Rural Healthcare and the Opioid Epidemic Maia Hirsch, Class of 2022.5

This summer, I researched rural healthcare delivery, specifically the difficulties rural communities face accessing healthcare and what systems are in place to support their needs. Additionally, I analyzed which factors contribute to the higher prevalence of opioid use disorder, or the misuse of opioids, in rural areas. Through library research and interviews at a substance use disorder prevention coalition in rural Vermont, I researched effective steps to improve healthcare delivery and address substance use disorders in rural settings.

In general, rural populations face challenges accessing general and specialty healthcare services due to a variety of factors, including health workforce shortages and inconsistent internet access. Additional barriers to care include geographic isolation, transportation issues, and the stigma associated with mental health and substance use disorders. More specifically, rather than only being a problem of opioid misuse, the opioid epidemic is an issue of rural infrastructure and prosperity. One of the most common forms of treatment for opioid use disorder, Medication Assisted Treatment (MAT), has been shown to have high success rates. However, administering MAT is challenging due to a shortage of rural physicians that can prescribe it and the little insurance coverage provided for MAT. Furthermore, decaying rural mental health and substance use disorder treatment centers, and a lack of regional coordination, make delivery difficult.

In general, developing universal access to MAT in rural areas and funding rural health infrastructure will allow more patients to receive treatment. For instance, one recently implemented, successful model of care is Vermont's "Hub and Spoke" model for MAT delivery. In this model, regional hubs offer intensive MAT treatment and staff expertise for people during recovery. Spokes, which consist mostly of primary care physicians, are paired with a hub and provide ongoing, long-term treatment once the patient is considered stable. Patients transfer between hubs and spokes as needed, and communication between providers is bidirectional. While challenges still exist with this model of care, such as staffing shortages, Vermont now has the highest capacity for treating opioid use disorder in the United States. Due to the diversity in rural areas, an effective rural health response should be designed and built around the specific needs of the community. Other states could develop similar systems based on Vermont's model and their states specific needs.

Finally, I could not decouple substance use disorders from the COVID-19 pandemic, as the pandemic has both hidden and amplified the opioid crisis. Rising opioid-related deaths are linked to anxiety and isolation from COVID-19, as well as continued lack of access to care and prevention.³ COVID-19 has also encouraged the development of telemedicine, which could be useful in rural areas with fewer providers, especially for mental health support. Future research could be done to analyze the effectiveness of telemedicine for behavioral health support.

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¹ Hancock, Christine, et al. *Treating the Rural Opioid Epidemic - Rural Health*. National Rural Health Association, 2017

² Brooklyn JR, Sigmon SC. Vermont Hub-and-Spoke Model of Care for Opioid Use Disorder: Development, Implementation, and Impact. J Addict Med. 2017 Jul/Aug;11(4):286-292. doi: 10.1097/ADM.000000000000310

³ Adams-Prassl, A. et al. (2020), "The Impact of the Coronavirus Lockdown on Mental Health: Evidence from the US", *Cambridge Working Papers in Economics*, Faculty of Economics, University of Cambridge