RURAL HEALTH
POLICY BRIEF

PREVENTING OPIOID OVERDOSES IN RURAL AMERICA

THE DATA

Drug use and drug overdoses continue to be a critical public health issue across the United States. Drug overdose is now the leading cause of injury death.[1] While the rate of drug use is lower in rural areas than in urban areas, the fatal overdose rate in rural areas continues to rise. In 2015, the rural overdose death rate has been higher than the urban rate since 2006.[2]

This policy brief is a companion to CDC's *Morbidity and Mortality Weekly Report, Illicit Drug Use, Illicit Drug Use Disorders, and Drug Overdose Deaths in Metropolitan and Non-metropolitan areas* — United States but will focus on opioid use and overdose in rural America. The brief will explore policy options and other strategies that may help prevent opioid overdoses and reduce overdose death in rural areas. The brief also includes three case studies that present examples from the field.

ISSUE OVERVIEW

Opioid use disorder is a multifaceted problem that crosses different sectors of public health and health care. The rate of opioid overdoses in rural areas is affected by several factors including the number of people exposed to opioids, how many of those people become addicted, and what, if any, treatment is available.[3] Because of this complex set of issues, it may be helpful to consider policy options and other strategies that can simultaneously address these different factors.[3] Addressing multiple, high-impact factors could help prevent new people from becoming addicted, treat those who are already addicted, and prevent overdose deaths.

While there is promising evidence on the effectiveness of these types of polices and strategies in preventing and treating opioid use disorder and opioid overdoses,[4,5] more information is needed to understand how to effectively target rural populations and reduce rural opioid overdose deaths.

Policy options and other strategies for addressing factors affecting opioid overdoses in rural areas include:

- **Increasing adherence to evidence-based prescribing practices**
- **Expanding access to medication-assisted treatment**
- **Increasing the availability of overdose reversing drugs such as naloxone**

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POLICY AND STRATEGY OPTIONS

Increase Adherence to Evidence-Based Prescribing Practices

Data show that despite continued concerns about opioid use disorder, the number of opioid prescriptions in the United States remains high.[6] Following prescribing guidelines can improve patient safety and address opioid misuse and overdose.[7]

In 2016, CDC released the Guideline for Prescribing Opioids for Chronic Pain that covers 12 recommendations for primary care clinicians treating patients with chronic pain (excluding those patients under active cancer treatment, palliative care, and end-of-life care). Overall, the CDC Guideline was intended to ensure patients have chronic pain treatment while reducing the risk of opioid use disorder, overdose, and death.[8] The recommendations in the Guideline are voluntary, rather than prescriptive standards. Yet, the CDC Guideline provides scientific evidence that could be used to inform local policy changes.

Research has shown that some urban health care systems have been successful at making changes to prescribing practices. Kaiser Permanente Southern California (KPSC) took a comprehensive approach and created "prescribing and dispensing policies, follow-up and monitoring processes, organizational and clinical coordination, and information technology integration" intended to reduce inappropriate opioid prescribing. After the changes were put in place, KPSC had reductions in prescriptions of high dose opioids and high quantity prescriptions (over 200 pills).[9]

Some rural hospitals have adopted new guidelines in specific hospital departments, such as emergency departments, and seen changes in prescribing and patient behavior,[10] but more research is needed to understand the challenges and opportunities for rural hospitals and health systems considering making changes to their guidelines and prescribing policies.

CASE STUDY

Midcoast Maine Prescription Opioid Reduction Program[10]

Over 40% of Maine's population lives in a rural area.[25] In 2011, two hospitals in rural Maine changed their emergency departments' prescription protocol, with an overall goal of deterring opioid use disorder.[25] Physicians and nurses used the guidelines to evaluate patients who came to the emergency departments experiencing dental pain and make decisions about prescribing. After comparing data from the year before and the year after the guidelines were implemented, the emergency departments observed a 17% reduction in the opioid prescription rate for patients discharged with painful dental conditions. In addition, the proportion of emergency department and urgent care visits by patients claiming dental pain decreased by 19%.

POLICY OPTIONS (CONTINUED)

Expand Access to Medication-assisted Treatment (MAT)

Medication-assisted Treatment (MAT) is "a comprehensive way to address the needs of individuals [with opioid use disorder] that combines the use of medication (methadone, buprenorphine, or naltrexone) with counseling and behavioral therapies." [11] Opioid misuse can lead to addiction, which causes changes to the brain's structure and functions.[12] MAT helps counteract these changes to the brain by blocking certain receptors in the brain and therefore plays a crucial role in controlling withdrawal symptoms as people try to manage their recovery.[13]

In order to treat patients with buprenorphine outside of traditional federally certified opioid treatment programs, doctors, and other qualifying health care providers, must apply for and receive a waiver from Drug Enforcement Administration (DEA), in conjunction with the Substance Abuse and Mental Health Services Administration (SAMHSA). Providers with a waiver can treat 30 patients in the first year and 100 patients after having a waiver for one year; certain qualified physicians can request a waiver to treat up to 275 patients after having a 100 patient waiver for one year.[14,15]

Nationwide, there is a shortage of providers who administer MAT, and waivered providers that can prescribe buprenorphine in particular.[16] For example, in 2016, only 52.5% of counties in the United States had at least one waivered provider. While the number of rural counties with waivered providers has increased, 60.1% of rural counties still had no waivered providers in 2016.[17] Quantifying these urban and rural shortages can be difficult because some providers who obtain waivers may not treat the maximum number of patients allowed or treat any patients at all.[18]

It can be challenging to understand why some health care providers are not getting waivers, and why some waivered individuals choose to treat fewer patients than allowed or no patients at all. A survey of rural providers revealed that the perceived barriers to prescribing buprenorphine include:[18]

- Time constraints
- Lack of available mental health or psychosocial support for MAT patients
- Resistance from practice partners
- Lack of confidence in their ability to manage opioid use disorders

These barriers highlight opportunities to support physicians who would like to obtain waivers or treat more patients under existing waivers. Initiatives such as Vermont's hub-and-spoke model (see call out box/sidebar) can expand the availability of and access to MAT and may reduce some of the challenges providers face.[19] Overall, more research is needed to understand how to increase the number of waivered providers and thus increase the number of people who can access MAT.

CASE STUDY

Vermont Hub and Spoke Model

Over 65 % of Vermont's population lives in a rural area.[26] Vermont developed a comprehensive system to treat opioid use disorder that includes MAT and behavioral support. Six regional specialty treatment centers are the "hubs" coordinating the care of individuals with complex opioid use disorders. Designated clinics and physicians who prescribe buprenorphine are the "spokes."[19] These spokes can reach out to hubs for consultations on referrals and screenings.[27] The program also created "care connectors" who provide coordination between the hubs and the spokes.[28]

The state incentivized doctors to begin prescribing buprenorphine/naloxone by funding online training for physicians to obtain DEA waivers. In addition, the state offers technical assistance to physicians who prescribe buprenorphine.[28] After implementing this model and putting in place additional support structures, Vermont has increased the number of waivered physicians in the state.[19]

POLICY OPTIONS (CONTINUED)

Increase Availability of Overdose Reversing Medications

Naloxone is a prescription drug that can reverse opioid overdoses. State laws and regulations can limit access to naloxone. Currently, all fifty states and the District of Columbia have changed their laws to increase access to naloxone,[20] but there are other legal and regulatory changes that can increase access and availability.

Providing naloxone to non-medical personnel who may witness an overdose is a cost-effective and safe way to reduce overdose deaths.[21] Every state and the District of Columbia has legislation designed to improve layperson naloxone access, including protections for health care providers who prescribe or dispense naloxone as well as for bystanders who administer the drug.[20] As of July 15, 2017, 40 states and the District of Columbia have passed Good Samaritan laws that protects bystanders who report overdoses from facing their own possible drug possession charges.[20]

Some state laws allow doctors to provide naloxone to a person who could administer the drug to another person who is at risk for an overdose, also known as third-party prescriptions.[20] Even without the ability to administer third-party prescriptions, research shows that educating family or close friends about the signs of overdose and use of naloxone may help prevent overdoses.[22]

Emergency personnel can play an important role in reversing overdoses, but state laws and regulations determine whether all emergency personnel can give naloxone to patients. There are different levels of training for emergency personnel, and emergency medical technicians in rural areas are more likely to be trained to provide only basic-level life support.[23] Scope of practice laws determine which emergency personnel may administer naloxone. Only 19 states allow all levels of emergency personnel to administer the drug.[24] This means that in rural areas basic EMTs are often not allowed to use naloxone.

State laws and regulations have a direct impact on the availability of overdose reversing medications. State legislators and regulators can consider changes to existing policies in order to increase availability and decrease fatal overdoses in rural areas.

CASE STUDY

Project Lazarus[29,30,31]

Project Lazarus is a model of community engagement that has been successfully adopted in rural communities throughout North Carolina and in other states. The program is intended to help communities prevent overdoses, promote responsible pain management practices, and support substance abuse treatment. From 2009-2011, unintentional overdoses in Wilkes County, the original site of the Project Lazarus, decreased 69%. The program addresses and prevents drug overdose deaths through a variety of methods, including providing Project Lazarus Rescue Kits for individuals, families, health departments, and law enforcement personnel. The kit contains two doses of nasal naloxone as well as educational information on how to revive someone who has overdosed. Between August 2013 and November 2014, there were reports of over 200 documented overdose reversals in the state.[32]

CDC policy briefs provide a summary of evidence-based best practices or policy options for a public health issue. They also include information on the background and significance of the issue as well as current status and potential next steps. This policy brief is part of a series accompanying ***CDC's Morbidity and Mortality Weekly Reports on rural health.***

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