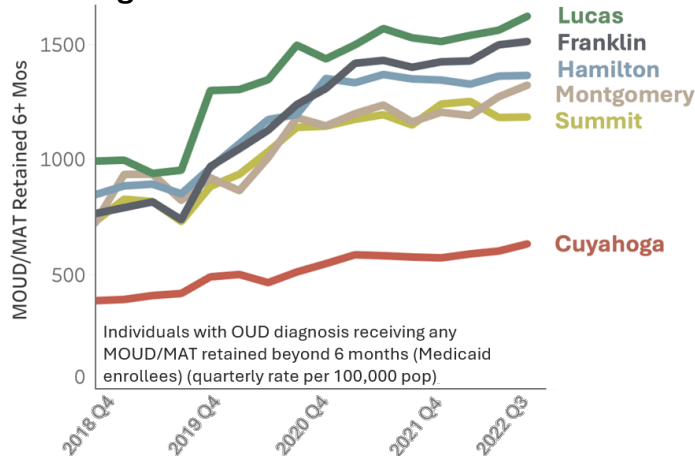# County Disparities in Opioid Treatment

A Comparative Analysis of Ohio's Urban County Medicaid Enrollees

16 August 2024

This research brief examines trends in Medications for Opioid Use Disorder (MOUD) and Medication-Assisted Treatment (MAT) across Ohio's urban counties specific to Medicaid enrollees ages 18-64. It highlights successes in treating Opioid Use Disorder (OUD), disparities in diagnosis, and challenges in linkage to overdose.
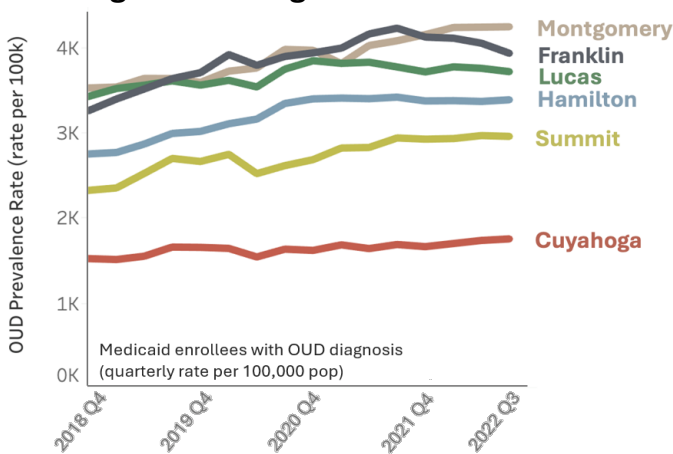
Fig 1. MOUD/MAT Retention Rates

Lucas, Franklin, Hamilton, Montgomery, Summit, Cuyahoga

Y-axis: MOUD/MAT Retained 6+ Mos (1500, 1000, 500, 0)
X-axis: 2018 Q4, 2019 Q4, 2020 Q4, 2021 Q4, 2022 Q3

Individuals with OUD diagnosis receiving any MOUD/MAT retained beyond 6 months (Medicaid enrollees) (quarterly rate per 100,000 pop)

Retention in Medication-Assisted Treatment is Improving
Across all counties, retention rates for individuals in MOUD/MAT programs show a positive upward trend. This suggests that MOUD/MAT programs are successfully retaining individuals, crucial for sustained recovery.
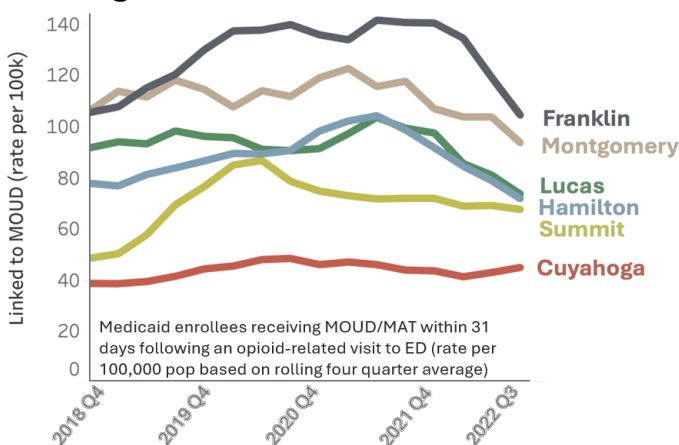
Fig 2. OUD Diagnosis Rates

Montgomery, Franklin, Lucas, Hamilton, Summit, Cuyahoga

Y-axis: OUD Prevalence Rate (rate per 100k) (4K, 3K, 2K, 1K, 0K)
X-axis: 2018 Q4, 2019 Q4, 2020 Q4, 2021 Q4, 2022 Q3

Medicaid enrollees with OUD diagnosis (quarterly rate per 100,000 pop)

Big Differences in OUD Diagnosis Across Counties
Variations in OUD diagnosis rates may reflect possible differences in healthcare engagement, screening, and protocols across counties. Stigma, mistrust of providers, and limited awareness or acceptance of MOUD/MAT may also impact discussions, contributing to lower diagnosis rates.

Fig 3. Persons Linked to MOUD/MAT

Franklin, Montgomery, Lucas, Hamilton, Summit, Cuyahoga

Y-axis: Linked to MOUD (rate per 100k) (140, 120, 100, 80, 60, 40, 20, 0)
X-axis: 2018 Q4, 2019 Q4, 2020 Q4, 2021 Q4, 2022 Q3

Medicaid enrollees receiving MOUD/MAT within 31 days following an opioid-related visit to ED (rate per 100,000 pop based on rolling four quarter average)

Linkage to MOUD/MAT is Declining
A decrease in overdose-related ED visits (see Fig 4, page 4) aligns with a decline in linkage to MOUD/MAT across most counties since 2021. This trend may stem from improved treatment retention (Fig 1), or efforts such as increased naloxone distribution and other harm reduction work leading to a reduction in ED visits and subsequent linkage.

Introduction

In the ongoing battle against the opioid epidemic, Medications for Opioid Use Disorder (MOUD) and Medication-Assisted Treatment (MAT) have emerged as critical components in the public health strategy to reduce opioid misuse and its devastating consequences. While guidelines published by both the American Society of Addiction Medicine and the Substance Abuse and Mental Health Services Administration (SAMHSA) recommend using MOUD, a study utilizing the 2022 National Survey on Drug Use and Health data revealed that 25.1% of individuals with opioid use disorder (OUD) received MOUD in the past year.[1,2,3] Moreover, certain groups, particularly Black adults, women, and unemployed individuals are significantly less likely to receive MOUD.[3]

Only 25% of individuals with OUD receive MOUD

This research brief presents an analysis of the trends in MOUD/MAT utilization within Medicaid populations across Ohio's six major urban counties from 2017 to 2022. We also compare overdose trends for the entire population. Through an examination of data sourced from the State of Ohio Integrated Behavioral Health Dashboard (IBHD) we shed some light on the differences across Ohio urban counties in opioid diagnosis and MOUD/MAT linkage and retention rates. By comparing these six similar counties[4], we identify patterns and disparities that may influence future directions in opioid use disorder diagnosis protocols and treatment strategies. Our goal is to gain insights from counties that demonstrate higher effectiveness in MOUD/MAT linkage and retention and to understand the factors driving differences in OUD diagnosis rates, potentially informing and refining treatment approaches statewide.

What is MOUD/MAT?

MOUD and MAT are critical components in the comprehensive care of individuals facing opioid addiction. SAMHSA underscores that addiction is a chronic, manageable illness. SAMHSA advocates for nuanced, patient-centered approaches to treatment that include not only FDA-approved medications such as methadone, buprenorphine, and extended-release injectable naltrexone that can reduce illicit opioid use and the risk of overdose death, but also individualized psychosocial supports. SAMHSA's guidance stresses the importance of expanding access to these medications as a public health priority, highlighting their effectiveness and the need to bridge the significant treatment gap in the United States.[2]

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[1] American Society of Addiction Medicine. The ASAM National Practice Guideline for the treatment of opioid use disorder: 2020 focused update. See https://www.asam.org/quality-care/clinicalguidelines/national-practice-guideline
[2] Substance Abuse and Mental Health Services Administration. Medications for opioid use disorder: for healthcare and addiction professionals, policymakers, patients, and families. See https://store.samhsa.gov/sites/default/files/pep21-02-01-002.pdf
[3] Treatment for Opioid Use Disorder: Population Estimates — United States, 2022. See https://www.cdc.gov/mmwr/volumes/73/wr/pdfs/mm7325a1-H.pdf
[4] While the percentages of Medicaid enrollees aged 18-64 are relatively close across the largest (population) Ohio counties, Franklin County has the highest proportion at 23.8%. The other counties follow: Lucas at 17.5%, Cuyahoga at 17.2%, Montgomery at 16.5%, Summit at 14.7%, and Hamilton at 14.2%.

What Our Exploration Uncovered

An upward trend in the retention of individuals with OUD in MOUD/MAT programs in all counties (Fig 1) indicates a growing adherence to treatment protocols, crucial for sustained recovery. However, disparities exist. Individuals in Cuyahoga County show statistically significant lower retention rates compared to those in all five other counties, suggesting the possible need for adjustments in intervention strategies.

> **Should we be thinking more about alternative treatment pathways beyond ED engagement?**

The variability in MOUD linkage rates within 31 days after opioid-related ED visits (Fig 2) may reflect differences in engagement techniques and protocols across counties, as well as stigma, mistrust, and limited awareness of MOUD. [5] Since EDs are key touchpoints for initiating recovery, understanding best practices is critical to improving post-overdose outcomes across these counties. Additionally, if fewer people are reaching EDs (Fig 4) due to pre-hospital interventions like naloxone distribution, alternative pathways to treatment must also be considered.

Table 1 identifies which counties are performing better in specific opioid management metrics, serving as potential models for others. Each column/measure lists counties that demonstrate statistically significantly higher rates compared to the county named in the respective row. For instance, several counties are named under the "ME [Medicaid Enrollee] with OUD diagnosis" measure associated with Cuyahoga County, indicating practices from which Cuyahoga might learn to improve its own outcomes.

Table 1: Franklin and Montgomery Counties are Leading in Opioid Management: Potential Outreach and Learning Opportunities for Ohio's Other Urban Counties

County	*ME with OUD diagnosis receiving MOUD/MAT retained beyond 6 months	ME with OUD diagnosis	ME receiving MOUD/MAT within 31 days following opioid-related visit to ED
Cuyahoga could learn from	Franklin, Hamilton, Lucas, Montgomery, Summit	Franklin, Hamilton, Lucas, Montgomery	Franklin, Hamilton, Lucas, Montgomery
Franklin could learn from	-	-	-
Hamilton could learn from	-	Franklin, Montgomery	Franklin, Montgomery
Lucas could learn from	-	-	Franklin
Montgomery could learn from	-	-	-
Summit could learn from	Lucas	Franklin, Lucas, Montgomery	Franklin, Montgomery

*ME = Medicaid Enrollees

[5] Substance Use and Misuse: Intervention Stigma toward Medications for Opioid Use Disorder: A Systematic Review. See: https://www.tandfonline.com/doi/full/10.1080/10826084.2021.1975749

Fatal and Non-Fatal Overdose Trends

We also looked at two measures for the entire population of each county, to understand key outcomes (fatal and non-fatal overdoses) at the population-level (not only Medicaid enrollees). The decline in rates for those treated for an opioid overdose in EDs across these counties may stem from overdose prevention efforts, such as the expanded distribution of naloxone, individual use of fentanyl test strips, or simply more success in treatment. The widespread availability of the life-saving opioid antidote–naloxone–may be a primary factor in the reduced need for emergency services, as individuals and communities are better equipped to intervene during overdoses (see Figure 4).   ED data aside, drug-related mortality rates overall are higher in most of these counties compared to 2018, attributed primarily to the sustained high supply/availability of fentanyl (see Figure 5).

Decline in ED Overdose Visits, But Mortality Remains High

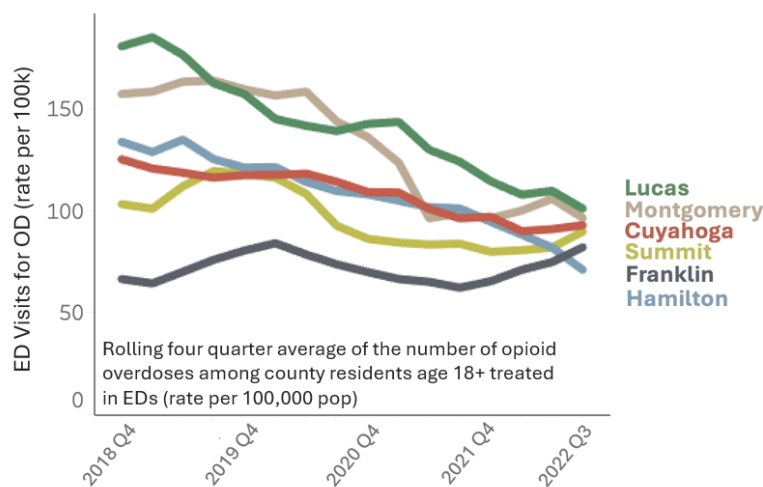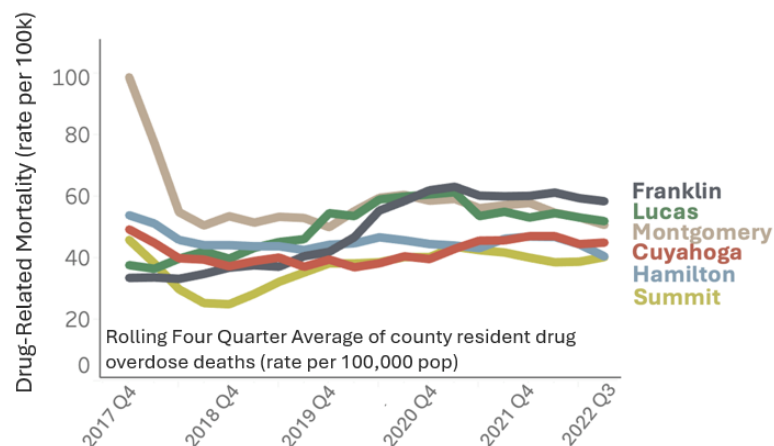**Fig. 4 Rate of Opioid Overdoses Treated in EDs, 2018 Q4 to 2022 Q3**

Fig 5. Drug-Related Mortality Rates, 2017 Q4 to 2022 Q3

Summary

The public health implications of these findings are multifaceted. The rising OUD prevalence rates in Medicaid populations underscores the need for continued expansion and access to MOUD/MAT services. The data underscores the importance of effective post-overdose interventions that could dramatically improve long-term treatment retention and recovery outcomes. By comparing these measures across counties, we may identify strategies that could support underperforming areas, ultimately enhancing overall health outcomes.

Despite the variations observed across these counties, it's important to recognize the substantial efforts by individuals and organizations in these communities to combat drug addiction. Among these initiatives, the Care Innovation and Community Improvement Program (CICIP) has, since 2019, played a pivotal role by enhancing healthcare services for Medicaid beneficiaries. Specifically targeting gaps in opioid disorder treatments, CICIP operates in collaboration with four major hospital systems: University of Toledo Medical Center/Physicians Practice (UTMC), MetroHealth, University of Cincinnati Health (UC Health), and Ohio State University Wexner Medical Center (OSU). These efforts include evaluating and fostering cooperation among the institutions to maximize the benefits of various initiatives.[6] This brief also seeks to foster continued and expanded dialogue and collaboration across these communities, enhancing the collective response to the opioid crisis.

It is also important to recognize that the most current Medicaid data used for this brief was last reported in September 2022 and there is a potential that some of these trends have changed over the last two years.

Methodology

To compare these opioid-related measures across Ohio's urban counties, the Begun Center team utilized data from the State of Ohio Integrated Behavioral Health Dashboard, published by Recovery Ohio. We used recent U.S. Census Bureau estimates to calculate crude drug-related death rates, rates of opioid-related ED visits, and rates for the various Medicaid-measures used in this comparison (per 100,000 population). To account for seasonal and quarterly data variations, we employed four-quarter rolling averages for certain measures, enabling clearer visualization and understanding of trends.

To statistically validate the observed differences across the counties we employed the Kruskal-Wallis test followed by Dunn's post-hoc tests to identify if statistically significant differences existed. These statistical tests were performed using Python®.

Note: Two values in Summit County data, one in measure "Medicaid Enrollees linked to MOUD after opioid OD hospital visit" and another value in "Medicaid opioid OD hospital visits linked to MOUD afterward" were suppressed in the IBHD data; the minimum values were used in place of missing values.

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[6] Care Innovation and Community Improvement Program Year 2 Evaluation Report. See https://www.jmoc.state.oh.us/Assets/documents/reports/CICIP_Evaluation_Report_Y2_(202109).pdf

Acknowledgement

Recommended Citation

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Sources

1. Death data from data.ohio.gov
2. MOUD / MAT data from data.ohio.gov
3. Population data from census.gov
4. Medicaid population data from analytics.das.ohio.gov

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