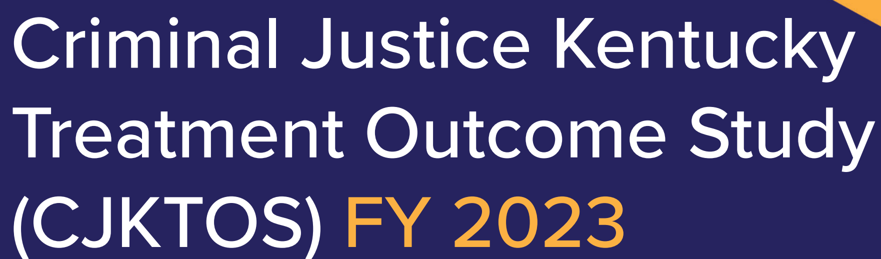
Center on Drug and
Alcohol Research



Criminal Justice Kentucky Treatment Outcome Study (CJKTOS) FY 2023

February 28, 2024

Project Acknowledgments

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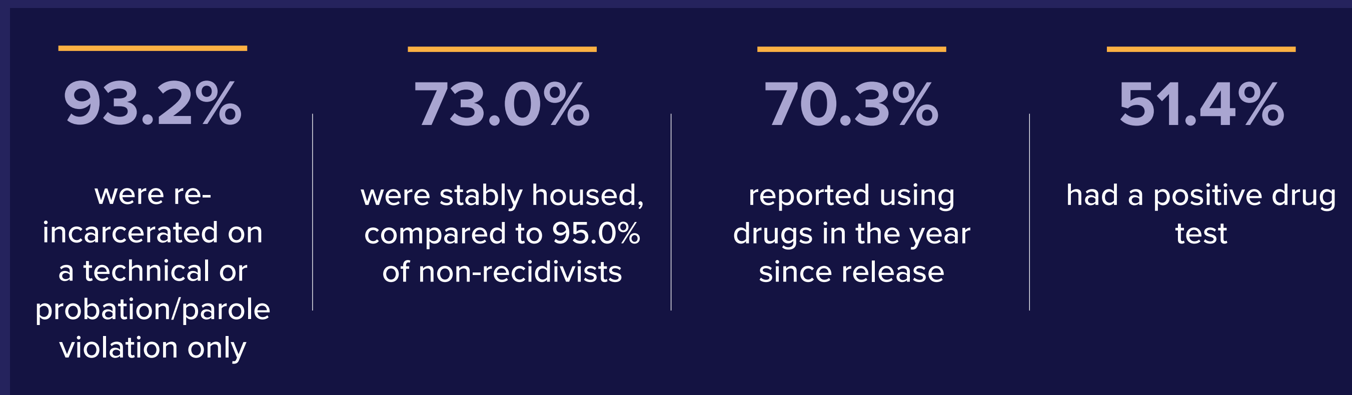
Report Summary

The Criminal Justice Kentucky Treatment Outcome Study (CJKTOS) examines outcomes of individuals in state custody participating in substance use disorder treatment programs in Kentucky's prisons, jails, and community custody settings. This report includes data collected during FY2023 for 295 randomly selected participants who entered Kentucky Department of Corrections (KY DOC) substance abuse treatment programs (SAP), participated in an intake assessment by treatment counselors, consented to follow-up, and interviewed 12 months after their treatment completion and release from custody. This report includes data collected during FY2023 from July 1, 2022 to June 30, 2023.

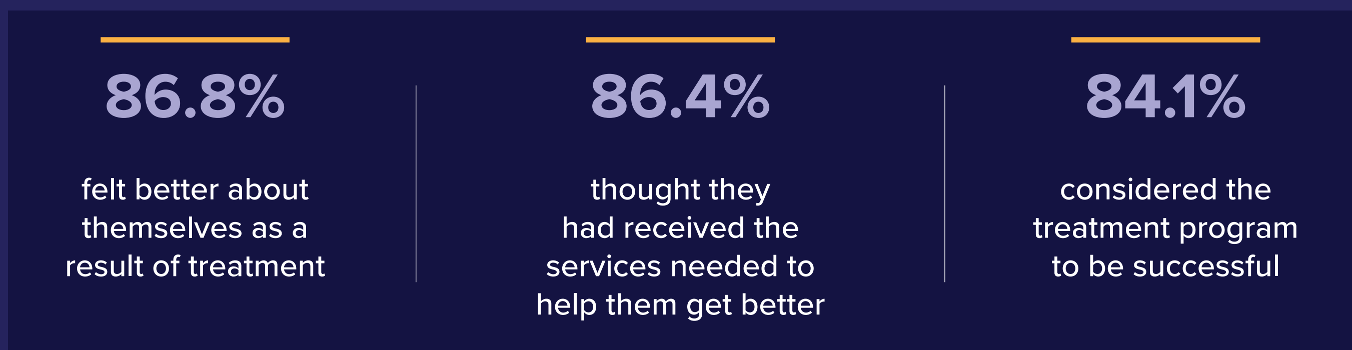
Among SAP graduates from KY jails, prisons, and community corrections facilities interviewed 12 months post-release...

- **94.4%** of clients who were referred to meet with a SSC received some type of aftercare recommendation, based on their level of need.
- **89.5%** were living in stable housing.
- **77.6%** were employed.
- **74.9%** were not re-incarcerated.
- **58.3%** attended 12-step meetings.
- **54.6%** self-reported abstinence from illicit drug use, in the year following release.
- **52.5%** of those with children reported providing financial support to their children.
- **25.1%** had received medication-assisted treatment (MAT) to help with OUD or AUD.

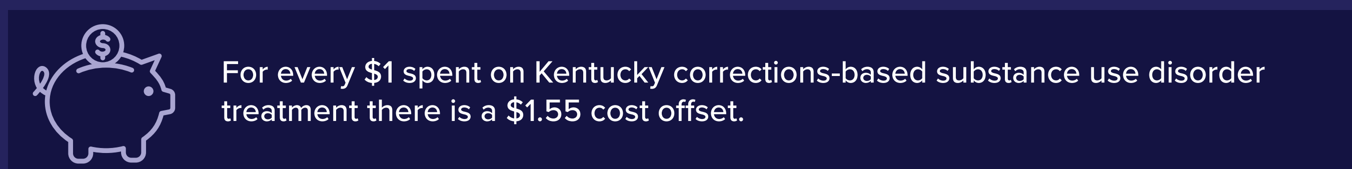
Of the SAP graduates who returned to DOC custody...



Treatment graduates noted positives about SAP participation, including...



Cost offset analysis indicated that...



Throughout FY2023, the Division of Addiction Services has provided a full spectrum of high-quality treatment programming and recovery supports that demonstrate their continued commitment to supporting clients' well-being. The Division's focus includes not only treating substance use disorder symptoms, but addressing recovery as a multidimensional, holistic process. This approach aligns with other organizations such as Substance Abuse and Mental Health Services Administration (SAMHSA), which suggests that recovery is "a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential." Continued collaborations across all DOC Divisions and including myriad community providers have enabled the KY DOC to offer a full continuum of care, accommodating clients' individual needs and treatment preferences. This report suggests that these collective efforts have been highly successful in reducing drug-related harms, empowering individuals, and helping clients to sustain positive change post-release to their communities.

There were a number of noteworthy differences between the findings from FY2023 CJKTOS and prior years' findings, including:

The percentage of re-incarcerations 12 months after release (25.1%) was similar to FY2022, but considerably lower than pre-pandemic levels (e.g., 38.4% in FY2019).

Fewer participants self-reported substance use 12 months after release in FY2023 compared to FY2021 (45.4% vs. 48.0%).

A greater percentage of participants in FY2023 also reported employment for most of the 12 months post-release, compared to the prior year (77.6% vs 75.3%).

Compared to the prior year, more participants in FY2023 chose to participate in medication for addiction treatment (MAT) after release (25.1% vs 17.7%).

More participants in FY2023 reported participating in educational or vocational programs after release, compared to FY2022 (18.3% vs 15.4%).

Compared to FY2022, more FY2023 participants reported knowing where to obtain naloxone/Narcan® (66.3% vs. 59.9%) and had been trained to use it (43.6% vs. 43.5%).

"The Division of Addiction Services is committed to providing high-quality, evidence-based substance use disorder treatment and recovery services to individuals within the Department of Corrections custody and care. No one deserves to be defined by the worst thing they have ever done, and our staff are committed to assisting our clients with redefining themselves through recovery. We know recovery is possible and we have seen the positive effects treatment and recovery services have. We appreciate the opportunity to help individuals improve their overall wellbeing and reach their full potential."

— Sarah Johnson, Director, Division of Addiction Services, Kentucky Department of Corrections

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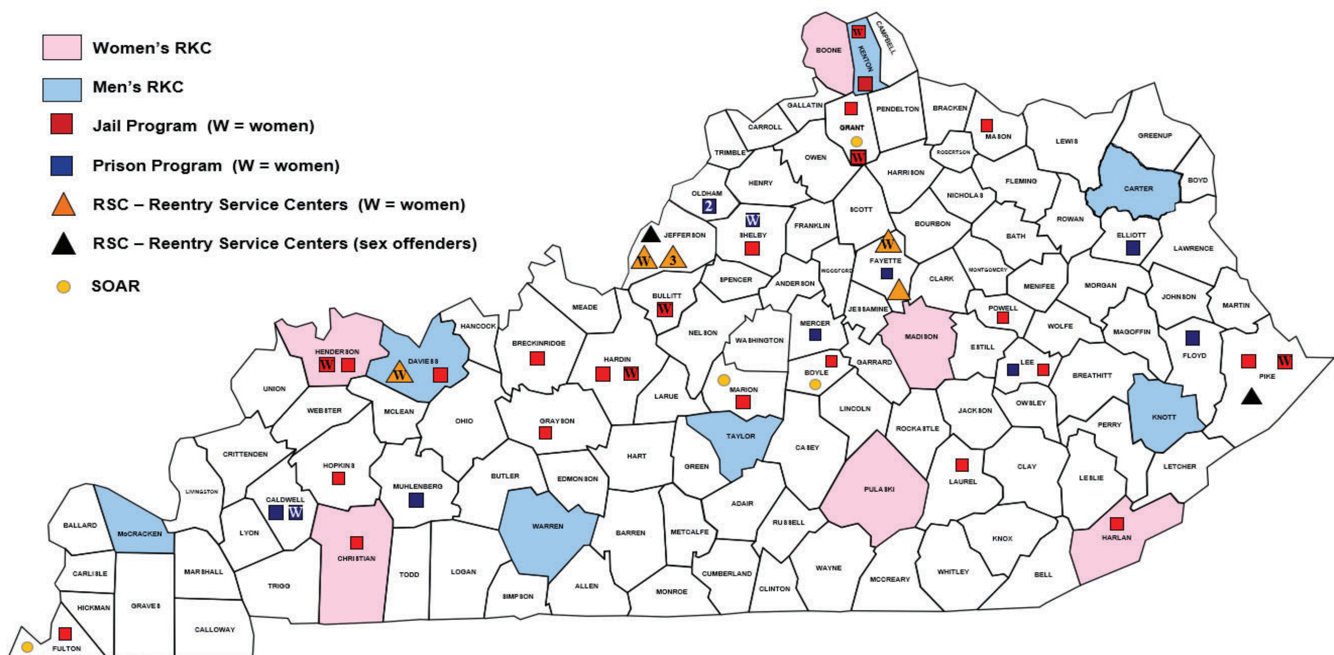
Introduction

The Kentucky Department of Corrections (KY DOC) Division of Addiction Services provides substance use disorder treatment programs throughout the state (See Figure 1). All therapeutic community programs include evidence-based curriculum and undergo regular audits to review AODE regulations, contractual compliance, and compliance with all KY DOC policies and procedures; all licensed facilities are upheld to requirements outlined in 908 KAR 1:370 and are subject to audits by the Kentucky Department for Behavioral Health. Although some individuals may be recommended to attend treatment by a parole board, and/or receive Program Good Time Credit for participation, treatment participation is voluntary and individuals have the right to refuse services if they wish (though refusal may entail consequences, such as for parole release). Making sure that treatment is available and accessible is a high priority, and the KY DOC continues to look for innovative strategies to increase treatment enrollment and engagement, as well as ways to encourage or incentivize participation in treatment.

Figure 1. Location of Kentucky's DOC-funded Substance Use Disorder Treatment Programs (2023)

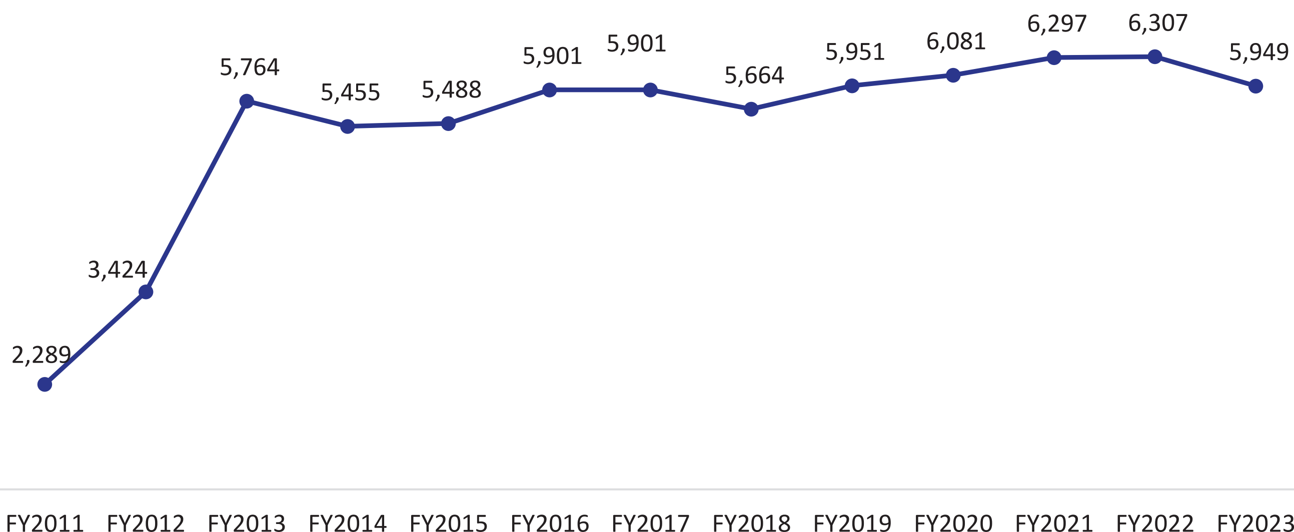


Note: Treatment location information supplied by KY Department of Corrections 11/14/2023.

As shown in Figure 2, in FY2023, there were **5,949** DOC-funded substance use disorder (SUD) treatment slots in jails, prisons, Reentry Service Centers (or halfway houses), Recovery Kentucky Centers, community mental health centers, and comprehensive outpatient centers (more details on specific DOC program modalities may be found in Appendix A). This evaluation report focuses on data collected from traditional substance abuse programming (SAP) using a modified therapeutic community modality, including only those programs located in prisons, jails, or community custody programs (sites listed in Appendix B). Specifically, these programs include **27** programs in 19 jails, **14** programs in 11 prisons, and **4** community custody programs in reentry service centers. Although the number of paid, contracted treatment slots is lower than previous years (5,949 for FY2023), this total does not include the complete number of DOC-approved, community-based treatment programs, which has increased dramatically in recent

years. In other words, clients in the community have more opportunities than ever to participate in treatment. According to the KY DOC, during 2023, these programs included 88 providers with 382 treatment locations across the state, which served a total of 4,224 clients over the course of the year. All community-based programs must undergo an application process to become DOC-approved, in which they are required to submit documentation of AODE licensure, SUD-specific evidence-based curriculum, individualized treatment plans, and staff qualifications, in addition to completing a memorandum of agreement (MOA) for reporting purposes. Review of all applications prior to approval ensures that all community providers meet DOC standards for high-quality care, reflecting a continued commitment to treatment access and expansion of community options. Importantly, this expansion has also facilitated an increase in self-determination of clients to select their preferred treatment providers, aligning with research evidence suggesting that matching patients' SUD treatment preferences to services can result in improved outcomes (Friedrichs et al., 2016; Marchand et al., 2019).

Figure 2. Trends in Number of DOC-funded Substance Use Disorder Treatment Slots



Note: Treatment bed information supplied by KY Department of Corrections, 11/14/2023.

In addition to SAP, KY DOC also offers aftercare programming for individuals who are not released after SAP completion through the Department's transitional treatment program, **Supporting Others in Active Recovery (SOAR)**. The program allows individuals who have successfully completed SAP and are not yet scheduled to be released to continue their treatment for substance use disorder in a prosocial environment. SOAR participants have a primary evidence-based curriculum called My Ongoing Recovery Experience (MORE) developed by Hazelden Betty Ford and also have the opportunity to participate in several other evidence-based reentry programs.

The number of DOC-approved community-based SUD treatment programs has increased, allowing clients more options and freedom to choose what works best for them.

The program was initially piloted in 2019 at Northpoint Training Center prison, and preliminary data suggest promising results related to abstinence following release, stable housing, employment, and few re-arrests. In FY2021, SOAR was expanded to three additional jail sites (Fulton County, Grant County, and Marion County Detention Centers), creating an additional 192 treatment beds. As a new model of aftercare treatment, the SOAR program has received national attention, including being presented at the Women's Working in Corrections and Juvenile Justice National Conference. See https://corrections.ky.gov/Divisions/ask/Pages/aftercare.aspx for additional information on SOAR.

Participation in KY DOC SUD treatment programs has been enhanced in recent years through the opportunity to earn **Program Good Time Credit (PGTC)** after release in the community while on supervision. Specifically, for individuals with SUD on probation and parole, PGTC allows clients with SUD to earn time off their court-ordered sentence and reduce their time under supervision by engaging in PGTC-eligible treatment programs. Authorized through HB 284 (2020), this opportunity has enabled the DOC to offer referrals to additional treatment programs (available through inpatient or intensive outpatient modalities) that have applied and been approved as eligible, increasing incentives and reducing barriers for clients to engage with treatment services. As discussed above, the program has expanded considerably since its authorization in August 2020 and, at the time of this report's publication, currently includes 88 providers with 382 treatment locations across the state. An up-to-date list of currently-approved DOC providers can be found by visiting the following website: https://corrections.ky.gov/Divisions/ask/Pages/approvedproviders.aspx

Profile of SAP Graduates

Data in this report includes behaviors reported "pre-incarceration" (the 12 months and 30 days *prior to the incarceration where they participated in SAP*) collected by treatment providers at SAP intake and "follow-up" (the 12 months and 30 days *post-release from incarceration*) collected by research staff at UK CDAR. Additional detail on the methodology can be found in Appendix C.

This report profiles three categories of SAP graduates completing substance use disorder treatment services in:

(1) state prisons;
(2) county or regional jails; and
(3) community reentry service centers while still under state custody.

Of SAP graduates who completed follow-up interviews during FY2023, 41.7% were referred to SAP as "parole upon completion," and 26.4% were referred by the parole board to finish SAP after they entered treatment on their own. Recent changes to DOC policies for SAP waiting lists, admission, termination, and reinstatement have facilitated faster treatment entry and continuity of care by requiring enhanced clinical reviews of client files prior to termination and supporting readmission to SAP as early as possible. These changes have allowed many individuals to enter and complete treatment earlier in their incarceration – often before they have met with the parole board.

For the FY2023 sample, there were 1,113 SAP participants who were eligible for follow-up (completed SAP, released in FY2022, and voluntarily consented to follow-up). Of those, about a

third (39.4%) were randomly selected to participate in the follow-up interview (n=438). As shown in Table 1, the randomly selected follow-up sample of SAP graduates who completed interviews were not significantly different from the entire population of eligible SAP graduates, making results generalizable.

Table 1. Demographic Characteristics of FY2022 Follow-up SAP Sample Compared to All SAP Graduates Eligible for Follow-up

	Follow-up SAP Graduates (n=295)	All SAP Graduates Eligible for Follow-up (n=1,113)
Average Age	37.7 years old (range 20 to 72)	37.3 years old (range 18 to 72)
Race/ethnicity	87.8% white	85.9% white
Gender	74.2% male	75.3% male
Education	81.0% GED or high school diploma	77.8% GED or high school diploma
Marital Status	44.1% Single, never married	45.5% Single, never married

KY-RAS and Criminogenic Needs

The Kentucky Risk Assessment Screen (KY-RAS), adapted from the evidence-based Ohio Risk Assessment System (Latessa et al., 2010), is used to provide reliable measurement of individual needs and barriers that are known to impact likelihood of recidivism. Table 2 describes scores on the KY-RAS, comparing the proportion of follow-up SAP graduates, and the entire Kentucky DOC inmate population, who met classification as "High" or "Very High" on each domain. Of follow-up SAP graduates who had available KY-RAS data (n=252), 8.7% were assessed as being overall high-risk, compared to 23.9% of incarcerated individuals in Kentucky, which is likely explained by once in the community, the majority of SAP graduates are considered to be at low risk of reoffending.

Table 2. Percentage of Individuals Scoring "High" or "Very High" on KY-RAS Domains of Risk/Need

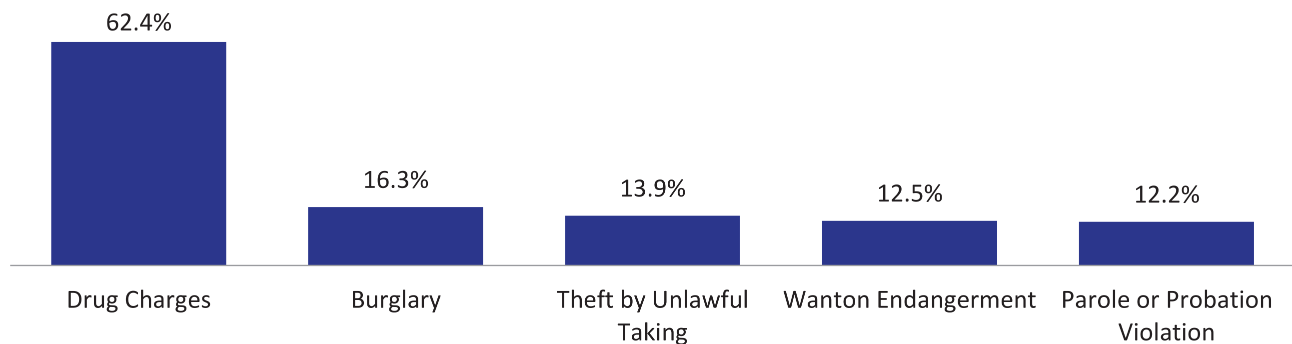
	DOC Treatment Follow-up Graduates (n=252*)	Entire KY DOC Population of Incarcerated Individuals** (n=19,132)
Overall Risk	8.7%	23.9%
Substance Use	37.3%	13.6%
Neighborhood Problems	28.6%	13.1%
Education/Employment/Financial Situation	23.0%	25.2%
Criminal History	15.9%	16.0%
Peer Associations	7.5%	3.1%
Family/Social Support	4.8%	6.7%
Criminal Attitudes/Behaviors	0.4%	17.8%

*KY-RAS data unavailable in KOMS for N=43
**KY-RAS data supplied by KY Department of Corrections, 12/04/2023. KY-RAS assessments unavailable for n=142 of DOC population of incarcerated individuals.

Arrests and Incarceration

SAP graduates reported an average of 9.6 lifetime convictions. In the year before their current incarceration, they were most often arrested for drug charges, parole or probation violations, and theft by unlawful taking, resulting in an average of 50 nights incarcerated during that year. Charges for graduates' *current* incarceration are shown in Figure 3. At the time of SAP intake, they had been incarcerated an average (median) of 18 months.

Figure 3. Criminal Charges at SAP Intake (N=295)



Recidivism

Data from the Kentucky Offender Management System (KOMS) was used to examine SAP graduates' re-incarceration during the year following release. As shown in Table 3, 74.9% were not re-incarcerated within the 12 months' post release from prison or jail. Furthermore, graduates who were re-incarcerated were in the community an average of 6.4 months before returning to custody.

74.9% of SAP graduates were not re-incarcerated during follow-up period.

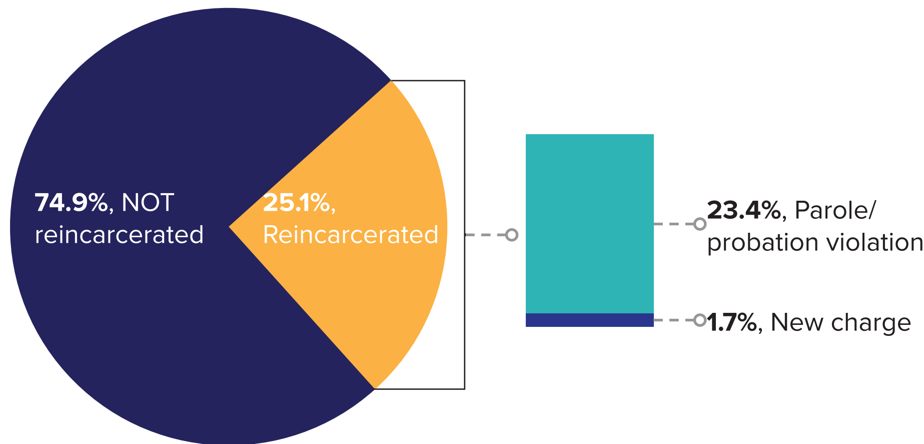
Table 3. Recidivism 12 Months Post-release (N=295)*

	Jail (n=131)	Prison (n=124)	Community Custody (n=40)	Total (N=295)
Not Incarcerated	64.9%	79.8%	92.5%	74.9%
Incarcerated	35.1%	20.2%	7.5%	25.1%

* The DOC counting rules were used to define recidivism (see Appendix A for counting rule definition used in this report).

Of the 25% of the sample who returned to custody (n=74), the majority were re-incarcerated on a technical or parole/probation violation (PV) only (See Figure 4). These successes reflect recent efforts from the KY DOC to improve transitions to care in the community and provide a "warm handoff" to community providers. These efforts have been largely supported through collaborations between the Divisions of Addiction Services, Probation and Parole, and Reentry Services to remove barriers and support continuity of care.

Figure 4. Recidivism and Reason for Re-incarceration (N=295)



Although 23.4% of the sample were re-incarcerated due to a PV, it should be noted that individuals returning to custody on these circumstances, per KY DOC policy, exhausted all available treatment options in the community. For example, in lieu of revocation, KY DOC has integrated graduated sanctions in order to provide incremental accountability measures (501 KAR 006:250). Graduated sanctions are recommended for individuals on supervision who receive substance use violations (i.e., positive urine drug screens, not attending treatment, absconding from treatment, or multiple treatment terminations related to violence/major disruption) or individuals on supervision with a history of substance use who are considered "absconded" and are arrested with active parole violation warrants). In these cases, the supervising officer consults with the Social Service Clinician (SSC), who completes an assessment to determine what treatment options are recommended. Supervised individuals may then sign the graduated sanction and agree to enter and complete the recommended level of treatment. Once the individual agrees to enter and complete treatment, a request to rescind the parole violation warrant is submitted to the Parole Board, and upon the warrant rescinded, the individual will continue on supervision. If the individual chooses not to enter or participate in treatment, they may be returned to custody or have additional sanctions imposed, but these processes provide an opportunity for individuals to receive referrals for services rather than re-incarceration as a first response.

However, if the SSC believes that community treatment options are no longer advisable for a given client, prior to submitting this recommendation, they must first consider all treatment options (including those outside of DOC contract), staff the case with a Branch Manager, and thoroughly document all steps taken. These procedural changes were implemented to ensure that clients are offered every possible opportunity for treatment prior to considering revocation of supervision.

> "A history of substance use is common among individuals on community supervision, and we realize that the potential for our clients to return to use is an on-going struggle. We have seen some promising progress in recent years through the efforts of the Division of Addiction Services to develop and implement new initiatives to increase SUD treatment options from the institution to community. These initiatives have enhanced opportunities for individuals on supervision to be successful in their treatment."
>
> — Erica Hargis, Director, Division of Probation and Parole, KY DOC

Recidivists vs. non-recidivists

SAP graduates who recidivated during the 12 months following their release had a number of differences when compared to non-recidivists including employment, stable housing, and drug use post-release. As shown in Table 4, those who recidivated during the follow-up period reported more involved criminal histories reported at baseline compared to non-recidivists (e.g., more lifetime convictions and more nights spent incarcerated during the 12 months prior to incarceration).

Table 4. Comparisons of SAP Graduates by Recidivism in the 12 Months Post-release (N=295)

	Recidivists (n=74)	Non-recidivists (n=221)
Lifetime number of convictions*	12.0	8.8
In 12 months prior to current incarceration, nights spent incarcerated**	82.1	39.7
During 12 months post-release...		
Employed full- or part-time***	56.8%	85.0%
Housed in apartment, room, house or residential treatment facility***	73.0%	95.0%
Self-reported drug use***	70.3%	37.1%
Positive urine drug screen***	51.4%	28.5%
Participated in education or vocational program	13.5%	19.9%

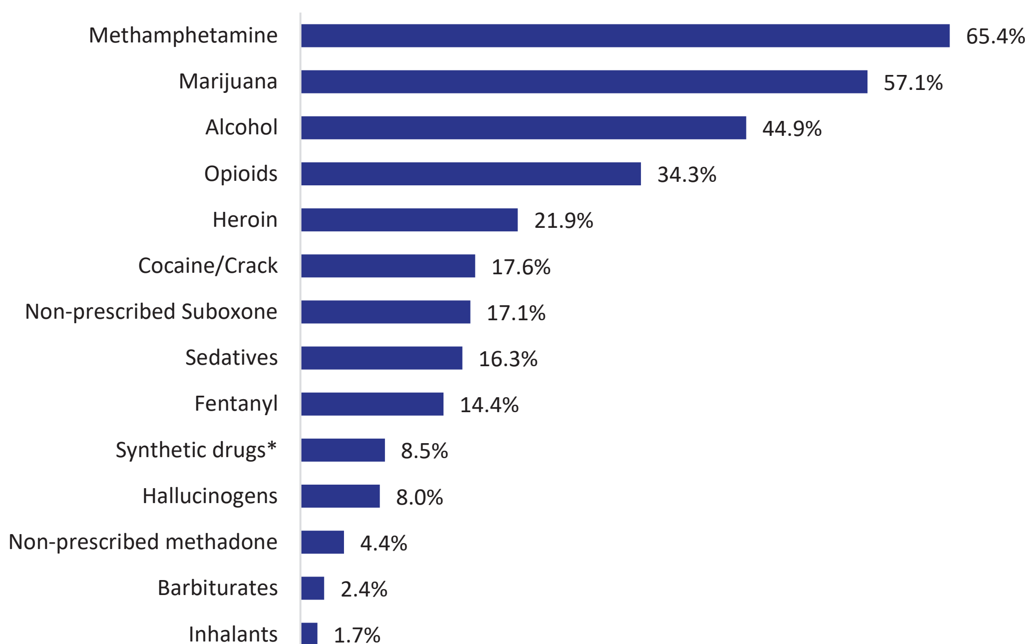
*p<.05, **p<.01, ***p<.001

Substance Use

Figure 5 shows substance use during the pre-incarceration period for SAP participants. While it should be noted that there were 5,949 substance use treatments slots within DOC this fiscal year, CJKTOS data is only collected for those participating in SAP in jails, prisons, and select community custody programs (for a total FY23 sample of 4,902). Of those participants who completed a CJKTOS baseline in FY23, the greatest percentage reported methamphetamine use in the 12 months prior to their current incarceration, followed by marijuana use and alcohol use. For the last five years, methamphetamine use has been the most common substance reported at SAP intake.

For the last five years, methamphetamine use has been the most common substance reported at SAP intake.

Figure 5. Profile of Pre-incarceration Substance Use among SAP Participants (n=4,902)

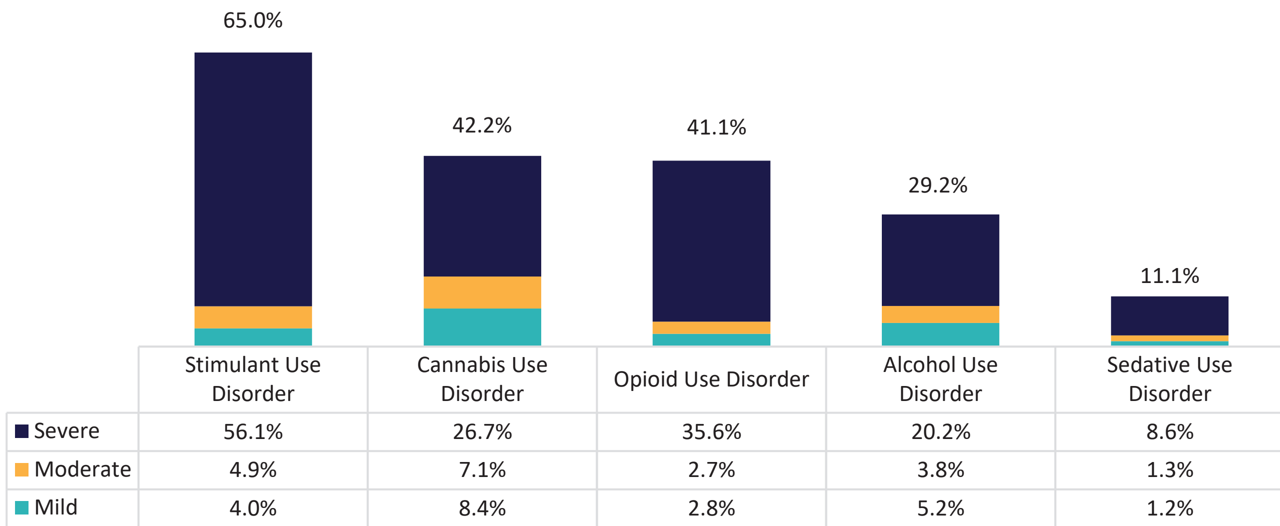


*Synthetic drugs include synthetic marijuana, bath salts, kratom, and flakka.

In addition to measuring prevalence of substance use, the CJKTOS baseline assessment instrument also captures severity of substance use disorder (SUD) at SAP intake. These included clinical checklists of SUD criteria, as outlined in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; APA, 2013), which are asked separately for each of seven categories of substances. These checklists include 11 criteria (such as impaired control, social impairment, risky use, and pharmacological indicators like tolerance and withdrawal). Endorsement of 2-3 criteria is classified as “mild,” 4-5 is “moderate,” and 6 or more is “severe” SUD, and it is possible for each individual to meet SUD criteria for multiple substances. Figure 6 shows the percentage of all SAP intakes completed during FY 2023 (N=4,902) who reported symptoms consistent with SUD for each substance type and severity level. Stimulant Use Disorder was the most prevalent SUD, with 65.0% of clients at intake meeting criteria, followed

by Cannabis Use Disorder (42.2%), Opioid Use Disorder (41.1%), Alcohol Use Disorder (29.2%), and Sedative Use Disorder (11.1%).

Figure 6. SUD Severity at SAP Intake (N=4,902)



	Stimulant Use Disorder	Cannabis Use Disorder	Opioid Use Disorder	Alcohol Use Disorder	Sedative Use Disorder
Severe	56.1%	26.7%	35.6%	20.2%	8.6%
Moderate	4.9%	7.1%	2.7%	3.8%	1.3%
Mild	4.0%	8.4%	2.8%	5.2%	1.2%

Note: Stimulant Use Disorder includes use of methamphetamine, cocaine/crack, and misuse of prescription amphetamines. Opioid Use Disorder includes use of heroin or street fentanyl, as well as misuse of prescription opioids.

Overdose

From 1999-2017, the rate of drug overdose deaths in the United States has more than tripled (Hedegaard, Miniño, & Warner, 2020), and Kentucky has been no exception. Although the number of overdose deaths declined slightly between 2021-2022, 2,135 fatalities were reported during 2022, according to a recent statewide Overdose Fatality Report (KY ODCP, 2023). Within the CJKTOS sample, at SAP treatment entry, 40.1% of participants reported a lifetime overdose, with an average of 3.5 times. At the time of their last overdose, participants most commonly reported having used heroin (46.0%), stimulants (such as methamphetamine; 23.0%), and illicit prescription opiates (20.1%). Furthermore, 8.5% of participants reported having overdosed in an attempt to commit suicide (and on average, 2.5 times). At 12 months post-release, 8.8% of the follow-up sample reported having experienced a nonfatal overdose.

In just eight months, the Kentucky DOC provided over 17,000 naloxone kits for distribution to individuals exiting prison and jail.

Recent research has suggested that individuals who use substances are also at elevated risk of being present when others overdose (Nolte et al., 2023), which highlights the

> "Intentional state and community partnerships offer unique opportunities to expand strategic planning, collaboration, and coordination of resources necessary to effectively address the overdose crisis. Through our collaborative partnership with the Department of Corrections, and collective engagement with impacted communities, life changing substance use treatment services and recovery supports for individuals and families are made possible."

— Dr. Brittany Allen, Director for the Division of Substance Use Disorder,
KY Department for Behavioral Health, Developmental and Intellectual Disabilities

importance of incorporating harm reduction trainings and resources into SUD treatment settings. At SAP intake, 51.9% of participants reported ever witnessing someone else overdosing. About half (46.9%) knew where to obtain naloxone (Narcan®), a medication used to rapidly reverse opioid overdose and 26.6% had been trained on how to use it. Of those who had ever administered naloxone (18.6%), they had done so on average 1.4 times. At the time of the 12-month follow-up, about one in ten participants (12.8%) reported having administered naloxone to another person since their release. The lower rate of naloxone administration at follow-up may be related to changes in clients' environments and social networks, such that they are less likely to be present in situations after release where overdose is likely to occur. Furthermore, two-thirds of participants (66.3%) knew where to get naloxone, and 48.6% had been trained on its use – an increase from individuals interviewed during FY2022 (when 59.9% knew where to access, and 43.5% had been trained), and a statistically significant increase from participants' knowledge at treatment entry.

Figure 7. Naloxone (Narcan®) Knowledge and Experience at SAP Intake and Follow-up (N=258)

Note: Significance established using McNemar's test for correlated proportions, ***p<.001, see Appendix B. N=37 cases excluded due to missing data.

These findings suggest that efforts to increase naloxone training and access have been impactful. According to the KY DOC, with funding from the KY Office of Drug Control Policy, between February and September 2023, the Kentucky DOC provided 17,112 naloxone kits for distribution at release from 12 prisons and 39 jails. Initiatives such as this reflect a commitment on the part of the Division of Addiction Services to not just provide SUD treatment services, but also to reduce drug-related health consequences and fatalities through evidence-based harm reduction approaches. Harm reduction acknowledges that SUD is a chronic health condition, management of which involves both a behavioral and medical component, similar to diabetes or hypertension for example, and accepts that compliance with treatment may not always be perfect. This perspective reduces stigma associated with a return to use, facilitating access to treatment or supportive services that can help clients to continue working towards recovery rather than relapse.

Injection Drug Use

At SAP intake, 42.7% of all clients reported lifetime injection drug use (IDU), as shown in Table 5. Compared to other routes of drug administration, IDU places individuals at increased risk of overdose, transmission of diseases such as HIV and Hepatitis C, and development of skin or heart infections (CDC, 2020; Mathers et al., 2013; Novak & Kral, 2011). Syringe exchange programs (SEPs) may help prevent the infections or disease transmission, yet only about one-third of participants with a history of IDU reported having ever used such programs in Kentucky prior to their current incarceration. Increasing awareness of SEPs during community re-entry is a continued focus of harm reduction efforts in the state.

42.7% of all SAP participants reported lifetime drug injection

Table 5. Profile of Injection Drug Use Pre-incarceration (N=4,902)

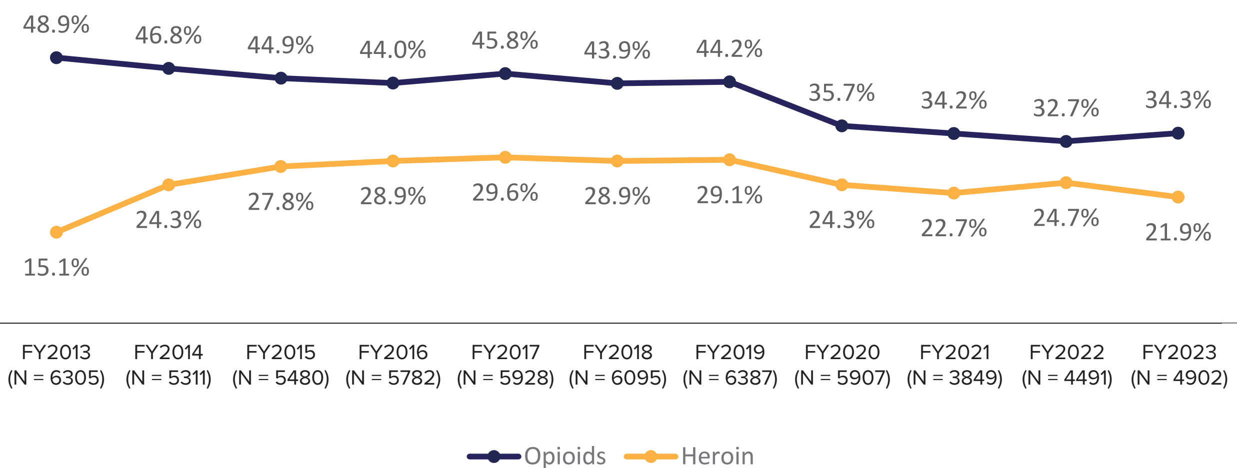
Injection Drug Use (IDU)	
Ever injected drugs	42.7%
Of ever-IDU participants (N=2,095)...	
Drugs most commonly injected:	
Stimulants	75.2%
Heroin	45.4%
Prescription opiates	31.3%
Cocaine/crack	16.0%
Suboxone/Subutex	16.0%
Ever used a syringe exchange program (SEP) in KY	36.2%
If yes, offered treatment resources at SEP?	59.6%

Heroin and Illicit Prescription Opioid Use

The past decade has seen fluctuations in self-reported heroin use prior to incarceration. As shown in Figure 8, the percentage of individuals entering KY DOC SAP programs reporting any heroin use in the 12 months prior to incarceration increased from 15.1% in FY2013 to 29.6% in FY2017, yet has since declined to 21.9% in the present fiscal year (FY2023). During this same time period, misuse of prescription opioids (not including methadone or buprenorphine) peaked at 48.9% in FY2013, decreased steadily to 32.7% in FY2022, and increased slightly to 34.3% in FY2023.

Senate Bill 192 (SB 192; 2015), passed in March 2015 in response to increasing heroin use in Kentucky, has provided continued funding for Addiction Services' administration of medications for the treatment of opioid use disorder (MOUD) for eligible SAP graduates, specifically injectable extended-release naltrexone (Vivitrol®). In addition, the **Kentucky Opioid Response Effort (KORE)** – a federally-funded initiative administered by the KY Department for Behavioral Health, Developmental and Intellectual Disabilities – has also continued to support evidence-based prevention and treatment for opioid use disorder (OUD) and has implemented a variety of projects targeting justice-involved individuals, including expanded MOUD and reentry efforts. Formerly incarcerated people are at drastically increased risk to experience opioid overdose (Ranapurwala et al., 2018), and MOUD is a critical component in averting opioid overdose deaths; one simulation study estimated that MOUD access at release from incarceration could reduce overdose fatalities in this vulnerable population by up to 31.6% (Macmadu et al., 2021). The Division's commitment to expanding access and utilization of MOUD represents a commitment to leverage funding to reduce overdose mortality for those at the highest risk.

Figure 8. Reporting Heroin and Illicit Prescription Opioid Use in the 12 Months Prior to Incarceration



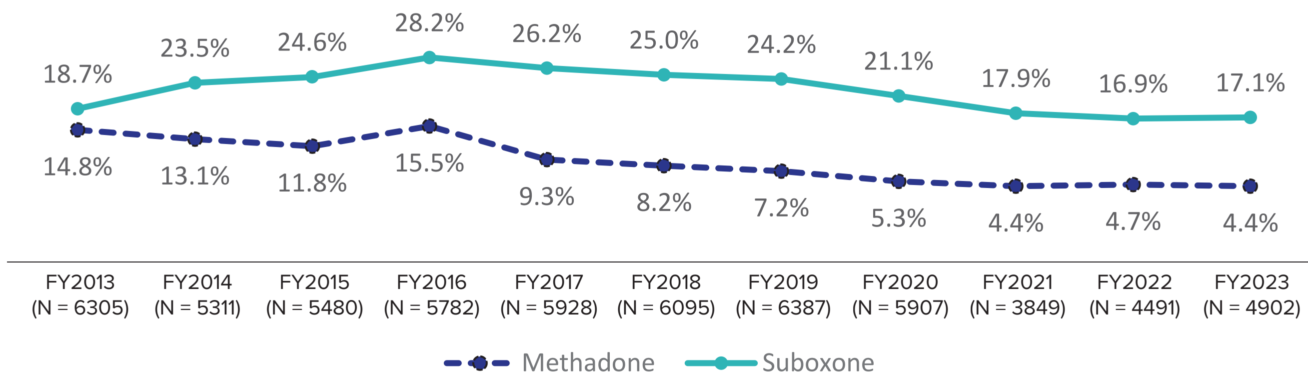
Misuse of Methadone and Buprenorphine

Although methadone and buprenorphine (Subutex or Suboxone/Zubsolv) are evidence-based medications used clinically for the treatment of opioid use disorder, both have a potential for misuse (Lofwall & Walsh, 2014; Mitchell et al., 2009), although most data suggest that the majority of non-prescribed buprenorphine and methadone use is for the purpose of controlling withdrawal and cravings for other opioids and not to get high (Johnson & Richert, 2019; Rubel et al., 2023). Indeed, among individuals meeting OUD criteria at SAP entry in FY2023 (N=2,014), 44.4% reported ever having used these types of medications without a prescription to try to abstain from use of other illicit opioids.

As shown in Figure 9, over the past decade, misuse of methadone reported during the 12 months prior to incarceration has decreased from a peak of 15.5% in FY2016 and has remained low among participants entering SAP. Misuse of buprenorphine became more common between FY2013 and FY2016, increasing from 18.7% to 28.2%, but has since declined to 17.1% in the present year (FY2023).

According to the KY DOC, the Kentucky Cabinet for Health and Family Services has partnered with the KY DOC to reduce diversion by training providers to deliver evidence-based treatment, using a nationally-recognized certification program for treatment programs, expanding insurance coverage, removing cost barriers to treatment to reduce diversion, and expanding recovery support. Furthermore, in response to COVID-19, the Department for Medicaid Services removed prior authorization needed for substance use treatment in August 2021, allowing individuals to access needed care more rapidly (SB 54, 2019).

Figure 9. Reporting Misuse of Medications for Treatment of Opioid Use Disorder in the 12 Months Prior to Incarceration

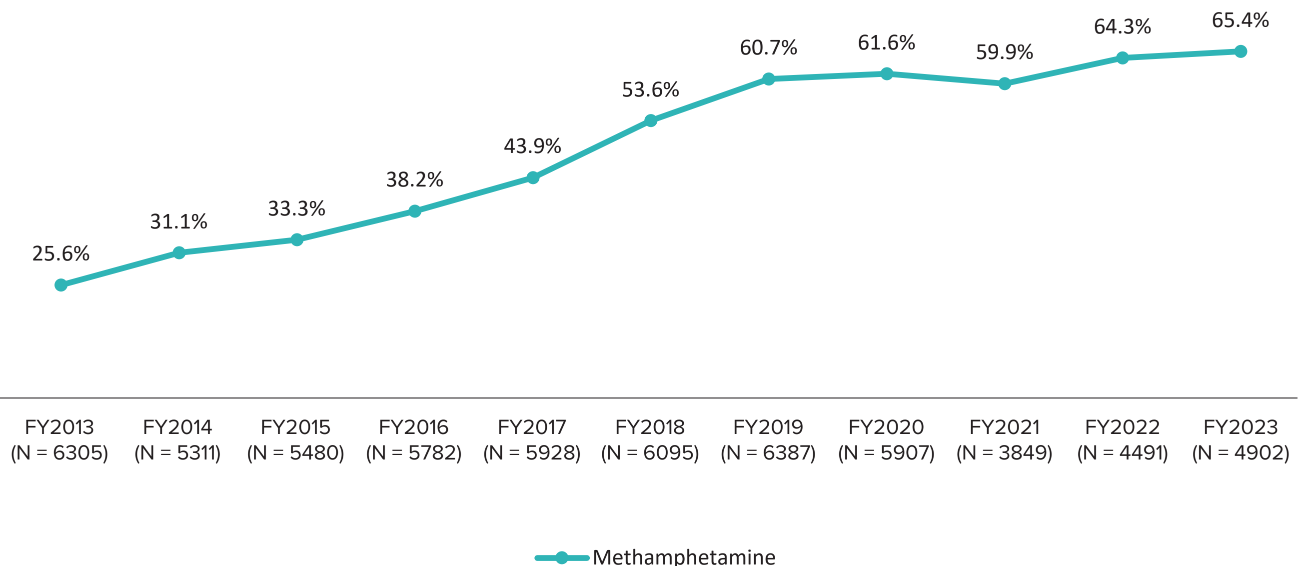


Methamphetamine Use

Between FY2013-23, individuals reporting methamphetamine use at SAP intake has increased **255%**

Another noteworthy substance use trend includes the continued increase in methamphetamine (meth) use. As highlighted in Figure 10, the percentage of individuals who report meth use at SAP intake has risen from 25.6% in FY2013 to a peak of 65.4% in FY2023, an increase of 255%. This continued increase in meth use mirrors national trends, which show a 105% increase in methamphetamine use disorder in the United States between 2015-19, while meth-involved overdose deaths nearly tripled (Han et al., 2021). Meth-involved overdoses in Kentucky have increased significantly in recent years – in part due to increased potency, low cost, and widespread availability – and methamphetamine was identified in 50.1% of all Kentucky overdose deaths in 2022 (KY ODCP, 2023). National data support these findings, with meth seizures in the first half of 2019 averaging 97.2% purity and 97.5% potency (US DEA, 2021). Recent research has also highlighted the continued increase in meth use among individuals who use heroin (Strickland et al., 2021). However, contamination of methamphetamine with illicitly manufactured fentanyl has also become a growing national concern (Daniulaityte et al., 2023) and the combination of meth/fentanyl was identified in 863 (40.4% of total) overdose deaths in Kentucky in 2022 (KY ODCP, 2023). Although no FDA-approved medication exists for treatment of stimulant use disorders, KY DOC reports that they have begun considering contingency management, an evidence-based intervention involving reinforcing consequences for positive behavior change (e.g., abstinence; Brown & DeFulio, 2020).

Figure 10. Reporting Illicit Methamphetamine Use in 12 Months Prior to Incarceration

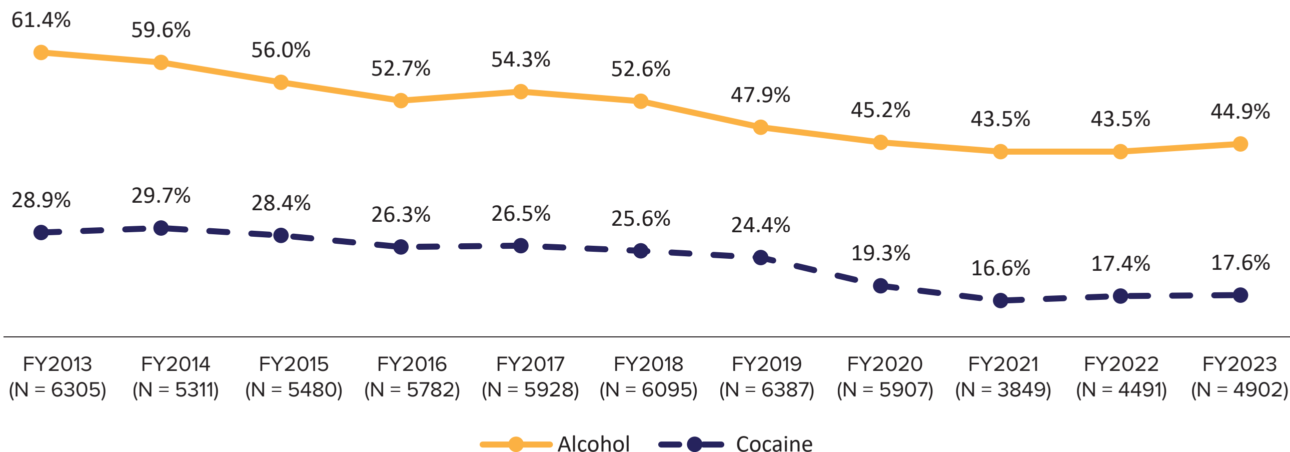


Alcohol and Cocaine Use

The steady decrease in alcohol and cocaine/crack usage among individuals entering Kentucky SAP programs is another noteworthy trend. As highlighted in Figure 11, the percentage who report alcohol use at baseline has fallen from 61.4% to 44.9%, resulting in an overall decrease of 16.5 percentage points from FY2013 to FY2023. For this same period, reported cocaine or crack use has declined overall by 11.3 percentage points, from 28.9% down to 17.6%.

There has been a steady decline of reported pre-incarceration alcohol and cocaine/crack use over the past ten years.

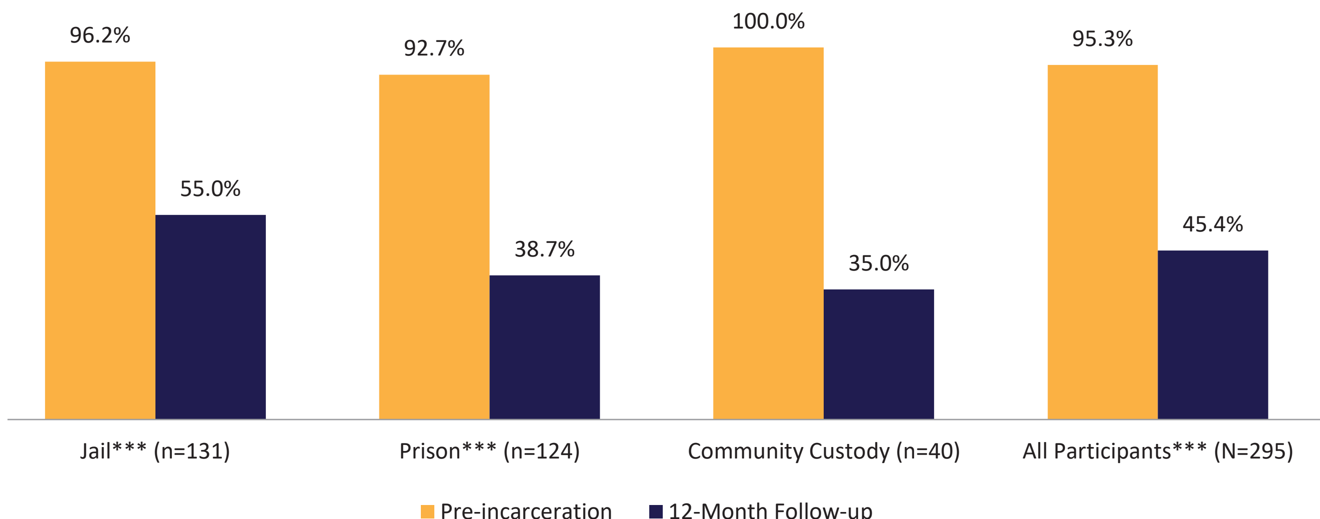
Figure 11. Reporting Alcohol and Illicit Cocaine Use in 12 Months Prior to Incarceration



Decreases in Substance Use During Follow-up

As shown in Figure 12, those who graduated from DOC treatment in prison, jail, and community custody programs reported a significant decrease in use of any illegal drug in the 12 months post-release period. It should be noted that the rate of return to drug use decreased from 52% in the FY2020 sample to 45% in the FY2023 sample.

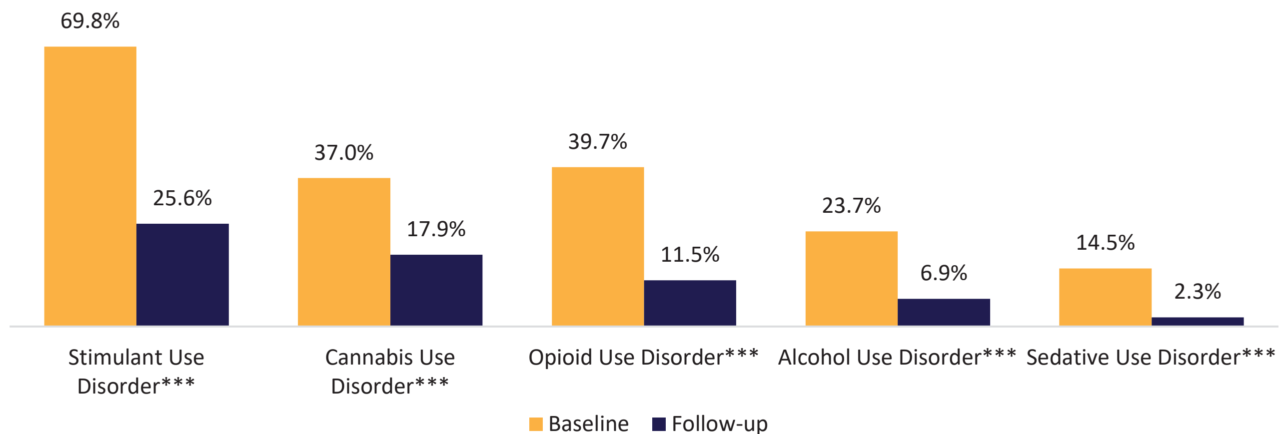
Figure 12. Drug Use from Pre-incarceration to One-year Post-release (N=295)



Note: Significance established using McNemar's test for correlated proportions, ***p<.001, see Appendix B. Statistical significance cannot be calculated for Community Custody participants due to 100% reporting drug use at pre-incarceration.

As shown above, illicit drug use was reported by 45.4% of the follow-up sample at 12 months post-release. However, the process of recovery from substance use disorder (SUD) is lifelong, and individuals may not achieve sustained, long-term abstinence right away. Many recovery advocates recognize the distinction between a "relapse," indicating that an individual has returned to repeated, problematic use, versus a "slip" or "lapse," in which the individual may use a few times, but stops before use progresses to a more severe state. This difference is illustrated in Figure 13, which shows the percentages of participants who met DSM criteria for each type of SUD during the 12 months before their incarceration, compared to the 12 months post-release. Prevalence of all SUDs decreased significantly following treatment and release, with the largest decreases observed for stimulant use disorder (-44.2 percentage points), opioid use disorder (-28.2 percentage points), and cannabis use disorder (-19.1 percentage points). Overall, although 45.4% of participants reported any illicit drug use during the post-release period, only 35.1% met DSM criteria for any SUD.

Figure 13. Past-Year Substance Use Disorder from Pre-incarceration to One-year Post-release (N=262)



Note: Significance established using McNemar's test for correlated proportions, ***p<.001, see Appendix B.

Even among participants who reported substance use during their 12-month post-release period, a small percentage met criteria for a SUD, suggesting that their patterns of use did not achieve the same level of severity as prior to incarceration and SAP treatment. Although outdated perspectives on SUD would view these deviations from complete abstinence as "failures," national leaders in the field have proposed a definition of recovery as a multidimensional, holistic process. For example, the Substance Abuse and Mental Health Services Administration (SAMHSA) offers a working definition of recovery as "a process of

> "The Beshear-Coleman administration has expanded our partnerships with community partners making great strides in fighting this terrible epidemic that has been facing our state for far too long. By helping individuals begin their path to recovery while incarcerated, Kentucky is playing a key role in reducing overdose deaths while making our communities a safer place for all. Recovery truly is a process, and the positive impacts that are taking place across the commonwealth are saving Kentuckians from addiction while reducing recidivism."
>
> — Van Ingram, Executive Director of the Office of Drug Control Policy

change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential." Although this process often involves addressing problematic patterns of substance use that may impede positive change, SAMHSA's definition acknowledges that the scope of recovery is much greater than substance use alone. Indeed, SAMHSA specifies four dimensions of recovery – health, home, purpose, and community – that have been identified as foundational for this process. The remaining sections of this report are evidence of the commitment of the Division of Addiction Services to SAP graduates' recovery, beyond substance use alone, and present 12-month post-release outcomes across other domains of health, functioning, and well-being.

Education, Employment, & Financial Situation

In addition to decreases in substance use, SAP graduates reported other positive outcomes during the 12 months following release. For example, 18% of SAP graduates (n=54) reported attending either an educational or vocational training program during this time. Specifically, 13 attended a job training program, 14 attended a GED program, and 27 attended either a college or vocational school.

As shown in Table 6, over three-fourths (77.6%) of SAP graduates reported their usual employment pattern as working full or part-time in the year since release, which is a significant increase from employment reported prior to incarceration at baseline (61.0%). Graduates at follow-up reported working an average of 14.6 days in their last 30 days on the street and an average of 2.1 jobs during the 12-month period. Furthermore, SAP graduates reported an average past-month legal income of $1,712, and 89.5% reported stable housing in an apartment, room, house, or residential treatment facility. These outcomes are particularly favorable given the protective impact of employment against recidivism and/or re-incarceration, as shown in a previously published CJKTOS brief report (Winston et al., 2017).

77.6% of participants were employed at follow-up.

Table 6. Education, Employment, and Income in the 12 Months Post-release (N=295)

	Jail (n=131)	Prison (n=124)	Community Custody (n=40)	Total (N=295)
Participated in education or vocational program	16.0%	20.2%	20.0%	18.3%
Employed full- or part-time	72.5%	80.6%	85.0%	77.6%
Housed in apartment, room, house or residential treatment facility	85.5%	91.9%	95.0%	89.5%

The partnership between the Division of Addiction Services and the Division of Reentry Services has been crucial to supporting these positive outcomes.

Information was provided by the KY DOC about several initiatives, made possible through this partnership, which merit recognition for increasing recovery support for SAP graduates. First, a **Transportation Pilot** was launched in August 2020 and represents a large-scale collaboration between the Divisions of Addiction Services, Reentry Services, Probation and Parole, and

the Transportation Cabinet, provided through local transportation brokers in communities across the state. The pilot allows SUD clients who are experiencing a transportation barrier to request a ride to certain approved appointments, treatments, and classes, making services more accessible. Rides are provided through contracts with community providers, leveraging the existing transportation system established under Medicaid through the Department of Transportation (but with expanded eligibility parameters). In 2022 the project expanded statewide to serve all populations within the KY DOC. The pilot also expanded to provide use to the Department of Public Advocacy, Alternative Sentencing Workers to aid their clients in transportation. To date, a total of 32,636 transports were completed to assist the justice-involved population. This growth will significantly help the justice-involved population with reaching appointments in the community, including treatment for SUD.

Second, Reentry and Addiction Services have continued to collaborate to support **Reentry Employment Program Administrators (REPAs)**[1], who assist individuals on community supervision with an employment plan, with concentrated services for individuals with opioid use disorder. Using a model called the "ABCs of Employment," REPAs assist clients in obtaining Any job if they just need a work opportunity, a Better job if they want to improve on something, or a Career if they know what they want to do long-term. REPAs work collaboratively with SSCs to place the client's recovery at the forefront and ensure that the employment plan is congruent with recommendations for SUD outpatient treatment, classes, or other aftercare. During 2023, REPAs completed 4,313 assessments, leading to employment or job/skills training opportunities for the justice-involved population. Originally, the Department received funding for four REPAs; after continued success, the Department now employs 11 REPAs, ensuring statewide coverage for the population on community supervision with Probation and Parole.

The third initiative, in collaboration with the Division of Addiction Services, the Division of Reentry Services has established seven **Jail Reentry Coordinato**r positions to serve the SAP population as they are released from custody. A Jail Reentry Coordinator will meet with individuals being released from 19 local jails with SAP programs across the state to ensure barriers are addressed to aid in their successful return to the community. The individual being released is provided a state ID, birth certificate and social security card in addition to local resources and referrals to any continued care they may need. These positions started in 2021 and are funded by the Kentucky Opioid Response Effort Grant and Senate Bill 192 funds. Since the positions began, they have assisted over 7,781 individuals at the time of their release.

Through another initiative, the Division of Reentry Services and Department of Transportation collaborated to process **State ID applications** for incarcerated individuals anticipating a release to the community. This pilot program allows all individuals to be released with a state ID card, removing barriers to employment, service enrollment, and receipt of benefits. The pilot project began February 1, 2020 at four sites, including 3 state prisons and 1 county jail. During this

[1] For more information about REPAs: https://corrections.ky.gov/Reentry/Pages/REPA.aspx

"The collaboration between the Division of Addiction Services and the Division of Reentry Services has proven to be successful in assisting our population with various barriers they have addressing the client as a whole. The Department of Corrections is lucky to have amazing staff in both divisions that work together serving the needs of the justice-involved population to the best of their abilities."

— Kristin Porter, Director of the Kentucky Reentry Service Division

fiscal year, the project achieved statewide expansion serving releases coming from all state prisons in the Commonwealth and 20 jails. Because of this initiative, 3,093 state ID applications have been processed prior to an individual being released from custody.

Finally, in partnership with the Kentucky Education and Workforce Development Cabinet, **KY Skills U**[2] was launched in January of 2019 to streamline educational services for adults returning to the community from a period of incarceration. In 2023 KY Skills U was renamed Adult Education. Probation and parole officers refer individuals to Adult Education agents who assist clients with enrollment and developing a plan to reach their educational goals, including high school equivalency degrees (GEDs), college courses, and work skills development, through both onsite and online settings. In 2023, the DOC made a total of 1,373 educational referrals to Adult Education.

Additionally, the Division of Reentry Services facilitates health insurance access for all individuals by assisting with the **Medicaid application** process. When an individual is nearing release from incarceration, reentry staff facilitate communication with local Managed Care Organizations so the individual may select an organization to enroll with. This ensures Medicaid coverage will begin immediately after release, rather than individuals needing to wait for coverage before seeking and receiving services in the community. The KY Cabinet for Health and Family Services Department of Medicaid Services also filed an application for amendment to its existing 1115 Medicaid Demonstration Waiver in November 2020 to request Medicaid coverage for SUD services for incarcerated individuals. This amendment application has been included in the state's 1115 Demonstration extension application, submitted in September 2022 (KY CHFS, 2024).

Family & Social Support

Graduates of DOC treatment also reported improved family relationships at one-year post-release. More SAP graduates reported spending most of their free time with family at follow-up (69.8%) than before incarceration (54.9%), and also reported a higher average number of friends (2.8 vs. 3.6). In addition, about two-thirds (66.1%) of SAP graduates reported having a close relationship with their children at follow-up. Of those with children under 18 (n=242), 52.5% reported providing financial support to their minor children in the 12 months post-release. Overall, 82.1% of graduates reported feeling 'quite a bit' or 'extremely' cared about and supported by the important people in their life.

82.1% of participants felt 'quite a bit' or 'extremely' cared about and supported by the important people in their life.

[2] For more information about KY Skills U: https://gohigherky.org/kentucky-skills-u/

"[I learned] how to take responsibility for my actions. Probably the best thing [SAP] taught me was that it took years for my family to cut me out because of my addictions, so I needed to be patient with them as I was trying to get back into their lives… to start rebuilding a new life."

— SAP graduate

Responses to open-ended questions in the follow-up interview show that SAP graduates believe the program made a difference in their relationships with family in the following ways:

- Communication skills; expressing themselves and their feelings in healthy ways
- Setting boundaries with others who may be detrimental to their recovery
- Respecting their own needs by not being a "people pleaser"
- Learning to be open and honest with the important people in their lives
- Coping skills and self-awareness
- Being more considerate and thoughtful of others' feelings
- Patience and management of anger and other negative emotions
- Developing trust through meaningful bonds with others
- Practicing forgiveness, accountability, and making amends

It is clear from participants' responses that they believe family support to be critical to recovery success. In line with this perspective, the Division of Addiction Services reports that they have also made significant recent efforts around family engagement, both during incarceration and as individuals transition to the community. One example of these efforts are virtual reentry simulations provided by the Division of Reentry Services, which allow participants to see what a day in the life of an individual looks like when they are first released from incarceration. All community staff hired to work in the Department participate in the virtual reentry simulation to help them understand the population they will be working with. The Division of Reentry Services also hosts the virtual reentry simulation for community stakeholders wishing to know more about the criminal justice system and reentry process.

Additionally, the Division of Addiction Services has begun to offer family engagement seminars to families of clients in all prison SAP and SOAR programs. According to the KY DOC, five seminars were offered in 2023, covering topics such as family roles and codependency, education about medication for addiction treatment (MAT), what to expect after release (including resources, expectations, and continuum of care), and information about Al-Anon, a 12-step fellowship support group for families of individuals with SUD. Narcan training was also provided by Dr. Jody Jaggers and kits were available to be mailed to any family members who requested. The majority of sessions (4 of 5) were offered virtually, but family members who participated in more than half of virtual sessions were also eligible to attend an in-person family day seminar in December 2023 (offered at Blackburn and Northpoint), including educational speakers and planned activities for the clients, family and children. Another five-seminar series (four virtual, one in-person) has already been scheduled for early 2024.

Finally, the Division of Addiction Services has continued to update their webpages in the aims of providing more helpful and accessible information to clients and their support networks. These updates have included expanded information about treatment resources, including MAT; education related to SUD itself and recovery services; and a variety of helpful brochures for families, including a page calling to "End the Stigma" of SUD, particularly among clients' families

> "[I learned to] be more open about how I'm feeling and doing and that it's okay to ask for help."
>
> — SAP graduate

and loved ones (visit https://corrections.ky.gov/Divisions/ask/pages/default.aspx for more information). Overall, these efforts reflect the Division's commitment to best support clients and their families through the recovery and re-entry process.

Mental Health

Fewer SAP graduates reported experiencing serious depression at follow-up (38.5%) when compared to pre-incarceration (44.5%), as illustrated in Table 7. Similar decreases were observed for symptoms consistent with post-traumatic stress disorder (PTSD), which was reported by 19.5% of graduates during pre-incarceration and 10.7% at follow-up. In addition, significantly fewer graduates reported suicidal thoughts at follow-up (4.7%) when compared to pre-incarceration (10.0%).

SAP graduates reported decreases in instances of serious depression, PTSD, and suicidal thoughts 12 months following release.

Table 7. Mental Health Pre-incarceration and Post-release, 12 months (N=295)

	Pre-incarceration	12-Month Follow-up
Experienced serious anxiety	48.8%	52.2%
Experienced serious depression	42.0%	35.9%
Experienced symptoms consistent with PTSD	19.5%	10.7%
Experienced serious thoughts of suicide***	12.2%	3.7%

Note: Significance established using McNemar's test for correlated proportions, ***p<.001, see Appendix B.

However, the prevalence of SAP graduates reporting anxiety increased slightly between pre-incarceration and follow-up. This is consistent with research that has highlighted increases in anxiety associated with community transitions from incarceration, beginning when incarcerated individuals start to approach the point of release (Pflugradt et al., 2022). Anxiety has also been shown to increase during the transition period as released individuals navigate stress, learn to engage in socially normative activities, and manage shame and stigma (Hyde et al., 2022). Additionally, individuals with SUDs may have previously used substances to manage anxiety symptoms (prior to incarceration; McHugh, 2015). In context of these challenges, a lack of reduction in anxiety symptoms is not surprising – and does not necessarily indicate that clients are not practicing healthy coping strategies.

Mental health has been a priority of the Division of Addiction Services, which has continued efforts to support clients who receive SUD treatment. For example, two prisons (Kentucky State Reformatory (for men) and the Kentucky Correctional Institution for Women) offer Co-Occurring Disorder Programs, which allow integrated treatment in a modified therapeutic community model for individuals with verifiable histories of SUD and diagnoses of serious mental illness (see Appendix A). However, in 2019, for individuals with less severe mental health issues, the Division expanded the evidence-based cognitive-behavioral "A New Direction" curriculum used in prison-based SAP programs to include a workbook specifically for Co-occurring Disorders. SAP staff received a three-day training from the Hazelden Betty Ford Foundation, founders of A New Direction, to facilitate this addition.

Recognizing the potential value of this curriculum to individuals participating in jail-based SAP programs, in 2021, the Division received additional funding through the Kentucky Opioid Response Effort (KORE) to expand use of the Co-occurring Disorder workbooks in jail-based SAP programs across the state. Additional workbooks were purchased for jail SAP programs in 2021, using KORE funding; jail program staff received training through the Division of Addiction services in August 2021, and curriculum was implemented in September 2021.

According to the KY DOC, although all SAP participants complete the first two sections of the workbook, individuals who meet the appropriate mental health criteria now have the opportunity to complete the entire curriculum, which teaches clients about the interconnectedness of substance use/ mental health issues, provides tools to manage co-occurring disorders, and focuses on relapse prevention after release. Since the program's implementation (September 2021), according to cumulative data collected through CJKTOS, 54.9% of all individuals entering prison or jail SAP programs have met criteria for at least one mental health condition (i.e., depression, anxiety, or PTSD). In total, 2,892 jail or prison SAP clients have completed the new co-occurring disorder curriculum. These additional targeted services would not be possible without collaborations between Addiction Services and the DOC's mental health staff.

In 2021, the Kentucky DOC expanded curriculum for co-occurring substance use and mental health disorders through a partnership with KORE, serving 2,892 clients to date.

Finally, for individuals who are not in prison or jail custody, the DOC reports that a new, specialized caseload has been created for Social Service Clinicians (SSCs) to provide targeted services and case management for clients living with co-occurring mental health and substance use disorders. Additionally, the Hope Center in Lexington, KY has partnered with the DOC to provide residential, community-based SUD treatment for DOC-referred clients living with co-occurring disorders through the Supportive Housing for Adaptive Reentry (SHARE) Program[3] (see Appendix A). The men's program began services on February 1, 2020, while the women's program started on October 15, 2021. The program utilizes a modified peer-driven therapeutic community with added direct supports from licensed mental health professionals, smaller groups, psychiatric counseling through New Vista (a local community mental health provider) and offers beds for 20 men and 20 women.

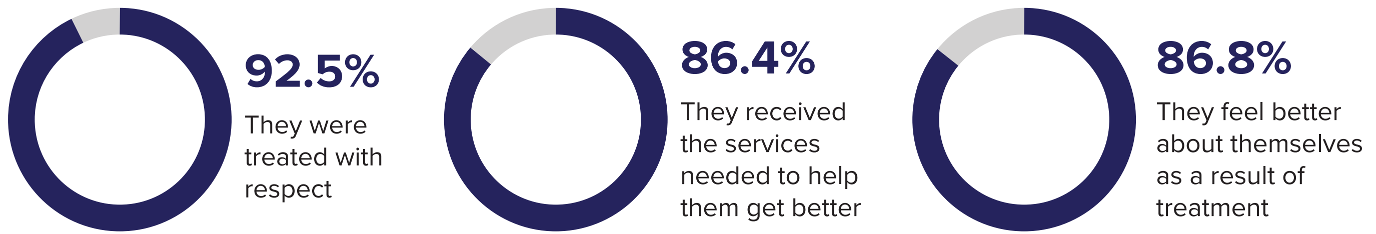
Treatment Satisfaction

As shown in Figure 14, the majority of SAP graduates at follow-up agreed or strongly agreed that they were treated with respect in the program (91.0%), that they received the services they needed to help themselves get better (81.9%), and that they felt better about themselves as a result of treatment (84.9%). Overall, most graduates (84.3%) considered the program to be a success.

[3] https://hopectr.org/what-we-do/mental-health/

> "It was a wonderful program, with wonderful people – they were really engaged in helping me, and helping me create a plan to improve my life."
>
> — SAP graduate

Figure 14. Treatment Program Satisfaction (N=295): Participants who Agreed or Strongly Agreed



When asked to explain why they believed the program was successful and why they rated SAP so highly, many pointed to achievements post-release, such as continuing sobriety, employment, relationships with children and family, and not being re-incarcerated. Others said they appreciated the chance to mentor others, to learn about addiction and their own behaviors, to share their stories and hear about others' experiences, and to be a part of the program's fellowship and community. Overall, many participants believed that their successes and growth were due to their experiences in SAP. These findings align with a recent consensus study report released from the National Academies of Sciences, Engineering, and Medicine (NASEM, 2022) calling for measurement of post-release outcomes to expand beyond recidivism and reincarceration alone.

Supporting Recovery and Post-treatment Success

Building on findings related to treatment satisfaction, there is also a genuine human investment and payoff associated with SAP, as evidenced by qualitative data collected from SAP graduates. The vast majority of individuals reflected that the program had made a positive impact and they had received valuable skills to continue their recovery in their life after release. When asked to reflect on the factors needed to be successful after leaving treatment, SAP graduates mentioned several important themes:

- **Environment**: Maintaining distance from the old people, places, and things associated with use
- **Determination**: Hard work, focus, willpower, and dedication
- **Stability**: Committing to a schedule and routine and consistently sticking with it
- **Self-awareness**: Paying attention to emotions and triggers
- **Staying busy**: Finding employment and hobbies to keep occupied
- **Support**: Maintaining relationships with positive friends, family, and community
- **Honesty**: Being open with yourself and others, not being too proud to ask for help
- **Faith**: Connecting with something larger than yourself, such as through church or spirituality
- **Recovery work**: Attending mutual aid meetings and finding a sponsor
- **Purpose**: Setting meaningful goals and working steadily towards them

> "I just woke up and said, 'I'm not living like this anymore.' It was a turn-around point. Because of the help I was getting [in SAP], it gave me the power to stay clean."
>
> — SAP graduate

Recognizing the importance of ongoing recovery support, the Department of Corrections has partnered with a Lexington-based recovery community organization, Voices of Hope, to implement **Peer Recovery Coaching Services** within prison-based SAP programs, a model which has demonstrated promise in reducing recidivism and substance use and improving health and well-being (Bellamy et al., 2019; Ray et al., 2021). With funding provided by the Kentucky Office of Drug Control Policy (ODCP), this new service (implemented in early 2023) employs trained, certified peer recovery support specialists[4] with a history of lived experience in substance use disorder to assist SAP and SOAR clients with guidance and coaching; community resource education; and hope and encouragement as part of a multi-disciplinary treatment team. When possible, coaches are selected who also have a history of criminal legal system involvement, due to research demonstrating the value of this type of lived experience when working with incarcerated individuals (Duvnjak et al., 2022). According to data provided by Voices of Hope and the KY DOC, between March-December 2023, six recovery coaches working in five prison SAP programs completed over one thousand one-on-one sessions, in addition to facilitating nine different types of mutual aid meetings (e.g., 12-step, SMART Recovery) with over 7,000 incarcerated individuals in attendance. Through this valuable collaboration, coaches can use their professional training and lived experience to provide support, strength, and hope to incarcerated individuals working on their recovery.

Through a collaboration with Voices of Hope, *over one thousand* one-on-one recovery coaching sessions were provided to prison SAP and SOAR clients during 2023.

In the current FY2023 follow-up sample, a majority of SAP graduates also engaged in self-help group meetings (such as 12-step programs or SMART Recovery) to support their ongoing recovery. Specifically, as shown in Table 8, 58.3% reported attending self-help group meetings and they reported attending meetings an average of 4.0 days in the past 30.

Table 8. Self-help Group Meeting Attendance in the 12 Months Following Release (N=295)

	Attended any self-help group meetings	Average number of days attended meetings in past 30 days
Jail (n=131)	61.1%	4.3 days
Prison (n=124)	55.6%	3.3 days
Community Custody (n=40)	57.5%	5.2 days
Total (N=295)	58.3%	4.0 days

Medication for Addiction Treatment (MAT)

[4] For more information about peer support specialist certifications, see: https://dbhdid.ky.gov/dbh/ebpi-recovery.aspx

"The role of relationships and connection to others cannot be understated in supporting and sustaining recovery. We recognize that the systems that serve individuals with substance use disorder must similarly collaborate and forge meaningful linkages, in order to build a quality system of care. The Department for Behavioral Health, Developmental and Intellectual Disabilities is honored by its partnership with the Department of Corrections."

— Dr. Katherine Marks, Project Director for the Kentucky Opioid Response Effort (KORE)

Initiating and continuing medication for addiction treatment (MAT) can be an important factor in post-treatment success. At the time of treatment entry, 30.5% of participants met criteria for an opioid use disorder (OUD) only, 14.5% for an alcohol use disorder (AUD) only, and 9.2% for co-occurring OUD/AUD, indicating high potential eligibility for MAT services. At the time of the 12-month follow-up interview, one-fourth of all follow-up participants (25.1%) reported choosing to engage in community-based MAT services for OUD or AUD, including buprenorphine (e.g., Suboxone/Subutex®; 18.6%), extended-release injectable naltrexone (Vivitrol®; 3.7%), or methadone (3.1%). The Kentucky DOC continues to prioritize MAT education and providing referrals for services for individuals transitioning to the community.

Furthermore, in response to COVID-related safety recommendations and restrictions, the US Drug Enforcement Administration permitted flexibility for authorized practitioners to prescribe buprenorphine to new patients via telemedicine as of March 2020, supporting access to this critical medication. Practitioners have also recently urged for a review of federal methadone regulations to allow for office-based prescribing and dispensing (McCarty et al., 2021). Finally, as of August 13, 2021, the Kentucky Department for Medicaid Services removed prior authorization for all covered behavioral health and SUD services, whether inpatient or outpatient (including MAT), facilitating timely access to services without requiring clients to wait for insurance approval (SB 54, 2019).

Community Aftercare

Of the present sample of SAP graduates (N=295), 64.1% were considered “eligible” for SAP aftercare following release to the community. “Ineligible” clients included those who were released on mandatory re-entry supervision (MRS; n=48), served out (n=37), released on an interstate compact (n=11), PSAP/Senate Bill 4 diversion clients (n=9), or unavailable due to hospitalization (n=1).

Of clients who were eligible and referred to meet with an SSC (n=146), 85.6% (n=125) attended their initial meeting. Almost every client who met with an SSC (94.4%) received some type of recommendation, based on their level of need: 80.8% were referred to traditional aftercare (described below), 12.8% were recommended to attend self-help group meetings (such as AA/NA) only, and 0.8% were referred to inpatient SUD services. Of those referred to traditional aftercare (n=101), 54.8% had some type of documented participation, and 34.9% completed their aftercare program.

94.4% of eligible SAP graduates who were referred to a community SSC received some type of treatment or aftercare recommendation

In 2021, the Division of Addiction Services developed a workgroup in conjunction with Reentry and Probation and Parole to review and improve SAP aftercare services. As a result of this workgroup, changes in aftercare included a more holistic clinical approach and increased utilization of referrals to decrease barriers. Aftercare length was modified to allow for individualized completion based on meeting milestones in their recovery. The initial aftercare needs and prevention form was also created to incorporate validated screening questions and to quickly identify high-risk needs and other barriers that can interfere with the client’s ongoing

recovery.

According to the KY DOC, this revised aftercare program was piloted in a few P&P districts beginning in October 2021. As of early 2023, five SSCs across the state have new, specialized caseloads exclusively for aftercare clients, allowing these SSCs to focus all of their efforts on supporting individuals' continuity of care as they transition from incarceration to community. The goal of this specialized caseload is to ensure that aftercare clients have a built-in support and accountability system by facilitating regular monthly contact with clients, better enabling SSCs to assist with reentry needs as they arise. Beginning with the point of initial contact, SSCs are trained to ask a series of questions, designed to detect any potential issues that might contribute to risk of relapse or recidivism. SSCs also utilize evidence-based assessment tools for mental health and substance use disorder and provide interventions and referrals wherever necessary. These five dedicated SSCs each cover a specific region of the state, and based on monthly referral reports from 2023, each SSC had monthly contact with approximately 100 clients. The Division of Addiction Service has also made concerted efforts to shorten the window of time between release and first SSC contact: according to data provided by the KY DOC, of the 1,191 total clients who were released during 2023 and met with their SSC, 63% did so within 14 days of release, and 86% within 31 days of release. On average, aftercare clients met with their SSC within 13-19 days of release, based on quarterly estimates.

Another key role played by SSCs is performing assessments in the event of a positive drug screen or admission of drug use for individuals under community supervision, to determine a recommended level of treatment. In lieu of revocation, individuals may sign a graduated sanction form and choose to enroll in services, providing linkage to treatment and accountability for attendance. Overall, 15.9% of the follow-up sample (n=47) was referred to an SSC at some point during their supervision due to self-reported drug use or positive urine drug screen, and of the 40 participants who attended their scheduled meeting, 97.5% (n=39) received some type of referral: 43.6% to outpatient services, 43.6% to inpatient treatment, and 10.3% to additional AA/NA meetings (one additional participant received a marijuana education packet).

Treatment Cost-offset

In order to calculate the cost-offset of treatment offered, comprehensive national data was first used to calculate the annual average cost of an individual actively using substances. This dollar value was then applied to the number of individuals in the present sample who were actively using substances (i.e., past 30 days) before (n=275) and after (n=68) treatment. To determine the net reduction in cost, the direct costs of the treatment programs were subtracted out (calculated as days spent in treatment, multiplied by cost per individual per day in each treatment modality – prison, jail, or community custody). The cost-offset ratio was thus defined as the ratio of the net avoided cost of active substance use ($737,203) to the total direct cost of corrections-based substance use disorder treatment ($475,196). By these calculations, for every dollar spent on corrections-based treatment, there was a return of $1.55 in cost offsets. Detailed tables and methodology are available in **Appendix D**.

A cost-offset return value of greater than $1.00 is considered a positive outcome, in that the costs of operating SAP are not greater than the financial benefit to society from SAP graduates' reductions in substance use. This net benefit is particularly notable given increased

costs of curriculum, supplies, and medical services, as well as recent investments made to enhance services, provide wage increases for staff, and subsidize staff professional licensure and renewals, all of which ensure staff are fully trained and qualified to provide high-quality programming. Moreover, it should be noted that the calculation of societal impacts of substance use includes only crime, health, and productivity (NDIC, 2011), which may not fully encompass the benefits provided to individuals, families, and communities.

Limitations

Findings in this evaluation report should be interpreted with some limitations in mind. First, pre-incarceration data are self-reported at SAP intake and follow-up data are self-reported approximately 12-months post-release. In order to examine the reliability of self-reported follow-up drug use, CJKTOS staff examined data from the KY DOC's information system and the Kentucky Offender Management System (KOMS) for positive drug tests. Of the 161 SAP graduates during the 12-month follow-up period who reported no drug use, 122 had no positive drug tests in KOMS. This provides a self-report accuracy rate of 75.8%. In this study, a higher rate of substance use is self-reported than from urine test results (45.4% vs. 34.2%). Furthermore, urine tests only identify substances used recently, and will only identify drug use among participants on supervision. Thus, for past 12-month substance use, self-report remains an important part of research data collection. However, while self-report data has been shown to be valid (Del Boca & Noll, 2000; Rutherford et al., 2000), it should be noted as a potential limitation. In addition, since baseline measures target behaviors prior to the current incarceration, reporting of substance use and other sensitive information may be affected by participant's memory recall and could be a study limitation.

> "Remember where you came from… don't ever forget what you have been through, but don't dwell on it. Use it as strength to keep pushing."
>
> — SAP graduate

Conclusions

This FY2023 CJKTOS follow-up report presents 12-month post-release data on the characteristics of individuals who complete Kentucky Department of Corrections substance use disorder treatment programs during their incarceration in prison or jail, as well as community custody programs. This follow-up report includes data from a random sample of participants who received treatment in KY DOC prison, jail, and community custody programs and were released during fiscal year 2022. Specifically, this 12-month follow-up study examined a randomly selected representative sample of 295 males and females who successfully completed jail, prison, or community custody-based treatment in reentry service centers and consented to follow-up.

Findings from the FY2023 CJKTOS indicate a number of positive outcomes following successful completion of KY DOC SAP programs, including:

- Reduced substance use
- Reduced recidivism
- Reduced cost to the community
- Increased employment
- Increased housing stability
- Program satisfaction
- Improved family relationships
- Improved mental and emotional wellbeing
- Increased self-esteem
- Increased recovery supports

Implications

The positive outcomes described in this CJKTOS report would not have been possible without the myriad partnerships supporting the work of the KY DOC's Division of Addiction Services, including:

- KY DOC Division of Probation and Parole
- KY DOC Division of Reentry Services
- KY Department for Behavioral Health, Developmental and Intellectual Disabilities and the KY Opioid Response Effort (KORE)
- KY Office of Drug Control Policy
- Voices of Hope's recovery coaching program
- KY DOC-approved community treatment programs, enhancing service access post-release and facilitating client self-determination to select preferred providers

These collaborations have improved services for clients at all points of the treatment and recovery process, reducing drug-related harms and supporting clients' overall well-being post-release from incarceration. Importantly, these positive results are not limited to reductions in substance use or SUD symptoms, but encompass a broader perspective of clients' **recovery** as a multidimensional, holistic process. From specialized aftercare caseloads, family engagement seminars, treatment of co-occurring mental health conditions, enhanced supports for employment and education, and resources to help clients meet basic needs (e.g., transportation, identification, health insurance), the Division and its dedicated partners support all dimensions of clients' recovery. By continuously reviewing services, examining treatment gaps, and looking for new ways to improve existing practices, the Division is committed to staying up-to-date with new initiatives, emerging research, and evidence-based best practices – all of which would not be possible without the dedication of clinical program staff and DOC leadership.

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Key Terms

Baseline: Baseline refers to data collected at treatment intake by correctional treatment counselors. Baseline measures examine substance use prior to the current incarceration.

Community Custody Treatment Participants: Clients who participated in a community custody-based substance use disorder treatment program and who met the eligibility to participate in the follow-up study and provided consent.

DOC Counting Rules:

1. Include only those inmates who have completed their sentences, were released on parole, have received a conditional release, or were released on a split prison-probation sentence. Do not include temporary releases (e.g. inmates furloughed). To be counted the inmate must no longer be considered an inmate or in a total confinement status, except for those released from prison on a split prison-probation sentence.
2. Include only those inmates released to the community. Exclude from the count inmates who died, were transferred to another jurisdiction, escaped, absconded, or AWOL. Exclude all administrative (including inmates with a detainer(s) and pre-trial release status released).
3. Count number of inmates released, not number of releases. An inmate may have been released multiple times in that same year but is only counted once per calendar year. Thus, subsequent releases in the same calendar year should not be counted.
4. All releases (inmates who have completed their sentences, were released on parole, have received a conditional release, or were released on a split prison-probation sentence) by an agency per year constitute a release cohort. An inmate is only counted once per release cohort and thus can only fail once per cohort.
5. Do not include inmates incarcerated for a crime that occurred while in prison.
6. Inmates returned on a technical violation, but have a new conviction should be counted as a returned for a new conviction.

Follow-up: Follow-up refers to data collected 12-months post-release by the University of Kentucky Center on Drug and Alcohol Research. Follow-up measures examine substance use, community treatment, and criminal offenses 12-months post-release from a prison or jail.

Jail Treatment Participants: Clients who participated in a jail-based substance use disorder treatment program and who met the eligibility to participate in the follow-up study and provided consent.

McNemar's Test for Correlated Proportions: Assesses the significance of the difference between two correlated proportions, such as might be found in the case where the two proportions are based on the same sample of subjects or on matched-pair samples. (See http://faculty.vassar.edu/lowry/propcorr.html).

Paired Samples T-Test: Compares the means of two variables by computing the difference between the two variables for each case, and tests to see if the average difference is significantly different from zero. (See http://www.wellesley.edu/Psychology/Psych205/pairttest.html).

Chi Square Test of Independence: Evaluates if two categorical variables are associated in some population. (See https://www.spss-tutorials.com/spss-chi-square-independence-test/).

Prison Treatment Participants: Clients who participated in a prison-based substance use disorder treatment program and who met the eligibility to participate in the follow-up study and provided consent.

Recidivism: Re-incarcerated on a felony charge within the 12 months following release.

Appendix A: Kentucky Department of Corrections Substance Use Disorder Treatment Modalities[5, 6]

Prison Substance Abuse Program - Therapeutic Community Modality: A six-month evidence-based Substance Use Disorder treatment opportunity for those individuals assessed with Substance Use Disorder and classified to be housed in a prison setting. Residents in these programs are housed separately from the prison general population, thereby forming their own community that encourages responsibility and accountability through peer support and uninterrupted focus on substance use treatment. See below for a list of the Commonwealth's prisons that have Addiction Services programming:

- Blackburn Corrections Complex (BCC) - Male
- Green River Correctional Complex (GRCC) - Male
- Kentucky Correctional Institute for Women (KCIW) - Female
- Kentucky State Reformatory (KSR) - Male
- Lee Adjustment Center (LAC) (Private) - Male
- Little Sandy Correctional Complex (LSCC) - Male
- Northpoint Training Center (NTC) - Male
- Roederer Correctional Complex (RCC) - Male
- Ross-Cash Center (at WKCC) - Female
- Southeast State Correctional Complex (SSCC) - Male
- Western Kentucky Correctional Complex (WKCC) - Male

Jail Substance Abuse Program - Therapeutic Community Modality: The Kentucky Department of Corrections contracts with 19 detention centers to provide evidence-based Substance Use Disorder treatment programming for individuals classified to a jail setting. Individuals are housed separate from the jail general population, fostering a community accountable to, and responsible for, a supportive treatment environment. See below for a list of the Commonwealth's county detention centers/jails that have Addiction Services programming:

- Boyle County - Male
- Breckinridge County - Male
- Bullitt County - Female
- Christian County - Male
- Daviess County - Male
- Fulton County - Male
- Grant Co - Male/Female
- Grayson County - Male
- Hardin County - Male/Female
- Harlan County - Male
- Henderson County - Male
- Henderson County - Female
- Hopkins County - Male
- Kenton Co - State Inmates Male
- Kenton Co - County Inmates Male/Female
- Lee County (Three Forks) - Male
- Marion County - Male
- Mason County - Male
- Pike County - Male/Female
- Powell County - Male
- Shelby County - Male

Recovery Kentucky Centers (RKCs): Through a joint effort by the Kentucky Department of Corrections, Kentucky Housing Corporation, and the Department for Local Government (DLG), Recovery Kentucky was created to assist Kentuckians recover from substance use disorders and to reduce homelessness. There are 13 Recovery Kentucky Centers across the Commonwealth. Each Center offers a total of 100 treatment/recovery beds, with 60 beds contracted by the Kentucky Department of Corrections in each location. Go to https://corrections.ky.gov/Facilities/Pages/recoverykentucky.aspx or see below for a list of RKCs:

[5] More information about ASK Treatment Modalities can be found here: https://corrections.ky.gov/Divisions/ask/Pages/modalities.aspx

[6] To learn more about all types of programming at KY DOC adult institutions: https://corrections.ky.gov/Divisions/programs/Pages/ai.aspx

- Brighton Place
- Healing Place of Campbellsville
- Center Point
- Cumberland Hope
- Genesis-Grayson
- Grateful Life
- Hickory Hill
- Liberty Place-Richmond
- Men's Addiction Recovery Center (M.A.R.C.) - Bowling Green
- Owensboro Reg. Recovery
- Skyhope
- Trilogy - Hopkinsville
- WARM - Henderson

Reentry Service Centers (RSCs): Those individuals in need of Substance Use Disorder treatment, who meet the classification criteria for community custody, may participate in programs available in reentry service centers approved by the department to offer Substance Use Disorder treatment programming. See below for a list of the Kentucky Department of Corrections' approved RSCs:

- Chrysalis House (F)[7]
- CTS Russell
- Dismas Dierson (F)
- Dismas Owensboro
- Dismas Owensboro (F)
- Dismas St. Ann's
- Healing Place for Women
- Healing Place for Men
- Hope Center for Women
- Hope Center SHARE[8]
- Hope Center SHARE-CO[9]
- Hope Center SHARE-SMI[10]
- Jacobs House
- Privett Center
- St. Ann's
- VOA (45 days)
- Westcare/Ashcamp
- Westcare Lookout
- Westcare Lookout (F)
- VOA - Halfwayback Program - 45, 60, or 90 day residential

[7] Chrysalis House is a residential treatment program for pregnant and parenting women diagnosed with Substance Use Disorder, and offer treatment for women with co-occurring substance use and one or more mental health conditions. The facility also offers Intensive Outpatient Treatment to clients that meet the criteria for a lower level of care.

[8] SHARE is a facility for men with co-occurring Substance Use Disorders and/or Serious Mental Illness. SHARE is a six-month program with optional aftercare services located at Jacob's House on the Hope Center campus in Lexington. There are two program tracts; SHARE-CO (co-occurring) and SHARE-SMI (serious mental illness).

[9] SHARE-CO addresses substance use by utilizing a peer-driven therapeutic community model that the Hope Center Men's and Women's Recovery Program has utilized for many years in its partnership with the Kentucky Department of Corrections. SHARE utilizes Recovery Dynamics curriculum, integrating the twelve-step model with the peer-driven therapeutic community model. Due to comorbid psychiatric conditions, individuals in the co-occurring program require certain accommodations to ensure success. This includes supplementing the peer-driven therapeutic community model with licensed mental health professionals to provide direct services and support. The program also maintains smaller therapeutic community groups, providing a less intimidating and more personal format which allows both staff and clients to focus on the particular needs of this group.

[10] SHARE-SMI is for individuals with Serious Mental Illness who may not meet criteria for any Substance Use Disorders. Clients receive onsite mental health screening and diagnostic services, psychoeducational and support groups focused on mental health management, and basic life skills groups. The program provides onsite mental health counseling through a partnership with New Vista (a local community health provider), and also has licensed mental health professionals to offer support services, crisis intervention, and assist with other immediate needs. In addition, the program provides referrals for primary health care, job training, vocational support services, educational services, and permanent housing. Clients are given the opportunity to be referred for Targeted Case Management services to provide ongoing aftercare support once they transition into the community.

Community SAP - Comprehensive Outpatient Program: Through an agreement with the Regional Community Mental Health Centers (CMHC) and The Hope Center, individuals who meet the clinical and classification criteria may attend a less restrictive Comprehensive Outpatient Program. Clients start by meeting weekly in an outpatient setting to receive evidenced based substance use disorder curriculum. Clients may be referred to Comprehensive Outpatient who present with a substance use disorder, which is causing multidimensional instability. Comprehensive Outpatient can be an entry point into treatment, a step down level of care, or a step up level of care. Comprehensive Outpatient would be considered for clients who would likely benefit from structure and accountability. Clients must abide by all treatment program standards and submit to random drug screening. Clients must be medically and mentally stable to attend two-hour treatment sessions in a group setting. This is a program which generally takes six-months to complete broken into three phases, totaling 56 treatment sessions.

- Four Rivers Behavioral Health
- Pennyroyal Mental Health Center
- River Valley Behavioral Health
- New Vista (previously Bluegrass.org)
- Northkey
- Cumberland River Behavioral Health
- Kentucky River Community Care
- Mountain Comprehensive Care Center
- Lifeskills
- Pathways
- Comprehend
- Seven Counties
- Adanta
- Communicare
- Hope Center

Outpatient Substance Abuse Programs: Kentucky State Reformatory serves as the primary medical center for the Department of Corrections. In response to those individuals who are medically unable to transfer to facilities where Substance Use Disorder treatment programming is offered, the Department offers evidence-based outpatient Substance Use Disorder programming.

- Kentucky State Reformatory
- Ross-Cash Center
- Henderson County Jail

P-SAP Jail Programs: In response to Senate Bill 4, passed into law in 2009, individuals charged with Class C or D felony drug and/or alcohol crimes, with no felony convictions within the past 10 years may be eligible for treatment as an alternative to conviction. At initial incarceration, the Jail Pre-Trial Officer may alert the Division of Addiction Services Branch Manager to conduct a clinical assessment to determine eligibility for Substance Use Disorder treatment. Upon an agreement between the judge, the commonwealth attorney, the inmate in question, and his/her attorney, successful completion of a jail based, six-month treatment program may serve as an alternative to a felony conviction.

Prison Co-Occurring Disorder Programs: Individuals with verifiable histories of Substance Use Disorder and mental health disorders are eligible to receive an integrated treatment program to address both mental health and substance use disorders. Programs are available in male and female prisons for those classified with prison status.

- Kentucky Correctional Institution for Women
- Kentucky State Reformatory

Reentry Drug Supervision: Mandated by Senate Bill 120, the Kentucky Department of Corrections shall implement a reentry drug supervision pilot program with a goal of restoring the lives of those experiencing Substance Use Disorders. Through a team-based oversight and evidence-based behavior modification, individuals will address issues of Substance Use Disorder with support and oversight by the Parole Officer, Social Service Clinician, Administrative Law Judge, Parole Board, and mental health and Substance Use Disorder treatment providers. This program is currently piloted in Campbell County.

Social Service Clinician Community Groups: As part of the Division of Addiction Services effort to stem the high rate of Substance Use Disorders associated with incarcerated populations, Social Service Clinicians are assigned to all Probation and Parole District Officers throughout the state and are responsible for all Substance Use Disorder clinical assessments, referrals and treatment. In this capacity, Social Service Clinicians may provide group treatment for probationers, parolees, and other eligible clients.

DOC-Approved Providers: Community based Social Service Clinicians are encouraged to utilize all available evidence-based resources in the geographic catchment area. This may include agencies not formerly contracted with by the Department. Awareness of client needs and a knowledge of all local clinical resources allows for broader opportunities for change. A list of currently approved providers is available at this link:
https://corrections.ky.gov/Divisions/ask/Pages/approvedproviders.aspx

Appendix B. CJKTOS Data Collection Sites

PRISON DATA COLLECTION SITES

Blackburn Correctional Complex
3111 Spurr Rd.
Lexington, KY, 40511
(859) 246-2366

Green River Correctional Complex
1200 River Road
P.O. Box 9300
Central City, Kentucky 42330
(270) 754-5415

KY Correctional Institution for Women
3000 Ash Avenue
Pewee Valley, Kentucky 40056
(502) 241-8454

Kentucky State Reformatory
3001 W Highway 146
LaGrange, Kentucky 40031
(502) 222-9441

Lee Adjustment Center
168 Lee Adjustment Center Drive
Beattyville, KY 41311
(606) 464-2866

Little Sandy Correctional Complex
505 Prison Connector
Sandy Hook, Kentucky 41171
(606) 738-6133

Northpoint Training Center
P.O. Box 479, Hwy 33
710 Walter Reed Road
Burgin, Kentucky 40310

Roederer Correctional Complex
P. O. Box 69
LaGrange, Kentucky 40031
(502) 222-0170

Southeast State Correctional Complex
327 Correctional Drive, P.O. Box 1600
Wheelwright, KY 41669
(606) 452-6330

Western Kentucky Correctional Complex/Ross-Cash
374 New Bethel Church Road
Fredonia, KY 42411
(270) 388-9781

JAIL DATA COLLECTION SITES

Boyle County Detention Center
1860 S Danville Bypass
Danville, KY 40422
(606) 739-4224

Breckinridge County Detention Center
500 Glen Nash Road
Hardinsburg, Kentucky 40143
(270) 756-6244

Bullitt County Detention Center
1671 Preston Highway
Shepherdsville, KY, 40165
(270) 723-0149

Christian County Detention Center
410 West Seventh St.
Hopkinsville, Kentucky 42240-2116
(270) 887-4152

Daviess County Detention Center
3337 Highway 60 East
Owensboro, Kentucky 42303-0220
(270) 685-8466 or 8362

Fulton County Detention Center
210 South 7th Street
Hickman, KY 42050
(270) 236-2405

Grant County Detention Center
212 Barnes Rd.
Williamstown, KY, 41097
(859) 824-5191

Grayson County Detention Center
320 Shaw Station Road
Leitchfield, Kentucky 42754-8112
(270) 259-3636

Hardin County Detention Center
100 Lawson Blvd
Elizabethtown, Kentucky 42701
(270) 765-4159

Harlan County Detention Center
6000 Highway 38
Evarts, Kentucky 40828
(606) 837-0096

Henderson County Detention Center
380 Borax Drive
Henderson, Kentucky 42420
(270) 827-5560

Hopkins County Detention Center
2250 Laffoon Trail
Madisonville, Kentucky 42431
(270) 821-6704

Kenton County Detention Center
3000 Decker Crane Lane
Covington, Kentucky 41017
(859) 363-2400

Marion County Detention Center
201 Warehouse Road
Lebanon, Kentucky 40033-1844
(270) 692-5802

Mason County Detention Center
702 US 68
Maysville, Kentucky 41056
(606) 564-3621

Pike County Detention Center
172 Division Street, Suite 103
Pikeville, Kentucky 41501
(606) 432-6232

Powell County Detention Center
755 Breckenridge Street
Stanton, KY 40380
(606) 663-6400

Shelby County Detention Center
100 Detention Road
Shelbyville, KY 40065
(502) 633-2343

Three Forks Regional Jail (Lee County)
2475 Center Street
Beattyville, Kentucky 41311
(606) 464-259

COMMUNITY REENTRY SERVICE CENTERS DATA COLLECTION SITES

CTS-Russell
1407 West Jefferson Street
Louisville, KY 40203
(502) 855-6500

Dismas Charities-Diersen
1219 West Oak Street
Louisville, Kentucky 40210
(502) 636-1572

Dismas Charities-Owensboro
615 Carlton Drive
Owensboro, KY 42303
(270) 685-6054

Dismas Charities- St. Ann’s
1515 Algonquin Parkway
Louisville, KY 40210
(502) 637-9150

Appendix C. Evaluation Methodology

The Criminal Justice Kentucky Treatment Outcome Study (CJKTOS) was developed and implemented in April 2005 to 1) describe those who use substances entering treatment in Kentucky's prison and jail-based programs, and 2) to examine treatment outcomes 12-months post-release. The CJKTOS study is a baseline and 12-month follow-up design which is grounded in established substance use disorder outcome studies (i.e., Hubbard et al., 1989; Simpson, Joe, & Brown, 1997; Simpson, Joe, Fletcher, Hubbard, & Anglin, 1999). Kentucky corrections-based program staff collect assessment data within the first two weeks of a client's admission to substance use disorder treatment.

In FY2011 CJKTOS transitioned from collecting baseline data using personal digital assistants (PDAs) to a web-based data collection system. Department of Corrections treatment providers obtain informed consent and contact information which is forwarded to the University of Kentucky to locate SAP participants for 12-month follow-up interviews post-release. All data are collected and stored in compliance with the University of Kentucky IRB and HIPAA regulations, including encrypted identification numbers, and abbreviated birthdays (month and year) to secure confidentiality of protected health information.

For this report, the 12-month follow-up study was conducted by research staff at the University of Kentucky Center on Drug and Alcohol Research. SAP participants were eligible for inclusion in the follow-up sample if they 1) consented to participate in the follow-up, 2) successfully completed SAP, 3) were released from a jail, prison, or community custody facility within the specified timeframe, 4) provided locator information of at least one community telephone number and address, and 5) were not deceased prior to the opening of their follow-up window. A group of eligible SAP participants were randomly selected for follow-up after proportionate stratification by prison, jail, and community custody, using the same proportion from each correctional setting as those meeting eligibility criteria. This proportionate stratification approach produces estimates that are as efficient as those of a simple random selection (Pedhazur & Schmelkin, 1991).

UK research staff began to locate SAP participants for follow-up at 10-months post-release with a target interview date at 12 months post-release; efforts to locate participants ceased at 14 months after their release date, at which point they were classified as "unable to locate." Locator methods included mailing letters and flyers, phone calls, and internet searches. All follow-up interviews were completed by phone, and all data provided is self-reported by the participants.

Sampling approach

A total of 1,910 clients who completed a CJKTOS baseline were released from custody in FY2022. Having a release date is the point of entry into the follow-up study sampling frame. The CJKTOS follow-up rates are presented in Table 1. Of those 1,910 CJKTOS clients who were released from custody in FY2022, 29 did not consent to participate in the follow-up study and of the 1,881 who consented to participate, 688 did not successfully complete SAP and 80 did not have a completed discharge report. This left 1,113 SAP participants who were eligible for follow-up (released in FY2022, known to have successfully completed SAP, and voluntarily consented for follow-up). Of those, 39.4% were randomly selected to participate in the follow-up interview

(n=438). The sample of 438 was proportionate to the number of males and females released from jails, prisons, and community custody treatment programs.

Of the 438 DOC SAP graduates randomly selected for follow-up in the community 12-months post-release, 296 were successfully located and interviewed (131 jail treatment participants, 125 prison treatment participants and 40 community custody treatment participants). After data collection was completed, one male prison participant's data was lost due to a technical error in the data collection web system. This individual was removed from the follow-up rate calculations, resulting in a follow-up rate of 69% (See Table C1).

Table C1. FY2023 Follow-up Rates

	Eligible	Completed	Percentage
Jail Sample	205	131	64%
Males	178	114	64%
Females	27	17	63%
Prison Sample	178	124	70%
Males	141	95	67%
Females	37	29	78%
Community Custody Sample	55	40	73%
Males	16	10	63%
Females	39	30	77%
Total	438	295	67%
Completed, data lost	1	--	--
Ineligible for follow-up*	11	--	--
Final Total	**426**	**295**	**69%**
Refusals	38	--	9%
Unable to locate	93	--	22%

*Note: ineligible for follow-up was defined as participants moving out of state (n=11).

Statistical Analysis

Differences between demographic characteristics of follow-up SAP sample compared to all SAP graduates conducted using a series of single-sample t-tests and chi-square analyses.

Changes in this report between participants' self-reported substance use "on the street" in the 12 months before incarceration (baseline) and SAP participants' self-reported use "on the street" 12 months after release (follow-up) from jail, prison, and community custody programs. McNemar's test for correlated proportions examines statistical differences for the proportion of participants who reported substance use at baseline compared to follow-up. Substance use disorder treatment utilization and criminal justice involvement during the 12-months post-release is also included, as are indicators of costs associated with victim crime.

Appendix D. Cost-offset Analysis Tables and Methodology

The first step in the analysis focused on estimating the average cost per individual actively using substances, using two comprehensive federally funded economic studies. In 2007, the annual cost to the United States for drug misuse was $193 billion (NDIC, 2011). Updated to FY2023 values, this figure translates to $285,253,190,000 (Bureau of Labor Statistics, 2023). The most recent results from the National Survey on Drug Use and Health indicate that there are 48.7 million individuals with a substance use disorder in the United States (Substance Abuse and Mental Health Services Administration, 2023). Thus, the average cost per year for an individual actively using substances ($5,857) was calculated as the total annual cost of drug misuse divided by the number of individuals with substance use disorders using SAMHSA and DSM-5 criteria.

Table D1 shows the cost of active substance use to society for the year prior to incarceration and for the 12 months post incarceration. Abstinent individuals represent the goal of the interventions, and abstinence at follow-up is a robust indicator of positive treatment outcome and reduced cost to society. Thus, the cost of this sample for the year prior to incarceration is estimated at $1,610,675 while the cost for a comparison 12-month period after treatment is estimated at $398,276. This analysis shows a net reduction in cost for the sample of $1,212,399.

Table D1. Costs Associated with Drug and Alcohol Use (Pre-treatment to Post-treatment)

	Baseline N	Per person cost of substance misuse	Cost of substance misuse (pre-treatment)	Follow-up N	Per person cost of substance misuse	Cost of substance misuse (post-treatment)
Study participants who were actively using substances in the past 30 days	275	$5,857	$1,610,675	68	$5,857	$398,276

However, to obtain a more defensible net reduction in cost we estimated the cost of the interventions for substance use disorders for this entire sample. The cost of DOC substance use disorder treatment is illustrated in Table D2. The total number of treatment days for study participants were calculated for each category of treatment (prison, jail, or community custody) based on a five-year average of program length for graduates and multiplied by the cost per day of treatment to arrive at a total treatment cost of $475,196 for the sample.

*Table D2. Cost of Corrections-based Treatment**

	Number of treatment days	Cost per day of treatment*	Total treatment cost
Jail (n=131)	24,025	$10.00	$240,250
Prison (n=124)	22,742	$8.86	$201,494
Community Custody (n=40)	7,336	$4.56	$33,452
Total cost			$475,196

*Treatment costs supplied by KY Department of Corrections, 11/14/2023. Average length of stay in treatment, 183.4 days, was calculated based on five years of CJKTOS data and current operating procedures.

As shown in Table D3, the initial cost to the state for drug and alcohol use disorders for this sample would have been $1, 610,675 without intervention. After corrections-based treatment, there was a significant decrease in the number of participants reporting drug and alcohol use, reducing the cost to $398,276. The gross difference in the cost to society was $1,212,399. After subtracting the direct costs of the treatment programs, there was a net avoided cost of $737,203. Therefore, for every dollar spent on corrections-based treatment there was a return of $1.55 in cost offsets.

Table D3. Cost Offset for the Follow-up Sample (N=295)

Cost Item	Dollars
Annual cost to Kentucky before participation in corrections-based substance use disorder treatment	$1,610,675
Annual cost to Kentucky after participation in corrections-based substance use disorder treatment	$398,276
Gross difference in post versus pre-treatment participation	$1,212,399
The direct cost of corrections-based substance use disorder treatment	$475,196
Net avoided cost after corrections-based substance use disorder treatment	$737,203
Ratio showing cost of treatment to savings	1: 1.55
Expressed as return on investment	**$1.55 return for every $1 of cost**