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LFCUG's Utilization of 2022 Opioid Settlement Funds for Recovery Housing

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Abstract

Following national settlements to combat the opioid epidemic, Kentucky and its local governments received a collective $842 million to invest in prevention and treatment. To employ these dollars most effectively, Lexington-Fayette Urban County Government (LFUCG) aims to become "recovery ready" as a part of Kentucky's Recovery Ready Communities (RRC) certification program. This mixed methods comparative case study determined the following high-priority variables that align with RRC certification requirements: recovery housing infrastructure, certification disclosure, and medications for opioid use disorder (MOUD) services. To provide additional insight into Fayette County's recovery housing landscape, we analyzed the following supplemental variables: vulnerable populations served, transportation services, and mental health services. We identified how Fayette County compares to four peer communities (Boone, Franklin, Kenton, and Jefferson counties) to compare recovery housing infrastructure and services. Fayette County performs well in the number of publicly listed recovery housing facilities compared to its peers. However, its recovery homes fall behind in accepting varying populations and many available recovery houses are not appropriately registered or certified. Fayette County may be insufficient in terms of specific amenities such as transportation and services like mental health support. After an objective analysis of these areas, we are confident our study will provide LFUCG pathways to meaningful conversations about improving recovery housing provisions and pursuing RRC certification.

Introduction

The opioid epidemic claimed the lives of nearly 645,000 people from 1999-2021 (CDC, August 2023), and the toll continues to rise. In response, national settlements arose from states and local governments' concerted efforts to hold prescription manufacturers and distributors accountable for their role in the crisis. The most recent settlements of 2022 have resulted in over $26 billion in opioid abatement funds, granting Kentucky over $478 million (Hubbard, 2022). Kentucky lawmakers then initiated legislative directive KY 21RS HB427 to create statutes KRS 15.291 and KRS 15.293, establishing the Kentucky State Opioid Abatement Fund Commission (KSOAFC) and Opioid Abatement Trust Fund (OATF) respectively. KY 21RS HB427 allocates 50% of the 2022 settlement funds to local governments and the remaining 50% to the Commonwealth (Hubbard, 2022). The OATF account is designated to Commonwealth-allocated funding for further distribution as deemed by the KSOAFC. Due to the recent settlements and legislation, most states and local governments are in the beginning stages of determining best practices for allocations of abatement funds moving forward.

Our client, Lexington-Fayette Urban County Government (LFUCG), requested assistance regarding the utilization of its allocation of $14.3 million in national opioid settlement funds. The mayor of Lexington appointed members to its local Opioid Abatement Commission in early 2023, tasked with administering the funds to the local community. The commission and its staff determined their focus on utilizing part of the settlement dollars towards establishing Fayette County as "Recovery Ready." This comes from a piloted initiative from the state of Kentucky entitled "Recovery Ready Communities," a certification that signifies that a county is prepared to support its community members in substance use disorder (SUD) prevention, treatment, and recovery areas. There are many existing non-profits and public programs in the area currently

funded by federal grants, donations, or private funding. The incoming abatement dollars will provide Fayette County with the opportunity to bolster these existing support systems and create new ones.

Through a preliminary examination of the framework for "Recovery Ready Communities" (RRC), LFUCG identified recovery housing as an area that will require more resources to be certified as an RRC. The recognition of this need allowed us to develop the question:

What are strategies to improve Fayette County, Kentucky's provisions of recovery housing to support individuals who suffer from opioid use disorder?

This study performs comparative research through secondary data analysis that LFUCG can utilize to meet RRC framework requirements. Data in this study consists of documentation from government reports, local government press releases, and SUD industry analysis. For purposes of this study, Kentucky counties that have received RRC certification are analyzed as models for our client and are referred to as "RRC peer communities." We focus on the potential progress of Fayette County and how the recently appointed LFUCG Opioid Abatement Commission may utilize the estimated $14.3 million to be dispersed from 2023 through 2038.

Our completed study is intended to support the LFUCG and other local governments in guiding their recovery housing planning and improvements through our findings.

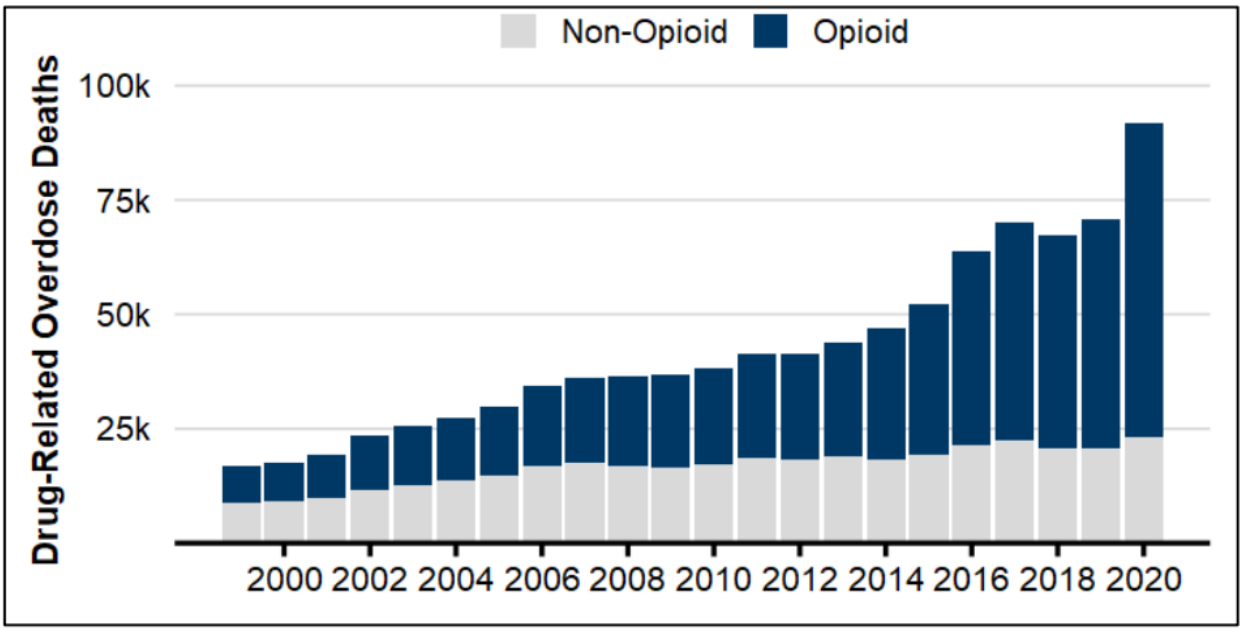
Background

Opioid use in the United States has been rapidly escalating for over two decades. The escalation of use has led to increasing rates of use, addiction, and mortality. Three in ten U.S. adults (29%) claim that they or someone in their family have had an addiction to opioids (Sparks,

2023). The U.S. Food and Drug Administration (FDA) (2021) defines opioids as powerful, pain-relieving prescription or illicit drugs that affect many individuals and families through misuse and abuse of the class of drugs. Today, there are three confirmed waves of the opioid crisis, beginning when reformulated opioids were released into the public market in the 1990s, most notably Oxycontin, along with advocacy for increased pain management (Duff, 2022). After the release, sales of the drug class quadrupled, and the opioid-related death rate doubled from 1999-2010. The second wave occurred as the illicit drug, heroin, began its rise. From 2010-2016, the national rate of heroin-related deaths quintupled from 1 to 4.9 per 100,000 individuals. Then, in 2016, heroin was surpassed by fentanyl, a synthetic opioid, which began the third wave of the opioid epidemic that the United States is currently experiencing, claiming the lives of a predicted 82,998 Americans in 2022 (FDA, 2021; NCHS, May 2023). Confirmed of those deceased are 1,922 Kentuckians (Kentucky Justice and Public Safety Cabinet, 2023). Although opioids are not the only form of drug causing overdose deaths, as depicted in Figure 1, opioid overdose deaths have exponentially increased in the past two decades compared to non-opioids.

Figure 1

Drug-Related Overdose Deaths in the United States, by Opioid Involvement, 1999-2020



Note. Source from Duff, Johnathan H. et al. (30 November 2022). *The Opioid Crisis in the United States: A Brief History.* Congressional Research Service (CRS), https://crsreports.congress.gov/product/pdf/IF/IF12260

On a national scale, Kentucky was ranked 6th in natural/semi-synthetic opioid overdose deaths and 14th in synthetic opioid overdose deaths in 2018 (SHADAC). In addition, the Substance Abuse and Mental Health Services Administration (SAMHSA) found that, during 2017-2019, Kentucky's average prevalence of opioid use disorder was 1.3%, which is 0.6% higher than the national average (2020a). This data, coupled with the prevalence of fentanyl, has caused alarm for federal, state, and local leaders to quickly direct their attention to existing and new support systems for those with SUD.

The use of opioids has continued to rise to unprecedented levels along with rampant expenses for SUD prevention, treatment, and recovery. This impact on communities in the United States was recognized in 2022 when the Commonwealth of Kentucky, along with 45

other states, finalized their role in the national $26 billion settlement with Cardinal, McKesson, and AmerisourceBergen, three of the United States' major pharmaceutical distributors, and Johnson & Johnson (J&J), which manufactured and marketed opioids (Hubbard, 2022). They were pursued for their companies' roles in the opioid epidemic. Of the $26 billion in settlements, $22.7 billion will be available for abatement funding across the United States (Hubbard, 2022). Kentucky received $478 million, and Fayette County, Kentucky will receive $14,332,969 in divided allocations until 2038 (Burnett, 2022). This settlement is the largest of its kind, second to the Master Tobacco Settlement Agreement in 1998. As this research is conducted, many local officials are beginning their pursuit to determine the use of the abatement funds their locality has received.

Literature Review

Recovery is defined by SAMHSA as an overall "process of change through which individuals improve their health and wellness, live self-directed lives, and strive to reach their full potential" (SAMHSA, 2023b). This can include personalized pathways such as clinical treatments and medication-assisted recovery, faith-based approaches, friends and family support, peer support, and/or recovery housing (SAMHSA, 2023b). Due to the personal and intimate nature of the recovery process, the definition continues to be ever-developing. To help direct best practices of recovery and address the personalized nature of recovery, SAMHSA provides guiding principles that outline the systemic- and community-based foundations of recovery support and services (SAMHSA, 2023b).

These guiding principles involve "four major dimensions" that lean into multifaceted support for treatment and recovery for individuals suffering from SUD, opioid use disorder (OUD), and/or concurring mental health concerns: health, home, purpose, and community

(SAMHSA, 2023b). Recovery housing is vital to the "home" dimension as a type of positive recovery pathway. SAMHSA offers 11 best practices for recovery housing (see Appendix A, Table A1), which extend the foundational dimensions into successful models for recovery housing policy, practice, and evaluation (2023c). These best practices are used to model effective recovery-centered practices that help support long-term positive outcomes of residents in recovery by addressing individuals in a manner that "improves their health and wellness, [helps them] live a self-directed life, and strive to reach their full potential (SAMHSA, 2023b)."

With an estimated 72.1% (50.2 million) of U.S. adults aged 18 and over reporting that they are in substance use and/or mental health recovery, defining longer-term recovery methods continues to be critical in reducing OUD and SUD relapse incidences (SAMHSA, 2023a). Housing stability is an essential pillar in improving treatment and recovery outcomes by providing a longer-term, stable, and safe environment for personal growth and wellness development.

Recovery Housing

Recovery housing, also known as transitional housing or sober living homes, provides a safe, stable, alcohol- and drug-free environment to support individuals in recovery (Kirby, Kizeweski, & Bunn, 2020). Unlike other residential facilities, outpatient or inpatient treatment programs, recovery houses are not state-monitored agencies. Different sober living associations or coalitions can define policies and programs for their network. However, most recovery houses are built around the foundational concept of peer support and building up an alcohol- and drug-free social network through physical, emotional, and financial freedom from substance use. Programs often include pathways to self-sustainable treatments through 12-step addiction programs like Alcoholics Anonymous (AA) or Narcotics Anonymous (NA), financial

contributions to house maintenance and utilities, and peer-support initiatives (Polcin & Henderson, 2008).

National Standards for Recovery Housing.

The most recent standards for recovery housing are based on the Oxford House Model. An Oxford House is a community-based approach to addiction and recovery. It encompasses a network of "self-sustaining, democratically run home[s] that [are] free from drugs and alcohol" (Buffo, 2023). Similar to providing substance use treatment programming and peer support, an Oxford House has no maximum length of stay if residents abide by house expectations. An application must be approved by 80% of current house residents, and once admitted, the residents will learn to support each other in developing self-sustaining life and social skills that will guide their long-term recovery process (Buffo, 2023).

Beyond Oxford House certification, recovery housing can receive National Alliance of Recovery Residences (NARR) certification. NARR certification has remained a national standard for recovery residence best practices since 2011 by establishing criteria in four domains: Administrative Operations, Physical Environment, Recovery Support, and Good Neighbor Domain (NARR, 2018). These domains address the standards of ethics, quality, access, and choice by promoting the Social Model theory that also guides Oxford House certification. The Social Model relies on an individual's capacity to govern themselves and builds on pro-social life skill building and personal responsibility growth through physical, emotional, and social investment in one's surroundings (Wittman & Polcin, 2014).

Effectiveness of Recovery Housing.

Providing individuals in recovery with safe and stable housing can positively impact substance use treatment outcomes. The National Institute on Alcohol Abuse and Alcoholism

funded a 5-year “Evaluation of Sober Living Homes” to focus on 6-, 12-, and 18-month outcomes of individuals in clean and sober transitional living like recovery houses. The study utilizes the Addiction Severity Index (ASI), which assesses problem severity in six different areas: medical, employment/support, drug/alcohol use, legal, and family/social and psychological. Other variables included psychiatric severity using the Brief Symptom Inventory, peak density measures of alcohol and drug use, and incarceration rates. Outcomes indicated that 40% of recorded individuals reported complete abstinence from drugs and alcohol between the baseline and 6-month assessments. Despite there not being significant changes in assessment between the 6-month and the 12- and 18-month assessments, outcomes indicated that those recovery house residents were able to maintain abstinence and/or healthy physical/emotional treatment trends (Polcin & Henderson, 2008; Polcin et al., 2010).

Alternatively, early studies of certified, communal-based recovery homes indicate that individuals who join recovery housing post-intervention showed higher rates of positive treatment outcomes such as increased income, lower incarceration rates, and decreased substance use. About 31.3% of individuals from recovery housing returned to high-risk substance use as opposed to 64.8% of those who did not engage with recovery housing and had an average of $550 more in household income per month (Jason et al., 2011). This was reaffirmed in 2022 by an assessment of recovery capital (resources that can help sustain recovery) that showed increased employment, increased participation in support groups, decreased use, and a reported higher quality of life as opposed to those not in recovery housing (Härd et al., 2022).

National Recovery Housing Landscape.

As of 2020, researchers in collaboration with the Oxford House, Inc., and National Alliance of Recovery Residencies (NARR), have estimated that there are an established 2,355

Oxford Houses and about 15,000 other recovery homes across the United States (Jason et al., 2020). The opioid epidemic has an increasing impact on individuals suffering from SUD, OUD, and/or mental illness. Between 2000 and 2019, the opioid-related overdose death rate increased by 255.74% (National Center for Drug Abuse Statistics [NCDAS], 2023). Increased access to evidence-based, long-term recovery pathways like recovery housing is vital to the continued expansion of care in communities.

Data Plan & Research Design

Method of Analysis

To best answer our research question, *What are strategies to improve Fayette County, Kentucky's provisions of recovery housing to support individuals who suffer from opioid use disorder?*, our study recognized LFUCG's goal of becoming a certified RRC. For Fayette County to understand what will be required of them to receive certification, our study first identified the existing seven Recovery Ready Communities (RRC) and five additional counties perceived to be comparable to Fayette County. These communities provide LFUCG leadership with the most accurate view of how Fayette County's resources match up to counties with RRC certification and/or similar demographics.

The currently recognized RRCs are Boone, Boyle, Campbell, Grant, Kenton, Perry, and Woodford counties. In addition to the RRCs, our study added Jefferson, Warren, Daviess, Franklin, and Madison counties for demographic selection to determine our counties for comparison. Throughout this study, we performed a mixed methods comparative case study using quantitative and qualitative data to analyze selected counties after the preliminary review process.

Preliminary Selection: Peer Communities

In our comparative exploration of the initial 12 counties, we created individual county profiles using Social Explorer: 2022 American Community Surveys (5-Year Estimates) for the following indicators: population/population density, median gross rent, median household income (past 12 months), highest educational attainment (25 years and over), age (25-54), sex, race, and Hispanic or Latino by race. These demographics were used to determine the comparability of each county to Fayette County. Utilizing counties that had comparable, or a ratio comparable to, demographics to Fayette County allowed this study to provide a more realistic view of effective recovery housing strategies for LFUCG. Threshold justifications are detailed in Appendix B.

Table 1

Demographic Thresholds for Fayette County, Kentucky

Fayette County Profile		
Variable	ACS 2022 (5-Year Estimate)	Threshold to be considered
Total Population & Population Density (Per Sq. Mile)	Total: 321,276 Population Density: 1,131.8 /Sq. Mile	Total: 50,000< Population Density: 200<
Median Gross Rent (2022 Adj.)	$1,065	$750<
Median Household Income in the Past 12 Months (In Inflation-Adjusted Dollars)	$41,622	$41,622>
Highest educational attainment for population 25 years and over	Less than High School: 7.9% High School Graduate: 18.8% Some College: 26.9% Bachelor's Degree: 26% Master's Degree: 12.8%	*Less than High School* data must be within 2% of Fayette County's 7.9%
Age (25-54)	39.70%	Within two-point difference (2%)
Sex	Male: 49.3% Female: 50.7%	Within one-point difference (1%) for each sex
Race	White: 71.8% Black/African American: 14.7% Asian: 4.1% Other: 9.4%	8.46%< total minority representation (Black/African American + Asian + Other) (At least 1/3 of Fayette County's minority population)
Ethnicity	Hispanic or Latino: 7.4%	2.5%< (At least 1/3 of Fayette County's Hispanic and Latino population)

Note. Adapted from American Community Surveys (5-Year Estimates) (2022). Reports. *Social Explorer,* https://www.socialexplorer.com/tables/ACS2022_5yr

Opioid Use Data.

Our study utilized the Kentucky Injury Prevention and Research Center (KIPRC) Drug Overdose and Related Comorbidity County Profiles 2018-2022 (University of Kentucky, 2023) to obtain opioid use and opioid-related incidents data. Our study utilized 2022 totals by county that were described by substance use disorder diagnoses from emergency department visits (per

100,000), fatal overdose opioid-involved fatal overdoses (per 100,000), and opioid-involved non-fatal overdose emergency department visits (per 100,000). This data allowed our study to identify the estimated number of individuals affected by the opioid epidemic in each of the comparable counties and Fayette County.

Recovery Housing Data.

To fully understand the status of recovery housing in each county selected for further analysis, we added information on existing recovery housing provisions in each comparable county profile. This included data from the KIPRC *Find Recovery Housing Now* directory (2023) database on a county-wide basis for the number of houses and beds in each identified county. The KIPRC *Find Recovery Housing Now* directory is highlighted by the RRC Certification website to help professionals and individuals in need find the most appropriate recovery housing support. The directory includes filters for location, population served, payment options accepted, and housing availability. As well, it lists current amenities for each home in the house overview. For each recovery home, our study identified recovery housing certifications, in-house services available, and amenities provided. This data was utilized to identify trends in recovery housing throughout the counties and compare those to the current landscape of Fayette County's recovery housing provisions.

Peer Communities Selection.

Based on our preliminary analysis, our study identified four peer communities: Boone, Franklin, Kenton, Jefferson. These four counties best met the determined thresholds for the peer community selection process (see Appendix C).

Addressing the Question

Our data analysis aims to assist the municipality by identifying potential gaps in Fayette County's recovery housing provisions. This is accomplished through identifying two sets of variables: high-priority and supplemental.

Our study identified and defined high-priority variables that outline Fayette County's preparedness to meet the following RRC criteria for recovery housing (Recovery Readdy Communities Kentucky, n.d.):

- Community has available recovery housing stock
- Recovery housing adheres to either National Association of Recovery Residences (NARR) standards or the Oxford House model; and/or
- Available recovery housing stock allows residents who utilize MOUD

To provide a wider perspective regarding recovery housing provisions in Fayette County beyond RRC criteria, we included additional variables that align with SAMHSA's recovery housing best practices. These supplemental variables will strengthen the LFUCG's understanding of recovery housing provisions beyond RRC requirements and encourage proactive orientation toward existing nationally identified best practices.

High-Priority Variables.

To identify potential gaps in Fayette County's recovery housing provisions and facilitate a clearer understanding of our findings, our study categorized the data into four core areas: recovery housing infrastructure, vulnerable populations served, transportation services, and mental health services. The following series identifies our variables utilized in each subject matter area. Table 2 identifies the high-priority variables and their correlating RRC criteria.

Recovery Housing Infrastructure.

Our study identified variables to best describe the physical assets of recovery housing, beginning with an inventory of recovery houses and beds in each county. While this data is beneficial, it does not fully describe the populations recovery housing serves, including total population and percentage of the total population with an SUD diagnosis.

Certification Disclosure.

All recovery homes in Kentucky are required to be in the process of certification by July 1st, 2024, and must be certified by December 31st, 2024, to continue operating. Therefore, our study found it imperative to evaluate this variable and understand where other counties are in the process. This variable provides our study with an estimate of legitimate homes that can be occupied by individuals in recovery, allowing us to more accurately evaluate the recovery housing landscape.

MOUD-Friendly Services.

Another high priority variable of interest to our study is the number of recovery homes that disclose whether they are MOUD-friendly. MOUDs are utilized to provide a "whole patient" approach, in conjunction with counseling and behavioral therapies (SAMHSA, n.d.). This can be very beneficial for individuals in recovery and practitioners who are looking for the "whole patient" approach that best suits them.

Table 2

RRC Criteria: High-Priority Variables

RRC Criteria	Variable
Community has available recovery housing stock	Number of recovery houses per county
	Number of recovery housing beds per county
	Percent population with SUD-diagnosis
	Ratio of recovery houses in the county to SUD-diagnosed population in the county
	Ratio of recovery housing beds in the county to SUD-diagnosed population in the county
Recovery housing adheres to either National Association of Recovery Residences (NARR) standards or the Oxford House model	Percent of disclosed and non-disclosed certifications per county
Available recovery housing stock allows residents who utilize MOUD	Percent of MOUD-friendly recovery homes per county

Note. *Adapted from* Recovery Ready Communities Kentucky (n.d.). *Recovery Ready Communities Certification Program Population Categories, Scoring, and Criteria.* Team Kentucky. https://rrcky.org/wp-content/uploads/2023/02/Public-RRC-Pop-Categories_Scoring_Criteria-1.pdf and Appendix D.

Supplemental Variables.

We recognize that, while RRC certification is the preferred outcome for Fayette County, it is the first state-wide pilot program of its kind in the United States, having limited historical data due to its recent inception. Therefore, it is not the highest standard that recovery housing provisions could be held to. To provide additional guidance to Fayette County's recovery housing provisions, our study cross-examines identified variables with the Substance Abuse and Mental Health Services Administration's (SAMHSA) Recovery Housing Best Practices listed in Appendix A.

Due to limited capacity in our study, we were unable to assess recovery housing data that aligned with all 11 of SAMHSA's Best Practices. Instead, we selected important variables that align with some of those Best Practices and later defined areas of growth and opportunity. The

analysis of these supplemental variables will further assist Fayette County in meeting best practice standards and bolster its current efforts in RRC certification.

Table 3 outlines our study's supplemental variables and their correlating SAMHSA best practices. Appendix D provides an extension of Tables 2 and 3 that identify correlating SAMHSA best practices for every variable utilized for analysis in this study.

Vulnerable Populations Served.

While it is crucial to have knowledge of the general SUD-diagnosed population, it is important to recognize the admittance of diverse populations within that pool. Our study collected data on the percentage of homes per peer county that accept the following populations: unhoused, individuals with children (children able to stay with their parent in the recovery home), re-entry (individuals re-entering society from jail/prison), and court-involved (individuals who have active court cases).

Transportation Services.

Acceptance to a recovery home is only one of many barriers for individuals with SUD. For example, recovery homes may be in places that are not easily accessible on foot. In addition, the homes could be far away from essential locations, such as grocery stores, pharmacies, etc. This need would require a recovery home to be near public transportation or have provided, in-house transportation. We utilized these two provisions in our analysis by measuring the percentage of recovery homes in peer counties that disclosed access to these services.

Mental Health Services.

Physical housing for individuals in recovery is imperative, but the quality of the services a recovery home provides is equally important to guide a person to sobriety. The concurrent treatment of mental health needs and physical addiction can further support an individual with

SUD. Our study aims to measure the provisions of mental health services by measuring the percentage of recovery homes in peer counties with the following variables: peer support specialist program and one or more form of therapy and/or mental health services.

Table 3

Best Practices – Supplemental Variables

Variable	SAMHSA Best Practice
Percent of recovery houses that disclose acceptance of children of individuals in recovery per county	Being Recovery-Ready (1), Promote Equity and Ensure Cultural Competence (4)
Percent of recovery houses that offer peer support specialist programs per county	Promote Person-Centered, Individualized and Strengths-Based Approaches (2)
Percent of recovery houses that disclose in-house transportation per county	Promote Person-Centered, Individualized and Strengths-Based Approaches (2), Promote Equity and Ensure Cultural Competence (4)
Percent of recovery houses that disclose location near public transportation	
Percent of recovery houses that serve re-entry population	Promote Equity and Ensure Cultural Competence (4)
Percent of recovery houses that serve court-involved population	
Percent of recovery houses that offers one or more form of therapy and/or mental health services	Integrate Co-Occurring and Trauma-Informed Approaches (6)

Note. Adapted from Substance Abuse and Mental Health Services Administration (SAMHSA). (2023). *Best Practices for Recovery Housing.* SAMHSA. https://store.samhsa.gov/sites/default/files/pep23-10-00-002.pdf and Appendix D.

Potential gaps identified through the study are to be presented to the LFUCG Opioid Abatement Commission. This will include a comprehensive presentation of the variables collected, an overview of Fayette County's existing provisions as they relate to the RRC recovery housing criteria, and an identification of best practices currently within Fayette County's recovery housing provisions. We aim to utilize our results to provide a more accurate understanding regarding recovery housing-centered conversations to the commission.

Threats and Limitations

While conducting this study, we used a comparative approach to identify potential gaps in Fayette County's recovery housing approaches, the Recovery Ready Communities (RRC) certification is a program piloted in Kentucky and has a limited pool of counties and data to utilize for comparison.

In this comparative case study, we acknowledge that there is limited availability of information. Due to limited information, and the probability of assumption-making, this study only identifies trends, rather than definitive claims or recommendations. The study's outcome cannot determine whether implementing certain recovery housing provisions guarantees RRC certification. However, it provides profiles that public servants for LFUCG can utilize to guide their decision-making on how best to meet RRC recovery housing criteria in Fayette County.

Results

Aggregation of our study's data revealed compelling trends regarding our peer counties' recovery housing stock and amenities. Our preliminary analysis found that Fayette County has adequate recovery housing stock compared to peer counties, though there are disclosures of specific amenities and certifications that may need to be visited for improvement.

Visualization of Findings

High-Priority Variables.

This data allowed our study to visualize the differences between peer communities and make LFUCG aware of how their municipality compares to similar areas across the state. For instance, Table 4 and Figure 2 depict the landscape of physical recovery housing resources compared to the SUD population those facilities would serve. The percentage of Fayette

County's total population that is diagnosed with SUD (1.2%) is not far from its counterparts. Even though it does not have the highest SUD diagnosis rate, Fayette County has the highest amount of recovery beds out of the comparison pool. In addition, a recent study estimating the number of recovery homes in the United States found that, only about 1.2% of individuals with SUD utilize recovery housing annually (Jason, 2020). Our data revealed that there are roughly 3,924 individuals diagnosed with SUD from emergency department visits in Fayette County; meaning that, on average, only 47 of those individuals would seek out recovery housing each year. If this is valid, Fayette County currently has eight times the number of beds estimated to sufficiently serve these individuals.

This high level of facilities in the county provides an opportunity to serve larger amounts of individuals suffering from SUD, though, accessibility to services of those facilities is where Fayette County falls short.

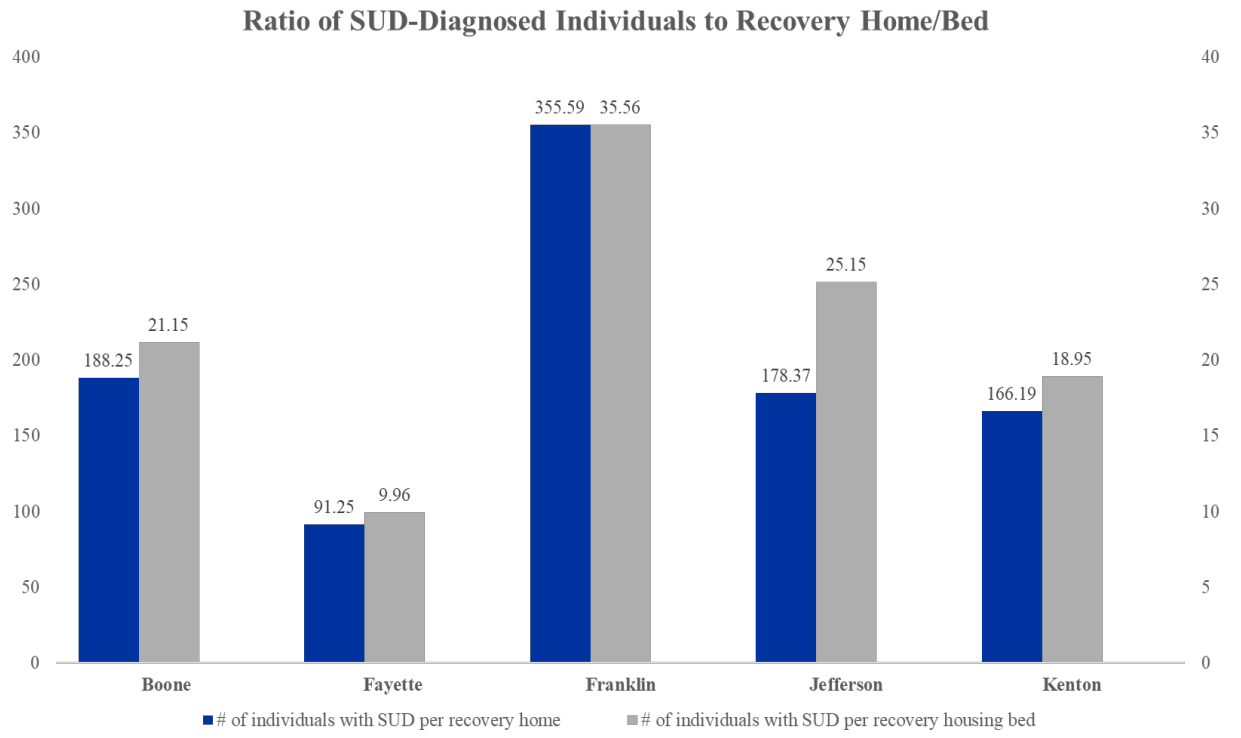
Table 4

Recovery Housing Infrastructure

County	Total County Population	Percent Population with SUD Diagnosis	Number of Recovery Homes per County	Number of Recovery Home Beds per County
Boone	136,150	0.55%	4	35
Fayette	321,276	1.2%	43	394
Franklin	51,475	0.69%	1	10
Jefferson	779,232	1.24%	54	383
Kenton	169,066	1.28%	13	114

Note. The data for county population is from *Reports,* by the American Community Surveys (5-Year Estimates), 2021, *(https://www.socialexplorer.com/tables/ACS2021_5yr).* The data for SUD diagnoses are from *Kentucky Drug Overdose and Related Comorbidity County Profiles,* by the University of Kentucky, 2018 to 2022, *(*https://kiprc.uky.edu/programs/overdose-data-action/county-profiles). The data for recovery homes/beds per county are from *Let's Find the best Recovery House for your needs, by* the Kentucky Injury Prevention and Research Center, 2023 (https://www.findrecoveryhousingnowky.org/) and Appendix E.

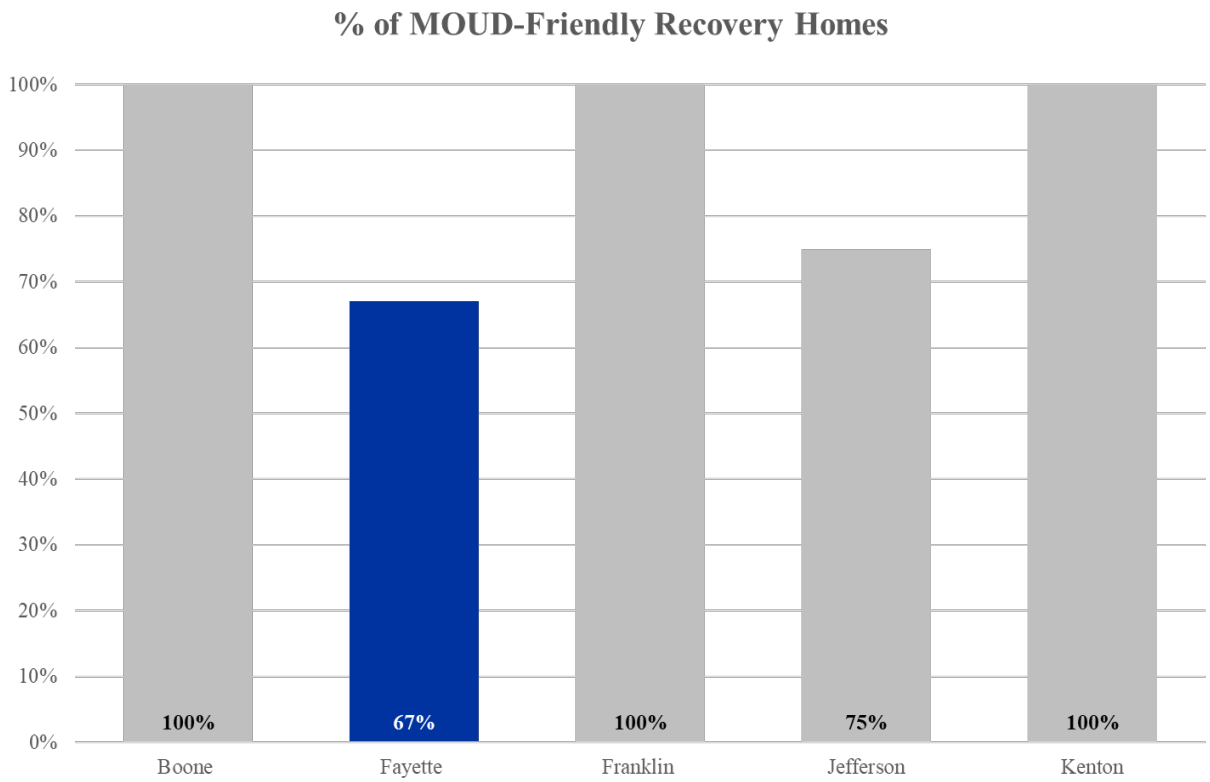
Figure 2



Note. The data for SUD diagnoses are from *Kentucky Drug Overdose and Related Comorbidity County Profiles,* by the University of Kentucky, 2018 to 2022, (https://kiprc.uky.edu/programs/overdose-data-action/county-profiles) and Appendix E.

We found that Fayette County does slightly fall behind its peers in MOUD-friendly recovery homes, though, is still doing well as depicted in Figure 3. Roughly two-thirds of all recovery homes in the county disclose that they are MOUD-friendly. In smaller counties, it can be observed that all homes accept MOUDs. With more urban counties like Fayette and Jefferson, there is a mix between acceptance and non-acceptance. This may be a beneficial option for individuals who want to participate in a usage-abstinent residence. If LFUCG finds that it is appropriate, it may be beneficial to help increase MOUD acceptance among the remaining 33% of homes in the county to mirror the 75% that Jefferson County currently holds.

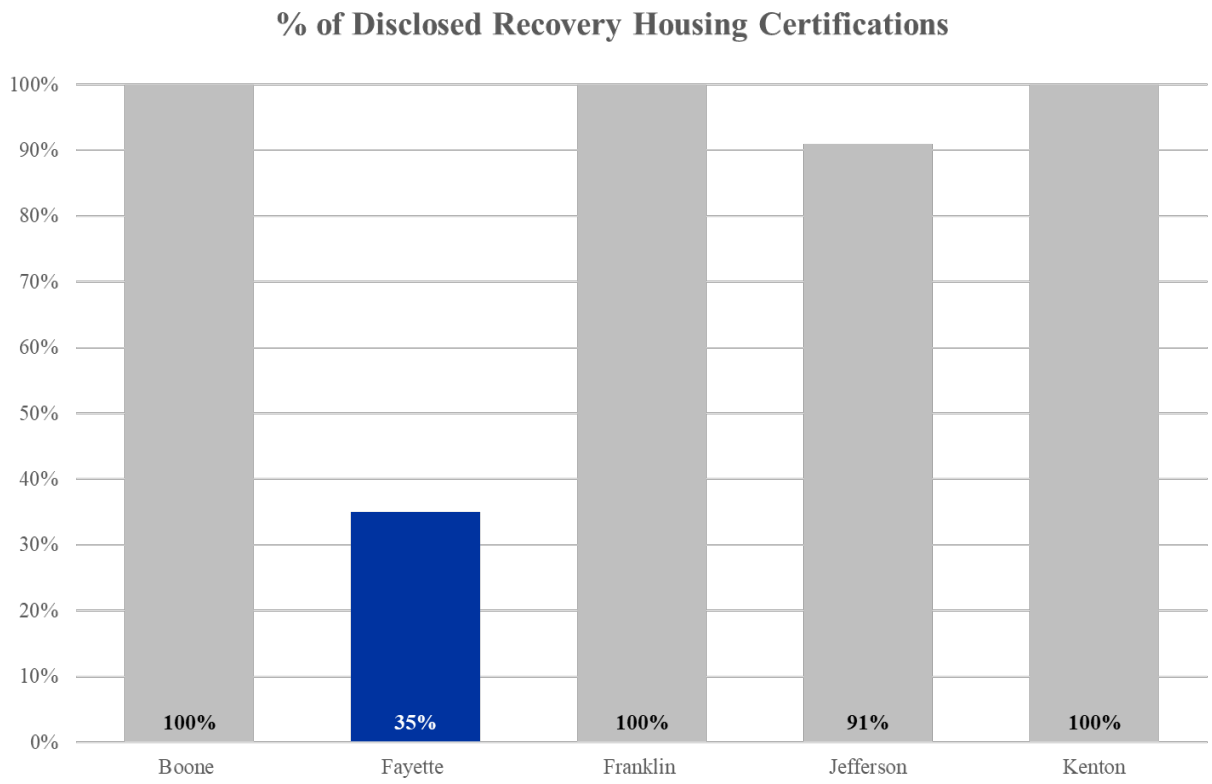
Figure 3



Note. The data for MOUD-friendly recovery homes are from *Let's Find the best Recovery House for your needs,* by the Kentucky Injury Prevention and Research Center, 2023 (https://www.findrecoveryhousingnowky.org/) and Appendix E.

Although Fayette County has the highest number of beds in the comparison pool and lowest ratio of recovery homes and beds to people with SUD (see Figure 2), those numbers will soon be irrelevant if those homes are not certified by state standards. In comparison to its peer counties, our study found that Fayette County's recovery homes fall largely behind in its disclosure of certifications (see Figure 4). Even if homes are certified, the lack of disclosure of certification creates a barrier to recovery for individuals and professionals seeking appropriate services. In the near future, LFUCG may want to assist recovery homes without certifications to quickly begin the process before July 1st, 2024, and encourage those that are already certified to disclose that information on KIPRC's *Find Recovery Housing Now* directory.

Figure 4



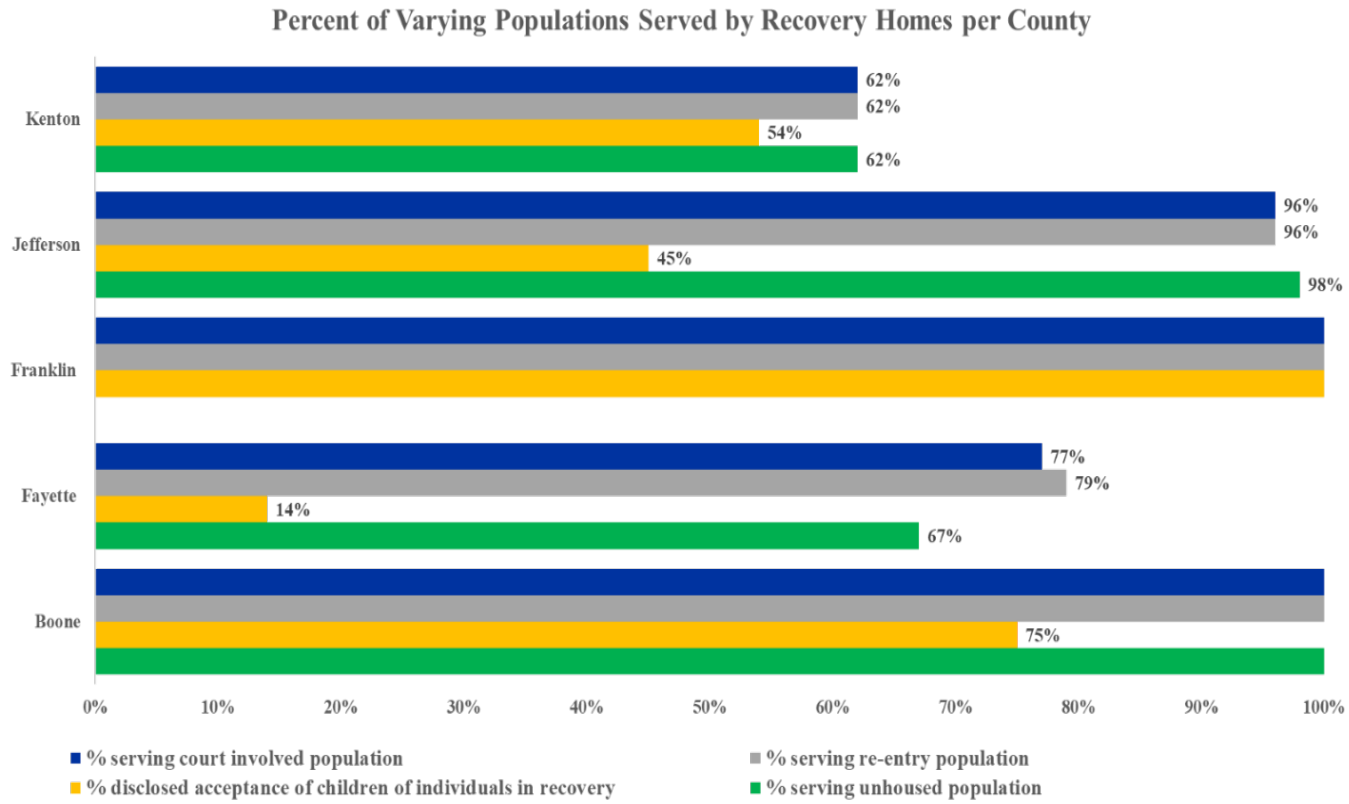
Note. The data for certified recovery homes are from *Let's Find the best Recovery House for your needs,* by the Kentucky Injury Prevention and Research Center, 2023 (https://www.findrecoveryhousingnowky.org/) and Appendix E.

Supplemental Variables.

Accessibility to recovery comes in many forms, including physical access, such as admittance to a recovery home based on needs (Figure 5) and transportation (Figure 6). Our study found that Fayette County has opportunities to increase service to vulnerable populations in recovery homes compared to its peer communities; an average of 59.25% of homes in Fayette County accepted one of our four identified vulnerable populations: unhoused, children of those diagnosed with SUD, court-involved, and re-entry. In contrast, an average of 78.13% (+/- 18.88% difference) of our peer counties accept those same groups. We acknowledge that Fayette County's data may not be fully representative of true circumstances, though peer communities

identified in this study provided their information to the KIPRIC *Find Recovery Housing Now* directory and had notably higher levels of acceptance of the identified vulnerable populations. If this is not a true depiction of Fayette County's acceptance of those four groups, LFUCG may want to encourage recovery homes within the county to submit information to this state-wide database, as recovery specialists, individuals/family seeking recovery housing, healthcare professionals, etc. utilize that resource to connect individuals to the correct treatment they may need.

Figure 5

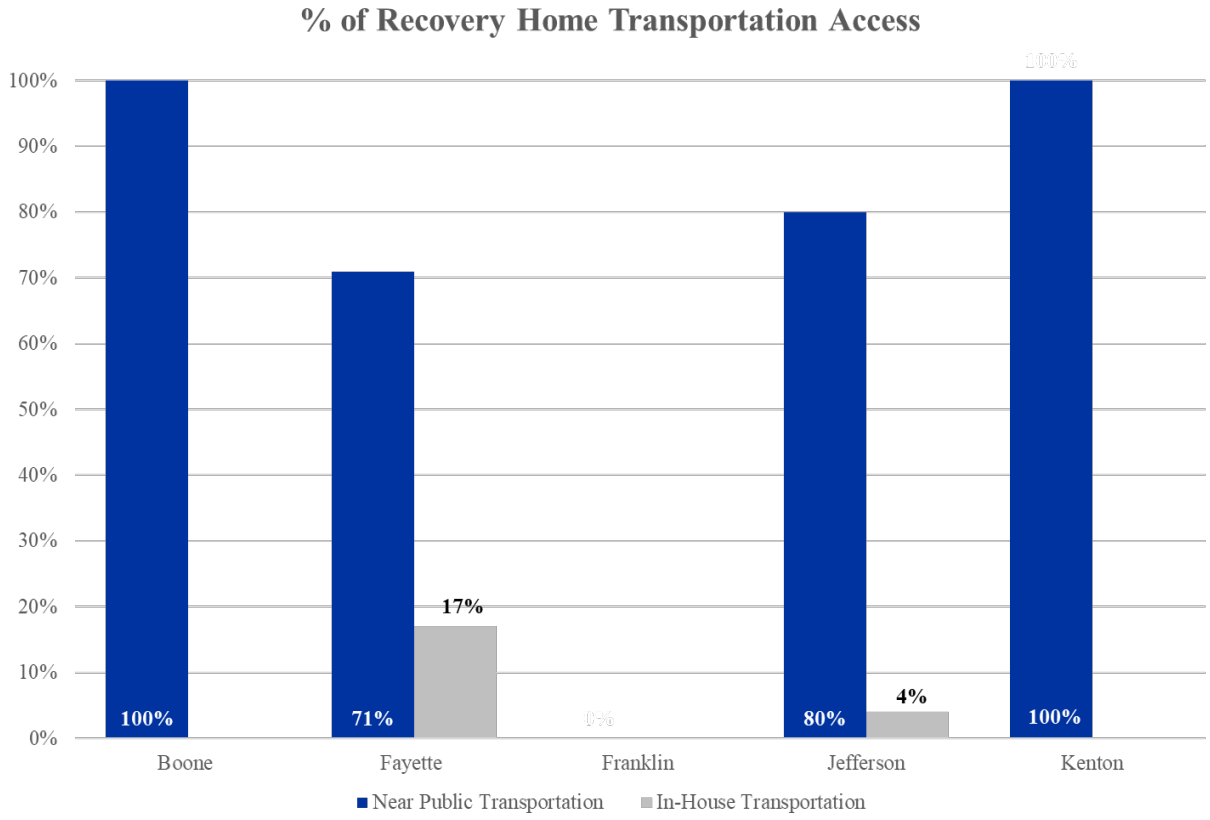


Note. The data for different populations served by recovery homes are from *Let's Find the best Recovery House for your needs,* by the Kentucky Injury Prevention and Research Center, 2023 (https://www.findrecoveryhousingnowky.org/) and Appendix E.

In addition to having acceptance to a recovery home, individuals must find a way to commute to and from the facility. There is a correlation between county-level income inequality and higher overdose rates (Kariisa, 2022). In addition, shorter travel distances translate to longer

stays and greater completion rates in substance abuse treatment (Pullen, 2014). Our research suggests that recovery homes should find avenues to better support the individuals they serve in terms of transportation, whether by proximity to public transport or the ability to transport residents by the house itself. Our data revealed that Fayette County is slightly falling behind regarding its recovery homes' proximity to public transportation but surpassed all counties regarding in-house transportation, even though only 17% provide this service. We determine that there is an opportunity for growth in this area but acknowledge that the location of homes is a restraint for providing this form of city.

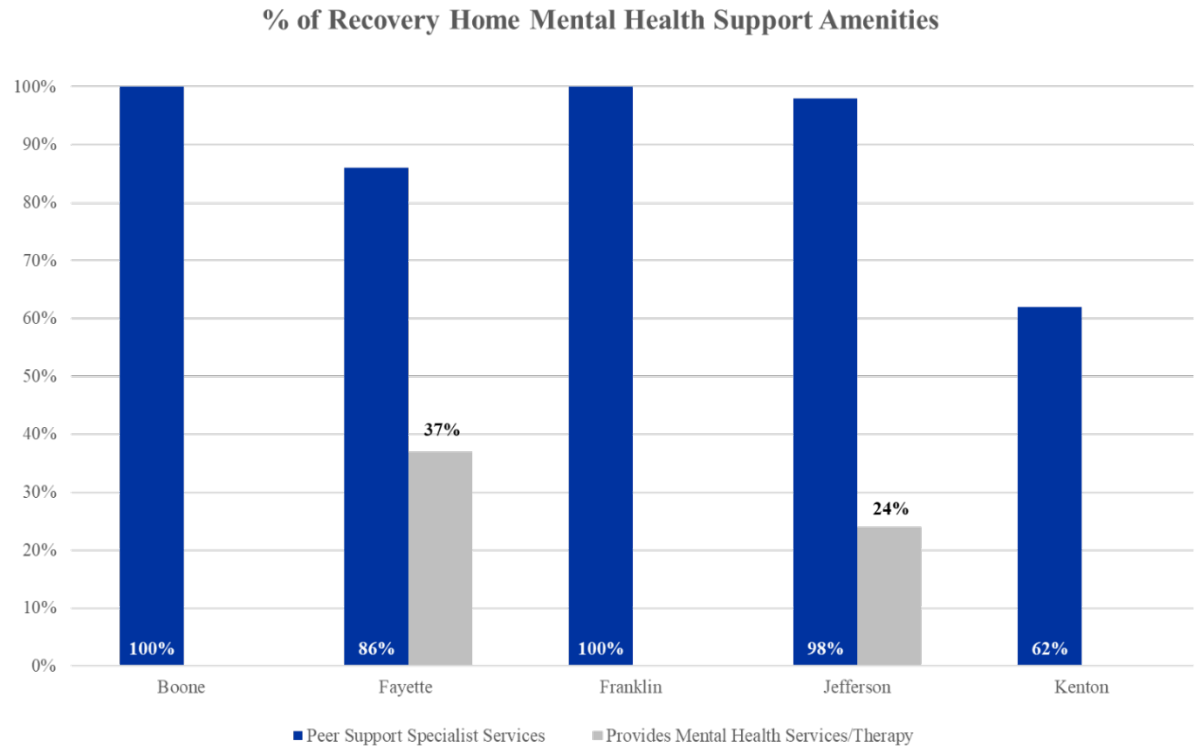
Figure 6



Note. The data for transportation services are from *Let's Find the best Recovery House for your needs, by* the Kentucky Injury Prevention and Research Center, 2023 (https://www.findrecoveryhousingnowky.org/) and Appendix E.

SUD is a mental health disorder that impacts individuals in various ways. SAMHSA's Best Practice #1 states that an individual's mental health is an area that needs to be addressed in the recovery process (2023). Therefore, it is essential for recovery homes to have sufficient mental health resources for residents. Peer support is an opportunity for residents to connect with others in the home who have had similar experiences, which is widely used in the recovery field. Though, more formal types of mental health services and therapy are not as widely accessible, as those services require individuals with higher certifications. The peer communities in our study accurately depict this narrative in Figure 7, as three of four peer counties have no homes that provide formal therapy to their residents. Fayette County does have more accessibility to that form of treatment compared to others but is slightly behind its peers regarding peer support opportunities. Data shows that Fayette County is doing well in this area but shows room for LFUCG to bolster its services to provide the best experience possible for residents regarding mental health services.

Figure 7



Note. The data for mental health amenities in recovery homes are from *Let's Find the best Recovery House for your needs, by* the Kentucky Injury Prevention and Research Center, 2023 (https://www.findrecoveryhousingnowky.org/) and Appendix E.

Areas of Growth

Recovery Ready Community Certification (High-Priority Variables)

RRC Certification encompasses a wide range of services from prevention, intervention, and recovery. Recovery housing provisions only serve as a fraction of the requirements of RRC criteria. To ensure that the fraction of recovery housing criteria is well met, our study has identified key areas of focus that could help improve existing recovery housing provisions and serve as guidance to the LFUCG's goal of RRC certification. These key areas of focus for RRC criteria are defined by our variables: recovery housing stock (number of homes and number of beds), certification disclosure, and MOUD-friendly services.

Our study found that Fayette County has an appropriate amount of recovery housing stock compared to its peer counties, two of which are RRC-certified communities (Boone and Kenton Counties). Considering the rate of SUD-diagnosed individuals and the average percentage of those who may utilize recovery housing services (1.2%), Fayette County seems to have the capacity to meet recovery housing needs in terms of the number of houses and the number of available beds (Jason, 2020).

Where Fayette County begins to fall short in the RRC certification criteria is the number of Oxford House or NARR-certified recovery homes. Compared to its peer counties, Fayette County is experiencing the lowest rate of certification disclosure especially considering changes in state-mandated certification changes.

We recognize that our study's primary data source is the KIPRIC *Find Recovery Housing Now* directory. We determined that, as a state-led, centralized recovery housing website for Kentucky, KIPRC's *Find Recovery Housing Now* directory would be a more common source of recovery housing search for individuals in need. It is also directly highlighted as a tool on the RRC Certification website for professionals and individuals in need to find the most appropriate support. There may be more certified recovery homes in Fayette County than are listed on the website. However, if this is not an accurate assessment of recovery home certification for Fayette County, efforts should be made to create transparency around certification. As a centralized source of information for recovery housing, transparency will only help to support recovery housing provisions.

As well, it would be within the interest of LFUCG to conduct an assessment on certified recovery houses to further determine whether the RRC criteria for certification can truly be met. While our study cannot guarantee whether this criterion is fulfilled, based on peer county

comparisons and unavailable data from *Find Recovery Housing Now*, we determined it was well within the interest to further examine certification disclosure to ensure criteria are appropriately met.

Finally, Fayette County underperforms in MOUD-friendly recovery homes. MOUD services can be vital to individuals seeking support for substance use. Compared to its peer counties, Fayette County lacks adequate MOUD-friendly services. The use of MOUDs like methadone, buprenorphine, and naltrexone, partnered with therapy services, can be used to help treat SUDs and sustain recovery (SAMHSA, n.d.).

Similar to concerns with certification disclosure, this may not be an accurate depiction of services if they have not been clearly identified in the KIPRC *Find Recovery Housing Now* directory. The topic of transparency arises again, as it is vital for individuals in need, especially individuals engaged in MOUD treatment plans, to access the appropriate recovery house to support their needs. If Fayette County finds this is an inaccurate depiction of services, efforts should be directed to clarify access to MOUD services on the state-led, centralized recovery housing website. However, if it is considered an accurate depiction of the lack of services, the LFUCG Opioid Abatement Commission should consider strategies to address gaps in MOUD services or how best to promote existing MOUD services. This will help ensure that not only are the RRC criteria being met but that individuals in need have access to the information for appropriate treatment and support pathways.

Pertaining to RRC certification, based on the publicly available data and compared to its peer counties, Fayette County excels in recovery housing stock but does not seem to meet service standards for certification. To guarantee whether criteria can be appropriately met, further assessment would be necessary on recovery housing certification and MOUD service availability.

Further assessments can help guide whether there is sufficient investment in meeting these standards.

SAMHSA Best Practices for Recovery Housing (Supplemental Variables)

With the LFUCG's desire to address substance use concerns in Fayette County, and appropriately invest the Opioid Settlement Funds, our team determined that the RRC certification was only a single avenue for support. To provide a wider scope of recovery housing provisions in Fayette County, our team determined supplemental variables that would provide greater insight into the recovery housing services and amenities landscape: vulnerable populations served, transportation services, and mental health support services. These supplemental variables were able to help us determine whether there were significant gaps in amenities and services that could be addressed to further bolster recovery housing provisions in Fayette County beyond the effort for RRC certification.

Vulnerable Populations Served.

Compared to peer counties, Fayette County does not as readily disclose the recovery houses working with vulnerable populations. This included court-involved, re-entry population, children of individuals in recovery, and unhoused populations, with a particular lack of focus on unhoused populations and children of individuals with SUD.

SAMHSA's Best Practice #4 encompasses equity and cultural competency (see Appendix A, Table A1). Increasing access to recovery houses will help develop skills to address the unique needs of different populations. The Social Model of Recovery utilized in SAMHSA's best practices emphasizes community, making it vital that recovery housing staff are well equipped and operations can support a culturally competent living environment (SAMHSA, 2023c). Opportunities to increase access to cultural competency training for vulnerable populations will

better prepare administrative and staff support services to promote and sustain services for vulnerable populations.

Transportation Services.

Transportation continues to be a barrier to recovery housing accessibility. Reliable transportation, whether through in-house transportation services or walkability to public transportation services, is crucial to bridging access to long-term recovery. Sustainable recovery encompasses one's ability to care for themselves emotionally, socially, and physically. Access to employment, childcare, schooling, counseling, and other services are vital to long-term positive outcomes in recovery (Pullen & Oser, 2014).

Due to the limited available data, recommendations for transportation services are limited. To protect the privacy of individuals and their recovery communities, we cannot disclose the locations of recovery homes or their proximity to public transportation services. This means that while 71% of recovery homes in Fayette County are within proximity to public transportation, we cannot give a responsible recommendation on increasing proximity without jeopardizing privacy at this time.

However, this does not mean that there are no opportunities for growth in transportation services. Additional research can be carried out on proximity to transportation services via approved channels. In-house transportation is a service in which Fayette County is slightly excelling compared to its peer counties. Access to public transportation is an important service for recovery houses, but it may be within interest to continue to support in-house transportation services or alternative modes of outsourcing transportation support until further research can be assessed on the viability of increasing access to public transportation.

Mental Health Services.

SAMHSA's Best Practice #2 promotes person-centered, strengths-based approaches, including access to peer support programming (see Appendix A, Table A1). The Social Model of Recovery prioritizes community as a critical aspect in achieving sustainable recovery. This includes on-site access to peer support specialists and off-site mutual peer support meetings as needed (SAMHSA, 2023c).

Compared to its peer counties, Fayette County falls slightly short in providing peer support services or confirming that peer support services are available at every recovery home. If there are peer support specialist services that are not available at recovery homes, this could impact the NARR or Oxford House certification process and further increase barriers to RRC certification as an ultimate goal of LFUCG. Investing in or sponsoring peer support specialist training can help bridge gaps in mental health services, but further initiatives for RRC certification would increase NARR and Oxford House certifiability of recovery homes in Fayette County. Additionally, peer support services can often be unpaid or underpaid positions within the recovery field. Increasing access to funding assistance for peer support specialists programs and training may increase overall access and sustainability of peer support services in Fayette County recovery homes.

Other mental health services are being prioritized in Fayette County as well. Mental health therapy and counseling services exceed expectations compared to other peer counties. Continued efforts into furthering support for counseling and therapy services in recovery homes can only lend support to increasing best practice standards. However, if the ultimate goal of the LFUCG at this time is to currently invest in RRC certification, more attention to advancing peer support specialist opportunities will lessen gaps and further work to fulfill RRC criteria as it will ultimately impact certifiability more.

Conclusion

Our study provides a status of focus areas in recovery housing in Fayette County and its peers, and we hope that our findings will be beneficial to the LFUCG Opioid Abatement Commission in future decisions. While this research cannot act as a source for specific recommendations, we have been able to identify potential areas for growth to help direct future strategies:

- **Community Housing Stock**
    - Compared to its peer counties, Fayette County has appropriate recovery housing stock and higher capacity to serve SUD-diagnosed populations.
- **MOUD-Friendly Services**
    - About two-thirds of Fayette County recovery homes offer MOUD services/support services. However, there may be individuals who would prefer to participate in usage-abstinent residences. If deemed appropriate, Fayette County could help increase access to MOUD services in the remaining 33% of recovery homes.
- **Certification Disclosure**
    - Fayette County falls largely behind in certification disclosures. Per RRC standards, as well as upcoming legislative changes, recovery homes will be required to be certified or disclose certification to meet the criteria for RRC certification and maintain operations. Fayette County can support recovery home certification through a certifying organization, such as Oxford House or NARR certification. For houses that might be certified but are not disclosing that

certification, it is highly encouraged to provide that information on the KIPRC *Find Recovery Housing Now* directory so that professionals and individuals can find the most appropriate support for their needs.

- **Vulnerable Populations Served**
    - Compared to its peer counties, Fayette County does not openly report services for vulnerable populations: court-involved, re-entry population, children of individuals in recovery, and unhoused populations. There is a particular lack of disclosure for unhoused populations and children of individuals in recovery. There may be interest in increasing opportunities to learn how to support vulnerable populations in recovery, either through training, seminars, or direct support services.
- **Transportation Services**
    - Due to the limited availability of transportation data, areas of growth for Fayette County in this amenity are narrow. Fayette County is encouraged to explore a transportation assessment as it relates to recovery housing accessibility and continue to support in-house transportation programming and partnerships.
- **Mental Health Services**
    - Fayette County falls slightly behind in offering peer support services or disclosing peer support services. This can affect Oxford House and NARR certification, as well as RRC Certification. Increased access and funding to peer support training can help pursue certification. Disclosure of services to the KIPRC *Recovery Housing Now* directory provides information so professionals and individuals can

find the most appropriate support for their needs. Other mental health counseling services exceed expectations compared to its peer counties.

We hope this study provides insight on perceived recovery housing gaps to guide appropriations of abatement funds. The opportunities for utilizing existing opioid abatement funding will continue to be extensive. We believe the findings of this study will positively impact Fayette County as it continues to pursue RRC certification and strengthen recovery housing provisions.

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Appendix A

Table A1

SAMHSA's Recovery Housing Best Practices

Best Practice 1	Be Recovery-Centered
Best Practice 2	Promote Person-Centered, Individualized and Strengths-Based Approaches
Best Practice 3	Incorporate the Principles of the Social Model Approach
Best Practice 4	Promote Equity and Ensure Cultural Competence
Best Practice 5	Ensure Quality, Integrity, Resident Safety and Reject Patient Brokering
Best Practice 6	Integrate Co-Occurring and Trauma-Informed Approaches
Best Practice 7	Establish a Clear Operational Definition
Best Practice 8	Establish and Share Written Policies, Procedures and Resident Expectations
Best Practice 9	Importance of Certification
Best Practice 10	Promote the Use of Evidence-Based Practices
Best Practice 11	Evaluate Program Effectiveness

Note. Reprinted from SAMHSA (2023). *Best Practices for Recovery Housing,* Substance Abuse and Mental Health Services Administration (SAMHSA). https://store.samhsa.gov/sites/default/files/pep23-10-00-002.pdf

Appendix B

The following profile of Fayette County received data thresholds for our study to identify counties with comparable, or a ratio comparable to, demographics of Fayette County. The fourth column provides academic and discretionary justifications to substantiate our decisions for each threshold.

Table B1

Fayette County Profile			
Variable	**ACS 2022 (5-Year Estimate)**	**Threshold to be considered**	**Justification for threshold**
Total Population & Population Density (Per Sq. Mile)	Total: 321,276 Population Density: 1,131.8 /Sq. Mile	Total: 50,000< (based on RRC tiers) Population Density: 200<	Based on RRC tiers (Recovery Ready Communities Kentucky, n.d.)
Median Gross Rent (2022 Adj.)	$1,065	$750<	Threshold accounts for the accessibility and diversity of housing types outside of Lexington.
Median Household Income in the Past 12 Months (In Inflation-Adjusted Dollars)	$41,622	$41,622>	A CDC study found that, from 2019 to 2020, "As county-level income inequality increased, overdose rates increased, particularly among Black persons." Therefore, this threshold would represent the lower 50% of income in Fayette County (Kariisa, 2022).
Highest educational attainment for population 25 years and over	Less than High School: 7.9% High School Graduate: 18.8% Some College: 26.9% Bachelor's Degree: 26%	Less than High School (within 2% of Fayette County's data.)	Between 2018-2021, the overdose death rate increased substantially "for those without a high school diploma, primarily due to increases in deaths with synthetic opioid involvement."

	Master's Degree: 12.8%		(Powell, 2023)
Age (25-54)	39.70%	Within two-point difference (2%) Larger population that is affected by OUD	The National Safety Council found that, in 2021, "71% of preventable opioid deaths occur among those ages 25 to 54 (National Safety Council, 2023)." Opioid overdose deaths skew at older ages being highest among individuals between 40 and 50, though the peak age of treatment for OUD is between 20 to 35 year-olds (Dydyk, 2023).
Sex	Male: 49.3% Female: 50.7%	Within one-point difference (1%)	"Men are more likely to use opioids, become dependent on various opioids, and they account for the majority of opioid-related overdoses." Though, "women have prescribed opioids more often than men for analgesia (Dydyk, 2023)"
Race	White: 71.8% Black/African American: 14.7% Asian: 4.1% Other: 9.4%	8.46%< minority representation (At least 1/3 of Fayette County's minority population)	The Kentucky Opioid Abatement Advisory Commission stated that "opioid-related deaths among Black Kentuckians exceeded that of whites, at a rate of 50.2 individuals per 100,000 in population, compared to 42.7 among whites (Kelly, 2023."
Ethnicity	Hispanic or Latino: 7.4%	2.5%< (At least 1/3 of Fayette County's Hispanic and Latino population)	SAMHSA found that synthetic opioids "accounted for nearly 55 percent of the opioid-related overdose deaths for Hispanics" in

			2017 (SAMHSA, 2020b).

Note. Adapted from American Community Surveys (5-Year Estimates) (2022). Reports. *Social Explorer, https://www.socialexplorer.com/tables/ACS2022_5yr*

Appendix C

Table C1 details all demographic data utilized from the 2022 American Communities Survey for the selection of our peer communities.

Table C1

Peer County Selection

Social Explorer Code	Variable	Boone (RRC)	Boyle (RRC)	Campbell (RRC)	Grant (RRC)	Kenton (RRC)	Perry (RRC)	Woodford (RRC)	Fayette	Jefferson (Louisville)	Warren (Bowling Green)	Daviess (Owensboro)	Franklin (Frankfort)	Madison (Richmond)
Total Population (SE:A00001)	Total Population	136,150	30,613	93,122	25,085	169,066	28,136	26,886	321,276	779,232	135,307	102,916	51,475	92,955
Population Density (Per Sq. Mile) (SE:A00002)	Population Density (Per Sq. Mile)	552.9	169.8	169.8	97.2	1,054.2	82.8	141.8	1,131.8	2,046.10	249.8	224.5	247.6	212.3
Median Gross Rent (SE:A18009)	Median Gross Rent	$1,177	$762	$979	$835	$961	$735	$936	$1,065	$1,045	$942	$890	$902	$826
Median Household Income in the Past 12 Months (In Inflation-Adjusted Dollars) (SE:A14016)	Median Household Income in the Past 12 Months (In Inflation-Adjusted Dollars)	$56,677	$32,985	$33,826	$38,117	$45,158	$30,246	$38,904	$41,622	$42,071	$38,904	$36,975	$42,200	$35,429

Social Explorer Code	Variable	Boone (RRC)	Boyle (RRC)	Campbell (RRC)	Grant (RRC)	Kenton (RRC)	Perry (RRC)	Woodford (RRC)	Fayette	Jefferson (Louisville)	Warren (Bowling Green)	Daviess (Owensboro)	Franklin (Frankfort)	Madison (Richmond)
Highest educational attainment for population 25 years and over (SE: A12002)	Less than High School	6.20%	9.60%	6.70%	11.10%	8.10%	20.40%	8.80%	7.90%	8.70%	11.40%	8.80%	8.10%	9.30%
	High School Graduate	29.10%	35.20%	26.50%	44.70%	27.20%	34.40%	26.20%	18.80%	25.80%	27.30%	33.90%	29.60%	28.50%
	Some College	30.10%	28.40%	27.50%	28.50%	28.30%	32.10%	24.30%	26.90%	29.40%	28.40%	31.90%	30.70%	28.90%
	Bachelor's Degree	21.70%	15.10%	24.40%	10.10%	23.40%	5.80%	24.50%	26%	21.30%	20.20%	15.70%	18.50%	20%
	Master's Degree	9.70%	9%	10.60%	4.70%	9.80%	4.80%	11.80%	12.80%	10.40%	8.60%	7.50%	10.20%	9.80%
Age (25-54) (SE:A01001)	Age	39.50%	35.80%	39.20%	37.60%	40.10%	38.30%	35.10%	39.70%	39.40%	37.10%	36.90%	38.60%	36.50%
Sex (SE:A02001)	Male	49.90%	50.50%	49.60%	50.70%	49.80%	49.40%	47.90%	49.30%	48.70%	49.40%	49.10%	48.40%	48.90%
	Female	50.10%	49.50%	50.40%	49.30%	50.20%	50.60%	52.10%	50.70%	51.30%	50.60%	50.90%	51.60%	51.10%
Race (SE:A03001)	White	87.60%	85.70%	92.30%	92.80%	88.40%	94.50%	89.60%	71.80%	67.50%	79.20%	87.70%	82%	90%
	Black/African American	3.60%	8.20%	2.60%	0.90%	4.40%	1%	3.90%	14.70%	22%	8.80%	4.80%	8.70%	3.90%
	Asian	2.30%	0.80%	1%	0.10%	1.30%	0.80%	0.40%	4.10%	3%	5%	2.10%	1.70%	0.90%
	Other	6.50%	5.30%	4.10%	6.20%	5.90%	3.70%	6.10%	9.40%	7.50%	7%	5.40%	7.60%	5.20%
Hispanic or Latino by Race (SE:A04001)	Hispanic or Latino	4.5%	3.4%	2.30%	3.10%	3.60%	1.10%	6.70%	7.40%	6.30%	5.70%	3.50%	3.90%	2.70%

Note. Adapted from American Community Surveys (5-Year Estimates) (2022). Reports. *Social Explorer,* *https://www.socialexplorer.com/tables/ACS2022_5yr*

Appendix D

The following Table D1 provides a visualization of the correlation between SAMHSA best practices, RRC recovery housing criteria, and our study's identified variables for analysis.

Table D1

Identification of Criteria for Recovery Housing Variables

RRC Criteria	SAMHSA Best Practice	Variable
Community has available recovery housing stock	Promote Person-Centered, Individualized and Strengths-Based Approaches (2)	Number of recovery houses per county
		Number of recovery housing beds per county
		Percent of population w/ SUD diagnosis
		Ratio of recovery houses in the county to SUD-diagnosed population
		Ratio of recovery housing beds in the county to SUD-diagnosed population
Recovery housing adheres to either National Association of Recovery Residences (NARR) standards or the Oxford House model	Importance of Certification (9)	Percent of disclosed and non-disclosed certifications per county
Available recovery housing stock allows residents who utilize MOUD	Be Recovery-Centered (1), Promote the Use of Evidence-Based Practices (10)	Percent of MOUD-friendly recovery homes per county
	Be Recovery-Centered (1), Promote Equity and Ensure Cultural Competence (4)	Percent of recovery houses that disclose acceptance of children of individuals in recovery per county
	Promote Person-Centered, Individualized and Strengths-Based Approaches (2)	Percent of recovery houses that offer peer support specialist programs per county
	Promote Person-Centered, Individualized and Strengths-Based Approaches (2), Promote Equity and Ensure Cultural Competence (4)	Percent of recovery houses that disclose in-house transportation per county
		Percent of recovery houses near public transportation

	Promote Equity and Ensure Cultural Competence (4)	Percent of recovery houses that serve re-entry population
		Percent of recovery houses that serve court-involved population
	Integrate Co-Occurring and Trauma-Informed Approaches (6)	Percent of recovery houses that offers one or more form of therapy and/or mental health services

Note. Adapted from Recovery Ready Communities Kentucky (n.d.). *Recovery Ready Communities Certification Program Population Categories, Scoring, and Criteria.* Team Kentucky. https://rrcky.org/wp-content/uploads/2023/02/Public-RRC-Pop-Categories_Scoring_Criteria-1.pdf ; Substance Abuse and Mental Health Services Administration (SAMHSA). (2023). *Best Practices for Recovery Housing.* SAMHSA. https://store.samhsa.gov/sites/default/files/pep23-10-00-002.pdf ; American Community Surveys (5-Year Estimates) (2022). Reports. *Social Explorer, https://www.socialexplorer.com/tables/ACS2022_5yr*

Appendix E

The following Table E1 outlines datapoints utilized in the comparison of our peer communities, as well as its corresponding RRC and SAMHSA criteria. Data from the five counties are included below.

Table E1

Peer County Data

RRC Criteria Addressed	SAMHSA Criteria Met	Datapoint	Boone (RRC)	Kenton (RRC)	Jefferson	Franklin	Fayette
Community has available recovery housing stock		# of houses in the county	4	13	54	1	43
		# of beds in the county	35	114	383	10	394
		% population w/ SUD diagnosis	0.55%	1.28%	1.24%	0.69%	1.2%
		Ratio of recovery houses in the county to SUD diagnosed population in the county	188.25	166.19	178.37	355.59	91.25
		Ratio of recovery housing beds in the county to SUD diagnosed population in the county	21.51	18.95	25.15	35.56	9.96
Recovery housing adheres to either National Association of Recovery Residences (NARR) standards or the Oxford House model	Best Practice 9	% of disclosed & non-disclosed certifications in county	100%	100%	91%	100%	35%
Available recovery housing stock allows residents who utilize MOUD	Best Practice 1, 10	% of MOUD-friendly recovery homes in the county	100%	100%	75%	100%	67%

RRC Criteria Addressed	SAMHSA Criteria Met	Datapoint	Boone (RRC)	Kenton (RRC)	Jefferson	Franklin	Fayette
	Best Practice 1, Best Practice 4	% of recovery homes that disclose acceptance of children of individuals in recovery	75%	53.85%	45%	100%	14%
	Best Practice 2	Percent of recovery houses that offer peer support specialist programs per county	100%	62%	98%	100%	86%
	Best Practice 2, Best Practice 4	% of recovery homes that disclose in-house transportation	0%	0%	4%	0%	17%
		Near public transportation	100%	100%	80%	0%	71%
	Best Practice 4	Serves re-entry population	100%	61.54%	96%	100%	79%
		Serves population with court involvement	100%	61.54%	96%	100%	77%
	Best Practice 6	Provides one or more form of therapy and/or mental health services	0%	0%	24%	0%	37%

Note. The data for different populations served by recovery homes are from *Let's Find the best Recovery House for your needs,* by the Kentucky Injury Prevention and Research Center, 2023 (https://www.findrecoveryhousingnowky.org/).