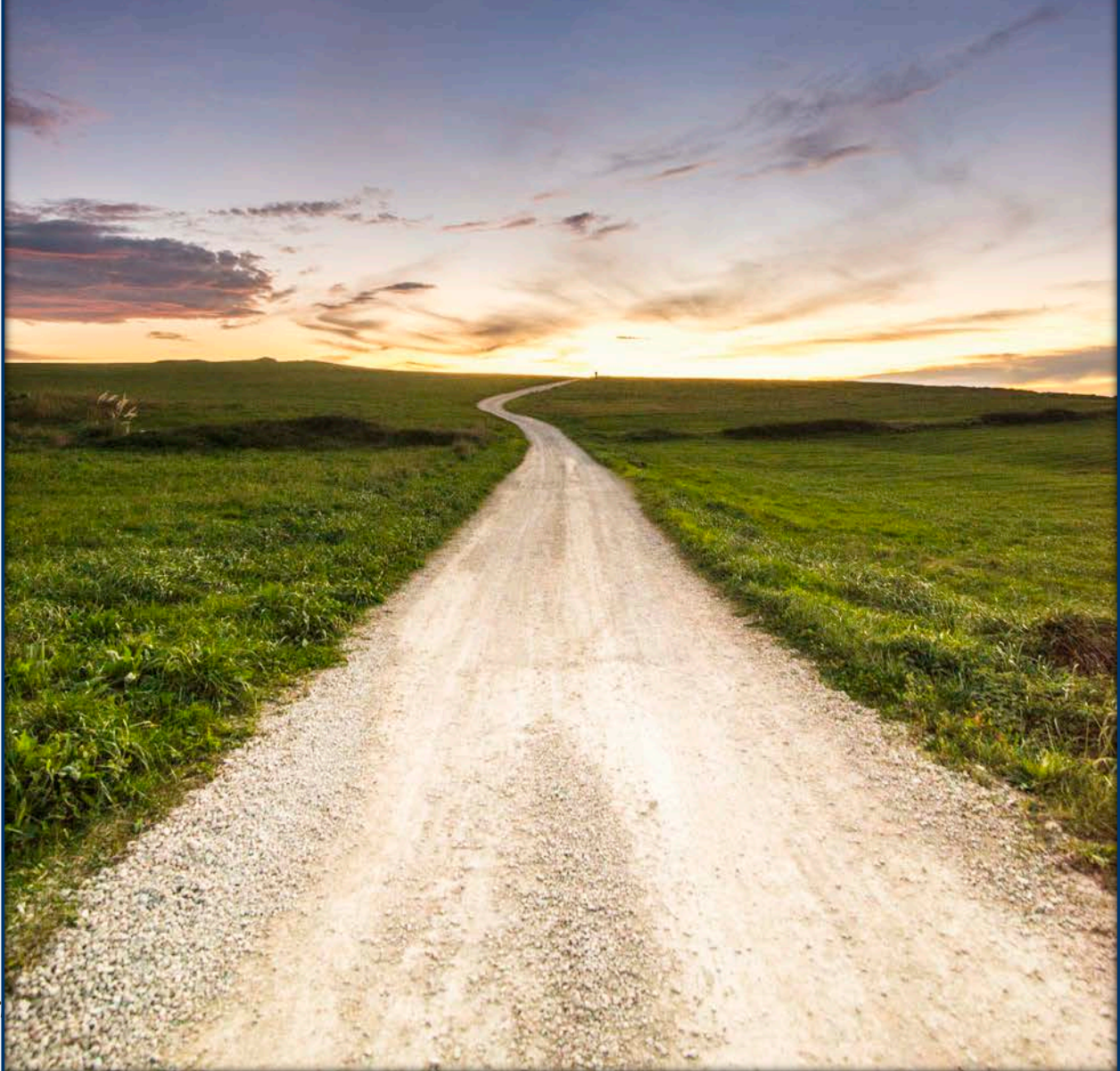


Criminal Justice Kentucky Treatment Outcome Study

CJKTOS

FY2016 Report



Report prepared for:

Rodney Ballard, Commissioner
Kentucky Department of Corrections

Kevin Pangburn, Director
Division of Substance Abuse
Kentucky Department of Corrections

By:

Michele Staton-Tindall, Principal Investigator
Erin McNees Winston, Project Director

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Report Summary

The Criminal Justice Kentucky Treatment Outcome Study (CJKTOS) examines substance abuse outcomes of state offenders participating in substance abuse treatment programs in Kentucky's prisons, jails, and community custody settings. This report includes data collected during FY2016 for 355 randomly selected participants who entered Department of Corrections (DOC) SAP treatment programs, participated in an intake assessment by treatment counselors, and were followed-up 12 months later in the community following their treatment completion/termination and release from custody. This report includes data collected during FY2016 from July 1, 2015 to June 30, 2016.

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

- **52.1% did not use any illicit substances in the year since release.**
- **71.0% were not incarcerated.**
- **88.5% were living in stable housing.**
- **66.4% were employed.**
- **76.6% attended 12-Step meetings.**
- **51.5% did not have feelings of depression or anxiety.**
- **74.6% reported spending the majority of their free time with family.**
- **77.7% reported providing financial support to their children.**

Treatment participants noted positives about SAP participation including...

- **81.4% felt better about themselves as a result of treatment.**
- **79.4% considered the treatment program to be successful.**

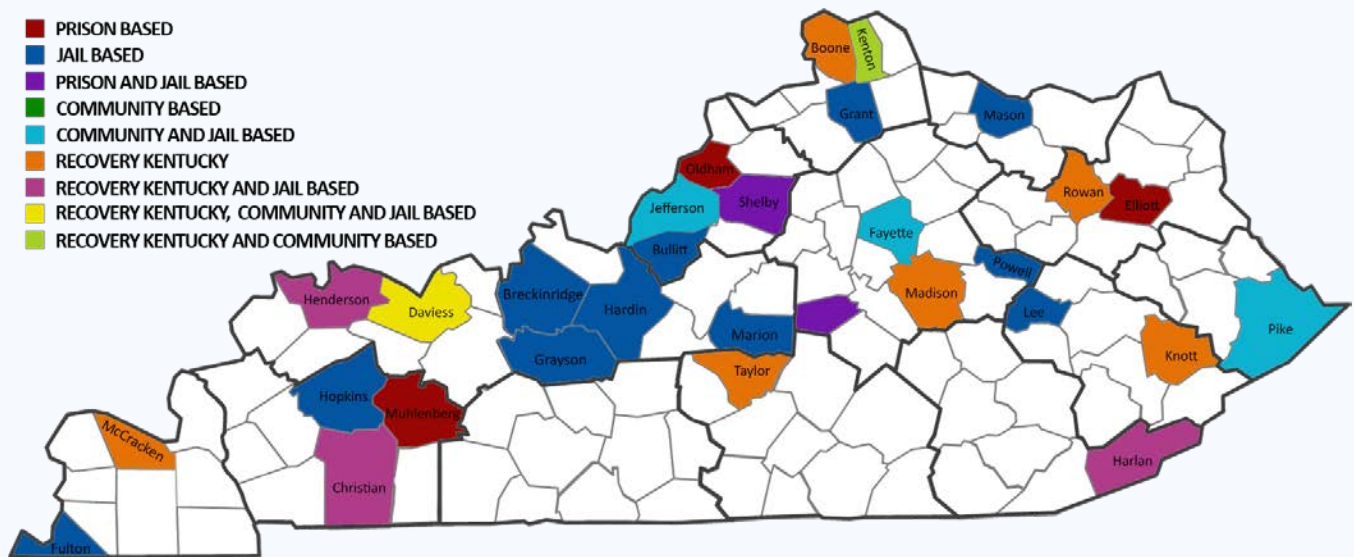
Cost offset analysis indicated that...

- **For every \$1 spent on Kentucky corrections-based substance abuse treatment there is a \$4.46 cost offset.**

Introduction

The Kentucky Department of Corrections (DOC) Division of Substance Abuse provides substance abuse treatment programs throughout the state (See Figure 1). The treatment approach has been described in earlier reports and is grounded in the key components of therapeutic community modalities (De Leon, 2000).

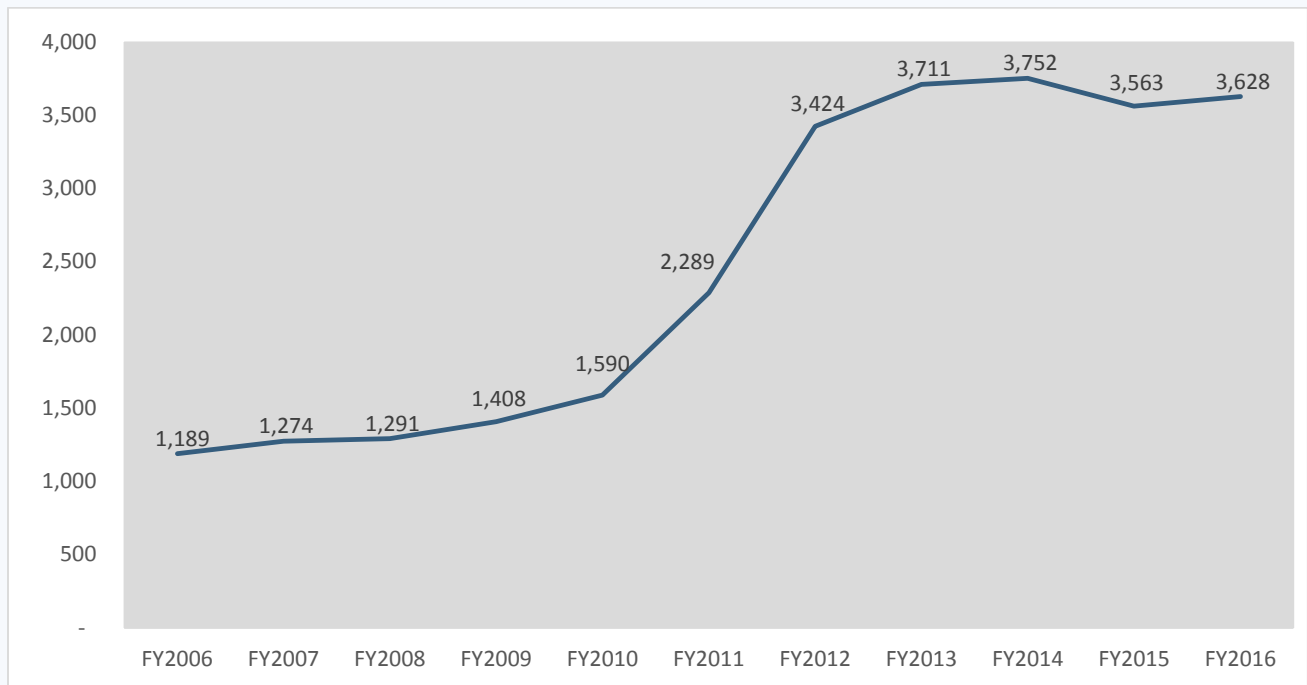
Figure 1. Location of Kentucky’s Corrections-based Substance Abuse Treatment Programs (2016)



In FY2016, there were an average number of 3,628 corrections-based substance abuse treatment slots in jails, prisons, Recovery Kentucky Centers and community custody programs (See Figure 2). There are 8 prisons and 24 jails with substance abuse programs (See Appendix C for sites).

The number of treatment slots for KY DOC offenders have increased to 3,628 in FY2016, reflecting a continued trend toward increasing access to treatment during incarceration.

Figure 2. Increasing Trends in Number of Corrections-based Substance Abuse Treatment Slots



SAP Participants

Data on behaviors prior to incarceration were collected by treatment providers at intake into the DOC treatment programs (jail, prison, or community custody) (See Methodology, Appendix A). Follow-up data was collected by the University of Kentucky Center on Drug and Alcohol Research 12 months after the individual left treatment (completion or termination) and was released to the community. Therefore, data in this report is categorized as “pre-incarceration” (risk behaviors in the 12 months and 30 days prior to incarceration) and as “follow-up” (risk behaviors during the 12 months and 30 days post-release from incarceration in which they participated in DOC treatment).

There were no significant differences between the treatment sample and overall treatment population, making the results of the CJKTOS FY2016 study generalizable.

This report profiles three categories of SAP participants: (1) individuals receiving substance abuse program services in state prisons; (2) individuals receiving substance abuse program services in county or regional jails; and (3) individuals receiving residential substance abuse services in the community, but still under state custody. As shown in Table 1, the randomly selected follow-up sample of SAP participants was not significantly different from other SAP participants who were not selected for follow-up.

Table 1. Demographic Characteristics of Follow-up SAP Sample Compared to Non-follow-up SAP Participants Released in FY2016

	Follow-up SAP Participants (n=355)	Non-follow-up SAP Participants (n=2,811)
Average Age	33.7 years old (range 18 to 58)	33.7 years old (range 18 to 70)
Race/ethnicity	83.7% white	72.9% white
Gender	79.4% male	80.1% male
Education	72.1% GED or high school diploma	72.6% GED or high school diploma
Marital Status	50.1% Single, never married	49.7% Single, never married

More than half of the SAP participants (57.5%) who completed treatment during FY2015-2016 were referred to SAP as “parole upon completion.”

In 2012, KY adopted the Level of Service/Case Management Inventory (LSCMI) data as part of the state’s initiative to enhance assessment processes through HB 463. Table 2 describes SAP participants scores on the LSCMI risk categories compared to the overall population of KY DOC offenders.

Table 2. DOC Treatment and KY DOC LSCMI Comparison of High/Very High Rankings

	DOC Follow-up Participants (n=336*)	Entire KY DOC Inmate Population** (n=48,979)
Overall Risk	45.2%	31.4%
Criminal History	41.7%	24.8%
Education/Employment	43.2%	30.1%
Family/Marital	10.4%	10.5%
Leisure/Recreation	48.2%	49.9%
Companions	35.1%	32.0%
Substance Abuse	42.3%	34.2%
Procriminal Attitude	4.8%	6.7%
Antisocial Personality	5.4%	4.4%

*LSCMI data unavailable in KOMS for N=19

**LSCMI data supplied by KY Department of Corrections, 10/20/2016.

As shown in Table 2, SAP participants were assessed as higher across ratings of overall risk, criminal history, education and employment, companions, and substance abuse. SAP participants were assessed as similar to or lower in the other LSCMI categories.

Treatment Satisfaction

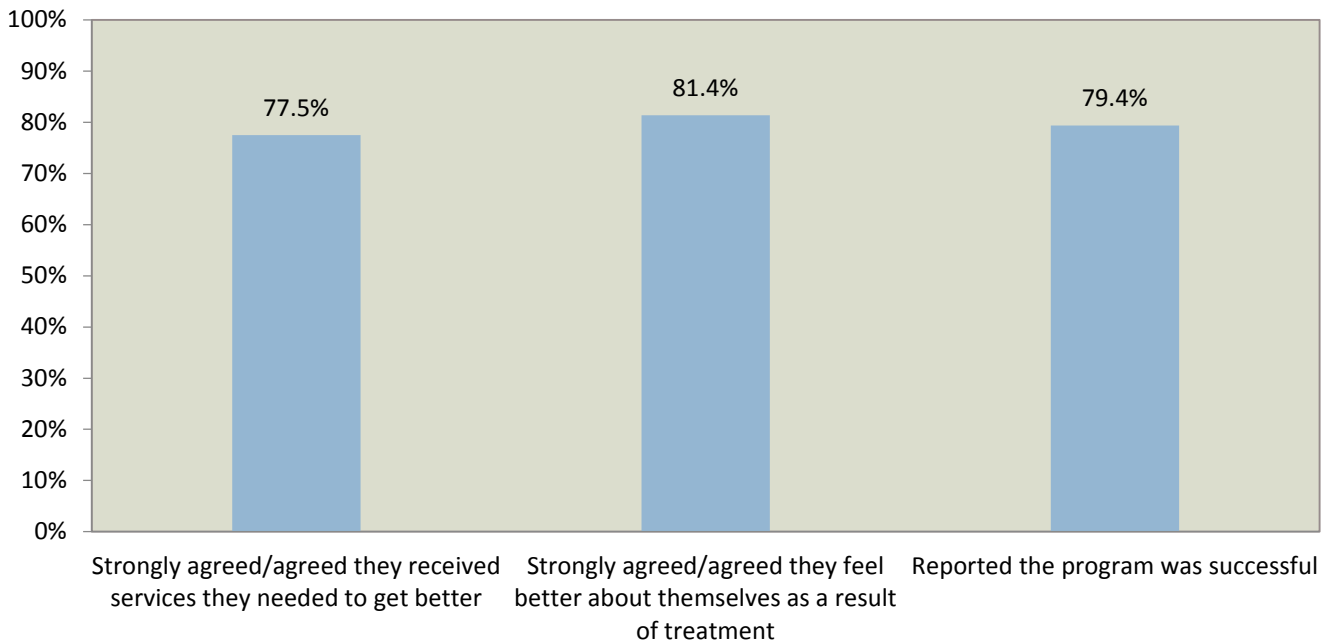
During FY2016, participants were asked about their overall satisfaction with SAP as well as questions related to specific components of the program. As shown in Figure 3, the majority of DOC follow-up participants (77.5%) agreed or strongly agreed that they received the services they needed to help themselves get better. The majority of participants (81.4%) also agreed or strongly agreed that that they felt better about themselves as a result of treatment.

“SAP was a life-changing experience. It taught me about my disease and addiction. It prepared me for going home after being incarcerated.”

“At first it was hard and I didn’t think I’d make it but then I gave in and began learning things that could help me in the future, overcome stuff, and keep going.”

Also reported in Figure 3, 79.4% of participants considered the SAP program to be an overall success. When participants were asked to explain why they believed the program was successful, the most commonly cited reasons revealed powerful reoccurring themes such as: 1) the program provided the tools and the knowledge, but it is ultimately up to the individual as to whether or not they want to apply what they have learned; 2) that anyone can get something worthwhile from the program if they keep an open mind; and 3) that it was a life-changing experience. Many participants also attributed their sobriety and the fact that they had not been re-incarcerated directly to their SAP participation.

Figure 3. Treatment Program Satisfaction (n=355)



“... the whole concept of the program, every aspect of it, helped me to look at and examine different parts of my life. Helped me make those choices that I needed to.”

Participants were also asked to describe what they liked best about the SAP program. Though there was variation among participants, some of the most frequent responses included: *individual time with counselors; learning self-awareness; parenting and criminal thinking classes; staff members who consistently expressed care and concern; small group time; learning about the disease of addiction; sharing their life stories and hearing the stories of others; and being allowed to assume roles of leadership and mentorship in order to help others.*

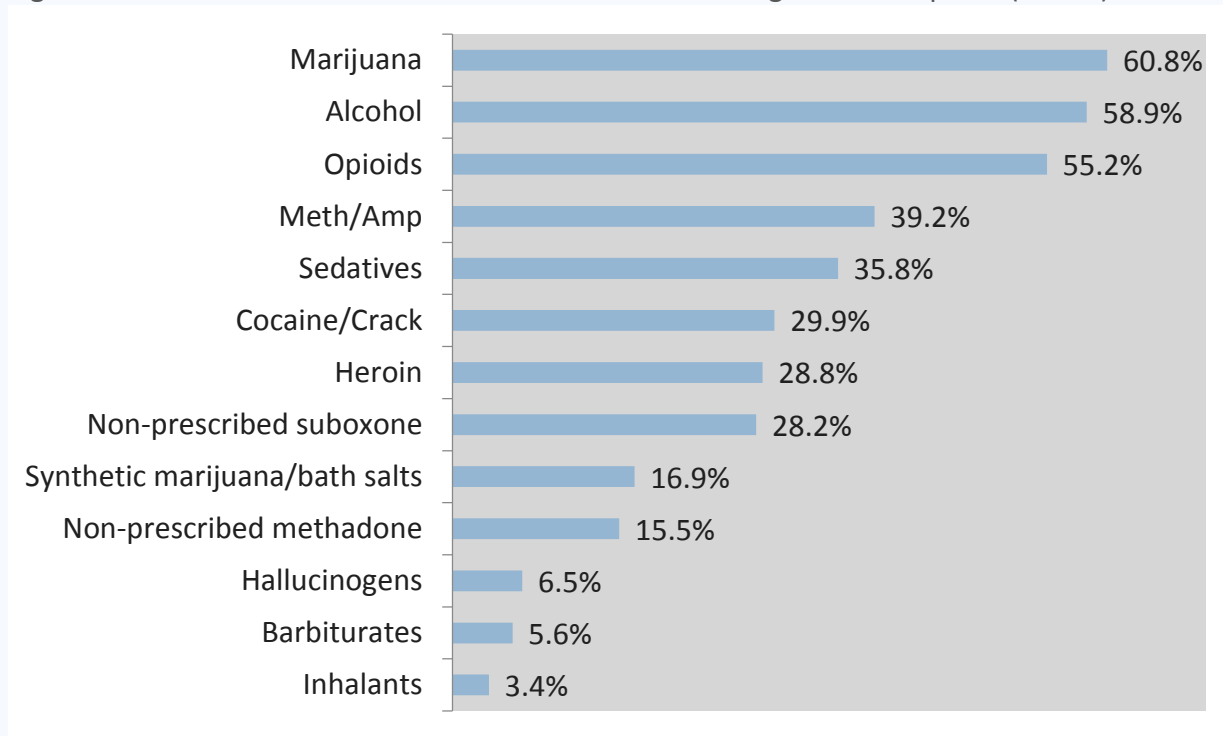
When asked to list why they rated SAP highly, participants responded with several broad categories describing their support of SAP, including: *that the program was an eye-opening experience, that they were placed in a position to consider things about themselves and their actions that they had never done before, that they are now aware how their decisions impact their life and the lives of others, and how they can now identify and work to address their weak points.*

“If you want to change, you can get something out of it. I knew I needed to do something different.”

Substance Use

Figure 4 shows substance use during the pre-incarceration period for SAP participants who completed a baseline assessment during FY2016. The greatest percent of participants reported marijuana use (60.8%), alcohol use (58.9%), and opioid use (55.2%) in the 12 months before incarceration.

Figure 4. Profile of Pre-incarceration Substance Use Among SAP Participants (n=355)



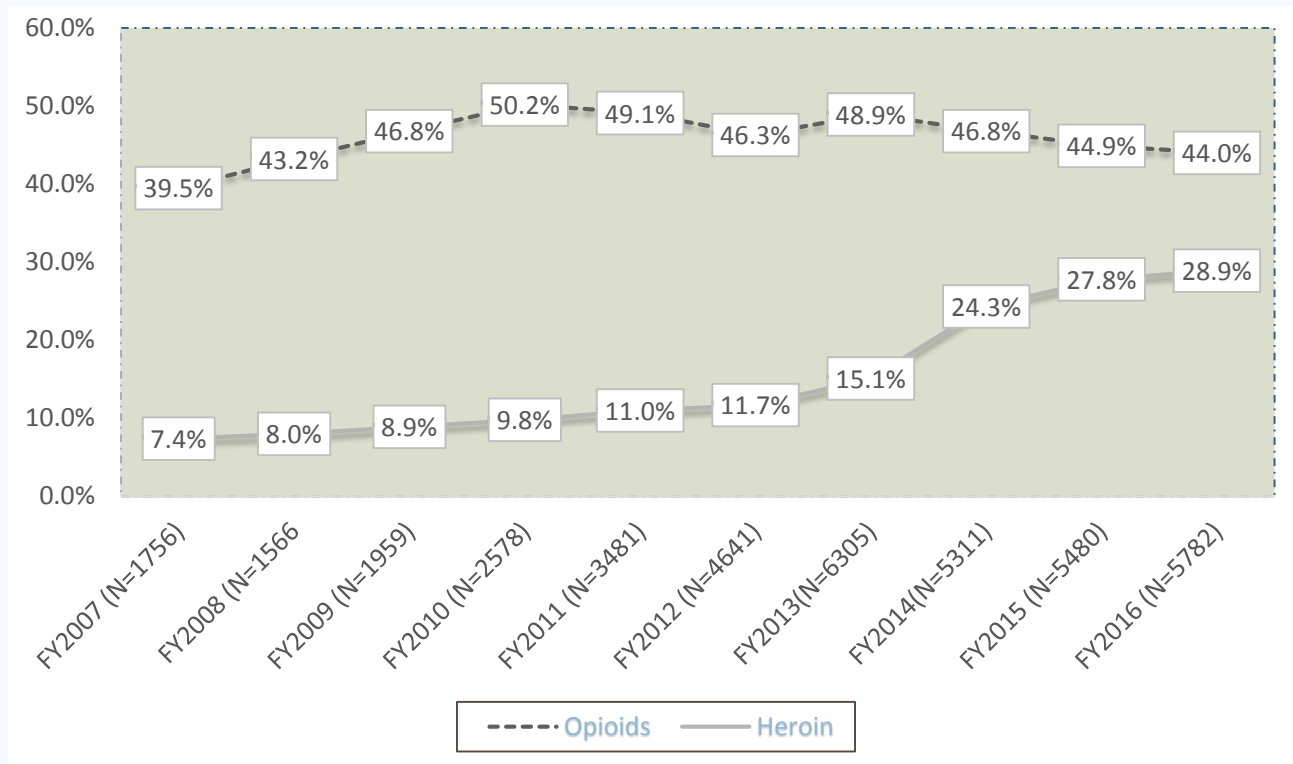
Heroin

For nearly a decade there has been a significant increase in self-reported heroin use prior to incarceration. As shown in Figure 5, the percentage of offenders entering corrections-based substance abuse reporting any heroin use in the 12 months prior to incarceration increased from 7.4% in FY2007 to 28.9% in FY2016. Also illustrated in Figure 5, self-reported illicit opioid use (not including heroin, methadone or buprenorphine) peaked at 50.2% in FY2010 and has since decreased to 44% in FY2016.

Mirroring a national trend, heroin use is gradually increasing among KY offenders.

In response to the increase in heroin use in Kentucky, the state legislature passed Senate Bill 192 which is progressive and proactive in its attempt to mitigate the commonwealth’s heroin crisis. SB 192 includes provisions such as the availability of naloxone to emergency medical workers to curb rates of overdose, needle-exchange programs, millions of dollars in increased state and Medicaid funding for addiction treatment, and tougher sanctions for traffickers without a paired mandatory minimum sentencing for users caught in possession of the drug (Kentucky Legislature, 2015). These advances in treatment of opioid and heroin make the SAP program more relevant than ever.

Figure 5. Reporting Illicit Opioid and Heroin Use in the 12 Months Prior to Incarceration

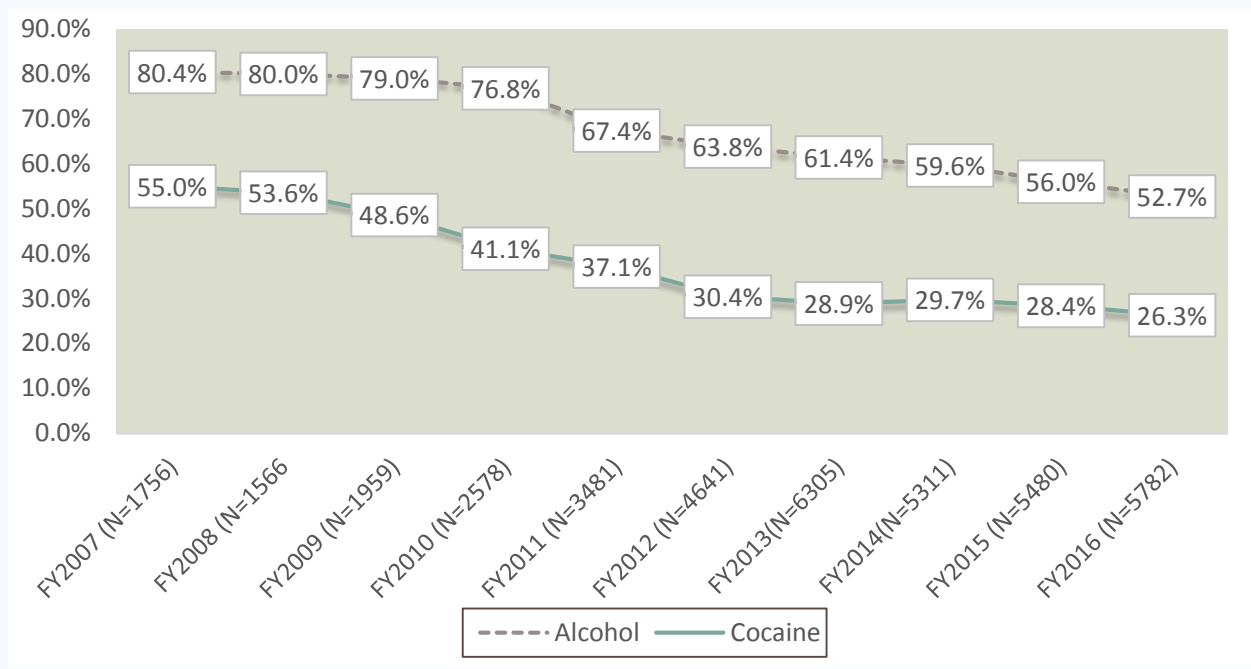


Alcohol and Cocaine

Other noteworthy substance use trends include the steady decrease in alcohol consumption and a decline of reported cocaine/crack usage. As highlighted in Figure 6, the percentage of offenders who report alcohol use at baseline has fallen from 80.4% to 52.7%, resulting in an overall 27.7% decrease from FY2007 to FY2016. For this same period, reported cocaine or crack use declined 28.7%, from 55% down to 26.3%, making it the illicit substance with the largest reverse trend.

There has been a steady decrease in alcohol consumption and a decline of reported cocaine/crack usage.

Figure 6. Reporting Illicit Cocaine and Alcohol Use in 12 Months Prior to Incarceration



Decreases in substance use during follow-up

As shown in Figure 7, those who received DOC treatment in prison, jail, or community custody programs reported a significant decrease in use of any illegal drug following treatment.

Figure 7. Drug Use from Pre-incarceration to One-year Post-release



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

Recovery Supports

Regular attendance of 12-step meetings has been recognized as an effective form of support following substance abuse treatment (Fiorentine, 1999; Kaskutas 2009; Kownacki & Shadish, 1999; Tonigan, Toscova, & Miller, 1996). Most SAP participants reported attending at least one AA/NA meeting in the 12 months after their release. Specifically shown in Table 3, over three-quarters (76.6%) of participants reported attending AA/NA, and they reported attending an average of 4.5 meetings in the past 30 days.

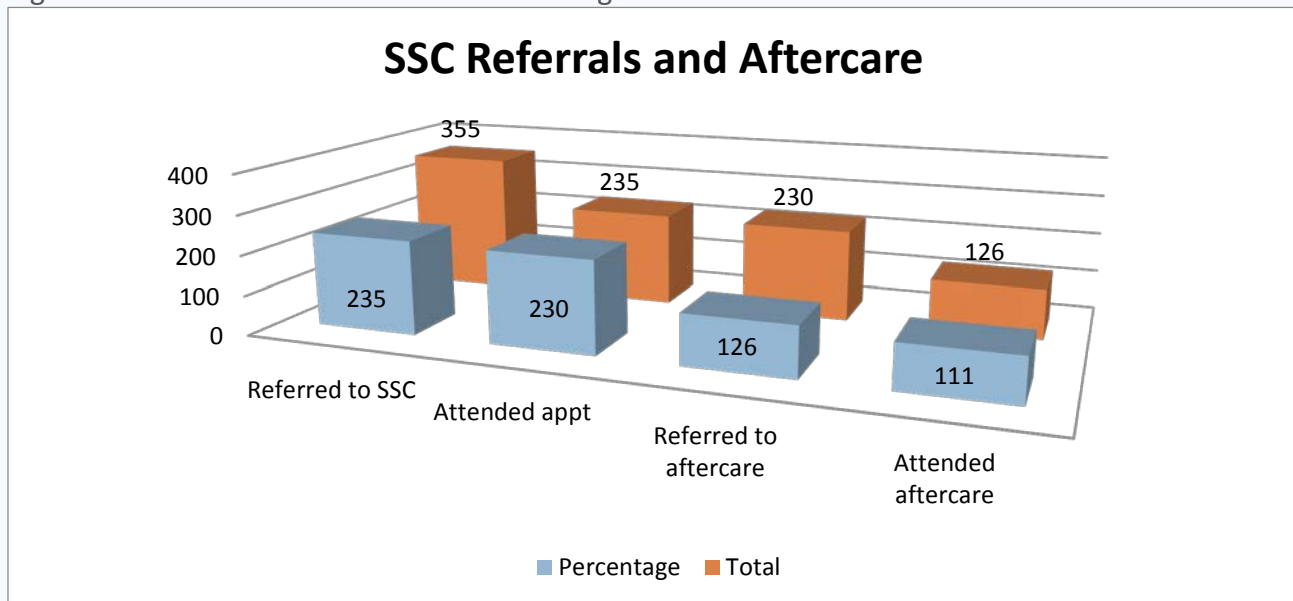
76.6% of participants reported attending AA/NA meetings in the 12 months following release.

Table 3. AA/NA Attendance in the 12 Months Following Release

	Attended AA/NA Meetings	Average number of times attended AA/NA in past 30 days
Jail (n=193)	76.7%	4.3 times
Prison (n=121)	80.2%	4.3 times
Community Custody (n=41)	66.0%	6.1 times
Total (n=355)	76.6%	4.5 times

The Kentucky Department of Corrections has increased efforts to provide continuity of care for offenders during re-entry. As shown in Figure 8, of the 230 study participants who were eligible for aftercare and attended an appointment with the community social service clinician, 126 (54.8%) were referred to aftercare by the clinician at re-entry. Of those referred, 111 (88.1%) successfully initiated aftercare treatment.

Figure 8. Aftercare in the 12 Months Following Release



*Aftercare data was received through KOMS

**Note: 66 study participants were excluded as ineligible for aftercare (38 were released as MRS with parole expiration date six months or sooner after arrest, 16 served out [discharged minimum expiration], 6 were paroled to other states, and 6 were diversion clients under Senate Bill 4).

Recidivism

The Kentucky DOC state database, Kentucky Offender Management System (KOMS), was used to examine participants’ re-incarceration during the year following release. As shown in Table 4, 71.5% of jail, 65.3% of prison and 85.4% of community custody-released follow-up cases were not re-incarcerated within the 12 months’ post release from prison or jail. It is also noteworthy that participants who were re-incarcerated were in the community an average of 6.4 months before being re-incarcerated.

The majority of participants were not re-incarcerated during follow-up period.

Of those who returned to custody, they spent an average of 6.4 months on the street.

Table 4. Recidivism* 12 Months Post-release (n=339)

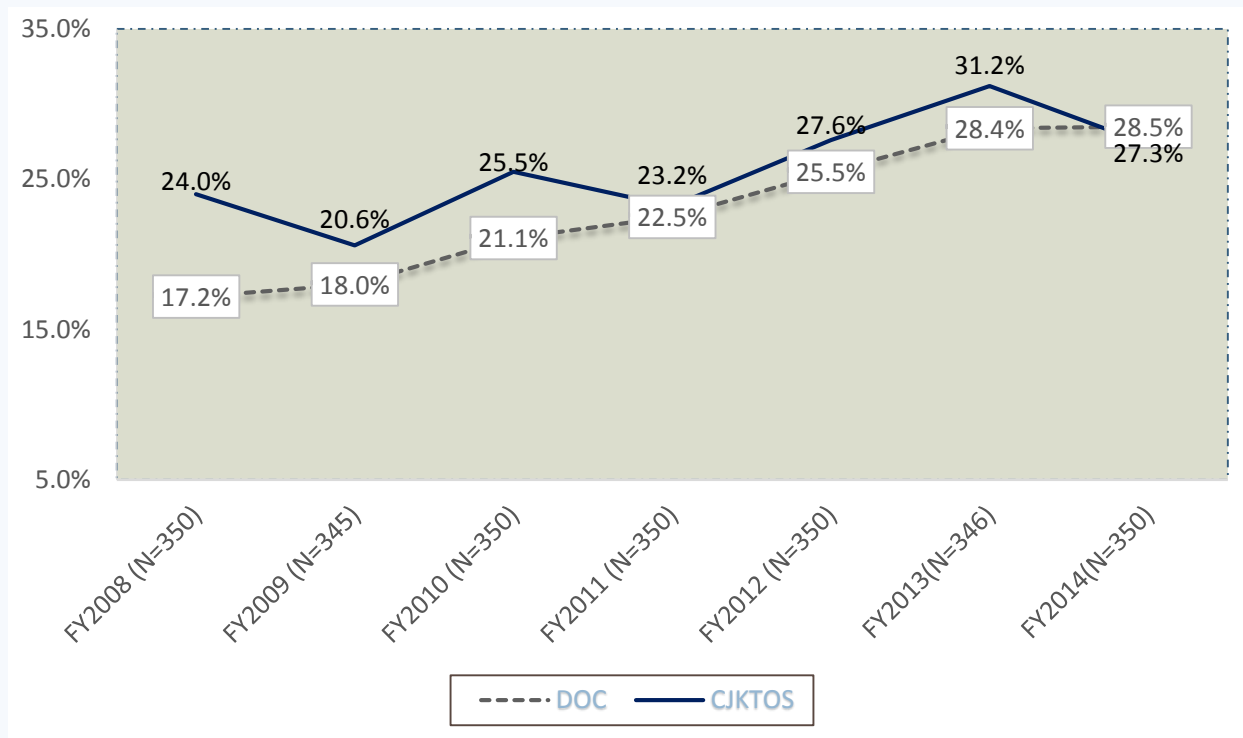
	Jail (n=193)	Prison (n=121)	Community Custody (n=41)	Total (n=355)
Not Incarcerated	71.5%	65.3%	85.4%	71.0%
Incarcerated	28.5%	34.7%	14.6%	29.0%

*Recidivism is defined here as “being re-incarcerated on a felony charge within the 12 months following release.” The DOC counting rules were used (see page 22 for counting rule definition used in this report).

Of the 29% of the sample who were returned to custody (n=103), the majority were re-incarcerated on a parole or probation violation (86%), and only a small number were re-arrested on a new charge (14%).

Figure 9 illustrates the recidivism rates for follow-up samples from FY2008 to FY2014 for SAP participants (solid line) compared to DOC in general (dotted line). With the exception of FY 2010 and 2008, recidivism rates at one-year post release for SAP participants are closely aligned with the larger department. This is important since it would be expected that substance users returning to the community would be at higher risk for recidivism due to potential for relapse and being more closely monitored in the community. In addition, as shown in the earlier Table 2, SAP participants had higher LSCMI criminogenic risk assessment scores across ratings of overall risk, criminal history, education and employment, companions, and substance abuse. However, in FY 2014, SAP one-year recidivism rates actually fell below the larger department, which is an indicator of success.

Figure 9. Recidivism Rates of Follow-up Samples FY2008 to FY2016



Housing and Employment

66.4% of participants were employed part-time or full-time.

The majority of SAP participants reported living in a stable environment and working one-year post-release. As shown in Table 5, 88.5% reported stable housing in an apartment, room, house or residential treatment facility. It is noteworthy that trends in stable housing have been increasing since FY2007 (65.1%) to current rates of nearly 89% in FY2016.

Approximately two-thirds (66.4%) reported their usual employment pattern as working full or part-time in the year since release.

Table 5. Employment and Housing in the 12 Months Post-release

	Jail (n=193)	Prison (n=121)	Community Custody (n=41)	Total (n=355)
Housed in apartment, room, house or residential treatment facility	88.1%	86.8%	95.1%	88.5%
Employed full or part-time	66.7%	66.1%	65.9%	66.4%

Mental Health

While not a direct focus of DOC substance abuse treatment, data also indicate improvements in mental health status during the one-year period post-release. Significantly fewer participants reported experiencing serious depression at follow-up (30.4%) when compared to pre-incarceration (46.5%), as illustrated in Table 6. Fewer participants reported anxiety at follow-up (40.3%) when compared to before incarceration (48.7%). Also, significantly fewer participants reported suicidal thoughts at follow-up (4.2%) when compared to pre-incarceration (13.0%)

Participants reported a decrease in instances of serious depression, anxiety, and suicidal thoughts 12 months following release.

Table 6. Mental Health Pre-incarceration and Post-release (N=355)

	Pre-incarceration	12-Month Follow-up
Experienced serious depression in previous 12 months*	46.5%	30.4%
Experienced serious anxiety in previous 12 months	48.7%	40.3%
Experienced serious thoughts of suicide in previous 12 months*	13.0%	4.2%

Note: Significance established using McNemar’s test for correlated proportions, *p<.05, see Appendix B.

Family and Relationships

Participants in DOC treatment reported improved family relationships one-year post-release. Significantly more participants reported spending most of their free time with family at follow-up (74.6%) than before incarceration (63.1%), as shown in Table 7.

“I understand now how what I’ve been through and done has impacted them. I didn’t realize how selfish I was. SAP helped me to make better decisions.”

Participants reported a significantly higher average number of friends at follow-up (3.92) compared to pre-incarceration (2.63). When asked about how SAP participation affected their relationships with family, many participants described that the program helped them with their relationships in the following ways: *better able to communicate their feelings and listen to others, an increased capacity for acceptance, more control over their anger, less reactive and self-centered, more accountable for their behavior, clearer understanding of how their actions impact other people, and boundary setting.* Participants

described that they are now more patient and capable of thinking before reacting and more inclined to share with others how they are feeling. Additionally, many participants made the connection between staying sober and the quality of their relationships.

Table 7. Relationships Pre-incarceration and Post-release (N=355)

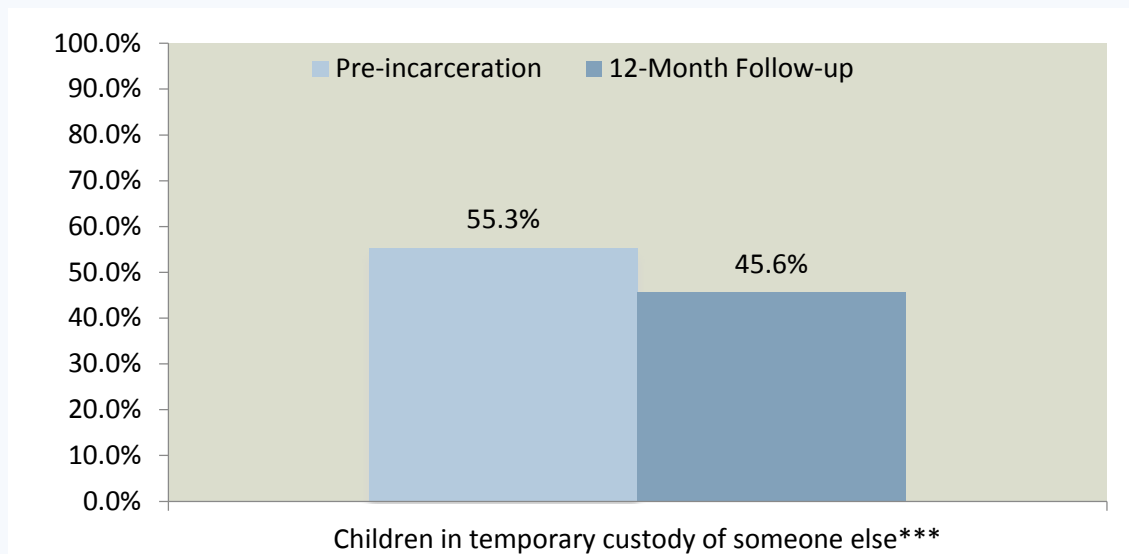
	Pre-Incarceration	12-Month Follow-up
Reported spending most of their free time with family***	63.1%	74.6%
Average number of close friends**	2.63	3.92
Other close relationships* (includes AA sponsors, church members, and extended family members)	16.1%	22.0%

Note: Significance established using McNemar’s test for correlated proportions, ***p<.001, **p<.01, *p<.05, see Appendix B.

“I’ve learned to tell the truth, accept my part and responsibilities in things. I’m trying to be a better man and father to my children.”

In addition, significantly fewer participants reported having children in someone else’s temporary legal custody at follow-up (45.6%) when compared to baseline (55.3%), as illustrated in Figure 10. Also, over three-quarters of participants (77.7%) reported providing financial support to their children under the age of 18 in the 12 months post-release.

Figure 10. Parenting During the Pre-incarceration and Post-release Periods



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

Treatment Cost-offset

The public funding of substance abuse treatment and recovery services typically must justify its costs by showing reductions in social and financial costs to society. For CJKTOS, an active substance user is defined in this report as abusing drugs and/or alcohol in the 30 days prior to incarceration (both at baseline/intake and at follow-up 12-months post-release).

For every \$1 spent on Kentucky’s corrections-based substance abuse treatment program, there is a \$4.46 cost offset.

The first step in the analysis focused on estimating the average cost per substance abuser, using two comprehensive federally funded economic studies. In 2007, the annual cost to the United States for drug abuse was \$193 billion (NDIC, 2011). Updated to 2016 values, this figure translates to \$224,193,019,262 (Bureau of Labor Statistics, 2016). The National Survey on Drug Use and Health 2014 reports that there are 21.5 million individuals who are substance dependent in the United States (Center for Behavioral Health Statistics and Quality, 2015). Thus, the average cost per substance abuser per year (\$10,427) was calculated as the total annual cost of drug abuse divided by the number of individuals who are substance abusing or dependent using SAMHSA and DSM-IV criteria.

Table 8 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 \$3,409,629 while the cost for a comparison 12-month period after treatment is estimated at \$761,171. This analysis shows a net reduction in cost for the sample of \$2,648,458.

Table 8. Costs Associated with Drug and Alcohol Use (Pre-treatment to Post-treatment)

	Baseline N	Per person cost of substance abuse	Cost of substance abuse (pre- treatment)	Follow-up N	Per person cost of substance abuse	Cost of substance abuse (post- treatment)
Study participants who were active substance users in past 30 days	327	\$10,427	\$3,409,629	73	\$10,427	\$761,171

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 costs of DOC substance abuse treatment is illustrated in Table 9. The total number of treatment days for study participants were calculated for each category of treatment (prison, jail, or community custody) and multiplied by the cost per day of treatment to arrive at a total treatment cost of \$485,200 for the sample.

Table 9. Cost of Corrections-based Treatment*

	Number of treatment days	Cost per day of treatment*	Total Treatment Cost
Jail (n=193)	30,367	\$9.00	\$273,303
Prison (n=121)	18,575	\$6.01	\$111,635
Community Custody (n=41)	6,290	\$15.94	\$100,262
Total cost			\$485,200

*Treatment costs supplied by KY Department of Corrections, 9/26/2016.

As shown in Table 10, the initial cost to the state for drug and alcohol abuse/dependence for this sample of offenders would have been \$3,409,629 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 \$761,171. The gross difference in the cost to society was \$2,648,458. After subtracting the direct costs of the treatment programs, there was a net avoided cost of \$2,163,258. Therefore, for every dollar spent on corrections-based treatment there was a return of \$4.46 in cost offsets.

Table 10. Cost Offset for the Follow-up Sample (N=355)

Cost Item	Dollars
Annual cost to Kentucky before participation in corrections-based substance abuse treatment	\$3,409,629
Annual cost to Kentucky after participation in corrections-based substance abuse treatment	\$761,171
Gross difference in post versus pre-treatment participation	\$2,648,458
The direct cost of corrections-based substance abuse treatment	\$485,200
Net avoided cost after corrections-based substance abuse treatment	\$2,163,258
Ratio showing cost of treatment to savings	1: 4.46
Expressed as return on investment	\$4.46 return for every \$1 of cost

Factors Associated with Post-treatment Success

While data reflect the benefits of SAP based on cost-offset, there is also a genuine human investment and payoff associated with SAP. As evidenced by qualitative interviews conducted with participants, the SAP program is making a positive impact in the lives of program participants, even in those who may not have completed the program. The vast majority of participants reflected that they had received valuable skills to use in their life post-release. There was consensus among participants that SAP had given them the tools they needed to move beyond addiction and forward into a future full of possibility and hope.

Participants were asked to reflect upon what factors are needed to be successful after treatment. The idea of “success” and the means by which to achieve it differed between participants. However, among the wide range of responses given, the factors most associated with being successful post-treatment included several important themes:

- ✓ **Must be ready & willing to do something different.**
- ✓ **Resources such as good employment, financial stability, and mental health services.**
- ✓ **Fill the void by finding new activities such as 12-step meetings, spending time with healthy loved ones, and learning how to have fun in sobriety.**
- ✓ **Make a commitment to work on the deeper core issues underlying the addiction and address those.**
- ✓ **Strong support system that makes an effort to care and understand.**
- ✓ **Change old thinking patterns and stay away from old people, places and things.**
- ✓ **Determination and willpower, but also an ability to remain aware of limitations, triggers and sense of entitlement.**
- ✓ **Find what works and keep doing it.**

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 month post-release. In order to examine the reliability of self-reported follow-up drug use, CJKTOS staff examined data from the Department of Correction’s information system and the Kentucky Offender Management System (KOMS) for positive drug tests. Of the 175 SAP participants on supervision during the 12 month follow-up period who reported no drug use, 142 had no positive drug tests in KOMS. This provides a self-report accuracy rate of 81.1%. In this study, a higher rate of substance use is self-reported than from urine test results. Furthermore, urine tests only identify substances used recently. 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, Cacciola, Alterman, McKay, & Cook, 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. Victim crime costs and their reductions before prison compared to their 12 months after prison do not take in account all costs associated with re-incarceration.

Conclusions

“I’m living a different way of life today.”

This FY2016 CJKTOS follow-up report presents 12-month post-release data on the characteristics of individuals who participate in the Kentucky Department of Corrections substance abuse 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 substance abuse treatment and were released during fiscal year 2015. Specifically, this 12-month follow-up study examined a randomly selected representative sample of 355 males and females who participated in jail, prison, or community custody-based treatment and consented to follow-up.

Findings from the FY2016 CJKTOS indicate a number of positive outcomes following KY DOC SAP participation including:

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

Implications

Findings from this CJKTOS report are consistent with others which have indicated a number of positive outcomes associated with Kentucky Department of Corrections Substance Abuse Programs. These programs have continued to evolve over the last decade to meet the treatment demands of individuals and to provide services that are effective in reducing drug use and crime while simultaneously promoting reintegration of individuals back into the community. The growth of prison and jail based treatment in Kentucky is indicative of the state's commitment to provide treatment for substance users. With the implementation of HB463 in 2011 and SB192 in 2015, the Department's commitment to treatment has been enhanced by state level initiatives to provide additional services and an emphasis on evidence-based interventions. This priority has been supported by a partnership between the Kentucky Department of Corrections and the University of Kentucky Center on Drug and Alcohol Research, which was established nearly 11 years ago through a shared vision to evaluate treatment for incarcerated substance abusers in Kentucky (see Staton-Tindall et al., 2007).

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 abuse 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 abuse 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>)

Prison Treatment Participants – Clients who participated in a prison-based substance abuse 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.

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Michele Staton-Tindall, Ph.D., M.S.W., Principal Investigator

Robert Walker, M.S.W., L.C.S.W., Co-investigator

Carl Leukefeld, D.S.W., Co-investigator

Erin McNees Winston, M.P.A., Project Director

Jeb Messer, Software Developer

Christopher Emmick, Data Management Specialist

Sara Shalash, B.S.W., Data Coordinator

Elyse Litton, M.S.W., Data Coordinator, Sr.

Kirsten Smith, M.S.W., C.S.W., Data Coordinator, Sr.

Appendix A.

Evaluation methodology

The Criminal Justice Kentucky Treatment Outcome Study (CJKTOS) was developed and implemented in April 2005 to 1) describe substance abusers 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 abuse 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 abuse 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) were released from a jail, prison, or community custody facility within the specified timeframe, and 3) provided locator information of at least one community telephone number and address. 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, a final sample of 339 was included in the follow-up. 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. A participant was considered ineligible for follow-up if he or she was not located 14 months after release. Locator methods included mailing letters and flyers, phone calls, and internet searches. All follow-up interviews were completed interviews by phone, and all data provided is self-reported by the participants.

Sampling approach

A total of 3,120 clients who completed a CJKTOS baseline were released from custody in FY2015. 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 3,120 CJKTOS clients who were released from custody in FY2015, 533 did not consent to participate in the follow-up study. Of the 2,587 research SAP participants who were eligible for follow-up (released in FY2015 and voluntarily consented for follow-up), 16.9% 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 participants randomly selected for follow-up in the community 12-months post-release, 355 were successfully located and interviewed 192 jail treatment participants, 122 prison treatment participants and 41 community custody treatment participants), for a follow-up rate of 83% (See Table 1).

Table 1. FY2016 Follow-up Rates

	<i>Eligible</i>	<i>Completed</i>	<i>Percentage</i>
<i>Jail Sample</i>	239	192	80%
<i>Males</i>	202	160	79%
<i>Females</i>	37	32	86%
<i>Prison Sample</i>	148	122	82%
<i>Males</i>	109	89	82%
<i>Females</i>	39	33	85%
<i>Community Custody Sample</i>	51	41	80%
<i>Males</i>	40	32	80%
<i>Females</i>	11	9	82%
<i>Total</i>	438	355	81
<i>Ineligible for follow-up*</i>	10		
<i>Final Total</i>	428		83%
<i>Refusals</i>	20		5%
<i>Unable to locate</i>	53		12%

*Note: ineligible for follow-up was defined as participants moving out of state (n=7) or deceased (n=3).

Appendix B.

Statistical Analysis

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 abuse 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 C.

CJKTOS PRISON DATA
COLLECTION SITES

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

Kentucky 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

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

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

CKTOS JAIL DATA
COLLECTION SITES

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

Boyd County Detention Center
2714 Louisa Street
Calettsburg, Kentucky 41129

(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, Kentucky 40165
(502) 543-7263

Casey County Detention Center
169 Court House Square
Liberty, Kentucky 42539
(606) 787-1758

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

Fayette County Detention Center
600 Old Frankfort Circle
Lexington, Kentucky 40510
(859) 425-2700

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

Grant County Detention Center
212 Barnes Road
Williamstown, KY 41097
(859) 824-0796

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

Laurel County Detention Center
204 W 4th Street
London, Kentucky 40741
(606) 878-9431

Louisville Metro Corrections
400 S. Sixth Street
Louisville, Kentucky 40202
(502) 574-8477

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

Montgomery County Detention
Center
751 Chenault Lane
Mt. Sterling, Kentucky 40353
(859) 498-8747

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

CJKTOS COMMUNITY CORRECTIONS 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

CJKTOS STATE LIAISONS AND PROJECT STAFF

Department of Corrections

Rodney Ballard
Commissioner
275 E. Main Street
Frankfort, KY 40601
502-564-4726

Kevin Pangburn
Director, Division of Substance
Abuse
2439 Lawrenceburg Rd.
Frankfort, KY 40601
502-564-6490

University of Kentucky
Michele Staton-Tindall, Ph.D.,
M.S.W.
Principal Investigator
UK College of Medicine
Department of Behavioral Science
Center on Drug & Alcohol Research
141 Medical Behavioral Science
Building
Lexington, KY 40536

Erin McNees Winston, M.P.A.
Study Director
UK Center on Drug & Alcohol
Research
845 Angliana Ave
Lexington, KY 40508

Robert Walker, M.S.W., L.C.S.W.
Co-Investigator
UK Department of Behavioral
Science & Center on Drug & Alcohol
Research
333 Waller Avenue, Suite 480
Lexington, KY 40504

Carl Leukefeld, D.S.W.
Co-Investigator
UK Department of Behavioral
Science & Center on Drug & Alcohol
Research
111 Medical Behavioral Science
Building
Lexington, KY 40536

