Criminal Justice Kentucky Treatment Outcome Study FY2010

Follow-Up Report

December 15, 2010

Criminal Justice
Kentucky Treatment Outcome Study
(CJKTOS)

FY 2010 Follow-up Report
(n=350)

December 15, 2010

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CJKTOS Executive Summary FY 2010

The Criminal Justice Kentucky Treatment Outcome Study (CJKTOS) focuses on substance abuse outcomes of offenders participating in corrections-based substance abuse treatment programs in Kentucky's prison and jails. This report includes follow-up data collected during FY2010 for 350 participants who entered treatment in Kentucky prisons or jails, participated in an intake interview by treatment counselors in the corrections-based substance abuse treatment programs using personal digital assistants (PDAs) at treatment intake, and were followed 12 months later in the community following their release. This report provides data collected from July 1, 2009 to August 30, 2010.

This report includes the following highlights:

Data Trends

Data was examined for changes in trends from FY2007 – FY2010. As shown in Table 1, there were some changes in the descriptive characteristics of the CJKTOS treatment sample across each of the fiscal years from 2007 – 2010. Most notably is race. The sample was 68.5% white in FY2007 and increased to 75.4% white in FY2010. The increase in the number of white participants has implications for changes in drug use trends, specifically opiate use. Baseline opiate use (including the non-prescription use of pain medication) was 25.4% in FY2007. By FY2008, baseline opiate use was reported at 34.6%, and increased further to 49.0% in FY2009 and FY2010. Additional analysis indicate that much of the increase from FY 2007-2009 was associated with race with white participants being nearly 9 times more likely to report opiate use compared to non-whites in FY2007-2009, and 4 times more likely to report opiate use in FY2010. Interestingly, race was not a significant contributor to expected trends in other substance use such as cocaine use from FY2007-FY2010.

Changes are also noted for the CJKTOS sample for gender. The sample was 96.1% male in FY2007, 72.0% in FY2008, and 64.1% in FY2009, and 75.7% in FY2010. The increase in the number of females in the sample is largely related to increased number of treatment beds increasing from one program at KCIW in 2007 to an additional prison program at Otter Creek and two female jail programs by FY2009. In addition, females are oversampled in the CJKTOS follow-up sampling frame, which, as baselines increase, leads to a greater number represented in the follow-up data collection periods. Changes in the gender make-up of the sample may also have some implications for understanding data trends, but the noted differences in opiate use were not significantly attributed to gender in additional analyses.

Table 1. Changes in demographics by fiscal year

	FY 2007 Follow-up Sample (n=350)	FY 2008 Follow-up Sample (n=350)	FY 2009 Follow-up Sample (n=345)	FY 2010 Follow-up Sample (n=350)
Average Age	32.6 (range 21 to 71)	32.3 (range 19 to 62)	32.2 (range 19 to 60)	33.3 (range 19 to 68)
Race/ethnicity	68.5% white	72.6% white	78.8% white	75.4% white
Gender	96.1% male	72.0% male*	64.1% male	75.7% male*
Education	***	74.9% GED or 12 or more years of education	70.8% GED or 12 or more years of education	73.7% GED or 12 or more years of education
Marital Status	53.5% Single, never married	49.1% Single, never married	40.6% Single, never married	42.3% Single, never married

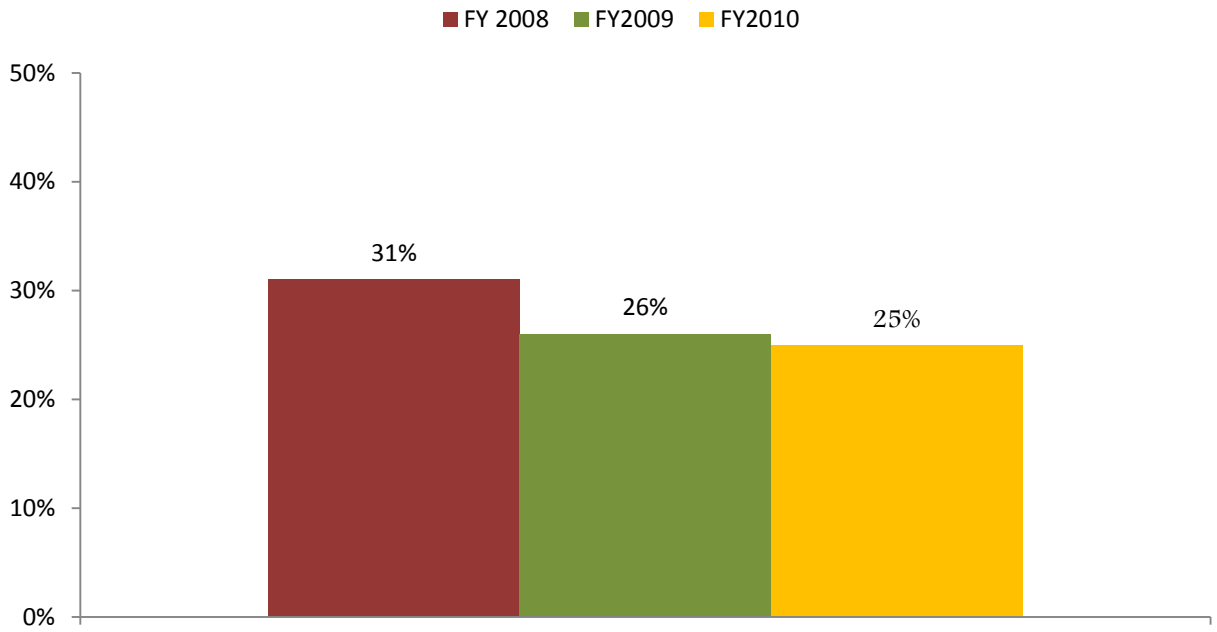
******Data not available for GED in the FY2007 follow-up***

** significant change from previous year, p<.01*

Trends in Follow-up Data

A notable trend in the follow-up data is the decreased recidivism rate from FY2008 to FY2010 (see Figure 2). The percentage of those reincarcerated on a felony charge within the 12 months following release decreased from 31% in FY 2008 to 25% in FY 2010 - a 19% rate of decrease. Related to the reductions in the number of participants reincarcerated in the 12 months following release, prison participants spent fewer nights in prison and jail than the FY 2008 sample, which contributes to increases in this year's treatment cost offset. It is also important to note that almost all the treatment participants (69.3%) who were re-incarcerated in the 12 months following release returned for a technical parole/probation violation rather than a new charge. This is a considerable increase from last year's report of 72%, which might be due to full implementation of the Kentucky Offender Management System (KOMS) and the consistency of reporting using the system. While these trends are certainly favorable for reduced recidivism, it should also be noted that recidivism rates are also influenced by gender. For example, when examining the factors most associated with recidivism across each of the years of data collection, gender was a significant contributor for the FY2009 dataset with women being less likely to be reincarcerated than males. However, this trend did not remain consistent with the FY2010 follow-up data when there were fewer females in the sample.

Figure 2. Decrease in Recidivism 12 Months Post-Release



The trends in reported substance use in the 12 months prior to incarceration are noteworthy, particularly for opiate use. As shown in Table 2, the percent of participants who received substance abuse treatment in jail or prison who reported opiate use in the past 12 months at follow-up has increased from 25% in FY2007 to 49.4% in FY2010.Trends in other substance use has remained fairly consistent over the past three years.

Table 2. Substance Use 12 Months Prior to Incarceration

	FY 2007 Follow-up Sample (n=350)	FY 2008 Follow-up Sample (n=350)	FY 2009 Follow-up Sample (n=345)	FY 2010 Follow-up Sample (n=350)
Any Illegal Drug	94.8%	94.3%	93.6%	100.0%
Alcohol	80.2%	78.9%	76.2%	77.7%
Marijuana	67.9%	68.9%	63.8%	65.1%
Cocaine/Crack	60.8%	61.1%	60.0%	53.1%
Opiates	25.0%	34.6%*	49.0%*	49.4%
Sedatives	39.6%	42.6%	33.3%	44.0%
Meth/Amp	35.8%	32.6%	34.2%	30.6%

** significant change from previous year, p<.01*

Introduction

The Kentucky Department of Corrections (DOC) expanded its substance abuse treatment programs to focus on inmates with substance abuse problems related to their criminal activity. Inmates with a substance abuse history have the option to enter corrections-based treatment programs if they have at least 6 months left to serve before parole or release from the prison. Kentucky correctional programs are grounded in key 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. Currently there are28 corrections-based substance abuse treatment programs in Kentucky with the capacity to serve 1,864 clients. Eight prisons offer substance abuse treatment programs serving a capacity of 1,028 clients (See Appendix A for sites).

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 data collection instrument was modified from the Kentucky Substance Abuse Treatment Outcome Study, which has been used 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). Few states use a PDA to collect data which is integrated into traditional clinical assessment (Staton-Tindall, et al., 2009). Benefits of the PDA as a data collection program include: it can be used *anywhere*, it needs only a modem and phone line to send in data, it saves time when compared to paper forms, it corrects minor errors programmatically to keep data accurate, and it is unobtrusive when interviewing a client. Department of Corrections treatment providers also obtain informed consent and contact information which is 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 1,144clients who completed a CJKTOS baseline were released from custody in FY 2009. 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. The CJKTOS follow-up rates are presented in Table 3. Of those 1,144 CJKTOS clients who were released from custody in FY2009, 121 did not consent to participate in the follow-up study. Of the 1,023 research treatment participants who were eligible for follow-up (released in FY09 and voluntarily consented for follow-up), follow-up interviews were completed with a randomly stratified sample of 350 treatment participants, which is 34% of those who consented and were released from the correctional facility. Of the number randomly sampled for follow-up (n=467), 12 were ineligible because at the time they were located for follow-up, staff learned that 9 participants moved out of state and 3 participants were deceased according to their family reports and verified by Kentucky vital statistics. Of the 455 eligible treatment participants, 350 treatment participants were successfully located and interviewed, for a follow-up rate of 77%. Of the study treatment participants who were not interviewed, 12 (3%) refused to participate in the follow-up interview and 92 (20%) were unable to be located (i.e. absconded or not under supervision) or would not return UK staff's phone calls.

Table 3. FY 2010 Follow-up Rates for Clients Who Consented to Follow-up and Were Randomly Selected for Follow-up (n=350)

	Eligible	Completed	Percentage
Jail Sample	254	178	70%
Males	220	149	68%
Females	34	29	85%
Prison Sample	213	172	81%
Males	139	116	83%
Females	74	56	76%
Total	467	350	75%
Ineligible for follow-up (17 participants who moved out of state and 2 deceased)	12		
Final Total	455	350	77%
Refusals	12		3%
Unable to locate	92		20%

Report Format

This CJKTOS follow-up report includes 12 month post-release follow-up data for a randomly stratified sample of 350substance abuse treatment participants (178 jail treatment participants and 172 prison treatment participants) released during FY2009. 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

As shown in Table 4, the follow-up sample was very similar to CJKTOS treatment participants who were released but not randomly selected, which suggests that findings can be generalized to all treatment participants released from custody. The one exception is gender. Due to the small number of females release in FY2009 all the females were included in the follow-up study. Clients are mostly male (75.7%) with an average age of about 33 years old. Three-quarters (75%) are white and 42%are single and never married. Nearly three-quarters (74%) reported having a GED or 12 or more years of education, as shown in Table 4.

Table 4. Demographic Characteristics of Follow-up Sample (n=350) Compared to All Consenting CJKTOS Treatment Participants Released in FY2009

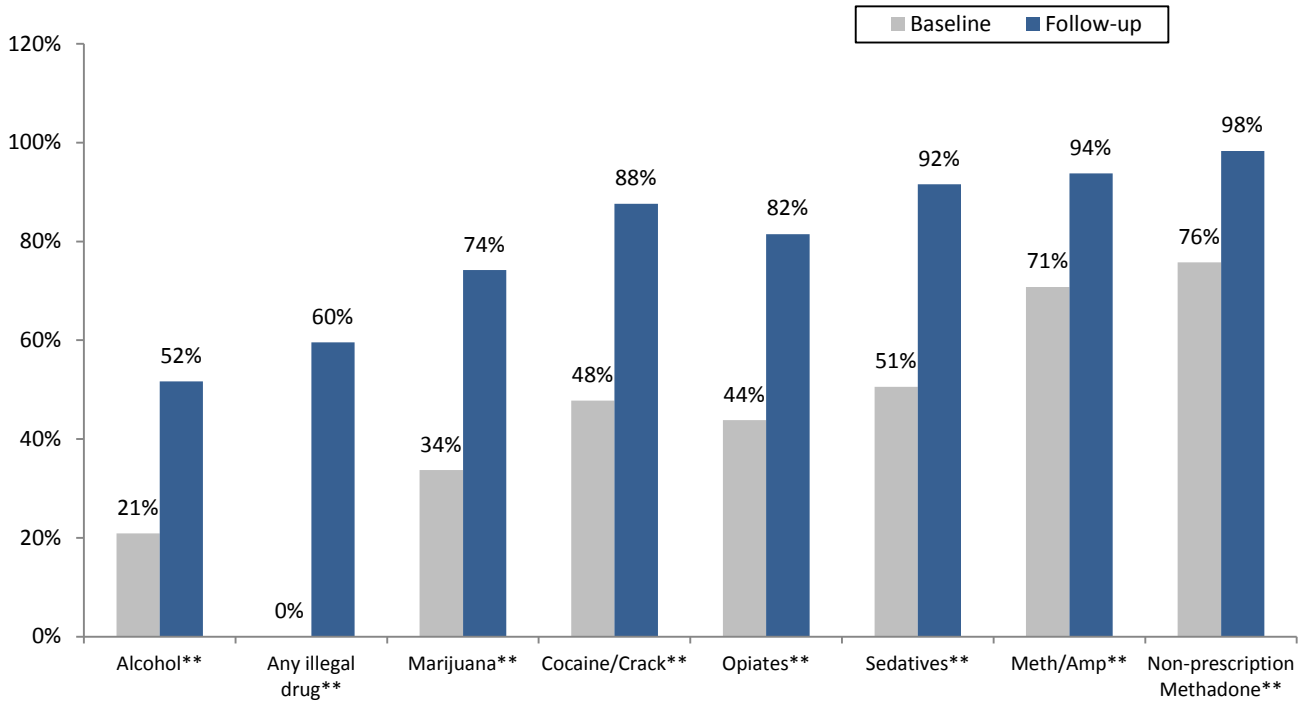
	Enrolled in Follow-up Study	Consenting CJKTOS participants
Average Age	33.3 (range 19 to 68)	33.3 (range 18 to 68)
Race/ethnicity	75.4% white	73.5% white
Gender	75.7% male	85.3% male
Education	73.7% GED or 12+ years of education	72.0% GED or 12+ years of education
Marital Status	42.3% Single, never married	42.6% Single, never married

Self-Reported Abstinence at 12-Months Post Release

Jail-based treatment participants

The percent of jail-released treatment participants who reported abstinence from any past 12 month illicit substance was 60% at follow-up compared to 0% at baseline. As noted in Figure 3, the increase in abstinence for all substances for jail released treatment participants was statistically significant at p<.001.

Figure 3. Increase in Percent of *Jail-released* Treatment Participants Reporting Abstinence from Baseline to Follow-up Previous 12 Months (n=178)

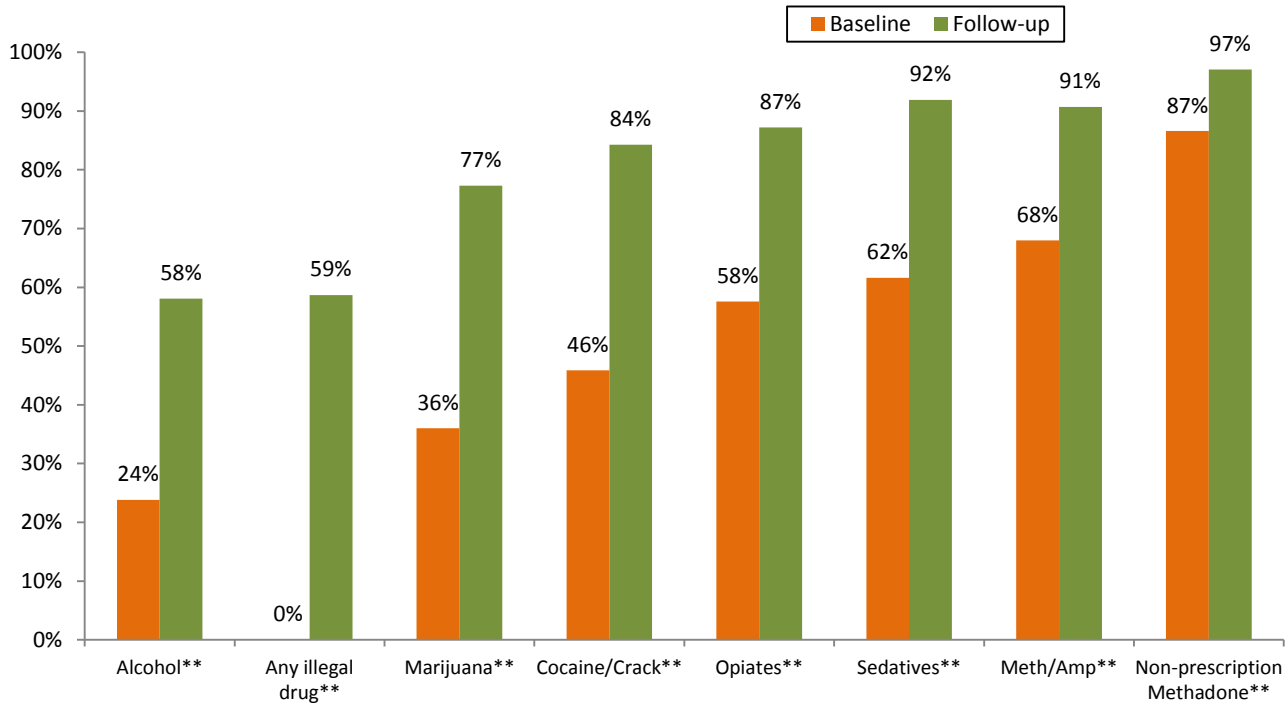


*Note: Significance established using McNemar's test for correlated proportions, **p<.001*

Prison-based participants

The percent of participants who received substance abuse treatment in prison who reported past 12 month abstinence was 59%at follow-up compared to 0% at baseline. As shown in Figure 4, the increase in abstinence for all substances for prison-released treatment participants was statistically significant at p<.001.

Figure 4. Increase in Percent of *Prison-released* Treatment Participants Reporting Abstinence from Baseline to Follow-up Previous 12 Months (n=172)

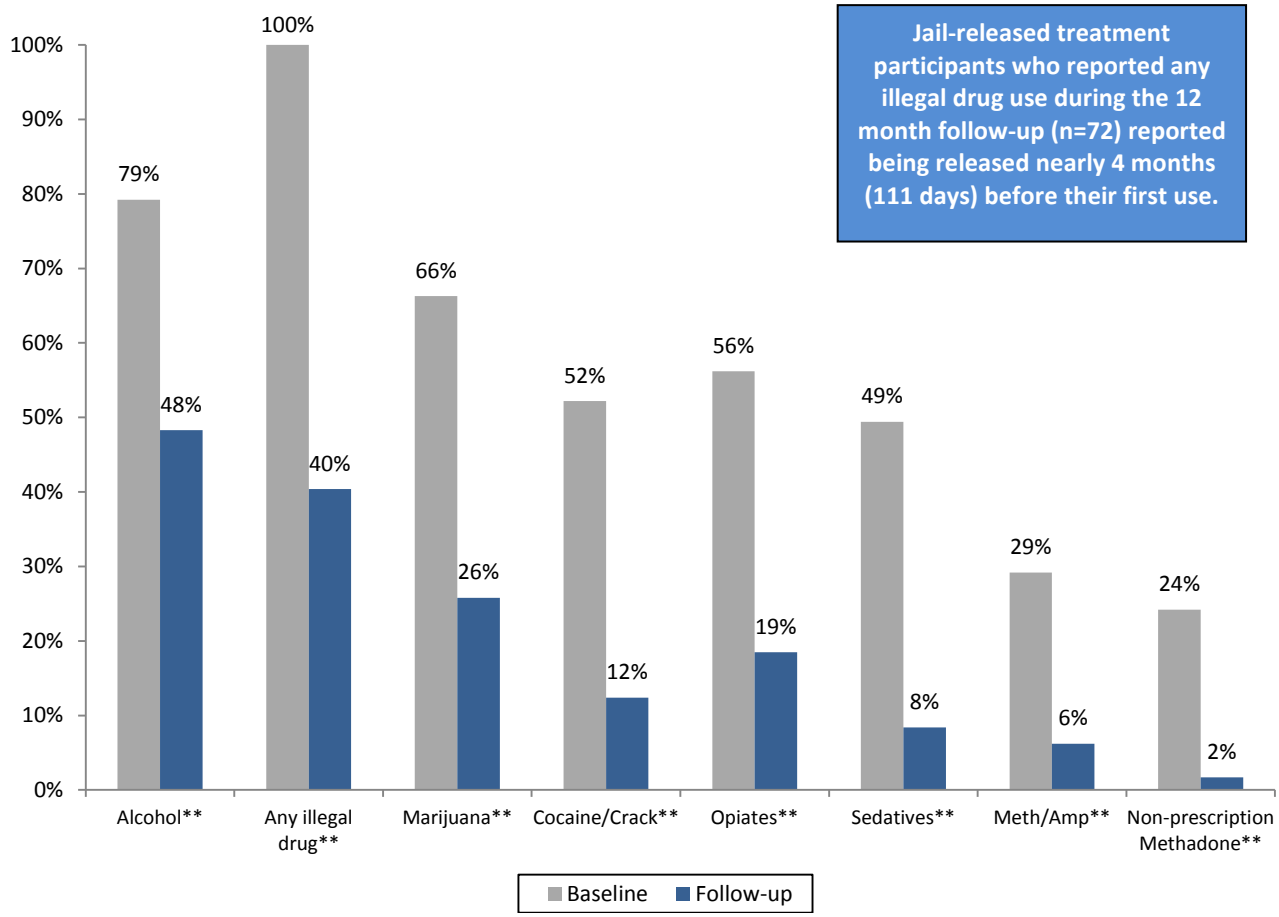


*Note: Significance established using McNemar's test for correlated proportions, **p<.001*

Substance use

Jail-based treatment participants. 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 60% (from 100% at baseline to 40% at follow-up). As shown in Figure 5, there was a statistically significant decrease in substance use for jail-released treatment participants (p<.001) for all substances. This is the first year, however, that a greater percent of participants reported opiate use at baseline (56%) compared to cocaine/crack use (52%). Another notable finding is that nearly a quarter of participants (24%) reported using non-prescription methadone at baseline. Jail-released treatment participants who reported any illegal drug use during the 12 month follow-up (n=72) reported being released nearly4 months (111 days) before their first use.

Figure 5. Decrease in Percent of *Jail-released* Treatment Participants Reporting Any Drug Use from Baseline to Follow-up Previous 12 Months (n=178)

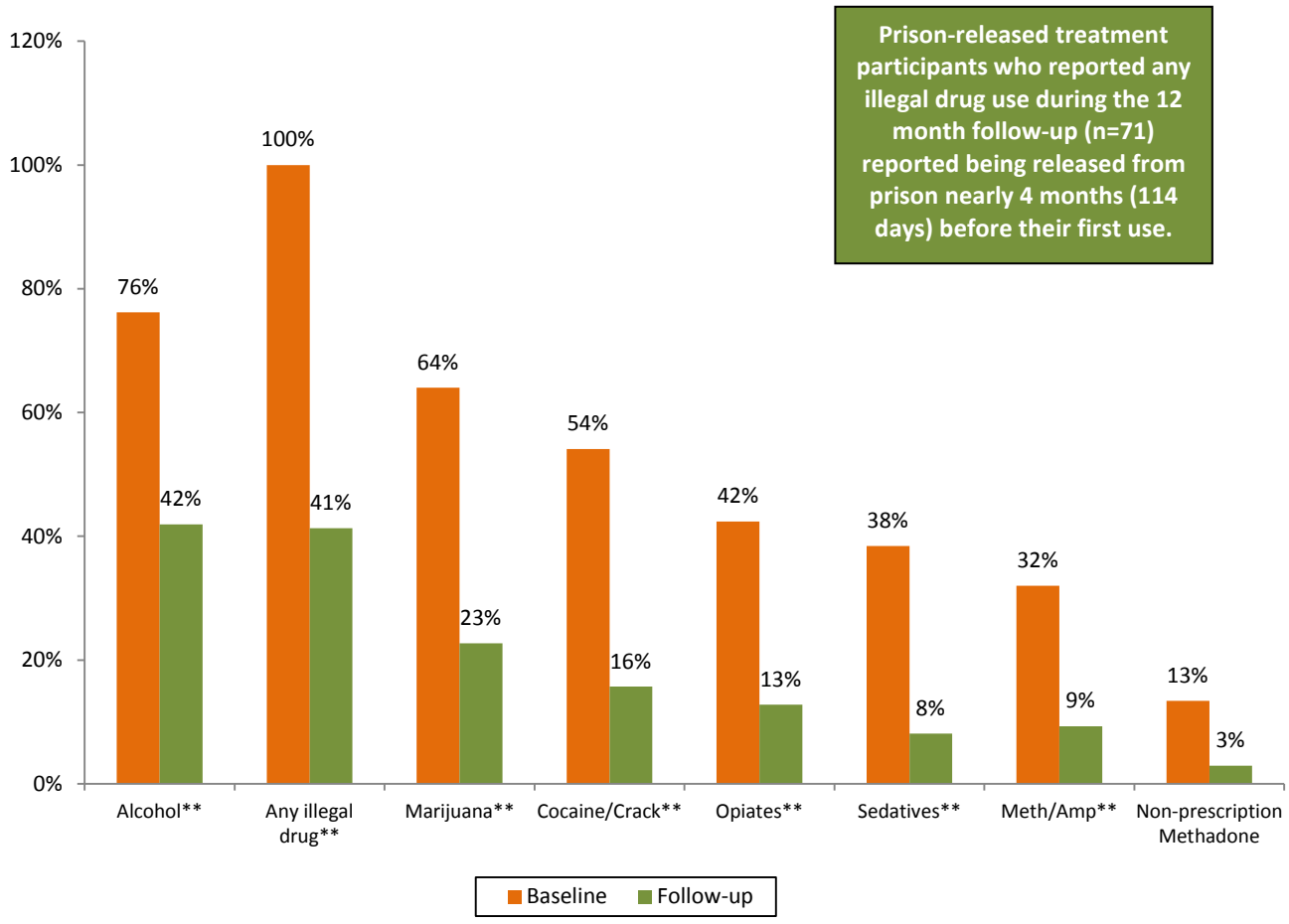


*Note: Significance established using McNemar's test for correlated proportions, **p<.001*

Prison-based participants

The percent of prison-released treatment participants who reported illegal drug use during the previous 12 months decreased by 59% from baseline to follow-up (100% at baseline to 41% at follow-up). As shown in Figure 6, 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=71) reported being released from prison nearly 4 months (114 days) before their first use.

Figure 6. Decrease in Percent of *Prison-released* Treatment Participants Reporting Any Drug Use from Baseline to Follow-upPrevious 12 Months (n=172)

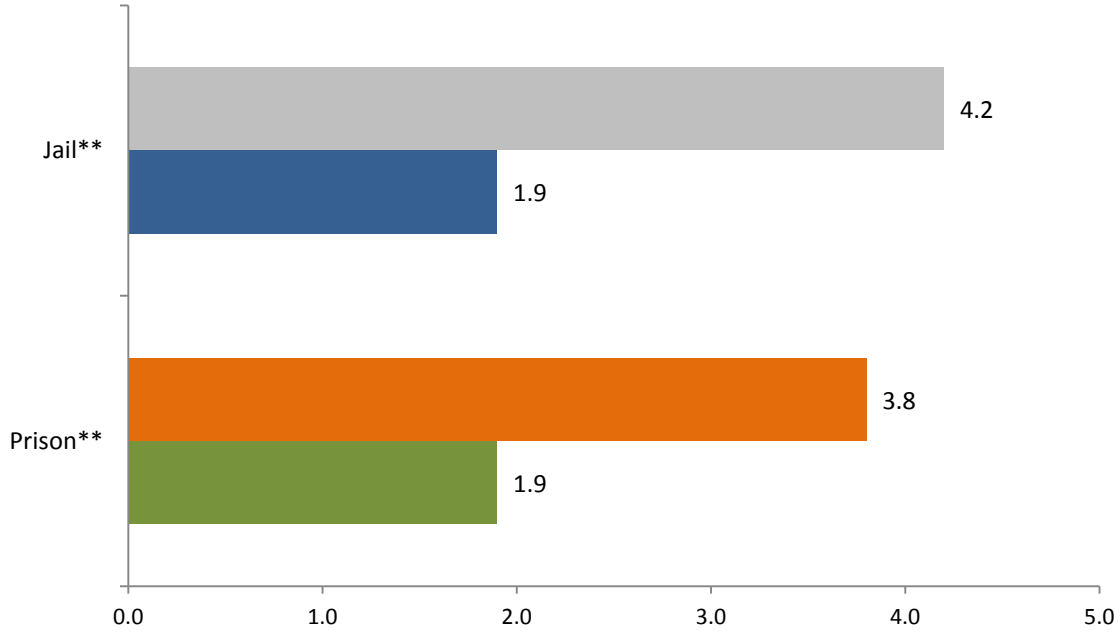


*Note: Significance established using McNemar's test for correlated proportions, **p<.001*

Number of drugs used

A little more than a third (40.9%) of the follow-up sample reported any substance use in the past 12 months at follow-up. Among those who reported any illegal drug use at follow-up (n=72 jail-released treatment participants and 71 prison-released treatment participants), the number of different drugs used decreased by 45% from baseline to follow-up. Figure 7 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 55% from 4.2 drugs at baseline to 1.9 drugs at follow-up. The average number of drugs used by prison-released treatment participants decreased by 50% from 3.8 drugs at baseline to 1.9 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 7. Average number of drugs used in the previous 12 months at baseline and follow-up among those who reported any use



*Note: This data is based on 72 participants released from jail and 71 participants released from prison. 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 at least one AA/NA meeting in the 12 months after their release. As shown in Table 5, 67% of jail-released treatment participants reported attending AA/NA in the previous 12 months and 74% of those who received substance abuse treatment in prison reported attending one or more AA/NA meetings. Jail-treatment participants reported attending an average of 3.9 AA/NA meetings in the previous 30 days and prison-released treatment participants reported attending an average of 4.2.

Table 5. 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=178)	66.9%	3.9 times
Prison (n=172)	74.4%	4.2 times
Total (n=350)	70.6%	4.0 times

Community Substance Abuse Treatment After Release

Twenty-eight percent of treatment participants reported enrolling in a community treatment program after release. Over a quarter (27.0%) of jail-released treatment participants reported receiving community treatment after release and 29.7% of prison-released treatment participants reported attending community treatment after release (see Table 6). Outpatient treatment was the most common community treatment reported.

Table 6. Percent of Treatment Participants Reporting Community Substance Abuse Treatment in the 12 Months Post-Release

	Percent Reporting Community Treatment	RDMC Data on Community Treatment
Jail (n=178)	27.0% (n=48)	15.2% (n=27)
Prison (n=172)	29.7% (n=51)	12.8% (n=22)
Total (n=350)	28.3% (n=99)	14.0% (n=49)

Recidivism at 12 month Follow-up

Recidivism has important implications for corrections. Recidivism is defined for this study as "being re-incarcerated on a felony charge within the 12 months following release." The Kentucky Department of Corrections (DOC) state database, Kentucky Offender Management System (KOMS) was used to examine if the 350 participants were re-incarcerated during the year following their release. The DOC counting rules were used (see page 23 for counting rule definition). As shown in Table 7, 20.2% of jail and 30.2% of prison based follow-up cases were reincarcerated in the 12 months after release. Study participants who were re-incarcerated during the 12 months following release were out in the community an average of 6.7 months before re-incarceration.

Table 7. Recidivism 12 Months Post-Release (n=350)

	Jail (n=178)	Prison (n=172)	Total (n=350)
Not Incarcerated	79.8%	69.8%	74.9%
Incarcerated	20.2%	30.2%	25.1%

Arrest Among Recidivists

The majority of study participants (69.3%) who were reincarcerated were serving time for only a parole or probation violation, as shown in Table 7. Just over a quarter (30.7%) of treatment participants who were re-incarcerated in the 12 months following release returned on new charge(s). Only 13 jail-released individuals (7.3% of all jail-released participants) and 14 prison-released (8.1% of all prison-released participants) were reincarerated due to new criminal charges. Overall, only 27 individuals or 7.7% of corrections-released participants were reincarcerated due to new criminal offenses.

Table 8. Arrests Among Recidivates at 12 Months Post-Release (n=88)

	Jail (n=36)	Prison (n=52)	Total (n=88)
Parole/Probation Violation Only	63.9%	73.1%	69.3%
New Charge(s)	36.1%	26.9%	30.7%

Victim Crime Cost Offset

Victim crime costs were developed using changes from baseline to follow-up for prison treatment. **A cost offset in this analysis is the estimated costs of crime and arrests for 12 months post-release compared to pre-incarceration measures for the targeted sample of prison inmates.** This analysis was conducted for prison participants since the length of time of incarceration was longer than the shorter sentences for jail participants, as well as available state information on daily costs of incarceration 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. Victim crime cost estimates are based on losses of productivity/time away from work, medical care, police and fire services, social services, property loss and damage, and loss of quality of life. Costs of nights incarcerated or "bed costs" were not included in these figures. Cost per arrest figures were adjusted to 2009 dollars using the Federal Reserve Bank of Minneapolis Consumer Price Index Calculator <http://www.minneapolisfed.org/index.cfm>.

Specifically, the victim cost per crime, based on the above estimates, was multiplied by the number of arrests at baseline (pre-incarceration) and follow-up (12 months post-release) for the type of crime to calculate the cost offset between the two time periods. As shown in Table 8, 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 $5,034,500 for the 172 substance abuse prison participants. When the total cost is divided by the number of participants, estimates show a projected **cost offset of $29,270 per year per prison substance abuse treatment participant.** While this is a considerable cost offset per treatment participant, it is important to note that this cost under-represents the overall cost offset from prison-based treatment because the approach does not include offsets from the cost to incarcerate (bed costs), employment, and community health as well as mental health service utilization costs.

Table 9. Cost Offset in Victim Crime/Arrest for Prison Treatment Participants (N=172)

Arrests by crime type	Estimated cost per arrest*	Self-reported number of arrests in the 12 months prior to the last incarceration	Cost of crimes at baseline	Self-reported number of arrests at follow-up (Past 12 months)	Estimated Cost of crimes at follow-up	Reduction in cost
Drug	$4,146	140	$580,440	27	$111,942	$468,498
Property	$17,855	68	$1,214,140	18	$321,390	$892,750
Violence	$41,397	25	$1,034,925	3	$124,191	$910,734
DUI	$27,252	24	$654,048	6	$163,512	$2,762,518
Total		257	$3,483,553	54	$721,035	$5,034,500
Estimated projection of victim crime cost offset per participant						$29,270

**Cost per arrest figures were adjusted to 2010 dollars using the Federal Reserve Bank of Minneapolis Consumer Price Index Calculator. Accessed 9/29/2010. <http://www.minneapolisfed.org/index.cfm>*

Currently, it is not possible to distinguish the cost offset for prison-based substance abuse treatment compared to incarceration alone. However, examining the reduction of $5 million in victim costs from crime during the first year after release suggests an important gain to public safety. Future analyses will compare recidivism costs for the prisoner treatment sample with a non-treatment sample.

Conclusions

The growth of prison and jail based treatment in Kentucky is indicative of the state's commitment to provide treatment for substance users. Not only has the Department of Corrections made a commitment to provide substance abuse treatment, but the Department has prioritized research and evaluation. 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 evaluate treatment for incarcerated substance abusers in Kentucky (see Staton-Tindall et al., 2007).

This FY2010 CJKTOS follow-up report presents 12-month post-release data which describes 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 data from a stratified random sample of participants who received substance abuse treatment and were released during fiscal year 2009. Specifically, this 12-month follow-up study examined a randomly selected representative sample of 350 males and females who participated in jail or prison-based treatment and consented to follow-up.

This FY2010 report shows that overall trends in the data are consistent from FY2007 to FY2010, particularly for demographics, substance use, and prior criminal history. However, self-reported baseline opiate use has risen in the past 3 years. Specifically, the percentage of the sample who reported opiate use in the 12 months prior to incarceration nearly doubled from 25.4% in FY2007 to 49.0% in FY2010. It was also noted that these trends reflect changing demographics from FY2007 – FY2010 with an increase in the number of white participants, with white being more likely to report opiate use compared to non-whites. Trends in recidivism were also noted. The percentage of individuals who were reincarcerated within the 12 months following release decreased by 19% from 31% in FY2008 to 25% in FY2010. It was also noted that changes in the gender composition of the follow-up samples should be considered in the reduction of recidivism with females being less likely to report being reincarcerated during the FY2010 dataset. Also notable, the percentage of participants who received substance abuse treatment in jail or prison who reported any past 12 month illegal drug use at follow-up decreased by 22% (from 46% in FY2007 to 36% in FY2009). These findings overall reflect success in substance abuse treatment programming in Kentucky with decreased recidivism and increased rates of abstinence following release to the community.

Reduced substance use

2010 findings indicate that there were statistically significant increases in the number of individuals who participated in corrections-based substance abuse treatment who reported abstinence from baseline to follow-up. The percentage of participants receiving jail-based substance abuse treatment who self-reported using any illegal drug during the 12-months after release decreased by 60% from before incarceration (100% at baseline compared to 40% at follow-up). The percentage of participants receiving prison-based substance abuse treatment who reported using any illegal drug during the 12-

months after release also decreased by 59% from before incarceration (100% at baseline to 41% at follow-up).

This reduced substance abuse reported by treatment participants is comparable to other samples of offenders leaving prison-based treatment. Although findings vary based on follow-up time frames, the literature presents 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 this sample (any illicit use reported at 41%), data in this report is based on a one-year follow-up versus the 3 month follow-up. In addition, Butzin, Martin, and Inciardi (2005) found 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 59% of participants remaining drug-free at follow-up.

Decreased recidivism

The majority of study participants were not re-incarcerated on a felony charge during the 12 months following their release. Over three-quarters (80%) of participants who received substance abuse treatment in jail and 70% of participants who received substance abuse treatment in prison were not re-incarcerated one-year post-release. Of the treatment participants who returned to custody, they were in the community an average of 6.7 months before re-incarceration. In addition, most offenders who were re-incarcerated (99%) reported being charged with a parole or probation violation rather than a new charge. Most importantly, only 7.7% were reincarcerated on a new felony offense. Consequently, the majority of reincarcerations were for parole or probation violation and revocation. This finding suggests a need to more closely examine the factors leading to revocation. For example, given the chronicity of substance abuse, if revocations are primarily related to by evidence of illegal drug use, there might be greater discretion on graduated sanctions to place greater restraint on parolees without using revocation.

Other national studies report similar recidivism rates. For example, 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 community outpatient and residential treatment did not return to prison in the 12 months following release. Burdon et al. (2007) defined recidivism as returning to prison at any time during the 12 months after release, similar to the way recidivism is defined in this study. However, it is unclear if Burdon et al. (2007) used the same approach which this study used to define recidivism. Even though there may be a limitation in comparison based on different recidivism definitions, more Kentucky prison participants (75%) where not incarcerated during the 12 months following release. It is also important to note that only 28% of Kentucky participants entered community treatment while all the participants in Burdon et. al (2007) study received outpatient or residential treatment after release.

A recent report from the California Department of Corrections found that recidivism rates were significantly reduced for offenders who completed in-prison and community-based substance abuse treatment programs (State of California, 2009). Overall, male offenders who completed both in-prison and community-based substance abuse treatment had a 25.4% returned to prison rate. This is the same as the 25% recidivism rate reported in this study. However, it is important to note again that only 28% of Kentucky participants received community treatment following release, whereas California participants received community substance abuse treatment following release (State of California, 2009).

Although the different 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>. This is slightly higher than the 25% reported in this study. It is important to note that the community supervision expectations for substance abuse treatment program parolees are different. The closer the parole or probation supervision, the greater the likelihood of detecting behaviors that can lead to revocation. Perhaps with increased supervision and regular urine screens, substance abuse 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. Again, as stated above, there is a possibility for re-examining rationales for revocation – particularly in regard to substance use alone in the absence of other criminal offenses.

Community treatment engagement

Although there is no mandatory aftercare following Kentucky prison and jail based substance abuse treatment, findings from this study indicate that most prison and jail treatment participants participated in self-help groups after release. Specifically, 67% of those who received substance abuse treatment in jail and 75% of those who received substance abuse treatment in prison reported attending at least one AA/NA meeting in the 12-months after release.

Twenty-eight percent of treatment participants enrolled in community treatment following release. Outpatient treatment was the most common treatment. This is lower than community treatment participation in another study of offenders which reported that 63% of treatment participants engaged in community treatment within the first 3 months after release (Prendergast, Greenwell, & Lin, 2007). However, this study focused on predominantly urban areas, which may limit comparability to Kentucky given the number of treatment participants paroled to rural areas where service opportunities are limited.

Study limitations

There are study limitations. 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 examine the reliability of self-reported follow-up drug use, CJKTOS staff examined data from the Department of Correction's information system, the Kentucky Offender Management System (KOMS), for positive drug tests. Of the 107 substance abuse treatment participants on supervision at the time of their follow-up interview reporting no drug use, 99 had no positive drug tests in KOMS. This provides a self-report accuracy rate of 93%. In this study, a higher rate of substance use appears from the participants' self-report than from urine tests. Furthermore, urine tests only identify substances used in the past week or so. 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 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 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.

Implications

This study supports the policy of corrections-based recovery interventions in the Kentucky Department of Corrections. Kentucky corrections based treatment programming has evolved to provide services in both prisons and jails which incorporates therapeutic community concepts. This approach has demonstrated success in the research literature (De Leon, 2000). The findings from this study indicate behavioral changes following substance abuse treatment in Kentucky's prisons and jails which include reductions in substance use, three-quarters not being incarcerated at the 12 month follow-up, and participation in community treatment and self-help groups after release. This report also raises questions about the role of discretion in reincarcerating parolees and probationers, given the small percent of recidivists who are reincarcerated due to new criminal offenses. Graduated responses to relapses should be considered to avoid the high cost of reincarceration.

Findings from this study also suggest important considerations for treatment including changes in the treatment population over time. Changes in drug trends should be examined in the context of changing the racial and gender composition of the treatment population. This may also have important implications for monitoring of drug offenders in the community. For example, it is possible that the increased number of white opiate users may be related to increased monitoring of prescription fraud in rural areas, as well as state monitoring systems such as KASPER. Thus, changes in drug trends and demographic composition of the sample have important implications for understanding the effectiveness of prison and jail-based treatment programs.

Findings in this report support the treatment of substance abusers in the criminal justice system with increased efforts to strengthen the transition from institution to community to maintain successes achieved in corrections-based treatment. This analysis of reductions in victim costs of crime from the year prior to incarceration to the year after release from jail or prison suggest important gains for public safety. Future reports will examine these cost offsets and gains in more detail and with comparisons to other populations.

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*.

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 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 on a felony charge within the 12 months following release.

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Appendix A.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, KY 40031
(502) 222-9441

Luther Luckett Correctional Complex
Dawkins Road, Box 6
LaGrange, Kentucky 40031
(502) 222-0363/222-0365

Marion Adjustment Center
95 Raywick Road
St. Mary, Kentucky 40063-0010
(270) 692-9622

Northpoint Training Center
P.O. Box 479, Hwy 33
710 Walter Reed Road
Burgin, KY 40310
(859) 239-7012

Otter Creek Correctional Center
Highway 306, P.O. Box 500
Wheelwright, Kentucky 41669-0500
(606) 452-9700

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

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

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

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

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

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

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) 464-2598

CJKTOS HALFWAY HOUSE DATA COLLECTION SITES

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

DismasCharities- St. Ann's
1515 Algonquin Parkway
Louisville, KY 40210
(502) 637-9150

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