

# KTOS 2012 ANNUAL OUTCOMES REPORT:

## FINDINGS AT A GLANCE





*"That was my first treatment [experience] but it changed my life."* 

- KTOS Follow-up Interview Client

The Kentucky Treatment Outcome Study (KTOS) is a comprehensive statewide baseline and follow-up research study that examines the effectiveness of publicly-funded substance abuse treatment. Results from the 2012 KTOS report indicate that clients improve in several ways from substance abuse treatment. As a result of these positive changes for the individual clients, the state as a whole receives significant social and economic cost savings.

### BACKGROUND

Overall, 1,667 clients agreed to participate, met eligibility criteria, and were selected for the follow-

up, and of those, 1,225 completed a follow-up survey. This means 74% of those selected into the follow-up sample actually completed a

74% Follow-up rate

follow-up interview. The following are characteristics of the clients who completed a follow-up interview:

- Clients were, on average, 33 years old, predominately White (90%), and about equally male (54%) or female (46%).
- Almost three-fourths of KTOS clients (72%) in the follow-up sample had a high school diploma/GED or higher at intake, while the remaining 28% had less than a high school diploma or GED.
- Over half of clients (52%) in the follow-up sample were from a metropolitan area, and 48% were from a non-metropolitan area.

### CHANGES FROM TREATMENT INTAKE TO FOLLOW-UP

KTOS clients experienced improvements after treatment in several key areas including decreased substance use, improved economic status, and increased supports.

### SUBSTANCE USE DECREASED

Following treatment, the percentage of clients reporting substance use decreased significantly.

Alcohol use significantly decreased by 21%. At intake, 42% of clients reported alcohol use and at follow-up, 33% reported alcohol use. 121% Alcohol



Illegal drug use significantly decreased by 57%. At intake, 56% of clients reported using illegal drugs, and at follow-up, 24% reported illegal drug use.

Due to the increasing concern about prescription opiate misuse in Kentucky, this subcategory of illegal drug use is also highlighted. Results from the 2012 KTOS findings indicate that



prescription opiate misuse significantly decreased by 64%. At intake, 35% of clients reported nonprescribed use of prescription opiates, and at follow-up only 13% reported non-prescribed use of prescription opiates.

To further illustrate the decrease in substance use, Figure 1 shows the decrease from intake to followup in the percentage of alcohol- or drug-using clients with composite substance abuse Addiction Severity Index (ASI) scores<sup>b</sup> suggestive of alcohol or drug dependence. The number of clients with an ASI score indicating alcohol dependence decreased by 29% from intake to follow-up. An even greater decrease (63%) was found in the number of clients

### with an ASI score meeting drug dependence from intake to follow-up.

FIGURE 1. PERCENT REDUCTION FROM INTAKE TO FOLLOW-UP IN CLIENTS MEETING CRITERIA FOR CS SCORE FOR ALCOHOL AND DRUGS AT FOLLOW-UP<sup>a</sup>



<sup>a</sup>—Significance established using z test for proportions; \*\*p < .001.

<sup>b</sup> The Addiction Severity Index (ASI) composite scores range from 0 (no problem) to 1 (extreme severity) based upon the frequency of past 30-day substance use, the degree of distress and problems associated with the use, the cost of substance use (for alcohol) and the perceived need for treatment for the problem. These scores at specific levels have been equated with dependence (Lehman, Myers, Dixon, & Johnson, 1996; Rikoon et al., 2006)

*"I learned that I had triggers to relapse. I learned how to control my anger. I learned how to be a man."* 

- KTOS Follow-up Interview Client

### ECONOMIC STATUS IMPROVED

There was overall improvement in the economic status of the clients following treatment including: the percentage of clients reporting full-time employment, average monthly income, and average number of days clients reported working in the past 30 days.

For the overall sample, the percentage of clients reporting full-time employment increased by 24% from 29% at intake to 36% at follow-up.

Significant increase in the average number of days paid for working Significant increase in fulltime employment

At intake, KTOS clients reported working an average of 7 days in the past 30 days. At follow-up, this average increased to 10 days which is a 48% significant increase. At intake, clients reported an average income of \$679 in the past month and at follow-up this number had increased by 44% to \$976.



Another important finding was that the estimated annual income for KTOS clients was extremely low at intake. On average, clients had an annual income of \$8,148, well below the poverty line for both an individual and a family. This means that the client was likely unable to afford substance abuse treatment on their limited income. Thus, publiclyfunded treatment was the only option for many substance-using individuals.

Based on reported monthly income, KTOS clients were estimated to have earned an average annual income of \$8,148. This income figure suggests that these clients would not have been able to afford substance abuse treatment without publiclyfunded treatment as an option

### CRIMINAL INVOLVEMENT REDUCED

Criminal involvement, in terms of arrests and nights spent in jail or prison, was also reduced after treatment.

Overall, over half (59%) of the KTOS clients reported an arrest in the 12 months before treatment intake. At follow-up, this percentage had decreased by 44% to 33%.





The majority of clients (58%) reported spending at least one night in jail or prison in the 12 months before treatment intake. At follow-up, 37% reported having spent at least one

night in jail in the past 12 months, which is a 36% decrease.

#### IMPROVED RECOVERY SUPPORTS

Protective factors for substance abuse recovery include supports such as mutual-help recovery groups like Alcoholics Anonymous (AA) or Narcotics Anonymous (NA).

Sianificant increase in percentage of clients attending mutual-help recovery

The percentage of clients who reported the use of mutual-help recovery groups like AA or NA increased by 39% from 36% at intake to 50% at follow-up.

"The counselors really helped me open up and let go of the past. They helped me look forward to my future."

- KTOS Follow-up Interview Client

### TREATING INDIVIDUALS SAVES KENTUCKY **TAXPAYERS MONEY**

By calculating the annual estimated cost of state-funded substance abuse treatment services received by KTOS clients and comparing that cost to the overall estimated societal costs of drug and alcohol abuse, we find a savings of \$4.24<sup>\*</sup> for every dollar spent on treatment.



**Estimated annual** savings for every dollar spent on treatment

**CONCLUSION** 

The 2012 Kentucky Substance Abuse Treatment Outcome Study (KTOS) presents findings on outcomes for 1,225 adults who received treatment in publicly-funded community-based substance abuse treatment programs in Kentucky between July 2009 and June 2010 and who completed a follow-up interview between July 2010 and June 2011. Clients in this study participated in a variety of treatment modalities including: residential, inpatient, outpatient, intensive outpatient, case management, detoxification, and other services such as longer term transitional living and halfway houses.

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cost of substance abuse to society. At follow-up, clients reported decreased substance use, improved economic status, reduced criminal involvement and improved recovery supports. As a result of these improvements for the individual clients, the state receives both social and economic savings when the overall cost of substance abuse to society is considered.

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obtained through full statewide participation in outcome studies like KTOS. Statewide outcome measures allow for estimates of cost offsets from treatment and support appropriate state funding for publicly-funded substance abuse treatment programs, which are critically important reasons to continue monitoring drug use trends and program effectiveness on an annual basis.

<sup>\*</sup> Cost of substance abuse treatment based upon services reported by the community mental health centers to the Kentucky Department of Behavioral Health, Developmental and Intellectual Disabilities (DBHDID) and cost of services reports from the DBHDID. For a full description on how the cost savings is derived, please see the full 2012 KTOS Annual Outcomes Report at http://cdar.uky.edu/ KTOS/

Suggested citation: Logan, TK, Scrivner, A., Parish, D., Stevenson, E., & Cole, J. (2012). KTOS 2012 Outcomes Report: Findings at a Glance. Lexington, KY: University of Kentucky, Center on Drug and Alcohol Research.

Findings from the full KTOS Annual Outcomes Report 2012 can be downloaded from http://cdar.uky.edu/KTOS/