federal, state, and local policy focus to the problem of SUDs with important advances in the availability and delivery of SUD services across the prevention, treatment, and recovery continuum. The opioid epidemic has also highlighted long-standing deficiencies in our rural BH system.

Increased policy attention, combined with the significant mobilization of local, community resources (with needed federal and state policy and financial support), have produced a number of promising strategies and approaches to expanding and improving services in rural communities. As important as these program models are, success requires a comprehensive strategy that engages citizens, consumers, health care providers, and community leaders, among others, to design or choose the strategy that fits the community and to marshal available resources. Federal and state policies and resources are critical to support the implementation of these comprehensive strategies, especially in vulnerable rural communities.

This section discusses four broad areas where focused policies are needed to develop a more comprehensive approach to combatting SUDs and improving MH in rural communities:

- Promote rural community engagement to support the design and implementation of local and regional strategies;

- Support the development of comprehensive local and regional MH and SU services;
- Reform regulatory and payment policies to expand coverage for BHDs and encourage the development of comprehensive systems of care; and
- Expand the BH workforce and create incentives for rural practice. [158-161]

The interrelationship of these priority areas is critical. For example, community engagement is central to achieving the desired outcome of ensuring local and regional access to prevention, treatment, and recovery services. But without a clear plan or strategy for building regional systems of care, it is unlikely that most rural communities, however engaged they may be, can be successful. Likewise, federal and state policies, combined with philanthropic resource commitments, are needed to enable communities, providers, and others to build a better system of care. And finally, the availability of an adequate workforce with the diverse skills needed to support a comprehensive care system is essential.

Promote Rural Community Engagement

Communities provide the foundation to leverage local, state, and federal resources to implement comprehensive strategies to reduce the onset and acuity of BHDs (prevention), expand access to services to individuals with BHDs (treatment), and support individuals with BHDs to live healthy and productive lives (recovery). Underlying each of these areas of activity is the need to reinforce the understanding that BHDs are chronic conditions that can be successfully managed and to reduce pervasive levels of stigma that marginalize individuals with BHDs, discourage them from seeking treatment, and prevent them from reclaiming their lives. Policy strategies to promote rural community engagement to address BH issues include the following:

- Leverage existing and new federal and state incentives, technical assistance, and funding to encourage collaborative community engagement to address social and economic drivers of BHDs; combat stigma; undertake education programs; engage stakeholders; rationalize use of scarce resources; develop prevention, treatment, and recovery services; and connect to regional systems of care.

- Use state and local resources and organizations to disseminate information on successful rural prevention, treatment, and recovery strategies and support the adaptation of these programs to fit unique local needs.
- Use state and local resources and organizations to support rural community education aimed at reducing stigma, promoting awareness that BHDs are preventable and treatable, and informing residents about existing BH resources.
- Help local communities and regions explore alternative sources of support for local, regional, and state efforts to improve BH services systems, including philanthropic and foundation funding, hospital-community benefit resources, in-kind contributions, sharing of resources, and the use of settlement funds that may result from suits against the pharmaceutical industry.

Support Development of Local and Regional Behavioral Health Services

Demographic and economic characteristics of rural communities create barriers to the development of sustainable specialty BH services. Creating a regional BH care network that links integrated, local services with regional, specialty providers that can support local providers and handle more complex cases represents one strategy for addressing these barriers. Examples include the hub-and-spoke models used by Vermont, California, West Virginia, and other states to support the use of medication-assisted treatment for OUDs; Colorado's statewide strategic plan for the primary prevention of SU; and San Mateo County's Primary Prevention Framework for SU and MH.[162,163] Strategies to support the development of regional systems of care include the following:

- Require local and state BH agencies and organizations to assess local and regional gaps in services, unmet needs, the adequacy of service systems, and available resources to expand access to services.
- Encourage and provide technical assistance to local, county, and state BH agencies to plan and develop regional prevention, treatment, and recovery services.
- Use existing federal and state programs to create incentives to develop regional systems of BH care that minimize unproductive competition, conserve scarce resources, provide

access to specialty services, support local service delivery, and develop a financially sustainable service system.

- Encourage states to invest in regional evidence-based prevention, treatment, harm reduction, and recovery programs.

Reform Behavioral Health Regulatory and Payment Policies

Current regulatory and payment policies reflect the view of MH and SU as separate, specialty systems of care and fail to recognize that many BHDs are interrelated and can be effectively treated in primary care and general medical settings. Current regulatory and payment policies reflect this specialty bias and impede development of more rational and efficient BH care systems. To better serve rural areas, regulatory and payment policy reform is needed to expand coverage for BHDs and support innovative delivery system models by

- Encouraging the integration of BH and primary care/general medical services.
- Promoting the delivery of BH services by Federally Qualified Health Centers, Rural Health Clinics, school-based clinics, and rural hospitals.
- Expanding the use of telehealth technology to facilitate access to treatment and recovery services.
- Modernizing telehealth policies to expand the use of technology to improve prevention, enhance access to care, and promote recovery.
- Funding the use of peer recovery workers.
- Supporting access to affordable health care coverage by improving the functioning of state health insurance markets, reducing regulatory burdens, and expanding Medicaid.

Expand the Behavioral Health Workforce and Create Incentives for Rural Practice

Creative solutions are needed to address long-standing BH workforce shortages and the maldistribution of specialty BH providers that favors urban communities. In addition, new payment policies should support new types of BH providers such as peer support counselors and recovery coaches. Traditional workforce recruitment and retention strategies remain important, but they have been insufficient on their own to ameliorate these chronic rural workforce challenges. Policy options to expand the rural BH workforce and incentivize rural practice include the following:

- Explore federal and state reimbursement and scope-of-practice regulations to expand the pool of reimbursable providers.
- Revise Medicare reimbursement policies to cover an expanded array of behavioral providers such as master's-trained counselors, marriage and family therapists, and peer support counselors.
- Encourage the use of peer recovery and CHWs by creating training programs and developing payment policies to encourage their integration into BH teams.
- Develop and fund more effective rural recruitment and pipeline programs.
- Expand scholarship and loan repayment options to encourage rural BH practice.
- Use technology to support supervision and collaboration among rural providers to reduce isolation and burnout.

V CONCLUSION

In previous papers the RUPRI Health Panel has discussed the core elements of a high-performing rural health system. BH care is a core element of this vision, especially in light of key rural disparities in the prevalence of these conditions and the problems of availability and access to preventive, treatment, and recovery services discussed here. As we have noted, variations in the prevalence of specific BH conditions or SU in specific rural sub-populations and/or communities deserve particular attention. The growing problem and concern over the implications of rising injection drug use in rural areas and HIV and Hepatitis C rates in rural populations illustrate this point. Likewise, the resurgence of meth use speaks to the importance of a more comprehensive approach to SUDs in rural areas.

The shortcomings of the rural BH system are not new and have been discussed for many years. It has taken the opioid epidemic, however, to draw attention to these limitations. Mobilizing and organizing the limited health, SU, and MH capacity in rural areas has been challenging, notwithstanding substantial new federal- and state-funded efforts devoted to the problem. Nevertheless, states and communities are learning a lot about how to build effective service systems to address the rural SUD epidemic. Federal and state governments, with the collaboration of philanthropy and other private sector organizations, now have the opportunity to build on this knowledge to support the development of more comprehensive BH systems of care.

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Appendix A: Community Engagement and Collaboration Models

Project Name	Description	Links
Project Vision (PV)	PV began in response to heroin and other drug use in Rutland, Vermont, a community located in the rural southwestern part of the state. PV engages a wide range of stakeholders through three subcommittees: (1) Building Great Neighborhoods; (2) Substance Abuse, Prevention, and Treatment; and (3) Crime and Safety. Participants report successes that include revitalization of impacted neighborhoods, reduction of burglaries and drug-related crimes, and development of new treatment services and programs.	http://projectvisionrutland.com/
Project Lazarus (PL)	PL focuses on overdose death prevention and empowering communities to take responsibility for opioid issues. The model identifies core components in the "hub" (public awareness, coalition action, and data and evaluation) and the "spokes" (community education, provider education, hospital emergency department policies, diversion control, pain patient support, harm reduction, and addiction treatment). The hub activities serve as the foundation to support community action in one or more of the spokes based on local need. Founded in rural Wilkes County, North Carolina, PL has been implemented in every county in North Carolina through external funding and in rural communities across the country. PL has developed toolkits and resources to support community engagement, community education, and service/program development that are available on its website. Studies on PL indicate that provider education on pain management, addiction treatment, and opioid dispensing policies was associated with reductions in overdose mortality. MAT expansion was associated with reductions in overdose visits to emergency departments.	https://www.projectlazarus.org/

Project Name	Description	Links
Promoting School-community-university Partnerships to Enhance Resilience (PROSPER)	PROSPER is a partnership-based universal model that connects school systems with local universities and other community-based organizations to form PROSPER teams. PROSPER teams collaborate to implement evidence-based programs, conduct needs assessments, monitor implementation, and evaluate outcomes. Teams are charged with selecting appropriate family or school-based programs for youth and their families within the community. PROSPER has been shown to reduce use of marijuana, meth, and prescription opioid and other drug misuse.	https://www.crimesolutions.gov/ProgramDetails.aspx?ID=458 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3350746/pdf/nihms372884.pdf http://www.socialimpactexchange.org/organization/prosper-partnership-network http://helpingkidsprosper.org/
Communities That Care (CTC)	The CTC model guides communities through a science-based change process to encourage healthy youth development, improve youth outcomes, and reduce problem behaviors. CTC has been adopted and evaluated in rural and urban communities, with documented reductions in youth SU, crime, and violence. The five phases of the CTC model are (1) activating and engaging community leaders and stakeholders; (2) organizing through development of a board or working within an existing coalition, learning about prevention science, developing a vision statement, and preparing a timeline; (3) developing a community profile using data from a youth survey, identifying risk and protective factors, assessing community resources, and identifying resource gaps; (4) creating an action plan for prevention in the community based on evidence-based programs with measurable outcomes; and (5) implementing the action plan and evaluating the results. Tools, resources, and online courses are available on the CTC website.	https://www.communitiesthatcare.net/

Project Name	Description	Links
Drug-Free Community Coalitions (DFCC)	DFCC, housed in the Office of National Drug Control Policy (ONDCP), provides funding and resources to assist rural and urban communities in implementing the prevention-based model. In 2010, 62 percent of the awards were made to rural communities. With support from ONDCP and the Community Anti-Drug Coalitions of America, tools and resources are available on their websites to assist communities. DFCCs have been implemented in rural communities including multi-county coalitions such as the Join Together Northern Nevada Mentoring Coalition, encompassing an area of 17,362 square miles. Evaluation of the DFCC has shown reductions in tobacco, alcohol, marijuana, and prescription drug use along with changes in attitudes towards tobacco and alcohol use among parents and youth.	https://www.whitehouse.gov/ondcp/grants-programs/ https://preventionsolutions.edc.org/services/resources/drug-free-community-coalitions https://www.cadca.org/drug-free-communities-dfc-program https://www.cadca.org/sites/default/files/resource/files/coalitionhandbook.pdf
SAMHSA's Tribal Training and Technical Assistance Center (Tribal TTAC)	The Tribal TTAC assists tribal communities in undertaking a community mobilizing and planning effort focused on MH, SU, and suicide issues. This community engagement process is supported by technical assistance and community site visits by the Intensive TTAC team. The process begins with a community readiness assessment conducted by community members trained in the process. Tools are available on the website.	https://www.samhsa.gov/tribal-ttac/training-technical-assistance/community-engagement-process

Appendix B: Mental Health and Substance Use Prevention Models

Project Name	Description	Links
Fostering Futures in Menominee Nation	The Menominee Indian School District and Menominee Tribal Clinic developed the Community Engagement Workgroup to address their community's trauma-induced realities. The tribe participated in Wisconsin's Fostering Futures project to expand access to trauma-informed care, build resilience, and mitigate the negative effects of adverse childhood experiences among tribal children. Staff and the trauma-informed care coordinator facilitate trainings through schools and community organizations. Through the schools, children have access to a trauma coach, safe zones/peace rooms, medications, and mood check-ins. Culturally relevant reproductive health and support services, Menominee culture and value lessons, and cultural events promoting sobriety are incorporated into the school-based efforts. Campaigns encourage positive parenting, strength-based language, kindness, and trauma education for parents and families. Participants report increases in BH service utilization; decreases in school suspensions and expulsions; reductions in SU and teen birth rates; and increases in staff understanding of trauma, student health, student resiliency levels, and graduation rates.	https://www.menominee-nsn.gov/CommunityPages/FosteringFutures/FosteringFuturesMain.aspx https://www.ruralhealthinfo.org/project-examples/924 https://www.ihs.gov/MedicalPrograms/Diabetes/HomeDocs/Training/WebBased/Seminars/Handout_TraumaInformedCare508c.pdf
4P's Plus Pregnancy Support Project	This project targets SU among pregnant Native American women and their partners. Services include MH screening and counseling; depression and intimate partner violence services; SU screening during first and third trimesters; incentives for adequate follow-up visits; SU relapse prevention counseling; and classes for parenting, women's cultural wellness, professional skills, and job searching. This program has decreased the number of pregnant Native American women, partners, and babies exposed to alcohol, tobacco, and illicit substances and elevated the use of prenatal care.	https://www.ruralhealthinfo.org/project-examples/830

Project Name	Description	Links
Madison Outreach and Services through Telehealth (MOST) Network	The Center for Community Health Development identified local organizations capable of undertaking MH and SU prevention and treatment services in Brazos Valley in Madison County, Texas, to form the MOST Network. Its primary focus is on linking BH services in urban communities to rural residents via telehealth. The project also introduces Spanish-speaking residents to health and social services.	https://www.ruralhealthinfo.org/project-examples/856
Chatham County North Carolina's Geezers, Gulpers, and Gardeners	This project connects retired men in need of male friends and mutual support to prevent isolation, depression, and suicide and helps to bridge the gap for those who do not discuss their MH concerns with their providers due to stigma, particularly present in rural areas. Physical symptoms of mental distress are often mistaken for indicators of aging. The group is self-directed, and participants determine what activity they would like to pursue such as cards, checkers, coffee, yard games, or drawing from a "conversation starter" basket to inspire conversation and storytelling. Wellness activities and classes are available through the Eastern Chatham Senior Center.	https://www.ruralhealthinfo.org/project-examples/1031 https://www.northcarolinahealthnews.org/2017/10/20/senior-suicides-spike-especially-older-white-men/
Community Clergy Training to Support Rural Veteran Mental Health	This clergy training and counseling initiative targets rural veterans with MH issues. Clergy and chaplains are educated on how to help veterans access physical and MHC and can provide logistical and emotional support needed by rural veterans to overcome barriers to MHC. More than 4,000 clergy members, BH professionals, chaplains, and other supportive individuals have participated in a training event.	https://www.patientcare.va.gov/chaplain/clergytraining/ https://www.ruralhealthinfo.org/project-examples/740

Project Name	Description	Links
Keepin' it REAL Rural	This evidence based, multicultural SU prevention program targets school settings. "REAL" stands for Refuse, Explain, Avoid, and Leave. The program targets 12-19 year olds with prevention messages reflecting the experiences of adolescents in their own words. A cultural grounding model incorporates traditional cultural values and practices to prevent SU. Between 2007 and 2015, the program reported reductions in alcohol, smoking, chewing tobacco, and marijuana use. There are chapters in Arizona, Georgia, Indiana, Kentucky, Louisiana, Nebraska, New Jersey, North Dakota, Virginia, and Washington, in addition to the original Ohio and Pennsylvania programs.	https://www.ruralhealthinfo.org/project-examples/872
Together We Can Be Bully Free	Union Parish, a rural county in Louisiana, was experiencing higher-than-average suicide rates among youth. Union General Hospital, a CAH, started a program to educate students grade 4 through 12 on the negative effects of bullying and how to model positive social behavior. Results: The program is a partnership of the hospital, the Union Parish Sheriff's Office, Crime Stoppers, and the Union Parish School District. The 3,000+ students trained have learned how to recognize, report, and react to bullying. Program participants report a decrease in the number of bullying incidents reported to the Sheriff's Office as well as a decrease in the number of suicide attempts. The program was recognized with the 2014 Outstanding Rural Health Program of the Year Award by the Louisiana Rural Health Association, and as a "Program of Promise" by Jackson Healthcare's National Hospital Charitable Services Awards in 2015.	https://www.ruralhealthinfo.org/rural-monitor/bully-free-program/

Project Name	Description	Links
Minnesota Farm & Rural Helpline	The Minnesota Farm & Rural Helpline, funded by the Minnesota Department of Agriculture, provides a resource for farmers and farm families dealing with stress. Users can call the number or access the website for resources related to crisis intervention, daily living assistance, and business/legal help. From July 2018 to February 2019, the website was viewed by over 1,300 unique visitors and the helpline received 21 calls for crisis services.	https://www.ruralhealthinfo.org/project-examples/1056
Strong African American Families-Teen Program (SAAF-Teen Program)	The SAAF-Teen Program is a seven-week program for youth and parents/caregivers. The key goals are to strengthen parent/caregiver abilities; support youth goals and promote independence; and help youth to develop healthful goals for the future, understand their positive qualities, resist temptation and peer pressure to take part in risky behaviors, build family strengths, and strengthen family communication and support. The program, which has been successfully implemented in rural communities, is culturally sensitive based on prior research with African American families. Evaluation results have shown the program to be effective in reducing drug and alcohol use and postponing sexual involvement.	https://cfr.uga.edu/saaf-programs/saaf-t/ https://www.cdc.gov/hiv/pdf/research/interventionresearch/compendium/rr/cdc-hiv-saaf-t_rr_good.pdf https://www.ruralhealthinfo.org/project-examples/788

Appendix C: Mental Health and Substance Use Treatment Models

Project Name	Summary	Additional Resources
Telepsychology-Service Delivery for Depressed Elderly Veterans	This program uses home-based telehealth to provide psychotherapy to elderly veterans with access barriers to MH treatment such as distance or stigma. Evaluation studies found that home-based telehealth yielded the same improvement in health outcomes, quality of life, satisfaction with care, and cost of care as face-to-face treatment.	https://www.ruralhealthinfo.org/project-examples/941
STAIR (Skills Training in Affective and Interpersonal Regulation	This 10-week program uses telehealth and training to increase emotional regulation and social functioning in clients and reduce depression and PTSD symptoms in rural veterans, particularly females with a history of military sexual trauma. The VA Palo Alto Health Care system offers teleconferencing in community-based outpatient clinics and client homes. Clients reported feeling safer and being able to attend more sessions than they would have in the absence of the STAIR program. Plans are underway to expand its use in 15 VA systems in California, Montana, North Carolina, Oregon, and Wisconsin.	https://www.ruralhealthinfo.org/project-examples/942
Kitsap Mental Health Services: Race to Health! (KMHS)	"Race to Health!" was designed to address clients' physical health, MH, and co-occurring SU issues, while reducing health care costs. Staff received training on physical health conditions, SU, chronic diseases, enhanced care coordination with primary care, and patient self-management. KMHS partnered with primary care providers serving four Oregon counties. Although the program has ended, KMHS plans to reactivate its integrated care model by 2020. Clients were assigned a medical provider (a psychiatrist or an advanced nurse practitioner) and received blood pressure, body mass index, and metabolic screenings (the latter for clients on antipsychotic medications since they are at higher risk for developing diabetes). KMHS reached 6,662 clients during its funding cycle (2012-2015) under a CMS Health Care Innovation Award. Staff reported reductions in hospitalizations, emergency department use, and health care costs for this population.	https://www.ruralhealthinfo.org/project-examples/973 https://ps.psychiatryonline.org/doi/pdfplus/10.1176/appi.ps.201700450

Project Name	Summary	Additional Resources
Buprenorphine services for Pregnant Women	This program targets opioid-using pregnant women via a partnership between a local counseling group, North Bridgton Family Practice providers, and Bridgton Hospital, a CAH. This program targets patients with opioid use disorders for buprenorphine services. For patients receiving buprenorphine, drug screening and counseling are mandatory. North Bridgton hosts support groups for women receiving treatment. The organizers report improved access and care coordination, and that they provide a safe place for women to be open about their opioid issues.	https://www.npr.org/sections/health-shots/2016/06/22/481092545/a-small-town-bands-together-to-provide-opioid-addiction-treatment
The Minnesota Integrative Behavioral Health Program	Rural Minnesota has a shortage of MH services. Among the state's 79 CAHs, BH was the most commonly mentioned service gap. Rural Health Innovations (RHI) launched the Minnesota Integrative Behavioral Health Program to help address these concerns by working with CAHs to integrate BH into hospital, primary care, and community services. RHI has established a process to help CAHs explore different integration models by offering a readiness assessment, planning meetings, tools, examples of integration models that CAHs may explore, and technical assistance to help them choose and implement an integration strategy.	https://www.ruralhealthinfo.org/project-examples/1019
Washington State Hub-and-Spoke Network	This program aids in making opioid addiction medications more available by creating a "help network" within communities in which specialists in the hubs train health care employees in the spokes to administer medication-assisted treatment, allowing the system to serve more patients. The spokes may include a tribal medical facility, a therapist's office, a drug court, or an emergency room.	https://medium.com/wagovernor/what-are-hubs-and-spokes-and-how-can-they-help-fight-the-opioid-epidemic-d65f4f20345f
	This program uses a hub-and-spoke model to build capacity for buprenorphine facilities and provide ongoing case consultation to patients. The five hubs use a buprenorphine treatment model that is multi-disciplinary and incorporates group-	https://www.sciencedirect.com/science/article/pii/S0740547219300595

Project Name	Summary	Additional Resources
West Virginia's Buprenorphine Expansion	based medication management with psychosocial therapy. The hubs independently treat patients and lead training and mentoring for 13 spokes.	
California State Medication Assisted Treatment (MAT) Expansion	This project has two components: the California Hub-and-Spoke System and the Tribal MAT Project. The hub-and-spoke system provides a regional addiction center hub supporting the ability of local spokes to provide buprenorphine/MAT services. Each spoke has access to a dedicated MAT team (an RN and a social worker for every 100 Medicaid patients on buprenorphine). Spokes can refer complex patients to the hub in their region for stabilization. Regionalized Learning Collaboratives extend implementation support, ongoing training, and mentorship opportunities. There are 19 funded hubs and 119 spokes in the state. The Tribal MAT Project seeks to increase the total number of tribal waivered prescribers providing expanded MAT services that include tribal values, culture and treatments.	http://www.uclaisap.org/ca-hubandspoke/index.html
California Bridge Program	This program encompasses 31 selected health facilities in California communities most severely affected by the opioid epidemic. The facilities are designated as either Star sites that initiate treatment for OUDs, Rural Bridge that initiates treatment for OUDs in emergency departments with the support of SU navigators, or Bridge clinics that are low-threshold follow-up clinics for patients who began treatment in a hospital setting. The program provides training to health care providers to enhance access to OUD treatment using emergency rooms and acute care hospitals as windows for treatment initiation.	http://www.phi.org/news-events/1564/california-bridge-program-selects-31-health-facilities-to-expand-mat-for-opioid-use-disorder

Project Name	Summary	Additional Resources
Cherokee Health Systems Integrated Care Model	Cherokee Health Systems serves rural communities in Tennessee through a primary care/BH integration that embeds BH consultants (typically psychologists or clinical social workers) in primary care teams. Primary care providers screen all patients for mood disorders and SU and co-manage with the BH consultants those who screen positive. The primary care and BH staff have access to a psychiatrist, often via the telephone or telehealth, for consultative support. All members of the care team are connected through shared electronic health records.	https://www.cherokeehealth.com/patient-services/adult-primary-behavioral-care https://www.careinnovations.org/resources/lessons-from-cherokee-health-systems-a-truly-integrated-and-inspiring-model-of-care/
University of Vermont Medical Center's Nursing Home Telepsychiatry Service	The UVM Medical Center provides telepsychiatry service to nursing home residents in New York and Vermont. Upon referral from a primary care provider, nursing home residents can connect with a psychiatrist at the UVM Medical Center through the its telehealth service. The program offers psychiatric exams as well as medication reviews and adjustments. A study of the program examined 278 telepsychiatry encounters with 106 nursing home residents served by the program and found that telepsychiatry is a medically acceptable, cost-effective solution for rural nursing homes and that the program saved travel time of 843.5 hours, travel distance of 43,000 miles, personnel cost of approximately $33,739 to $67,477, and physician travel-related cost of approximately $84,347 to $253,040.	https://www.uvmhealth.org/medcenter/Pages/Departments-and-Programs/Telemedicine.aspx https://www.ruralhealthinfo.org/project-examples/794

Appendix D: Recovery Program Models

Project Name	Summary	Additional Resources
Seneca Strong's Certified Recovery Peer Advocates	Seneca Strong was founded to address the gap in opioid treatment and increase prevention and awareness efforts. The program enables certified recovery peer advocates to guide community members who have substance or opioid dependency disorder through recovery. The program uses strengths-based interventions that support individuals and families. The program has adapted an established model that is sensitive to the cultural, social, psychological, and inter-generational traumas their community experiences. The program is part of the Behavioral Health Unit of the Seneca Nation Health System. Providers refer patients with an SUD/OUD to a certified recovery peer advocate. These advocates have struggled with substance dependency and are currently in recovery. The advocates' experiences often resonate with their clients and provide a positive example of overcoming dependency. Seneca Strong also coordinates with six SU counselors who are credentialed alcoholism and substance abuse counselors or licensed social workers. More than 300 people have received help from recovery peer advocates.	https://www.ruralhealthinfo.org/project-examples/1062
Addiction Recovery Mobile Outreach Team (ARMOT)	ARMOT is a collaboration of the Armstrong-Indiana-Clarion Drug and Alcohol Commission, Armstrong County Memorial Hospital, Clarion Hospital, and Indiana Regional Medical Center. It provides case management and recovery support services to adults and adolescents with SUDs and encourages family involvement and education. Hospital staff screen patients for SUDs, determine interests in referral to ARMOT, and make referrals if the client is interested. The mobile case manager meets with patients, screens and assesses patients to determine type of treatment needed, discusses treatment options with patients and makes an appropriate referral, completes referral to treatment, coordinates with the treatment agency, connects patients to community resources, and educates hospital staff on SUDs and recovery. The certified peer recovery specialists share lived	https://www.ruralhealthinfo.org/project-examples/940 https://www.ruralhealthinfo.org/rural-monitor/armot/ http://www.aidac.org/

Project Name	Summary	Additional Resources
	experience with SUDs and recovery, meet with patients on request, educate families on the recovery process, connect patients to support programs such as Alcoholics Anonymous or Narcotics Anonymous meetings, and attend first support group meetings with patients.	
The Affiliated Service Providers of Indiana Network (ASPIN)	This program offers a three-day training to certify CHWs and an additional, optional two-day training to designate CHWs as community recovery specialists (CRSs). CRSs must be in recovery themselves from an MHC or SUD. CRS-certified individuals are peer specialists who provide treatment resources and support in areas with few BH care providers. The Centers for Medicare & Medicaid Services recognizes peer support services as an evidence-based MH model. Reimbursement rate guidelines vary by setting and payer.	https://www.ruralhealthinfo.org/ toolkits/substance-abuse/2/peer- based-recovery-support/peer- specialist
Recovery-Oriented System of Care (ROSC)	The ROSC framework is an approach for transforming BH service systems that organizes and coordinates multiple services, supports, and systems to deliver person-centered services and support a person's or family's chosen pathway to recovery. A ROSC offers a comprehensive menu of prevention, treatment, and support services that can be combined and readily adjusted to meet an individual's needs. A number of rural programs have used the ROSC framework. These models include the following: • ***Centerstone's e-ROSC***. With funding from SAMHSA, Centerstone developed and implemented an e-ROSC program to serve rural residents of Tennessee and Indiana. Using the ROSC framework, Centerstone developed an SUD-specific web portal application (e-ROSC) that uses health information technology tools to enhance care coordination, improve communication with consumers, and enable program participants to track and manage their own health indicators via a personal recovery health record, text messaging, a	https://www.samhsa.gov/sites/default/files/rosc_resource_guide_book.pdf https://www.samhsa.gov/sites/default/files/expert-panel-05222012.pdf http://www.williamwhitepapers.com/pr/CSATpercent20ROSCpercent20Definition.pdf

Project Name	Summary	Additional Resources
	mobile platform/applications for smartphones/tablets, and interconnectivity with Centerstone's electronic health record. • The ***Whole Person Care*** project, based on ROSC principles serves residents in rural Mendocino County, California, with chronic SUDs, MH diagnoses, and/or complex medical conditions. The organization works with medical providers and law enforcement to reduce the high cost of caring for frequent users through intensive care coordination activities.	http://www.williamwhitepapers.com/pr/e-rosc-presentation-centerstone-of-indiana/ http://www.iccmhc.org/sites/default/files/resources/ROSCpercent20Presentationpercent20IN-Council.pdf https://www.ruralhealthinfo.org/project-examples/783