



**Criminal Justice  
Kentucky Treatment  
Outcome Study  
(CJKTOS)**

**FY 2008 Treatment  
Outcome Follow-up  
Report**

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Kentucky Treatment Outcome Study  
(CJTOS)**

**FY 2008 Follow-up Report  
(n=350)**

**April 2, 2009**

Report prepared for:

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## CJKTOS Executive Summary FY 2008

The Criminal Justice Kentucky Treatment Outcome Study (CJ-KTOS) was implemented in April 2005 to examine the effectiveness of corrections-based substance abuse treatment programs. Baseline data for this report was collected during FY2006 and FY2007 by treatment counselors in Kentucky's prison and jail-based substance abuse treatment programs using personal digital assistants (PDAs) at treatment intake. Inmate clients who participated in the study were asked about their substance use in the year before they were incarcerated to establish a baseline of their pre-treatment use pattern. Twelve months after release from the correctional facility, the treatment participants were interviewed again by the University of Kentucky Center on Drug and Alcohol Research (UK CDAR) staff to examine change from pre- to post treatment. This report presents data on 350 treatment participants who received Kentucky corrections-based substance abuse treatment and were released during FY2007. Follow-up data were collected from July 1, 2007 to June 30, 2008. Data collection complied with the University of Kentucky IRB human subject protections and Department of Corrections HIPAA compliance policies.

### This report includes the following highlights:

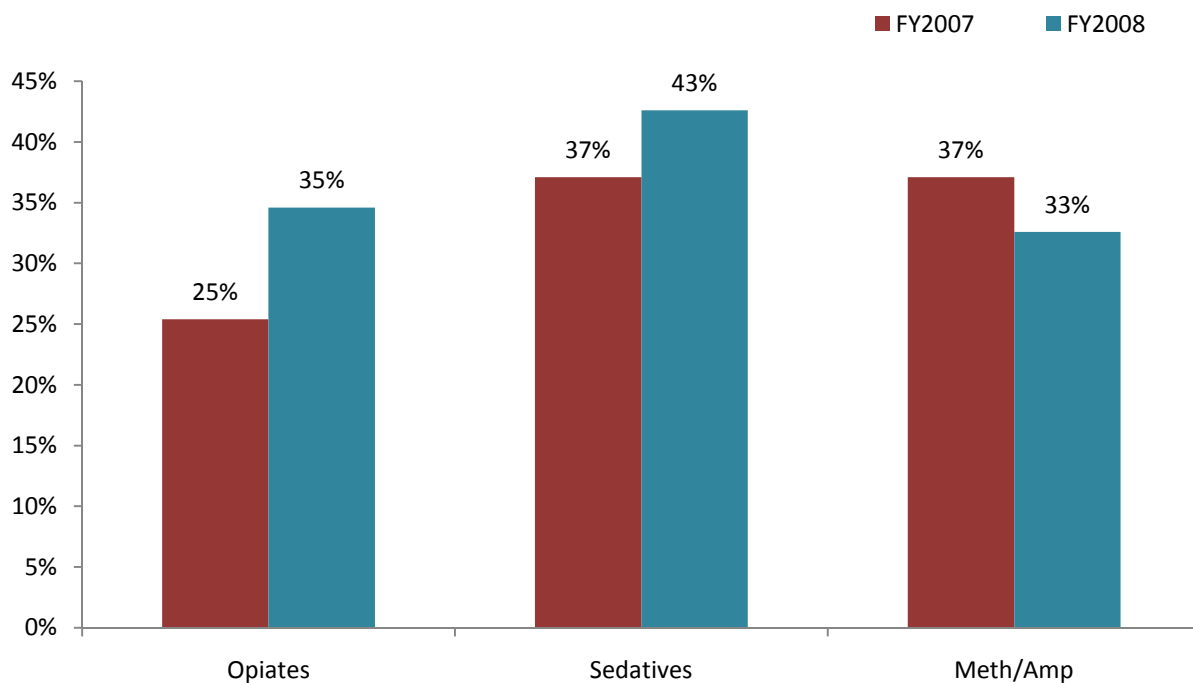
- Treatment participants were mostly male (72%) with an average age of about 32 years old. Nearly three-quarters (73%) are white and nearly half (49%) were single and never married. Three-quarters reported having a GED or 12 or more years of education.
- The percentage of jail and prison treatment participants reporting abstinence increased by nearly 10 times from baseline to follow-up.
- The percent of treatment participants who reported any illegal drug use in the previous 12 months decreased by 56% for jail participants and 55% for prison participants from baseline to follow-up.
- Among those who reported drug use at follow-up, the average number of drugs used in the previous 12 months decreased by 32% from baseline to follow-up.
- Most treatment participants (84% of jail participants and 78% of prison participants) reported attending AA/NA meetings in the 12 months after release.
- Nearly half (47%) of prison treatment participants reported receiving community treatment after release, while 35% of jail treatment participants reported receiving community treatment.
- Nearly three-quarters (74%) of participants who received substance abuse treatment in jail and 67% of participants who received substance abuse treatment in prison were not re-incarcerated during the 12 months following their release. The majority of treatment participants who were re-incarcerated were charged with a parole/probation violation rather than a new offense.
- It is estimated that the victim crime cost offset is \$12,634 per year for each participant who completed prison substance abuse treatment.

### Trends in data from FY2007 – FY2008

Overall, trends in the data were consistent from FY2007 to FY2008, particularly with the number of treatment participants in jail and prison who were not re-incarcerated at the time of the follow-up, increases in abstinence, and decreases in drug use from baseline to follow-up.

There were some changes in different types of drugs used by treatment participants in the CJTOS study between FY2007 and FY2008. Specifically, the percentage of the sample who reported opiate use at baseline increased by 27% from 25.4% in FY2007 to 34.6% in FY2008, as shown in Figure 1. Also, the percentage of the sample who reported sedative use at baseline increased by 13% from 37.1% in FY2007 to 42.6% in FY2008. The percentage of the sample who reported methamphetamine/amphetamine use at baseline decreased by 14% from 37.1% in FY2007 to 32.6% in FY2008.

**Figure 1. Change in Different Types of Drugs Used from FY2007 to FY2008**



## Introduction

The Kentucky Department of Corrections (DOC) expanded its substance abuse treatment programs to focus on inmates with substance abuse problems that have played a role in their criminal activity. Inmates with a substance abuse history have the option to enter the prison-based treatment program. They become eligible for the program if they have at least 6 months left to serve before parole or release from the prison. In 2004, the DOC expanded its programs to DOC inmates who serve time in the regional detention centers (jails). Thus, inmates have the opportunity to receive treatment that can prepare them for re-entry back into community life where remaining abstinent is critical to their long-term success. The treatment program uses elements of therapeutic community (De Leon, 2000) approaches that include incentives for positive participation and disincentives for negative behavior, and peer-oriented approaches which use the Recovery Dynamics curriculum. With this expansion of substance abuse programs, the DOC saw a need to evaluate the effects of the new services.

Currently there are 20 corrections-based substance abuse treatment programs in Kentucky with the capacity to serve 1,343 clients. Six prisons offer substance abuse treatment programs serving a capacity of 917 clients: Green River Correctional Complex, Kentucky Correctional Institution for Women, Luther Lockett Correctional Complex, Marion Adjustment Center, Otter Creek Correctional Center, and Roederer Correctional Complex. Fourteen jails offer substance abuse treatment programs serving a capacity of 426 clients: Breckinridge County Detention Center, Christian County Detention Center, Clark County Detention Center, Daviess County Detention Center, Floyd County Detention Center, Grayson County Detention Center, Hardin County Detention Center, Hopkins County Detention Center, Kenton County Detention Center, Marion County Detention Center, Mason County Detention Center, Pike County Detention Center, Powell County Detention Center, and Three Forks Regional Jail.

In 2004, the Kentucky Department of Corrections, the Kentucky Office of Drug Control Policy, and the Kentucky Division of Mental Health and Substance Abuse agreed to fund an evaluation of Kentucky's prison and jail based substance abuse treatment programs. The DOC contracted with the University of Kentucky Center on Drug and Alcohol Research to develop a comprehensive study of treatment outcomes for the participants in prison or jail based treatment. The University of Kentucky Center on Drug and Alcohol Research and the Kentucky Department of Corrections have a long established partnership to enhance substance abuse treatment initiatives (Staton-Tindall, 2007). Building on the Kentucky Treatment Outcome Study, the Criminal Justice Kentucky Treatment Outcome Study (CJKTOS) was developed and implemented in April 2005 to describe substance abusers entering treatment in Kentucky's prison and jail-based programs, and examine treatment outcomes 12 months post-release. The data collection instrument was modified from the Kentucky Substance Abuse Treatment Outcome Study, which has been conducted since 1996. 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 prison and jail-based program staff collect assessment data within the first two weeks of a client's admission to substance abuse treatment using personal digital assistants (PDAs). Using a PDA to collect data is innovative, and few states have this type of data collection design integrated into traditional clinical assessment. Benefits of the PDA as a data collection program include: it can be taken *anywhere* to do an interview and is easy to carry into the field, it needs only a modem and phone line to send in data, it saves time compared to paper forms, it corrects minor errors programmatically to keep data accurate, and it is unobtrusive when interviewing a client. In addition, the Department of Corrections treatment providers also obtained informed consent and contact information which was used by the University of

Kentucky to locate treatment 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.

### **Method**

The 12-month follow-up study was conducted by the University of Kentucky Center on Drug and Alcohol Research. Treatment 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 or prison facility within the specified timeframe, and 3) provided locator information of at least one community telephone number and address. A group of eligible treatment participants were selected for follow-up after stratification by prison or jail. Using the same proportion from each correctional setting (prison or jail) as those meeting eligibility criteria, a final sample of 350 was included in the follow-up. The proportionate stratification approach used in this study produces estimates that are as efficient as those of a simple random selection (Pedhazur & Schmelkin, 1991).

UK research staff began to “track” treatment 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, collaborating with parole officers, and internet searches. All 350 treatment participants completed interviews by phone, and all data provided is self-reported by the participants.

A total of 1,317 clients who completed a CJKTOS baseline were released from custody in FY 2007. Having a release date is considered the point of entry into the follow-up study sampling frame because the outcome data focuses on behaviors during the re-entry phase following custody. This design is unique compared to other Kentucky Treatment Outcome Study (KTOS) data collection which is anchored in the 12 months post-intake period.

The CJKTOS follow-up rates are shown in Table 1. Of those 1,317 clients who were released from custody in FY2007, 204 did not consent to participate in the follow-up study. Of the 1,113 research treatment participants who were eligible for follow-up (released in FY07 and voluntarily consented for follow-up), follow-up interviews were completed with 350 treatment participants, which is 31% of those who consented and were released from the correctional facility. Of the number randomly sampled for follow-up (n=433), 10 were ineligible because at the time they were located for follow-up, staff learned that 9 participants moved out of state and 1 participant was deceased according to his family report and verified by Kentucky vital statistics. Of the 423 eligible treatment participants, 350 treatment participants were successfully located and interviewed, for a follow-up rate of 83%. Of the study treatment participants who were not interviewed, 24 (5.6%) refused to participate in the follow-up interview and 49 (11.6%) were unable to be located. Once the target goal of 350 follow-up interviews was obtained, tracking treatment participants for this fiscal year ended. As of June 30, 2008, there were 19 study participants with open windows. If those participants are excluded from the denominator, the follow-up rate is 87%.



**Table 1. FY 2008 Follow-up Rates for Clients Who Consented to Follow-up and Were Randomly Selected for the Sample (n=350)**

	Eligible	Completed	Percentage
<b>Jail Sample</b>	130	100	77%
Males	98	78	80%
Females	32	22	69%
<b>Prison Sample</b>	303	250	83%
Males	215	175	81%
Females	88	75	85%
<b>Total</b>	433	350	
<b>Minus Ineligible for follow-up</b> (includes 9 participants who moved out of state and 1 deceased)	10		
<b>Final Total</b>	<b>423</b>	<b>350</b>	<b>83%</b>
<b>Refusals</b>	24		6%
<b>Unable to locate</b>	49		12%

### **Report Format**

This CJKTOS follow-up report includes 12 month post-release follow-up data for a sample of 350 substance abuse treatment participants (100 jail treatment participants and 250 prison treatment participants) released during FY2007. This data collection focuses on client self-reported substance use and other behaviors. Comparisons used in this report are between treatment participants' self-reported substance use "on the street" in the 12 months *before they were incarcerated* (baseline) and treatment participants' self-reported use "on the street" *12 months after release* (follow-up). McNemar's test for correlated proportions is used to examine statistical differences in the proportion of clients who reported substance use at baseline compared to follow-up. In addition, substance abuse treatment utilization and criminal justice involvement during the 12 months post-release is also included, as well as indicators of costs associated with victim crime.

### **Demographics**

Clients were mostly male (72%) with an average age of about 32 years old. Nearly three-quarters (73%) are white and nearly half (49%) were single and never married. Three-quarters reported having a GED or 12 or more years of education, as shown in Table 2. Also, as shown in Table 2, the follow-up sample was descriptively very similar to the entire group of CJKTOS treatment participants who were released but not randomly selected, which suggests that findings are likely generalizable to the population of treatment participants released from custody. The one exception is gender. Due to the small number of females release in FY2006 and FY2007 all the females were included in the follow-up study.

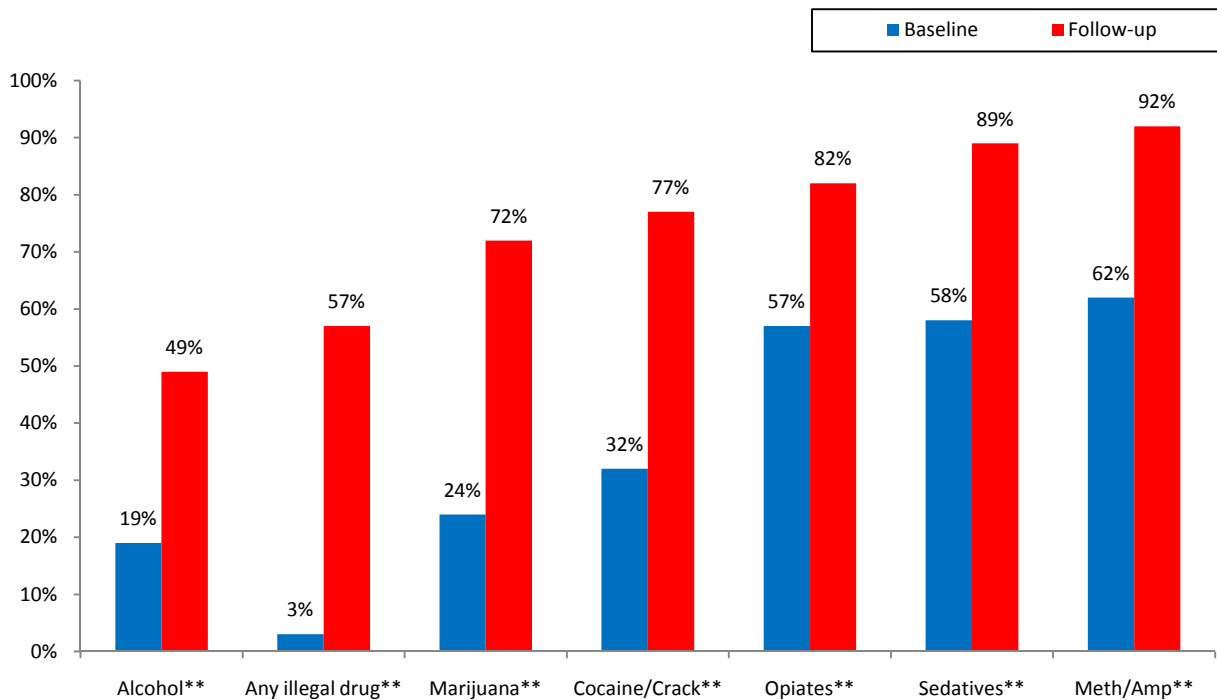
**Table 2. Demographic Characteristics of Follow-up Sample (n=350) Compared to Consenting CJKTOS Treatment Participants Released in FY2006 and FY2007**

	Enrolled in Follow-up Study	Consenting CJKTOS participants
Average Age	32.3 (range 19 to 62)	32.1 (range 18 to 69)
Race/ethnicity	72.6% white	66.3% white
Gender	72.0% male	94% male
Education	74.9% GED or 12 or more years of education	71.8% GED or 12 or more years of education
Marital Status	49.1% Single, never married	49.6% Single, never married

### ***Self-Reported Abstinence at 12-Months Post Release***

The percent of jail-released treatment participants who reported abstinence from any past 12 month illicit substance use increased over 18 times from baseline to follow-up (3% at baseline to 57% at follow-up). As noted in Figure 2, the increase in abstinence for all substances for jail-released treatment participants was statistically significant at  $p < .001$ .

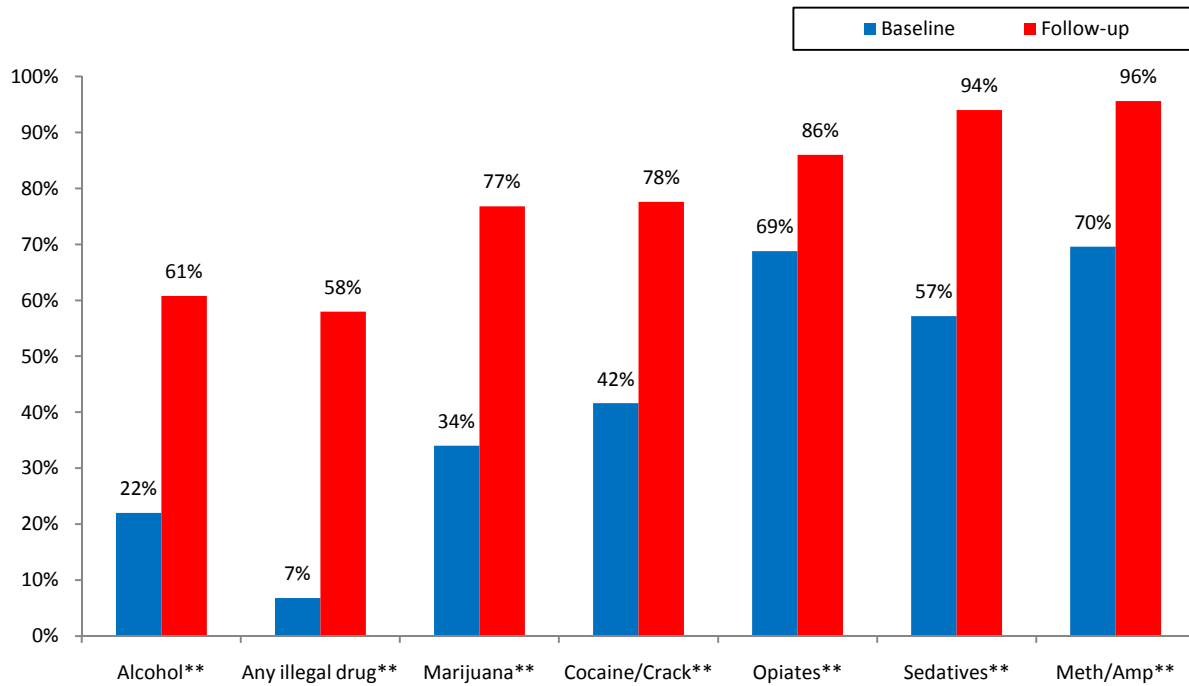
**Figure 2. Increase in Percent of Jail-released Treatment Participants Reporting Abstinence from Baseline to Follow-up Previous 12 Months (n=100)**



Note: Significance established using McNemar's test for correlated proportions, \*\* $p < .001$

The percent of participants who received substance abuse treatment in prison who reported past 12 month abstinence from any illicit substance increased over 8 times from baseline to follow-up (6.8% at baseline to 58% at follow-up). As illustrated in Figure 3, the increase in abstinence for all substances for prison-released treatment participants was statistically significant at  $p < .001$ .

**Figure 3. Increase in Percent of Prison-released Treatment Participants Reporting Abstinence from Baseline to Follow-up Previous 12 Months (n=250)**

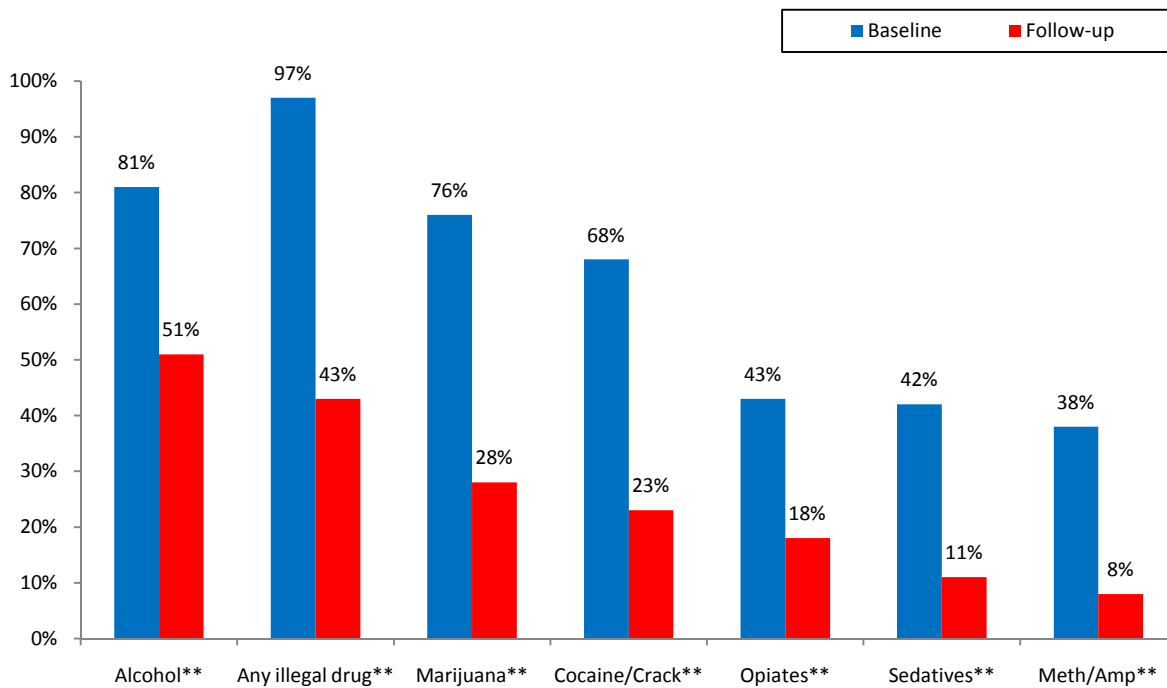


Note: Significance established using McNemar's test for correlated proportions, \*\* $p < .001$

### Substance use

The percent of participants who received substance abuse treatment in jails who reported any past 12 month illegal drug use at follow-up decreased by 56% (from 97% at baseline to 43% at follow-up). As shown in Figure 4, there was a statistically significant decrease in substance use for jail-released treatment participants ( $p < .001$ ) for all substances. Jail-released treatment participants who reported any illegal drug use during the 12 month follow-up ( $n=43$ ) reported being released more than 3 months (95 days) before their first use.

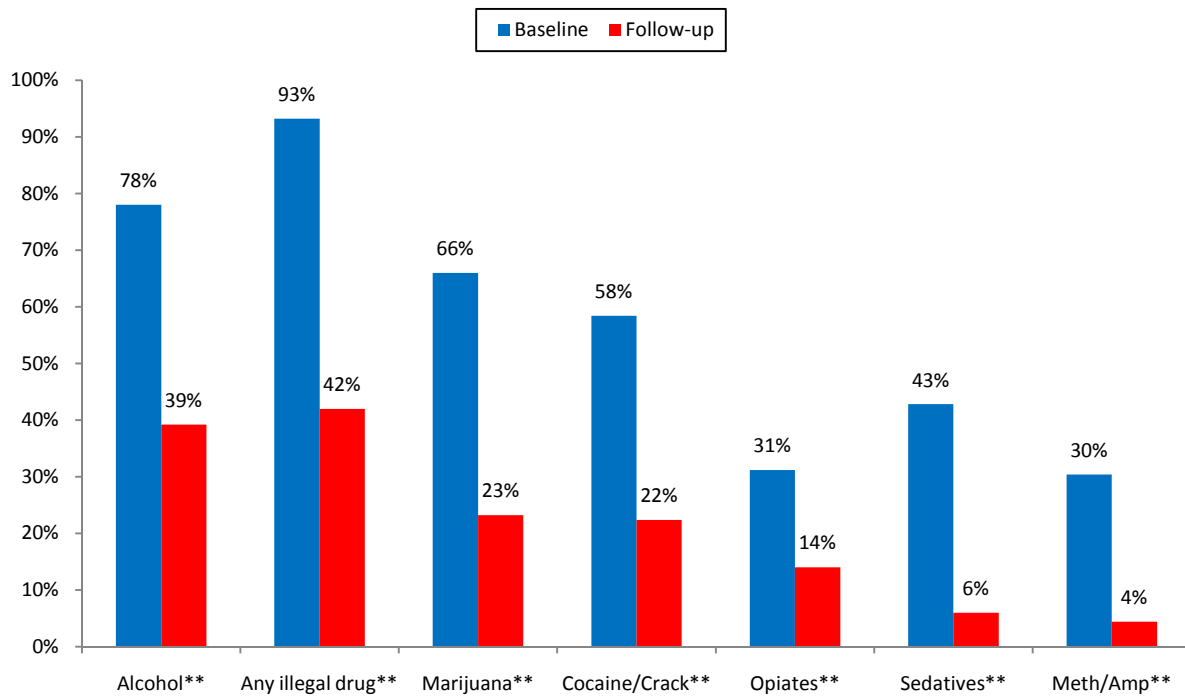
**Figure 4. Decrease in Percent of Jail-released Treatment Participants Reporting Any Drug Use from Baseline to Follow-up Previous 12 Months (n=100)**



Note: Significance established using McNemar's test for correlated proportions, \*\* $p < .001$

The percent of prison-released treatment participants who reported illegal drug use during the previous 12 months decreased by 55% from baseline to follow-up (93% at baseline to 42% at follow-up). As shown in Figure 5, there was a statistically significant decrease in substance use ( $p < .001$ ) for prison-released treatment participants for all substances. Prison-released treatment participants who reported any illegal drug use during the 12 month follow-up ( $n=105$ ) reported being released from prison more than 3 months (96 days) before their first use.

**Figure 5. Decrease in Percent of Prison-released Treatment Participants Reporting Any Drug Use from Baseline to Follow-up Previous 12 Months (n=250)**

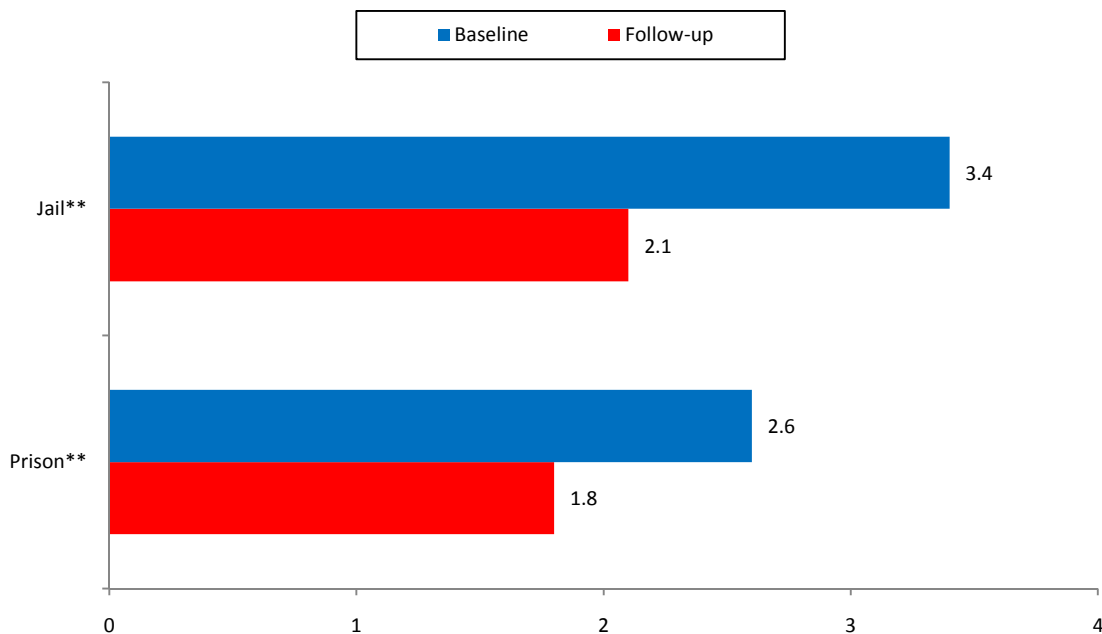


Note: Significance established using McNemar's test for correlated proportions, \*\* $p < .001$

### Number of drugs used

Among treatment participants who reported any past 12 month illegal drug use at follow-up (n=43 jail-released treatment participants and 105 prison-released treatment participants), the number of different drugs used decreased by 32% from baseline to follow-up. Figure 6 shows the number of drugs used by treatment participants who reported any past 12 month illegal drug use at follow-up. The average number of drugs used by jail-released treatment participants decreased by 38% from 3.4 drugs at baseline to 2.1 drugs at follow-up. The average number of drugs used by prison-released treatment participants decreased by 31% from 2.6 drugs at baseline to 1.8 drugs at follow-up. The decrease in the average number of drugs used was statistically significant for both prison and jail treatment participants ( $p < .001$ ).

**Figure 6. Average Number of Drugs Used (Previous 12 Months) at Baseline and Follow-up (\*Released from Jail n=43; \*Released from Prison n=105)**



\*\*Note: Significance established using paired sample t-test,  $^{***}p < .001$ . Only treatment participants who reported drug use at follow-up are included in this analysis.

### ***AA/NA Meeting Attendance After Release***

Most treatment participants reported attending AA/NA meetings in the 12 months after their release. As shown in Table 3, 84% of jail-released treatment participants reported attending AA/NA in the previous 12 months and 78% of participants who received substance abuse treatment in prison reported attending AA/NA meetings. At follow-up the average number of times treatment participants reported attending AA/NA in the previous 30 days was 4.9 times for jail-released treatment participants and 4.7 times for prison-released treatment participants.

**Table 3. AA/NA Attendance in the 12 Months Post-Release**

	Attended AA/NA Meetings in the 12 months after release	Average number of times attended AA/NA in previous 30 days
Jail (n=100)	84.0%	4.9 times
Prison (n=250)	77.6%	4.7 times
Total (n=350)	79.4%	4.7 times

### ***Community Substance Abuse Treatment After Release***

Nearly half (46.8%) of prison-released treatment participants reported receiving community treatment after release, while about one-third (35%) of jail-released treatment participants reported community treatment after release (see Table 4). Outpatient treatment was the most common form of community treatment reported by participants.

**Table 4. Percent of Treatment Participants Reporting Community Substance Abuse Treatment in the 12 Months Post-Release**

	Percent Reporting Community Treatment
Jail (n=100)	35.0% (n=35)
Prison (n=250)	46.8% (n=117)
Total (n=350)	43.4% (n=152)

### **Recidivism at 12 month Follow-up**

Recidivism is defined as “being re-incarcerated within the 12 months following release.” The University of Kentucky Center on Drug and Alcohol Research (UK CDAR) staff cross-checked the 350 treatment participants in the Kentucky Department of Corrections (DOC) state database, Kentucky Offender Management System (KOMS) to see if the participant was re-incarcerated during the year following their release, using the DOC counting rules (see page 22 for counting rule definition). As shown in Table 5, nearly three-quarters of jail-released treatment participants (74%) and 67% of prison-released treatment participants were *not re-incarcerated* during the 12 months following their release. The majority of treatment participants were under parole or probation supervision. In addition, treatment participants who were re-incarcerated during the 12 months following release were out in the community an average of 6.5 months before re-incarceration.

**Table 5. Recidivism 12 Months Post-Release (n=350)**

	Jail (n=100)	Prison (n=250)	Total (n=350)
Not Incarcerated	74.0%	67.2%	69.1%
Incarcerated	26.0%	32.8%	30.9%

### **Arrest Types Among Recidivates**

The majority of treatment participants (71.3%) who were re-incarcerated in the 12 months following release returned due to a technical parole/probation violation (see Table 6). Just over a quarter (28.7%) of treatment participants who were re-incarcerated in the 12 months following release returned on new charge(s).

**Table 6. Arrest Types Recidivates 12 Months Post-Release (n=108)**

	Jail (n=26)	Prison (n=82)	Total (n=108)
Parole/Probation Violation	69.2%	72.0%	71.3%
New Charge(s)	30.8%	28.0%	28.7%



### Victim Crime Cost Offset

Victim crime cost offsets were examined from baseline to follow-up for prison treatment participants. A cost offset in this analysis is the estimated costs of crime/arrests at follow-up compared to baseline for the follow-up sample of prison inmates. This analysis was conducted on prison participants due to similarities in the length of time incarcerated compared to shorter sentences for jail participants, as well as available information from the state on daily costs to incarcerate and daily census in state prison facilities. "Victim crime costs" are defined in this report as projected costs attributed to an arrest for a particular type of crime (drug, property, violent, or DUI). Crime cost data were developed from Finigan's (1999) approach for assessing cost offsets resulting from drug court services and Miller, Cohen, and Wiersema's (1996) approach for assessing victim cost of crime. Cost per arrest figures were adjusted to 2008 dollars using the Federal Reserve Bank of Minneapolis Consumer Price Index Calculator <<http://minneapolisfed.org/Research/data/us/calc/index.cfm>>.

Specifically, the cost per arrest is multiplied by the number of arrests at baseline and follow-up for the particular type of crime to calculate the cost offset in cost between the two time periods. As shown in Table 7, victim crime costs for the year before incarceration were compared to victim crime costs for the year after release from prison, which resulted in an aggregate cost offset of \$3,158,619 for the 250 prison participants. This results in a projected *victim crime cost offset of \$12,634 per prison treatment participant*. While this is a considerable cost offset per treatment participant, it is important to note that this figure likely under-represents the overall cost offset resulting from prison-based treatment because the calculation does not include offsets resulting from the cost to incarcerate, employment, and community health and mental health service utilization costs.

**Table 7. Cost Offset in Victim Crime/Arrest for Prison Treatment Participants (N=250)**

Arrests by crime type	Estimated cost per arrest*	Number of arrests at intake (Past 12 months)	Cost of crimes at intake	Number of arrests at follow-up (Past 12 months)	Estimated Cost of crimes at follow-up	Reduction in cost
Drug	\$4,086	134	\$547,524	13	\$53,118	\$494,406
Property	\$17,597	114	\$2,006,058	8	\$140,776	\$1,865,282
Violence	\$40,797	15	\$611,955	2	\$81,594	\$530,361
DUI	\$26,857	22	\$590,854	12	\$322,284	\$268,570
<b>Total</b>		<b>285</b>	<b>\$3,756,391</b>	<b>35</b>	<b>\$597,772</b>	<b>\$3,158,619</b>
<b>Estimated projection of victim crime cost offset per participant</b>						<b>\$12,634</b>

Cost per arrest figures were adjusted to 2008 dollars using the Federal Reserve Bank of Minneapolis Consumer Price Index Calculator. Accessed 9/19/2008. <<http://minneapolisfed.org/Research/data/us/calc/index.cfm>>

This second year follow-up study only included treatment participants. Consequently, it is not possible to distinguish the cost offset for prison-based substance abuse treatment compared to incarceration alone. However, examining the reduction of \$3.16 million in victim costs from crime during the first year out of jail or prison for treatment participants suggests an important gain to public safety. Future analyses will be able to compare recidivism costs for the treatment sample with a non-treatment sample

of prisoners. The Department of Corrections authorized data collection for a comparison group during FY2008 to better examine the specific effects of prison based or jail based treatment.

### **Conclusions**

The growth of prison and jail based treatment in Kentucky is indicative of the state's commitment to provide treatment for substance users. State correctional administrators recognized that simply incarcerating drug abusers is not enough to promote long term change and reduce the risk for a continued criminal career. Not only has the current correctional administration made a significant effort to provide additional treatment opportunities, but they have also prioritized research and evaluation within the Department of Corrections to identify evidenced-based practices for treating substance using offenders. This priority has been supported by a partnership between the Kentucky Department of Corrections (DOC) and the University of Kentucky Center on Drug and Alcohol Research (CDAR), which was established nearly 10 years ago through a shared vision to increase and enhance opportunities for treatment for incarcerated substance abusers in Kentucky (Staton-Tindall et al., 2007). This partnership is characterized by a unique and innovative data collection approach using PDAs which is integrated into traditional clinical assessment practices for intake data and supplemented by phone interviews at follow-up by the UK research team. This data collection approach provides an exciting opportunity to examine outcomes for a randomly selected group of participants participating in Kentucky's correctional treatment programs.

This report presents 12-month follow-up data to describe the characteristics of individuals who participate in the Kentucky Department of Corrections substance abuse treatment programs during their incarceration in prison or jail. This follow-up report includes descriptions of participants who received substance abuse treatment and were released during fiscal year 2007. The 12-month follow-up study was conducted on a randomly selected representative sample of 350 males and females who participated in jail or prison-based treatment and consented to follow-up. There were 204 treatment participants released in FY2007 who did not consent to follow-up. The final sample of 350 represented an 83% follow-up completion rate.

Overall, trends in the data in this FY2008 report were consistent with trends reported in the FY2007 report, particularly with the number of treatment participants who had been treated in jails and prisons who were not re-incarcerated at the time of the follow-up, increases in abstinence, and decreases in drug use from baseline to follow-up. There were some changes from FY 2007 to FY 2008 in different types of drugs used by treatment participants in the CJTOS study. Specifically, the percentage of the sample who reported opiate use at baseline increased by 27% from 25.4% in FY2007 to 34.6% in FY2008. Also, the percentage of the sample who reported sedative use at baseline increased by 13% from 37.1% in FY2007 to 42.6% in FY2008. The percentage of the sample who reported meth/amphetamine use at baseline decreased by 14% from 37.1% in FY2007 to 32.6% in FY2008. It is unclear what might account for these changes in user pattern. However, Kentucky has long been known for prescription drug use, which includes both opiate and sedative drugs. Methamphetamine, by contrast, has been an emerging drug among substance abusers and its prominence led to corrective action by the Kentucky General Assembly in 2006 that greatly reduced the availability of the precursor to methamphetamine, pseudoephedrine. It may be that increased law enforcement plus decreased supply possibilities has resulted in a shift back to the more commonly used substances among this sample of prisoners.

### *Reduced substance use*

Findings from this 2008 data indicate that there were statistically significant increases in the number of individuals who participated in corrections-based substance abuse treatment who report abstinence from baseline to follow-up. The percentage of participants receiving prison or jail-based substance abuse treatment who reported using any illegal drug during the 12-months after release decreased by over fifty percent from before incarceration (94.3% at baseline compared to 42.3% at follow-up).

The reduced substance abuse reported by treatment participants in this study is comparable to other samples of offenders leaving prison-based treatment. Although findings vary based on follow-up time frames, the literature is fairly consistent in noting reductions in drug use following prison-based treatment. For example, Prendergast, Greenwell, and Lin (2007) reported that about one-third of participants leaving prison-based treatment reported any illicit drug use 3 months post-release. While the self-reported use is slightly higher in the Kentucky sample (any illicit use reported at 42.3%), data in this report is based on a one-year follow-up versus the 3 month follow-up. Butzin, Martin, and Inciardi (2005) reported that approximately 60% of participants who completed prison-based treatment alone (not followed by community aftercare) reported being abstinent one year after release. This is consistent with Kentucky findings of 57.7% of participants remaining drug-free at follow-up. Findings in this report for offenders are also consistent with other Kentucky treatment outcome studies (KTOS) for community treatment participants noting reductions in drug use one year following treatment (Walker, et al., 2008).

### *Decreased recidivism*

Study findings indicate that the majority of treatment participants were not re-incarcerated during the 12 months following their release. Nearly three-quarters (74%) of participants who received substance abuse treatment in jail and 67% of participants who received substance abuse treatment in prison were not re-incarcerated. Of the recidivates, they were out in the community an average of 6.5 months before their re-incarceration. In addition, most offenders who were re-incarcerated (71.3%) reported being charged with a parole or probation violation rather than a new charge. Comparison group data was initiated in FY2008 to examine recidivism rates for treatment participants compared to substance abusers who do not receive treatment. The fact that the re-incarceration is related to parole violations suggests that there is a need for more access to substance abuse treatment and recovery services among individuals leaving prisons and jails.

Few states have this kind of data. Burdon, Dang, Prendergast, Messina & Farabee (2007) reported 59.5% of participants who received prison-based therapeutic community substance abuse treatment in California prisons and who subsequently participated in outpatient and residential treatment following release did not return to prison in the 12 months following release. Burdon et al. (2007) measured recidivism as returning to prison at anytime during the 12 months after release, similar to the way recidivism is defined in this report. However, it is unclear if Burdon et al. (2007) used the same counting rules this study used when defining recidivism. Even though there may be a limitation of comparison based on different recidivism definitions, more Kentucky prison participants (69%) were not incarcerated during the 12 months following release. Also it is important to note that only 47% of our participants received community treatment following release whereas all the participants in Burdon et al. (2007) study received outpatient or residential treatment following release from prison.

Although limited in comparison based on the time frame, a Kentucky Department of Corrections report on recidivism from 1999-2000 indicated that the rate of returning to custody for drug offenders was 29% <[www.corrections.ky.gov](http://www.corrections.ky.gov)>. This is slightly lower than the 31% reported in this study. However, it is possible that the community supervision expectations for participants in a substance abuse treatment program are different. Perhaps with increased supervision and regular urine screens, treatment participants who relapse to drugs and/or alcohol following community release have a greater chance of returning to custody than offenders who are not substance abusers. Data from the comparison group will help further understand this potential difference in the FY2009 follow-up report.

### *Community treatment engagement*

Although there is no mandatory aftercare component for participants in Kentucky prison and jail based treatment programs, findings from this study indicate that most prison and jail treatment participants engaged in self-help groups following release. Specifically, 84% of participants who received substance abuse treatment in jail and 78% of participants who received substance abuse treatment in prison reported attending AA/NA in the 12-months after release.

In addition, nearly half (43%) of all treatment participants enrolled in formal community treatment following release, with outpatient treatment being the most common treatment. This is slightly lower than community treatment participation following release in another study of offenders participating in prison treatment which reported that 63% of treatment participants engaged in any community treatment within the first 3 months after release (Prendergast, Greenwell, & Lin, 2007). However, this data was collected in predominantly urban areas, which may limit comparability to Kentucky given the number of treatment participants in this study who paroled to rural areas where service opportunities are limited.

### *Study limitations*

There are some noteworthy limitations to this study. First, findings must be interpreted with the understanding that baseline data are self-reported at treatment intake and follow-up data are self-reported approximately 12 months post-release. In order to check the reliability of self-reported follow-up drug use, CJTOS project staff examined data from the Department of Correction's information system, the Kentucky Offender Management System (KOMS), on whether or not a participant has had a positive drug test while under supervision. Of the 183 treatment participants who were under supervision at the time of their follow-up interview and reported no drug use, 168 had no positive drug tests in KOMS. This provides a self-report accuracy rate of 92%. While self-report data has been shown to be validated by drug testing (Del Boca & Noll, 2000; Rutherford, et al., 2000), it is a 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 the participant's memory recall and may also be a study limitation. The presentation of victim crime costs and their reductions from the 12 months treatment participants were on the street before prison compared to their 12 months after release from prison are also preliminary and do not include all costs associated with re-incarceration for the recidivists.

### *Implications*

Despite these limitations, these data are exciting because they suggest positive outcomes from Kentucky corrections-based substance abuse treatment. Corrections based treatment programming in Kentucky has evolved into an approach of delivering services in both prisons and jails which incorporates therapeutic community concepts, which has demonstrated considerable success in the research literature (De Leon, 2000). The findings from this study indicate behavioral change for offenders following substance abuse treatment in Kentucky's prisons and jail which includes reductions in substance use from pre-incarceration, more than two-thirds not being incarcerated at the 12 month follow-up, and participation in community treatment and self-help groups. Findings in this report support the continued policy to treat substance abusers in the criminal justice system with increased efforts to strengthen the transition from institution to community in order to maintain successes achieved in corrections-based treatment. This preliminary report of reductions in victim costs of crime from one year prior to incarceration to the year after release from jail or prison suggest important gains for public safety in Kentucky. Future study will examine these cost offsets and gains in more detail and with comparison to other populations. However, at a minimum, Kentucky receives gains for the public that are important in evaluating the net effects of substance abuse treatment in correctional facilities.

## 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.

### 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 releases.
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 <<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 <<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 within the 12 months following release.

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***CJKTOS PRISON DATA COLLECTION SITES*****Green River Correctional Complex (GRCC)**

1200 River Road  
 P.O. Box 9300  
 Central City, Kentucky 42330  
 Phone: (270) 754-5415

**Kentucky Correctional Institution for Women (KCIW)**

3000 Ash Ave.  
 Pewee Valley, Kentucky 40056  
 Phone: (502) 241-8454

**Luther Lockett Correctional Complex**

Dawkins Road, Box 6  
 LaGrange, Kentucky 40031  
 Phone: (502) 222-0363/222-0365

**Marion Adjustment Center**

95 Raywick Road  
 St. Mary, Kentucky 40063-0010  
 Phone: 270-692-9622

**Otter Creek Correctional Center**

Highway 306, P.O. Box 500  
 Wheelwright, Kentucky 41669-0500  
 Phone: 606-452-9700

**Roederer Correctional Complex (RCC)**

P. O. Box 69  
 LaGrange, Kentucky 40031  
 Phone: (502) 222-0170/222/0173

**CJKTOS JAIL DATA COLLECTION SITES****Breckinridge County Detention Center**

500 Glen Nash Road  
 Hardinsburg, Kentucky 40143  
 (270)756-6244

**Christian County Detention Center**

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

**Clark County Detention Center**

30 Wall Street  
 Winchester, Kentucky 40391  
 (859) 745-0270

**Daviess County Detention Center**

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

**Floyd County Detention Center**

36 South Central Avenue  
 Prestonsburg, KY 41653  
 (606) 886-8021

**Grayson County Detention Center**

320 Shaw Station Road  
 Leitchfield, Kentucky 42754-8112  
 (270) 259-3636

**Hardin County Detention Center**

100 Laurel Street, P.O. Box 1390  
 Elizabethtown, Kentucky 42702-1390  
 (270) 735-1794

**Hopkins County Detention Center**

2250 Laffoon Trail  
 Madisonville, Kentucky 42431  
 (270) 821-6704

**Kenton County Detention Center**

303 Court Street  
 Covington, Kentucky 41011  
 (859) 392-1701

**Three Forks Regional Jail (Lee County)**

2475 Center Street  
 Beattyville, Kentucky 41311  
 (606) 464-2598

**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

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