

Understanding Declining Rates of Drug Overdose Mortality in Eastern Kentucky

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Project Description

With funding from the Centers for Disease Control and Prevention (CDC) and the National Association of County and City Health Officials (NACCHO), the NORC Walsh Center for Rural Health Analysis and the University of Kentucky Center of Excellence in Rural Health (UK CERH) conducted this study to understand possible factors associated with declining rates of drug overdose mortality in Eastern Kentucky. Several counties in Eastern Kentucky have seen declines in drug overdose mortality rates over the past decade, even as overdose rates have risen in the state of Kentucky as a whole, as well as in the Appalachian regions of neighboring states such as Pennsylvania, Ohio, and West Virginia. Through an intensive qualitative study, NORC and UK CERH identified policies and strategies that may contribute to the declines, including approaches that could be implemented in other communities.

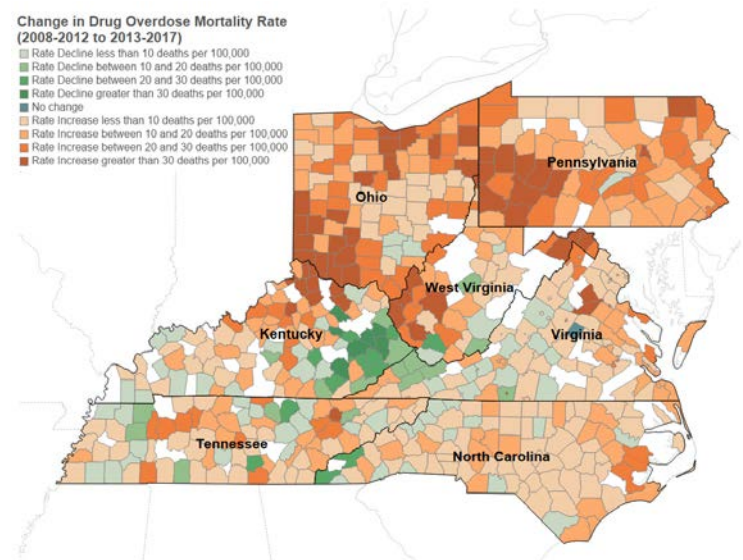
Background

DECLINES IN DRUG OVERDOSE MORTALITY

In October 2018, NORC released an opioid mapping tool (<http://opioidmisusetool.norc.org>), which provided county-level drug overdose mortality data for two 5-year time periods. Drug overdose mortality data were obtained from the CDC National Center for Health Statistics (NCHS) National Vital Statistics System (NVSS).¹ Drug overdose mortality was determined using the standard International Classification of Diseases 10th Revision (ICD-10) underlying cause-of-death codes used by CDC (X40-X44, X60-X64, X85, and Y10-Y14).

Between 2008-2012 and 2013-2017, 8 counties in Eastern Kentucky were among the 10 counties nationally with the greatest decline in drug overdose mortality, among the population aged 15 to 64 years old. Of the top 20 counties nationally, 14 were in Eastern Kentucky. Even as rates declined in Eastern Kentucky, drug overdose mortality rates in neighboring states increased dramatically, prompting the research team to explore policies and programs that possibly contributed to these observed trends.

Figure 1. Changes in Drug Overdose Mortality from 2008-2012 to 2013-2017



Data Source: Mortality rates provided by Centers for Disease Control and Prevention, National Center for Health Statistics. Accessed at <http://wonder.cdc.gov/mcd-icd10.html>. ICD-10 codes: X40-X44, X60-X64, X85, Y10-Y14.

Methods

NORC used a **qualitative study** design to explore research questions related to the observed declines in overdose mortality rates in Eastern Kentucky. Our research team conducted an exploratory site visit to the region in November 2019. During this visit, we met with local stakeholders representing a variety of respondent groups included in the final study sample.

We conducted 38 semi-structured telephone interviews with key stakeholders in Eastern Kentucky. Stakeholder groups included interviews with representatives from the following sectors:

- Criminal justice (9)
- Prevention/education (7)
- Economic development and recovery (6)
- Treatment (6)
- State and local public health (5)
- Health care (3)
- Harm reduction (2)

Findings

Interview respondents identified several factors that may have contributed to the observed declines in drug overdose mortality in Eastern Kentucky.

POSSIBLE CONTRIBUTING FACTORS TO DECLINES IN DRUG OVERDOSE MORTALITY

POLICIES, PROGRAMS, AND INTERVENTIONS

- Improving Prescribing Behaviors
- Increasing Access to Substance Use Treatment
- Developing a Recovery Ecosystem
- Evolving Approach of the Criminal Justice System
- Expanding Syringe Services Programs
- Increasing Naloxone Distribution
- Preventing and Education about Substance Use Disorder (SUD)

COMMUNITY ENVIRONMENTAL FACTORS IN EASTERN KENTUCKY

- Longstanding Political Commitment to Addressing Substance Use in the Region
- Appalachian Resilience
- Strong Partnerships, Coalitions, and Collaboration
- Reduced Stigma about SUD

SHIFTS IN DRUG USE PATTERNS

- Movement towards Use of Methamphetamine as Opposed to Opioids

POLICIES, PROGRAMS AND INTERVENTIONS

Many interview respondents indicated that efforts to **limit the availability of prescription opioids** likely contributed to declines in drug overdose mortality. Specifically, in 2012 the Kentucky General Assembly passed House Bill 1, requiring providers to use the Kentucky All Schedule Prescription Electronic Reporting (KASPER) system when prescribing controlled substances.² According to a representative from the Kentucky Office of Drug Control and Policy, this prescription drug monitoring legislation resulted in the closing of 36 pain clinics either voluntarily or for failure to meet licensure requirements under the new law.

One of the most commonly hypothesized reasons for the decline in drug overdose mortality rates was **increased access to substance use treatment** given an increased number of people with health insurance as a result of Medicaid expansion, implemented in Kentucky in January 2014. The number of times enrollees in Kentucky's Medicaid expansion program received substance use services increased by more than 700 percent between the first quarter of 2014 and the second quarter of 2016, from approximately 1,500 to more than 11,000 care encounters.³

“Medicaid expansion has made a tremendous difference. More folks are able to access treatment and more treatment exists because of the expansion. Before, for a treatment center to exist, they had no means of any kind of revenue. Now, they are able to leverage Medicaid, and more treatment centers are able to exist and expand, and so many more people are able to access it.”

- Criminal justice representative

Respondents also described **the development of a recovery ecosystem** across Eastern Kentucky, including second chance employment, recovery housing, and peer support. Several interview respondents discussed the Recovery Kentucky model, which provided housing and recovery services across the state.⁴

Additionally, respondents noted the **evolving approach of the criminal justice system**. For example, the Kentucky State Police implemented the Angel Initiative in 2016, which allowed anyone experiencing addiction to come into a post and receive help in finding and accessing treatment.⁵ Interviewees across sectors described how judges across Eastern Kentucky have shifted from

sentencing people with SUD to prison, to looking for alternative sentencing options and opportunities to provide support.

Many interviewees commented on the benefits of **syringe services programs (SSPs)** in Eastern Kentucky. Passed in 2015, Kentucky SB 192 allowed local health departments to operate Harm Reduction and Syringe Exchange Programs (HRSEP).⁶ As of October 2020, Kentucky had 74 operating SSPs in 63 counties, the majority of which were in Eastern Kentucky.⁷ Interviewees noted that the expansion of SSPs in Eastern Kentucky provided another touchpoint for accessing treatment services.

Another factor mentioned by respondents was **increased access to naloxone (Narcan)**. In addition to being distributed at SSPs, interviewees shared that more police officers had been trained to use and carried naloxone in the past few years. Local pharmacists also carried Narcan and were able to sell it and teach the community how to use it effectively. While naloxone may have played a role in reducing drug overdose deaths, many respondents shared that the notable increase in naloxone distribution had occurred since 2017, and therefore may not have been as central to the reductions in drug overdose mortality observed between 2008-2012 and 2013-2017.

Finally, stakeholders discussed **prevention efforts and substance use education** as contributing factors to the observed declines, highlighting the role of community-based organizations and regional coalitions such as Operation UNITE (see below) in reaching out to youth and other community members to increase awareness and understanding about substance use.

COMMUNITY ENVIRONMENTAL FACTORS IN EASTERN KENTUCKY

Interview respondents described the **longstanding political commitment to addressing substance use** in Eastern Kentucky and its potential impact on declines in drug overdose mortality. For example, many Kentucky elected officials have shown bipartisan support for allocating resources and directing attention to SUD concerns in Kentucky, including Congressman Hal Rogers (R; 1981–present) and Governors Ernie Fletcher (R; 2003–2007) and Steve Beshear (D; 2007–2015).

Respondents also discussed the influence of the work of Operation UNITE in Eastern Kentucky. Founded in 2003 by Congressman Rogers, it was dedicated to preventing addiction and providing individuals with treatment vouchers

and recovery services, in addition to offering prevention and education programs.

Respondents also discussed how the notion of **an Appalachian culture or shared identity** helped Eastern Kentucky residents come together to recognize addiction issues and find innovative solutions by leveraging cultural strengths such as independence and resilience. Additionally, **robust and cross-sector collaborations** among local partners, such as treatment providers and those from the criminal justice, economic development, nonprofit, hospital, and academic sectors, made it possible to take a multifaceted approach to addressing issues related to addiction and drug use in the region.

“Everybody at the table now has learned this is not a one agency problem—we have to all say this is my part and your part now let’s make it work.”

- Criminal justice representative

Reducing stigma related to SUD was a common theme throughout interviews across stakeholder groups. Respondents said that community awareness and educational initiatives led to **reduced stigma**, which has facilitated increased treatment enrollment and support to address addiction issues. Respondents frequently highlighted how reduced stigma increased community support for treatment and recovery, and led to changing attitudes within the criminal justice system.

SHIFTS IN DRUG USE PATTERNS

While respondents discussed many of the positive reasons they believed Eastern Kentucky saw a decline in drug overdose mortality rates, they also frequently reported **shifting drug use patterns** in the region. Across all sector types, respondents described the increased use of methamphetamines in particular as a contributing factor to reduced opioid mortality rates as access to prescription opioids declined. Treatment providers reinforced this perception, noting that a higher percentage of their clients indicated that methamphetamine was their primary drug of choice over recent years, as compared to the past.

“With meth, you don’t see the acute overdoses as often as you do with opiates. It’s just as devastating, but it doesn’t have [a] sedative effect.”

- Substance use treatment provider

Lessons Learned

Eastern Kentucky has achieved notable success in reducing drug overdose mortality, and this study highlighted some of the strategies and approaches that key informants believed were associated with these reductions. Key strategies identified in this study that may be adapted and leveraged by other states and communities included:

- Developing cross-sector partnerships among community-based organizations, stakeholders, and policymakers to reduce stigma and collectively address SUD
- Passing and enforcing prescription drug monitoring legislation
- Expanding substance use treatment benefits and availability
- Incorporating employment skills training as a component of substance use treatment
- Creating an environment for people with SUD that promotes long-term recovery, including increased access to recovery housing and second chance employment opportunities
- Increasing access to and training on Narcan as part of community education and prevention efforts
- Understanding shifts in drugs of choice, and recognizing the need for comprehensive addiction treatment

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ABOUT NORC Walsh Center for Rural Health Analysis

NORC's Walsh Center for Rural Health Analysis (NORC) was established in 1996 by Project HOPE and transferred to NORC at the University of Chicago in 2003 to study policy issues affecting health care and health status in rural America. The Walsh Center for Rural Health Analysis' mission is to conduct timely policy analysis, research and evaluation that address the needs of policy makers, the health care workforce, and the public on issues that affect health care and public health in rural America.

The Walsh Center for Rural Health Analysis

NORC AT THE UNIVERSITY OF CHICAGO

ABOUT UK Center of Excellence in Rural Health

The University of Kentucky Center of Excellence in Rural Health was established by state legislation in 1990 to address health disparities in rural Kentucky and the unique challenges faced by our communities. The mission was and still is today to improve the health and well-being of rural Kentuckians. For three decades, the Center has partnered with communities, providers, students, and individuals to provide health professions education, health policy research, health care service, and community engagement toward reaching this mission.

 Center of Excellence
in Rural Health