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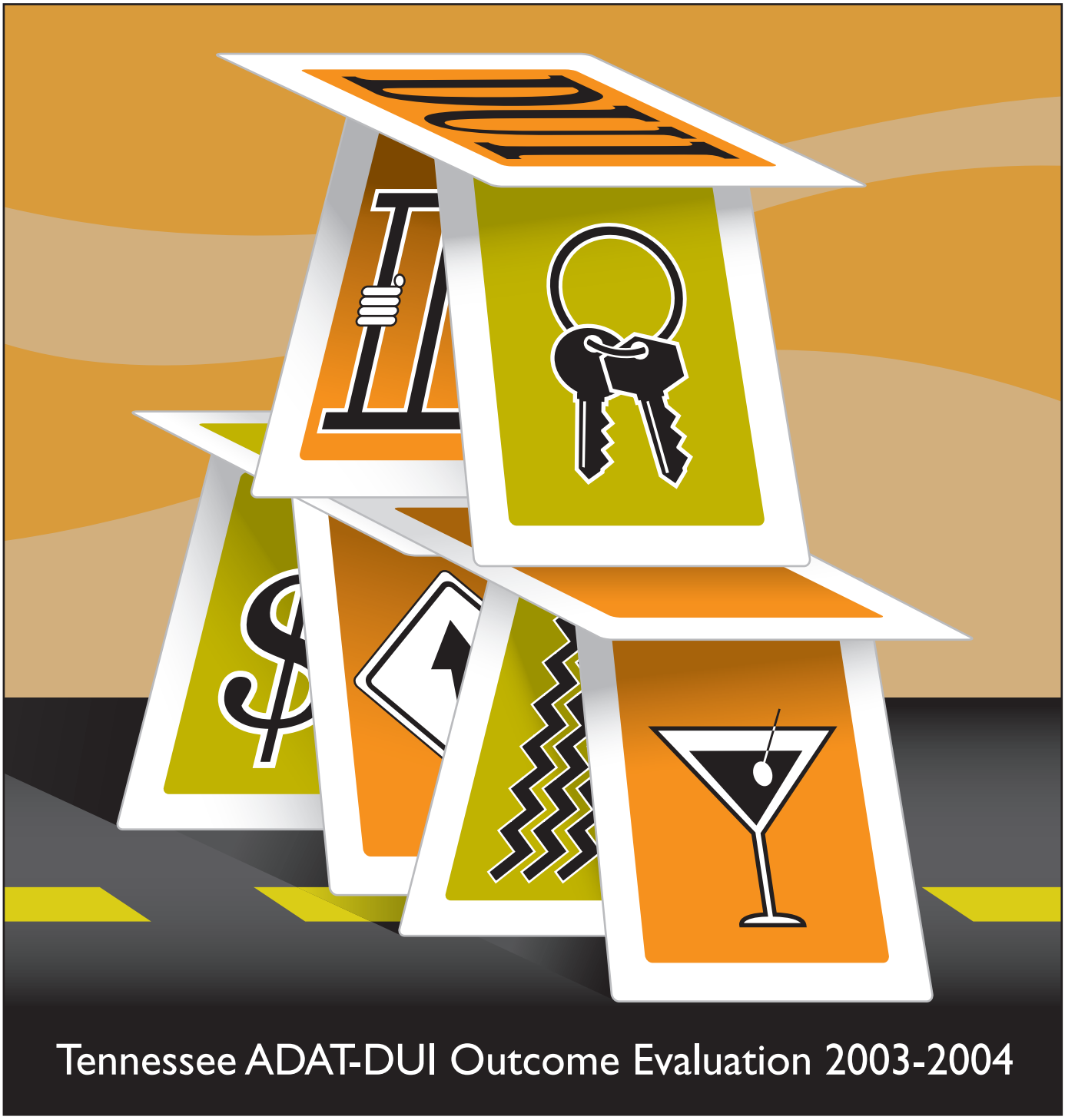
Satish Kedia



Tennessee ADAT-DUI Outcome Evaluation 2003-2004

Institute for Substance Abuse Treatment Evaluation, The University of Memphis
in partnership with
Bureau of Alcohol and Drug Abuse Services, Tennessee Department of Health

Treatment Effectiveness for Repeat DUI Offenders in Tennessee (2003–2004)

Satish Kedia, Ph.D.

with assistance from

Heidi Kenaga, Ph.D.
Priyanka Jani, M.S.
Sharese Willis, M.A.

Institute for Substance Abuse Treatment Evaluation (I-SATE)
The University of Memphis

in partnership with the

Bureau of Alcohol and Drug Abuse Services
Tennessee Department of Health

Institute for Substance Abuse Treatment Evaluation (I-SATE)
The University of Memphis
316 Manning Hall
Memphis, Tennessee 38152-3390
Phone: (901) 678-1753
Fax: (901) 678-0707
www.isate.memphis.edu

Bureau of Alcohol and Drug Abuse Services
Tennessee Department of Health
26th Floor, William R. Snodgrass Tennessee Tower
312 Eighth Avenue North
Nashville, Tennessee 37247-4401
Phone: (615) 741-1921
Fax: (615) 532-2419
www2.state.tn.us/health/A&D

Tennessee Association of Alcohol and Drug Abuse Services
TAADAS Statewide Clearinghouse
1800 Church Street, Suite 100
Nashville, Tennessee 37203
Phone: (615) 780-5901
Fax: (615) 780-5905
www.tnclearinghouse.com
Redline Phone: (800) 889-9789

Special appreciation for their support

Phil Bredesen
Governor
State of Tennessee

Kenneth S. Robinson, MD
Commissioner
Tennessee Department of Health

Stephanie W. Perry, MD
Assistant Commissioner
Bureau of Alcohol and Drug Abuse Services

Pat Wilson
Director, ADAT Programs and Program Accountability
Bureau of Alcohol and Drug Abuse Services

Gwen Shanks
Interim Director, Finance and Systems
Bureau of Alcohol and Drug Abuse Services

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ISBN: # 0-09718291-7-9

Printing publication number: UOM 86-0405/3.5M

Acknowledgments

A number of individuals have worked long hours in close collaboration to carry out the many activities required to produce this evaluation report. I would like to convey my greatest appreciation to the Bureau of Alcohol and Drug Abuse Services of the Tennessee Department of Health for their support and provision of funding for the project and express my gratitude to Dr. Stephanie W. Perry, Pat Wilson, and Gwen Shanks for their ready assistance and continuous feedback. Further, this report would not be possible without the commitment of those personnel in partnering treatment agencies to secure clients' consent to participate in the follow-up study.

I am pleased to acknowledge the diligence and hard work of the I-SATE research team in producing this report: interviewers Oletta Tucker, Martha Brown, Felicia Curry, Earlean Jones, Ruby Burton, and Laverne Perkins; assistant to the director Ava Haynes; data assistants Wanda Laird and Sowmya Kodimela; data manager Priyanka Jani; statistician George Relyea; research associates Heidi Kenaga and Julie Grady; editorial assistants Linda Sadler and Sharese Willis; production analysts Kavita Kolli and Smitha Dandge; graduate assistants Stephanie Gann, Jennifer Kadrovich, and Malavika Kodur; systems analysts Krishna Rayi and Thirumal Munukuntla; and graphic designer Rick Jurczyk.

Executive Summary

This report, issued by the Institute for Substance Abuse Treatment Evaluation (I-SATE) at The University of Memphis, evaluates the effectiveness of substance abuse treatment for repeat DUI offenders whose treatment was funded by the Alcohol and Drug Addiction Treatment–Driving Under the Influence (ADAT-DUI) Program in Tennessee. The ADAT-DUI Program, established in 1998, is funded by sales of DUI-confiscated vehicles, DUI fines, and revenues from the Tennessee Department of Safety to provide mandatory treatment for repeat offenders who cannot afford to pay for it.

All substance abuse treatment programs in Tennessee are designed to rehabilitate substance abuse clients. In addition to decreasing the incidence of DUI, the primary goals of treatment in the state include

1. helping clients reduce their use of or abstain from alcohol and/or illegal drugs;
2. reducing unlawful behavior, arrests, and state criminal resource expenditures;
3. increasing clients' employment and workplace productivity;
4. improving clients' family and community lives, their relationships with others, and their mental and physical health;
5. facilitating a stable and drug-free living environment;
6. expanding clients' life-management skills needed to build a satisfying lifestyle; and
7. decreasing the use and costs of substance abuse-related health care.

The ADAT-DUI clients assessed in this report were enrolled during 2003 in publicly funded treatment centers under contract to the Tennessee Department of Health's Bureau of Alcohol and Drug Abuse Services. Participating clients were treated in five modalities of care: outpatient, intensive outpatient, halfway house, residential rehabilitation, and/or detoxification. At the time of admission to treatment, facilities' staff asked clients to voluntarily participate in a follow-up evaluation study and be interviewed after 6 months. Staff gathered admission data from consenting clients, and I-SATE interviewers collected follow-up data via telephone 6 months after admission. The eligible follow-up sample comprised 227 individuals, 78.4% of whom (n=178) completed interviews. A complete discussion of the outcomes evaluation methodology used by I-SATE is described in chapter 2.

What follows is a summary of the 2003–04 report findings, revealing client demographics, substance abuse history, treatment features, and treatment outcomes, including abstinence rates and quality of life indicators:

- The follow-up study population of ADAT-DUI clients comprised 178 respondents. Male respondents significantly outnumbered females (82.6% to 17.4%), and White clients composed 88.8% of the study population vs. 10.1% African Americans and 1.1% of other ethnicities.

- All ADAT-DUI clients were adults, over one third (37.6%) of whom were between the ages of 35 and 44. About 64% had at least a high school diploma, and half reported earning less than $8,500 in the year before follow-up.

- A little over half (53.9%) of clients had at least one child, and 76% of these clients had a child who was a minor. Exactly half reported having no dependents (people who relied on them financially); another 31.5% had 1 to 2 dependents.

- More than three fourths (77%) of the clients began abusing substances as minors; two thirds (67.4%) reported having a family member who abused substances. Almost all clients (97.8%) reported that they did not live with a substance abuser after treatment.

- All ADAT-DUI clients were ordered by the court to undergo treatment; the majority (70.8%) were primarily being treated for alcohol abuse. For a little more than a fifth of clients (20.8%), alcohol with drug abuse was their combined reason for treatment. Clients with a dual diagnosis comprised 5.1% of the study population, and those abusing only drugs made up 3.4%.

- Approximately half (51.1%) of clients had to wait for treatment following the court order, but more than two thirds (68.2%) of those who waited were admitted within 14 days.

- Most clients (80.3%) stayed in treatment between 16 and 30 days, and the overall treatment completion rate was quite high, 97.8%. A large majority (90.4%) of clients received special skills training, including relapse prevention, coping skills, cultural competency training, and vocational skills. Relapse prevention was chosen by 97.5% of clients.

- One fifth (20.8%) of ADAT-DUI clients participated in aftercare, and most (62.2%) said that it had been "very helpful." A higher percentage of females than males (25.8% vs. 19.7%) and African Americans than Whites (44.4% vs. 18.4%) attended aftercare. All clients in aftercare reported having at least a high school education.

- Over two thirds (69.1%) of clients participated in Alcoholics Anonymous (AA) or Narcotics Anonymous (NA), with about half (52.8%) going to meetings 1 to 2 times a week. More than three fifths (62.6%) found AA/NA "very helpful."

- More males than females (70.1% vs. 64.5%) and more Whites than African Americans (69.6% vs. 61.1%) attended AA/NA. Education level was positively correlated with participation: 85.7% of those who had gone to college versus 70.4% of those with a high school and 60% of those with a middle school education chose to attend AA/NA.

- Almost three fourths (70.2%) of ADAT-DUI clients were abstinent 6 months following their admission to treatment. By the time of follow-up, alcohol abuse was reduced significantly, from 92.1% to 28.7%. Marijuana/hashish abuse dropped from 16.9% to 1.7%, and cocaine abuse dropped from 9% to 1.1%. Abuse of other kinds of drugs, reported by fewer than 10% of the clients at the time of admission, decreased to less than 2% by the time of follow-up. The frequency with which clients abused substances also decreased: daily use decreased from 78.1% to 3.9%.

- Following treatment, males had a higher abstinence rate (71.4%) than females (64.5%), and Whites had a higher rate (71.5%) than African Americans (55.6%). Education levels were not positively correlated with abstinence rates: 100% of those who had attended middle school were no longer using alcohol and drugs, whereas 72.2% of those who had gone to high school and 61.9% of those who had attended college reported abstinence.

- Participation in aftercare and AA/NA had a positive effect on abstinence. Abstinence rates were greater (77.2% and 75.7%, respectively) for participants in these recovery groups than for the general client population (70.2%).

- ADAT-DUI clients experienced significant reductions in unemployment (from 60.1% to 32.6%) following treatment. The number of clients who found full-time work increased 71.7% (from 29.8% to 51.1%), and those in part-time positions shot up from 1.7% to 10.7%. Nearly 70% of clients felt their performance at school or work had improved since treatment.

- In 2003–04, the percentage of clients living with their immediate family dramatically increased from 7.9% to 60.1%. However, clients' marital status altered little, with the biggest change in the percentage of those reporting being married (21.9% to 25.8%).

- All clients had an arrest record during the 2 years prior to admission, and nearly all (92.1%) had a revoked driver's license for a DUI conviction. Only 6.2% of the clients had been arrested following treatment, a 4-year low. Of those clients who had been rearrested, the two leading reasons were major driving violations (18.2%) and Driving Under the Influence (18.2%).

- Very few ADAT-DUI clients were involved in domestic violence, but after treatment the percentages of those involved declined, both as perpetrators (from 14.0% to 1.1%) and as victims (from 14.0% to 1.7%).

- Most of the clients (86.0%) felt their physical health had improved since treatment, with 14.6% rating their overall condition as "excellent" and 35.4% rating it "very good." Still, over two fifths (42.7%) said they had experienced a mental health problem, with 60.5% of those reporting having serious anxiety or tension in the 30 days before the follow-up, 57.9% reporting serious depression, and 34.2% reporting having trouble understanding concepts. Almost half of clients were taking prescribed medication.

Preview of Report

This report is organized into four chapters: chapter 1 details research on treatment effectiveness for DUI offenders nationwide, discusses DUI programs in various states, and addresses the Tennessee ADAT-DUI Program in particular, including a statement of the outcomes evaluation goals; chapter 2 describes the methodology employed by I-SATE to produce this evaluation; chapter 3 reports all treatment outcomes, performance indicators, and abstinence rates achieved by the surveyed clients; chapter 4 offers some qualitative responses to treatment by ADAT-DUI clients in Tennessee and concludes with a discussion of the cost-effectiveness of treatment over more punitive measures such as incarceration. This report ends with two sections comprising references and a list of those treatment providers participating in the ADAT-DUI Program in Tennessee.

Copies of this report are available at http://www.isate.memphis.edu/Reports

Chapter 1

Introduction

Individuals Driving Under the Influence of alcohol or drugs (DUI) represent one of the most significant public health hazards in the United States. In 2002, 14.2% of the population 12 and older, or 33.5 million people, reported driving while impaired by alcohol, and 11.0 million reported driving under the influence of an illicit drug (Substance Abuse and Mental Health Services Administration, 2003, p. 5). In 2002, 17,524 individuals died in alcohol-related traffic accidents, an average of one every 30 minutes; this makes drunk driving the most frequently committed violent crime in the United States (MADD, 2004). It is estimated that approximately 30% of the population will be involved in an alcohol-related crash during their lifetime (National Highway Traffic Safety Administration, 2001a), and 97% of Americans consistently report that they feel drunk driving is a threat to them and to their families (National Highway Traffic Safety Administration, 2003b, p. 8).

The societal costs of DUI are high. In 2000, accidents involving driving under the influence of alcohol cost taxpayers $114 billion. Over $51 billion is attributed to medical expenses, lost work, public services, and property damage, and the remaining $63 billion is the toll upon victims: physical pain and suffering, restriction of activities, and loss of quality of life (Taylor, Miller, & Cox, 2002a, p. 1).

In 2002, an average of one person every 30 minutes died in an alcohol-related traffic accident.

In recent years, federal and state governments have passed legislation to combat trends in alcohol-impaired driving. Raising the legal drinking age to 21, enforcing zero tolerance laws, and instituting license revocation were all measures that helped reduce alcohol-related traffic deaths in the 1980s (U.S. Department of Health and Human Services, 2000, p. 381). However, after several years of steady decline during the mid-1990s, the number of accident fatalities rose in the latter part of the decade (National Highway Traffic Safety Administration, 2003a, p. 2). By 2001, a Gallup Organization poll revealed that 66% of Americans felt "reducing drunk driving is extremely important in terms of where tax

dollars should be spent" (National Highway Traffic Safety Administration, 2003b, p. 8).

Two thirds of Americans believe that tax dollars should be appropriated to reduce the incidence of drunk driving.

Addressing the problem of repeat offenders is particularly urgent. Almost one third of all DUI arrests involve drivers who have a previous DUI record, and statistically they are more likely to cause a fatal accident than those with no prior DUI conviction (National Highway Traffic Safety Administration, 2004, p. 1). The courts have imposed stricter penalties specifically designed to discourage such repeat offenders, including confiscation of vehicle or imposition of ignition interlocking devices, mandatory jail sentences, participation in victim impact panels, and required substance abuse treatment (U.S. Department of Health and Human Services, 2000).

Treatment Effectiveness for DUI Offenders in the United States

In the 1970s and 1980s, several studies evaluating the outcome of short-term substance abuse educational and treatment programs in various areas of the United States found that such interventions had little impact on offenders' subsequent behavior or driving habits. However, these results did not necessarily provide evidence for the failure of education or other interventions. Rather, researchers speculated that the findings indicate that the target population—problem drinkers—may require more intensive and lengthy rehabilitation in order to affect permanent change.

One of the earliest studies (Malfetti & Simon, 1974) assessed New York's DWI-Counterattack program, a re-education and rehabilitation protocol in which offenders could voluntarily enroll rather than lose driving privileges. Using a simple pre-test and post-test design with a population of 335 subjects, the study found that clients' knowledge of and attitudes about the consequences of alcohol consumption on driving changed significantly after completion of the program.

Early studies on DUI offenders suggested that short-term educational programs were less successful than intensive, court-mandated rehabilitation with multiple modalities.

Scoles and Fine (1977) assessed outcomes for the Educational Safe Driving School in Philadelphia, a 4-hour-a-week set of classes meeting for 4 consecutive weeks about the hazards of drinking and driving. They found that there were no statistically significant differences between the drinking and behavior patterns of 122 first-time DUI of-

fenders who completed the program and those in a control group who had not. Scoles and Fine speculated that a "court-mandated commitment" to a "rehabilitation program [with] multiple modalities of treatment" (p. 636) was more likely to be effective than the short-term educational program they assessed.

Swenson, Struckman-Johnson, Ellingstad, Clay, and Nichols (1981) examined outcomes for two programs—motivation and therapy workshops of less than a month's duration—to which DUI offenders in Phoenix, Arizona, were most frequently sent. They compared outcomes for these offenders with the effects of a minimal-exposure regimen consisting of one 30-minute meeting at which a Home Study Guide was distributed and discussed. Results of their research on a study population of 351 persons at 6, 12, and 18 months following treatment revealed that the short-term workshops had no more effect than the minimal-exposure regimen on subjects' alcohol-related behavior and problems as well as social adjustment. The authors pointed out, however, that the study's use of a minimal-exposure group rather than a "no-treatment" group as a control made it difficult to establish the true effects of the motivation and therapy workshops. In any event, they concluded that "it may be unreasonable to expect short-term rehabilitation to modify the behavior of problem drinkers and alcoholics" and recommended further research into the efficacy of expanding the workshop approach used in Arizona.

Examining Washington State's deferred prosecution (DP) program by which certain DUI offenders could be referred to alcoholism treatment in lieu of criminal prosecution, Salzberg and Klingberg (1983) focused on DP's impact on subsequent driving behavior. The study population comprised 1,245 DP subjects and 949 control subjects who received the conventional judicial sanctions for a DUI conviction. During the 3-year period studied, 36% of the DP group were involved in alcohol-related violations, compared to 30% of the control group. Salzberg and Klingberg commented that while the data from their study did not support the DP program, it clearly indicated that "present treatment programs, considered in the aggregate, may not be providing the type of services required to change drinking and driving behavior" (p. 306). Working with a study population of 2,296 individuals, Siegel (1985) assessed outcomes for three groups in Ohio: offenders enrolled in Dayton's Weekend Intervention Program (WIP), a brief but concentrated regimen of group and individual counseling sessions from Friday through Sunday; clients in a longer nonresidential educational program in Cleveland and elsewhere in the state; and a control group of individuals with a DUI conviction who were not currently in a rehabilitation program. Siegel found that the control group had a recidivism rate of 21.5%, whereas the WIP and education groups were significantly lower, 13.5% and 10.5%, respectively (p. 681).

More recent studies have confirmed these earlier researchers' speculation that longer and more intensive treatment programs with a multimodality approach to address the specific problems of individual offenders would be necessary to significantly lower recidivism rates. Further, the efficacy of such therapeutic interventions, rather than the application of judicial sanctions, is supported by research. For example, Little, Robinson, and Burnette (1990) found that incarceration alone does not encourage DUI offenders to adopt moral reasoning as a means to curb impulsive behavior.

Around the same time, Voas and Tippetts (1990) studied outcomes of two DUI protocols in Prince George's County, Maryland: a brief residential/rehabilitation program that prepared offenders for referral to an appropriate community treatment facility and a 1- to 2-year monitoring program with weekly, face-to-face meetings with experienced alcohol counselors. They compared them with the results of an untreated group. The study followed 8,000 offenders over 2 years, using State Motor Vehicle Department records to document who had been rearrested for DUI during that time. The researchers found that, 2 years after conviction, first-time offenders who had not received either treatment option had five times the recidivism rate of first-time offenders in both treated groups; untreated multiple offenders had recidivism rates 50% higher than offenders who received either treatment option (p. 22).

Voas and Tippetts also noted that, unlike the untreated group, treated offenders were subject to automatic license revocation (ALR) and speculated that this may well have been a factor in their lower recidivism rates. This view was substantiated by a U.S. Department of Health and Human Services study conducted around the same time: the most effective way to reduce DUIs is to mandate treatment in combination with other sanctions such as ALR (2000, p. 385).

A study of 8,000 DUI offenders in Maryland found that recidivism rates were 5 times higher after 2 years for those who remained untreated.

For example, an 8-year study of the New Jersey Countermeasures Program, which combines ALR with education and treatment, reported that those who completed the program had significantly lower rates of recidivism than those who did not (Green, French, Haberman, & Holland, 1991). Further, a meta-analysis of 215 studies that evaluated the impact of treatment programs on the rehabilitation of DUI offenders predicted that "programs in which all participants (multiple and first-time offenders) receive education, counseling, and follow-up supervision in conjunction with licensing sanctions will be the most effective in reducing recidivism and crashes"

(Wells-Parker, Bangert-Drowns, McMillen, & Williams, 1995).

Research indicates that programs combining treatment and other penalties, such as licensing sanctions and/or mandatory ignition interlock devices, may be the most effective in reducing recidivism.

Other combinations may be even more effective. Recent studies indicate that the problems associated with ALR (e.g., the willingness of offenders to drive without a license) might be addressed by additional measures. For example, Beck, Rauch, Baker, and Williams (1999) tracked the rearrest records for multiple offenders in two groups: 698 persons seeking license reinstatement who were required to use an ignition interlock device in their vehicle and 689 persons in a control group who received a standard restricted driver's license and mandatory participation in Maryland's Drinking Driving Monitoring Program. During the first year, offenders' participation in the interlock program reduced their risk of committing an alcohol-related traffic violation by about 65%. In a recent meta-analysis of state programs instituting vehicle-action measures such as impoundment or immobilization in an effort to curb the number of DWS (Driving While Suspended) offenders, Voas and DeYoung found lower recidivism rates for all programs, including reductions in rearrests as high as 60-80% in Ohio (2002).

State DUI Initiatives

Forty-three states now require substance abuse education or treatment in tandem with other directives for DUI offenders (MADD, 2004), and studies evaluating the outcomes of these initiatives reveal their efficacy in lowering recidivism rates.

Examining data for FY 2002 from 374 substance abuse clinics treating nearly 53,000 state residents—almost half of whom were referrals from the criminal justice system, such as DUI and probation offenders—Maryland's Alcohol and Drug Abuse Administration found a significant decline in the percentage of clients reporting alcohol abuse at admission (62.2%) compared with the percentage at discharge (37.1%).

In a study of clients in 374 state clinics, Maryland found lower rates of abuse at discharge and lower rates of rearrest among completers of treatment.

In addition, the longer the client stayed in treatment, the lower the percentage of alcohol abuse reported at discharge. Most importantly, the percentage of clients arrested in the year following successful

completion of treatment was significantly lower than the percentage for noncompleters (Maryland Alcohol and Drug Abuse Administration, 2003, p. 30).

San Juan County in New Mexico, which has the second-highest rate of alcohol-related vehicle fatalities in the United States, began an innovative program in 1994 to address this problem. Their DWI program combined incarceration and multicomponent treatment for first-time DWI offenders. A 2002 study of driving records for all persons arrested for DWI in San Juan County from 1994 until March 2001 sought to determine any notable differences in rearrest rates between treated and untreated DWI offenders. Researchers found that, across the 5 years, the probability of rearrest was 59.9% for treated offenders versus 76.6% for untreated offenders (Kunitz, Woodall, Zhao, Wheeler, Lillis, & Rogers, 2002).

Examining DWI driving records over 5 years, San Juan County in New Mexico found that the probability of rearrest for treated offenders was 59.9% vs. 76.6% for untreated offenders.

A study of North Carolina's 14-week Substance Abuse Treatment (SAT) Program, which incorporates alcohol safety education with treatment, administered a self-assessment survey to participants before and after completion of the program in order to help researchers determine the impact of SAT. The results indicated that all offenders in the program, male and female, first-time and multiple offenders alike, demonstrated greater willingness to accept personal responsibility for their own drinking and driving behavior (Juhnke, Sullivan, & Harman, 1995).

In 1994, the Marion County (Indiana) Prosecutor's Office began a 5-year evaluation of traditional and alternative sentences imposed on first-time OWI (Operating a vehicle While Intoxicated) offenders between August 1995 and August 1996. The study population comprised 587 subjects placed into one of six treatment groups. A control group received substance abuse assessment, one year's probation, ALR for a month, and restrictions on driving for another 6 months, plus a $200 fine and court costs. The remaining groups received all the penalties of the control group, along with one additional penalty for each group: imposition of an ignition interlock device; attendance of a victim impact panel sponsored by MADD; attendance of an "Impact" program sponsored by a local hospital, which compelled offenders to view firsthand the medical results of OWI accidents; mandatory enrollment in an alcohol treatment center; and compulsory community service. By 1999, only 65 of the original 587 offenders (11%) had been rearrested for OWI; almost a fourth were in the

community service group and another fifth were in the ignition interlock group. At one year post-entry into the program, recidivism rates were lowest (2.5% rearrests) for those who had been in the treatment group; this result diminished the longer the offender had been out of treatment. The authors of the report concluded that "continued regular monitoring sessions could be beneficial in reducing the recidivism rate for these participants [in the long term]" (Marion County Prosecutor's Office, 2001, p. 14).

In Indiana, research conducted by the Marion County Prosecutor's Office revealed that only 11% of DUI offenders had been rearrested 5 years after treatment.

In collaboration with Kentucky's Division on Substance Abuse, the University of Kentucky's Center on Drug and Alcohol Research conducts outcomes evaluations for those state-funded substance abuse programs administered by 14 Community Health Centers throughout the state. Their 2000 report provided evidence for the success of treatment in reducing rates of DUI rearrest. A comparison of the self-reports of 892 clients who were admitted to one of the treatment facilities during 2000 with self-reports at 12 months follow-up revealed that the number who had been arrested for alcohol intoxication declined by 50% and for DUI by 76% (Kentucky Department of Mental Health, 2003).

The University of Kentucky's Center on Drug and Alcohol Research found that one year after treatment the percentage of clients rearrested for DUI declined by 76%.

Another promising example of state-mandated treatment is California's Proposition 36, the Substance Abuse and Crime Prevention Act (SACPA) passed in November 2000, which requires treatment for nonviolent drug and alcohol offenders (California Department of Alcohol and Drug Programs, 2002). The program has been operational since July 2001. In November 2002, a preliminary study on SACPA's first 6 months reported that approximately 12,000 clients had received treatment. Referral from the criminal justice system did not automatically lead to treatment; only 60% of the criminal justice system referrals were admitted to treatment (California Department of Alcohol and Drug Programs, 2002, p. 26). An interim report on the research in progress was published in July 2003; reporting of evaluation outcomes will appear in 2005 (California Department of Alcohol and Drug Programs, 2003, p. 111).

Driving Under the Influence in Tennessee

In 2002, 1,175 people died in Tennessee in automobile accidents. Of those, 471 deaths (40%) were alcohol related (Subramanian, 2003). In 2000, Tennessee drivers with a blood alcohol concentration (BAC) of .10 or more were involved in 32,400 crashes, resulting in the deaths of 399 people and injuring 9,200. Drivers with BAC levels of .08 and .09 were involved in 560 crashes; those with a BAC below .08 were involved in 1,100 crashes. Researchers estimate that alcohol-related accidents cost Tennesseans $2.5 billion: $1.0 billion in monetary expenditures and nearly $1.5 billion in quality of life losses (Taylor, Miller, & Cox, 2002b, p. 1).

Alcohol-related accidents in Tennessee cost state residents $2.5 billion, 60% of which is the result of quality of life losses.

To reduce the number of drunk drivers, Tennessee has implemented a system of graduated penalties, linking severity with the offender's BAC and number of prior offenses. Possible penalties include fines, license revocation, vehicle seizure/forfeiture, mandatory alcohol and drug abuse treatment, imposition of interlocking devices, and incarceration. Although driving with a BAC of .10 is a proven risk, even a BAC of .08 can have deadly consequences. In 2000 the U.S. Congress passed legislation requiring all states to adopt .08 as the standard for impaired driving by 2004 or else begin to lose federal highway construction funds (National Highway Traffic Safety Administration, 2001b). In Tennessee, the .08 standard went into effect in July 2003.

In July 2003, Tennessee adopted .08 BAC as the standard for impaired driving.

Currently, the state has mandatory alcohol and drug treatment for first and subsequent DUI offenders. The penalties for drinking and driving in Tennessee are detailed below (Tennessee Department of Safety, 2002; Tennessee Code Commission, 2004).

Implied Consent—Refusal to Submit to Blood Alcohol Concentration (BAC) Test

- Driver's license revoked for 12 months
- Driver's license revoked for 24 months if involved in a crash resulting in bodily injury (Most Aggravated Drunk Driving Law)
- Driver's license revoked for 5 years if involved in a crash resulting in a death (Most Aggravated Drunk Driving Law)

1st Time DUI Offender—.08 BAC

- Minimum 48 hours, maximum 11 months and 29 days in jail
- Driver's license revoked for 1 year
- $350-1,500 mandatory fine, plus $100 deposited into ADAT fund
- Court-ordered alcohol and drug safety DUI school and/or drug offender school, if available, and at client's expense; only eligible for ADAT program under certain conditions
- Payment of restitution if physical injury or personal loss was involved and if offender is economically capable of making such restitution

1st Time DUI Offender—.20 BAC (enhanced sentence)

- Same as .08 BAC, except that offender serves a minimum of 7 days, maximum of 11 months and 29 days in jail

2nd Time DUI Offender

- Minimum 45 days, maximum 11 months and 29 days in jail
- Driver's license revoked for 2 years, with no restricted license available
- $600 to $3,500 mandatory fine, plus $100 deposited into ADAT fund
- Mandatory alcohol and drug abuse treatment before reinstating license
- Subject to .08 BAC presumption
- Subject to vehicle seizure/forfeiture (proceeds of sale deposited into ADAT fund)

3rd Time DUI Offender

- Minimum 120 days, maximum 11 months and 29 days in jail
- Driver's license revoked for 3 to 10 years, with no restricted license available
- $1,100 to $10,000 mandatory fine, plus $100 deposited into ADAT fund
- Mandatory alcohol and drug abuse treatment before reinstatement of license
- Subject to .08 BAC presumption
- Subject to vehicle seizure/forfeiture (proceeds of sale deposited into ADAT fund)

4th and Subsequent DUI Offender

- Class E felony
- Minimum of 150 consecutive days, maximum 11 months, 29 days in jail
- Loss of driver's license for 5 years/ no restricted license available
- $3,000 to $15,000 mandatory fine, plus $100 deposited into ADAT fund
- Mandatory alcohol and drug abuse treatment before reinstating license

Vehicular Assault (causing bodily injury while driving intoxicated)

- Class D felony
- Driver's license revoked for 1 year
- Subject to .08 BAC presumption

Vehicular Homicide (while driving intoxicated)

- Class B felony
- Driver's license revoked for minimum 3 to maximum 10 years
- Subject to .08 BAC presumption

Aggravated Vehicular Homicide (while driving intoxicated)

- Class A felony
- Any of the following conditions must be present: Two or more prior (a) DUI convictions or (b) vehicular assault convictions or (c) any combination
- Prior vehicular homicide
- A BAC of .20 or greater at the time of the vehicular homicide and one prior DUI or vehicular assault offense

Bureau of Alcohol and Drug Abuse Services, Tennessee Department of Health

The Bureau of Alcohol and Drug Abuse Services of the Tennessee Department of Health is the only state agency in Tennessee to receive and dispense Substance Abuse Prevention and Treatment (SAPT) Block grant funds from the U. S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA) as well as state and local funding for alcohol and drug abuse services. Under the Block grant, the Bureau pays for clients whose alcohol and drug abuse treatment is not covered by TennCare, other health insurance, or personal resources. Its mission is to reduce substance abuse among citizens of Tennessee by promoting prevention, reducing high-risk behaviors through community programs and activities, and ensuring treatment services for individuals in need.

It is the mission of the Bureau to reduce substance abuse in the state and ensure effective treatment for those individuals in need of it.

ADAT-DUI Program in Tennessee

The Alcohol and Drug Addiction Treatment Program for Driving Under the Influence (ADAT-DUI) was established in 1998 to fund mandatory substance abuse treatment for repeat DUI offenders who are ordered into treatment and deemed indigent by the court. According to the Tennessee Code, sales of DUI-confiscated vehicles, fines for DUI, and certain revenues from the Tennessee Department of Safety fund the program (Tennessee Code Commission, 2004).

In FY 2004–05, the budget for the ADAT-DUI Program increased to $5 million and covers mandatory treatment for all 5-year repeat DUI offenders deemed indigent. In

addition, there are provisions for costs associated with ignition interlock devices for ADAT-DUI clients and for the Shelby County Pilot Program for DUI probation violators. Furthermore, levels of ADAT-DUI treatment services have been extended to include assessment, detoxification, residential services, and outpatient treatment. The program pays for a client's entire course of treatment regardless of duration (Tennessee Code Commission, 2004).

The Alcohol and Drug Addiction Treatment (ADAT) Program was established to pay for mandatory treatment of indigent repeat DUI offenders.

The process for entering the ADAT-DUI Program begins when a judge orders treatment for an offender who has been convicted of a second or subsequent DUI or who has been convicted of driving on a cancelled, suspended, or revoked license when the original conviction was for DUI. Next, the court must confirm the client's indigent status. Defendants then must sign a consent form to release personal records to the Bureau of Alcohol and Drug Abuse Services of the Tennessee Department of Health. Once the Bureau establishes that the defendant's treatment is to be funded by the ADAT-DUI Program, the defendant is free to contact a treatment provider under contract with the Bureau in order to schedule an assessment and admission date. During the admissions process, the provider assesses the client using the Addiction Severity Index (ASI) and standard Patient Placement Criteria (PPC) to ensure diagnosis and placement in the appropriate level of care. On an ongoing basis, the provider assesses the client's progress, recommended length of stay, and/or possible need to change level of care. When treatment ends, the defendant is either released into the community if jail time was completed prior to treatment or returned to jail to complete the remainder of the sentence (Bureau of Alcohol and Drug Abuse Services, 2002).

At admission, providers assess clients using the Addiction Severity Index (ASI) in order to make sure they are placed in the appropriate level of care.

Goals of the ADAT-DUI Outcomes Evaluation

The Bureau collaborates with I-SATE at The University of Memphis to assess the effectiveness of treatment funded by the ADAT-DUI Program. This report covers only those clients who consented to participate in the follow-up evaluation during the calendar year 2003 and to be interviewed

via telephone 6 months after admission to treatment. Clients involved in the final evaluation must meet specific criteria for inclusion in the study population (as outlined in chapter 2).

This outcomes evaluation has three major objectives:

1. to use various performance indicators to assess the overall effectiveness of treatment, focusing on the primary goals of substance abuse treatment in Tennessee;
2. to identify strengths of the current services provided by the treatment centers and to discuss areas that need improvement; and
3. to provide a brief analysis of the cost-effectiveness of substance abuse treatment.

Chapter 2

Outcomes Evaluation Methodology

Research Design

This outcomes evaluation used a pre- and post-test design. Intake staff at treatment facilities collected pre-test data on ADAT-DUI clients at the time of admission, and I-SATE interviewers at The University of Memphis collected post-test data via telephone 6 months after admission.

Admission Data

Intake staff at each facility gathered the following information from clients at the time they were admitted: demographic data, economic and occupational circumstances, living arrangement, venue by which the client was referred to treatment, arrest record and legal status, physical and mental health, medical history and conditions, substance abuse history, patterns of use and behavior, prescribed therapies, and specific treatment modality (residential rehabilitation, halfway house, intensive outpatient, outpatient and/or detoxification).

All admission data were entered into a statewide database using specialized software called Insight-CH. Developed by QS Technologies, Inc., this software has specific modules for alcohol and drug abuse admission and discharge, encompassing the various types of information about which clients might be queried. The Bureau of Alcohol and Drug Abuse Services uses this compiled data for a variety of monitoring, policymaking, and funding decisions.

Outcomes Data and Questionnaire

Six months after admission, I-SATE interviewers tried to contact ADAT-DUI clients via telephone to gather data for the treatment outcomes evaluation. Interviewers made at least seven attempts to contact each client: three during the day, three during the evening, and one over the weekend.

Project interviewers made at least seven attempts to contact clients 6 months after admission.

Interviewers strictly adhered to the follow-up questionnaire developed by I-SATE researchers at The University of Memphis to meet the specifications of the Government Performance and Results Act (GPRA), the Center for Substance Abuse Treatment (CSAT), and the Interstate Core Data Items, Performance Indicators of the Treatment Outcomes and Performance Pilot Studies II (TOPPS II) Enhancement to maintain national standards for substance abuse treatment outcomes evaluation. To adequately assess the effectiveness of alcohol and drug abuse treatment programs, project researchers designed the questionnaire to evaluate specific outcomes performance indicators.

The follow-up questionnaire is designed to measure specific outcomes performance indicators.

The post-test client profile is similar to that developed at pre-test, but I-SATE interviewers include specific questions about clients' treatment experiences. Interviewers asked clients for basic demographic information, including gender, ethnicity, age (youth or adult), education level, marital status, current living arrangement, current employment status, and usual occupation. They also queried clients as to whether they were a child of a substance abuser, if other family members had a history of substance abuse, and what their personal experience with alcohol and drugs had been like.

Interviewers asked clients a set of questions about treatment: whether they had to wait for treatment and how long, whether they had received treatment for substance abuse before, whether they were prescribed medication specifically for addiction recovery, and whether they had received skills training during treatment and, if so, what type. They queried clients about their length of stay in treatment, how much of the assigned treatment period they had completed, and the extent to which they found treatment "very helpful," "somewhat helpful," or "not helpful at all." Interviewers also asked clients to evaluate their experiences in the facility and to provide suggestions for improvement.

Clients answered questions about their participation in aftercare provided by the facility at which they were treated, the number of times they participated in aftercare activities, and how helpful they found aftercare. Interviewers also queried clients as to whether they participated in an Alcoholics Anonymous or Narcotics Anonymous (AA/NA) support group that was not part of the aftercare offered by the facility, and, if so, how often they participated in such activities and the extent to which they found them helpful.

Interviewers solicited information regarding clients' ability to sustain sobriety after treatment: whether they had abused alcohol and/or drugs since treatment or in the 30 days prior to their follow-up interview, which drugs they abused, how frequently they abused alcohol and/or drugs, what con-

tributed to their relapse, and how long they had abstained from abusing alcohol and/or drugs since treatment.

Interviewers asked clients about their drug and/or alcohol use, repeat DUI offenses, employment status, and perceptions of treatment.

Interviewers asked clients if they had been arrested since treatment, and, if so, the number of times they had been arrested, for what charge(s), the number of times they were arrested for each charge, and how much time they had spent in jail. They questioned clients specifically about their substance abuse and driving and whether they had been arrested for DUI. In addition, interviewers asked clients about their involvement in domestic violence, both as aggressor and as victim.

Since substance abuse diminishes quality of life, interviewers sought to establish whether clients' performance in work or school had improved since undergoing treatment. One question asked if clients had missed work in the past 30 days because of alcohol or drug problems. To gain more information on clients' overall well-being, interviewers asked questions about their physical health since treatment and mental or emotional problems they may have experienced in the past 30 days. Finally, interviewers asked clients whether they used tobacco products in the past 30 days and which tobacco products they used.

Interviewers asked clients about their recent physical and mental health.

Sampling Strategy and Eligible Follow-up Study Population

In this evaluation research, I-SATE used nonprobability sampling, that is, the eligible follow-up sample was chosen "on some basis other than random selection" (Portney & Watkins, 2000, p. 146). Specifically, the consecutive sampling method, a type of nonprobability sampling, "involves recruiting all patients who [meet] the inclusion and exclusion criteria as they become available" (p. 147). In this instance, random sampling on the entire reference group was not possible because consent regulations require the exclusion of clients who do not voluntarily agree to participate in the follow-up interview. Since this study is ongoing and interviews were conducted as close as possible to 6 months after a client enters treatment, there was no one point when all consent forms for the entire year were available for random sampling.

Inclusion/Exclusion Criteria for the Study Population

There were two criteria for inclusion of clients into the study population:

1. the client's treatment was funded by the ADAT-DUI Program, and
2. the client consented to participate in the follow-up study after facility counselors explained its method and purpose.

There were five criteria for excluding a client from the study population:

1. at the time of the follow-up interview, a valid phone number for the client was not available to the interviewers (phone number was incorrect, unpublished, or not in service);
2. the client was institutionalized (in jail, state custody, a hospital, shelter, or group home);
3. the client was continuing in treatment;
4. the client was deceased; or
5. the client initially agreed but refused to be interviewed at the time of follow-up contact.

In order to be included in the study population, a client's treatment had to be funded by the ADAT-DUI Program and the client must have given consent to be interviewed.

Determination of the Study Population

The study population included ADAT-DUI clients who were ordered by the court to undergo mandatory treatment because of a second or subsequent DUI offense. During the 2003 calendar year, 430 clients initially agreed to participate in the follow-up study. In accordance with current debates in the literature on sampling in substance abuse treatment evaluation (Gerstein & Johnson, 2000; Flynn, Craddock, Hubbard, Anderson, & Etheridge, 1997; Flynn, Simpson, Anglin, & Hubbard, 2001), the study population was determined as follows.

A. Clients who consented to participate	430
B. Excluded from the sample selection	203
Wrong[a] or no telephone number (172)	
Institutionalized[b] (20)	
Continuing in treatment (2)	
Deceased (0)	
Refused to participate[c] (9)	
C. Eligible follow-up sample	227
D. Follow-up interviews completed	178
E. Follow-up interviews not completed[d]	49
F. Eligible follow-up sample coverage rate (D/C)	78.4%

[a]Wrong is defined as incorrect, unpublished, or not in service.
[b]Institutionalized is defined as in jail, state custody, a hospital, shelter, or group home.
[c]Refused to participate in the interview while on the phone with an interviewer.
[d]Follow-up interviews could not be completed for a variety of reasons, e.g., some clients did not answer or return any of the interviewers' calls.

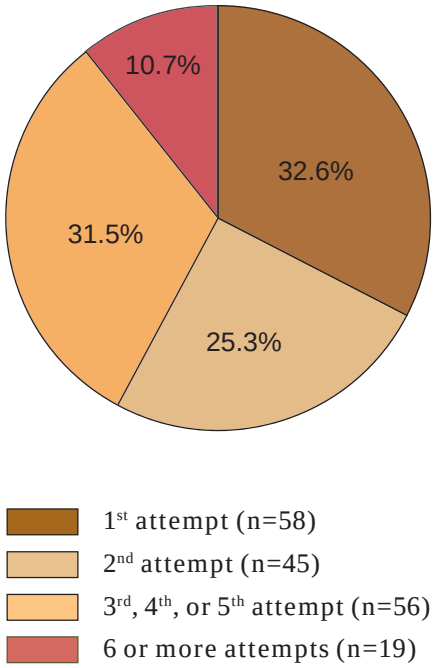
I-SATE mailed reminder letters to clients 1 week before telephone calls commenced. Interviewers made seven attempts to complete the follow-up interview. The first attempt yielded a 32.6% completed interview rate, while the second attempt resulted in a 25.3% rate for completed interviews. The combined third, fourth, and fifth attempts yielded a 31.5% rate for completed interviews. A small percentage of interviews (10.7%) took 6 or more phone calls to complete (see Figure 2.1).

Of the 227 eligible clients, 178 completed 6-month follow-up interviews, resulting in a 78.4% coverage rate.

Data Integration and Analysis

To assess treatment effectiveness, I-SATE researchers integrated and compared the 6-month follow-up data with admission data using programming in Microsoft Access, Microsoft Excel, Visual Basic, and Statistical Package for the Social Sciences (SPSS). I-SATE performed frequencies, means, cross-tabulations, and multiple response analyses on the two data sets and determined the statistical significance of the difference in clients' responses at the time of admission with their responses in the 6-month follow-up interview.

Figure 2.1
Number of Telephone Attempts for Completing Interviews



Limitations of the Study

There were a number of constraints on this evaluation study, which are detailed below:

1. I-SATE could not collect follow-up data for all clients whose treatment was funded by the ADAT-DUI Program.
2. I-SATE only interviewed those clients who consented to participate in this study and could be contacted via telephone 6 months after they were admitted to substance abuse treatment.

3. Two distinct sources collected the two data sets in this report: treatment facilities collected the admission data and I-SATE interviewers collected the follow-up data.

4. I-SATE collected follow-up data 6 months after clients were admitted to treatment rather than 6 months after clients were discharged. Therefore, the length of time that passed since clients completed treatment or left the facility varied.

5. Both admission and follow-up data were based on clients' self-reports, which may bias conclusions regarding treatment effectiveness.

Chapter 3

Substance Abuse Treatment Outcomes

This chapter details client demographics, substance abuse history, treatment features, treatment outcomes, and quality of life indicators for the 2003–04 ADAT-DUI sample population. It compares data from the current year with the three previous ADAT-DUI statewide outcomes evaluations (Kedia, 2004, 2003, 2002) in order to discern patterns or trends.

Client Demographics

Of the 178 individuals who completed interviews 6 months post-admission for 2003–04, 82.6% were males and 17.4% were females (see Figure 3.1). The gender makeup of the respondents closely reflects the pattern of past years: 81.7% male and 18.3% female in 2002–03, 76.2% male and 23.8% female in 2001–02, and 79.7% male and 20.3% female in 2000–01. The ethnic makeup of the survey participants this year was 88.8% White, 10.1% African American, and 1.1% of other ethnicities, including Hispanic or Native American (see Figure 3.2). This did not vary much from previous study populations. For instance, in 2000–01 86.5% of clients were White, 12.2% were African American, and 1.4% were of other ethnicities. The figures in 2001–02 changed only slightly to 86.0% White, 13.3% African American, and 0.7% from other groups. In 2002–03, the proportion of White clients rose to 91.7% and the proportion of African Americans dropped to 8.3%; none were from other groups.

Male clients outnumbered female clients by more than four to one; more than 88% of clients were White.

Figure 3.1
Gender

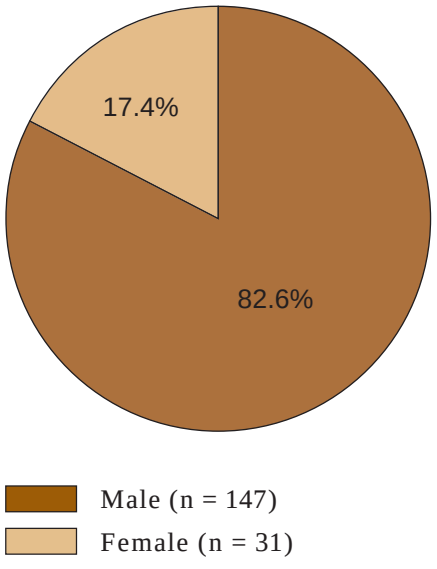
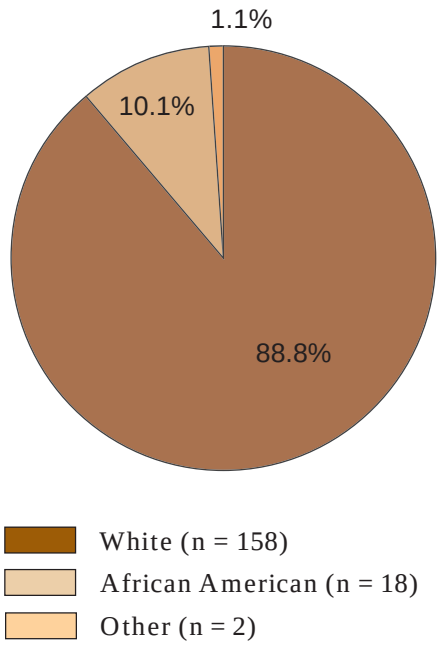


Figure 3.2
Ethnicity



Since 2001–02, ADAT-DUI reports have included information about clients' age ranges. In 2003–04, the largest proportion belonged to the 35 to 44 (37.6%) group, as was the case in 2002–03 at 41.3%. However, this is a shift from 2001–02, when the 25 to 34 (36.4%) age range was the most prevalent among clients, with the 35 to 44 group following closely at 31.5%. A new development in 2003–04 is that the proportion of respondents 45 to 54 (24.7%) almost equals the 25 to 34 range (24.2%) (see Table 3.1). In 2002–03, the 45 to 54 range was 15.6% compared to 23.9% for those 25 to 34. Also, in 2001–02 the number of clients in the younger group was more than three times the older group.

As in previous years, most (64.6%) clients in 2003–04 had been to high school (see Table 3.1). The most notable change regarding clients' education levels was among those who said they had a middle school education: a steady decline from 10.8% of clients in 2000–01, to 7.0% in 2001–02, to 6.4% in 2002–03, down to 2.8% in 2003–04.

Table 3.1 Demographic Characteristics

Variable	%	n
Age group		
18 to 24	7.3	13
25 to 34	24.2	43
35 to 44	37.6	67
45 to 54	24.7	44
55 and above	6.2	11
Education level		
Middle school	2.8	5
High school	64.6	115
College	11.8	21
Missing values	20.8	37

Another area that saw change was the level of income earned in the year before follow-up. In 2003–04, 29.8% of clients made $2,000 and below (see Table 3.2). Since 2001–02, the proportion of clients in this category has declined, 47.6% in 2001–

Table 3.2 Level of Income Earned in the Year before Follow-up

Variable	%	n
$2,000 and below	29.8	53
$2,001 - $8,500	21.3	38
$8,501 - $15,000	19.7	35
$15,001 - $25,000	16.3	29
Above $25,000	12.9	23

[a]Percentages may not add up to 100% because of rounding.

02 and 33.0% in 2002–03. The most recent figures show that 21.3% made $2,001–8,500, an increase over 2002–03 (19.3%) and 2001–02 (18.9%). For the past 2 years, the rate of those making $8,501-$15,000 has remained relatively stable at 19.7% for 2003–04 and 19.3% for 2002–03, a notable increase from 2001–02 (12.6%). The percentage of those making $15,001-$25,000 (16.3%) decreased in 2003–04 from 2002–03 (20.2%), still ahead of the 2001–02 figure (14.0%). In addition, there was a marked increase in the percentage of clients making above $25,000: 12.9% (2003–04), 8.3% (2002–03), and 7.0% (2001–02).

Over half of all clients reported earning less than $8,500 in the year before follow-up.

In 2003–04, the majority (53.9%) of clients said that they had at least one child (see Table 3.3). A larger proportion (65.1%) said the same in 2002–03, but 2001–02 data parallel the current survey results. This year as well as last year, most of these clients had a child who was a minor: 2003–04 (76.0%) and 2002–03 (84.5%). The 2001–02 period showed the reverse, with the majority (53.1%) reporting that they did not have a minor child.

Interviewers asked clients whether they had any dependents who relied on them financially (see Table 3.3). Half (50.0%) of clients in the most recent survey group responded that they had no dependents, 31.5% had 1 to 2 dependents, 15.7% had 3 to 5 dependents, and 1.1% had 6 or more dependents. When this particular demographic feature was first monitored in 2001–02, 55.2% of clients said that they did not have dependents, 29.4% had 1 to 2 dependents, 14.7% had 3 to 5 dependents, and 0.7% had 6 or more.

Table 3.3 Clients' Children and Dependents

Variable	%	n
Has a child		
Yes	53.9	96
No	46.1	82
Has a child who is a minor[a]		
Yes	76.0	73
No	24.0	23
Number of dependents[b]		
None	50.0	89
1 to 2	31.5	56
3 to 5	15.7	28
6 or more	1.1	2
Missing values	1.7	3

[a]Includes only those clients who have children.
[b]Dependent includes all those (such as parents, spouse, sibling, children, foster children, etc.) who rely on the client financially.

Substance Abuse History

The data clearly support strong correlations between youth and first onset of substance abuse. In 2003–04, a large majority (77.0%) reported abusing substances at age 17 or younger (see Table 3.4). Still, this is a decline from 2002–03 (81.7%) and certainly

Table 3.4 Substance Abuse History

Variable	%	n
Age client began using substances		
17 or younger	77.0	137
18 to 30	20.2	36
31 or older	2.8	5
Anyone else in client's family who abused alcohol or drugs in the past		
Yes	67.4	120
No	32.6	58
Family members who abused substances[a]		
Parent	38.2	68
Other relative	31.5	56
Sibling	28.1	50
Significant other	2.2	4
Children	0.6	1
Spouse	0.0	0

[a] Percentages may not add up to 100% because some clients gave multiple responses.

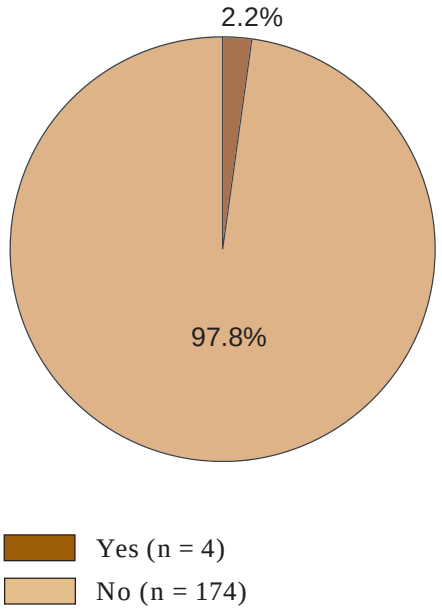
from 2001–02 (96.5%). In 2000–01, 71.7% of survey participants had first abused drugs before they were 17 years old.

The current survey indicates that 67.4% of clients had a family member who had abused substances in the past (see Table 3.4), up from 2002–03, when the proportion was 56.9%. For 38.2% in 2003–04, their parent had abused substances. For 31.5% of clients, it was another relative, and for 28.1%, a sibling. The composition of this category was slightly different in 2001–02, when 43.4% of clients said that a parent had abused a substance, 33.6% said that a sibling had, and 32.2% said that a relative other than a spouse or children had abused a substance.

More than three fourths of clients reported first abusing substances in their teens, and two thirds had had a family member who was a substance abuser.

ADAT-DUI clients, overall, tend not to live with a substance abuser after treatment: in 2003–04, 97.8% reported that they did not (see Figure 3.3), and the rate has been rising in steady increments at least since 2001–02 (88.8%) and 2002–03 (92.7%).

Figure 3.3
Living with a Substance Abuser after Treatment

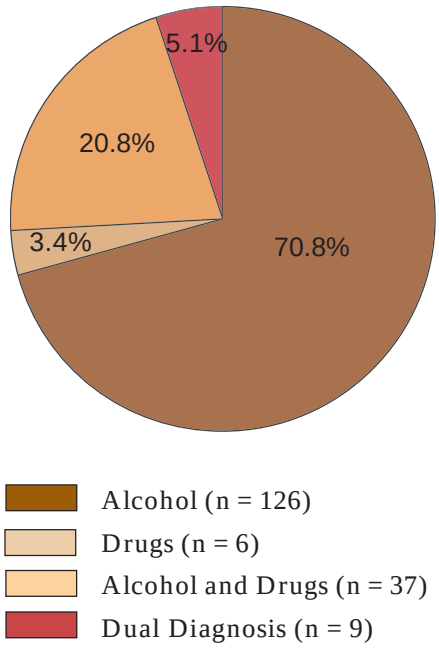


Treatment Features

Accessing Treatment

All participants in the study population were DUI offenders who were ordered by the court into treatment for substance abuse. Correspondingly, alcohol continues to be the primary reason for treatment: 70.8% of clients in 2003–04 (see Figure 3.4), 65.1% in 2002–03, and 57.3% in 2001–02. For 20.8% of clients, a combination of alcohol and drugs was the primary reason in 2003–04, and for 22.4% in 2001–02 and 21.1% in 2002–03. In 2001–02, 16.1% of clients reported that a dual diagnosis (substance abuse in addition to a mental health issue) was their main reason for being treated. The last 2 years have seen sharp declines from this level, down to 6.4% in 2002–03 and 5.1% in 2003–04. The proportion of clients being treated primarily for drug abuse has remained fairly low, 4.2% in 2001–02, 7.3% in 2002–03, and 3.4% in 2003–04.

Figure 3.4
Primary Reason for Being Treated



Most clients were treated only for alcohol abuse, although some were treated for drugs, a combination of alcohol and drugs, or a dual diagnosis disorder.

Approximately half (51.1%) of clients in the current reporting year had to wait for treatment for a variety of reasons including completion of minimum jail time (see Table 3.5), a decrease from 54.1% in 2002–03. However, the proportion of those who waited had been on the rise: 16.2% in 2000–01 and 44.8% in 2001–02 before the decline in 2003–04.

Table 3.5 Accessing Treatment

Variable	%	n
Had to wait for treatment		
Yes	51.1	91
No	48.9	87
Number of days waited for treatment[a]		
1 to 7 days	42.9	39
8 to 14 days	25.3	23
15 to 21 days	9.9	9
22 to 28 days	0.0	0
29 to 35 days	7.7	7
36 days or more	14.3	13

[a]Percentages may not add up to 100% because of rounding.

Slightly more than two fifths (42.9%) of clients waited 1 to 7 days for treatment in this study year. While the proportion of those waiting this duration has fluctuated for the past 3 years, the percentage of those waiting 8 to 14 days has remained roughly one quarter of clients.

Length of Care

The most prevalent length of stay for 2003–04 survey participants was 16 to 30 days (80.3%), far outpacing other time spans (see Table 3.6). The 16 to 30 day period was the most common length of stay in 2002–03 (71.6%) and 2001–02 (77.6%) as well.

A stay in treatment of 16 to 30 days is consistently the most prevalent.

Table 3.6 Number of Days in Treatment

Length of stay	%[a]	n
1 to 6 days	0.6	1
7 to 15 days	1.1	2
16 to 30 days	80.3	143
31 to 60 days	5.6	10
61 to 90 days	3.9	7
91 to 180 days	5.6	10
181 or more	2.8	5

[a]Percentages may not add up to 100% because of rounding.

Services and Skills Received

Skills training peaked in 2003–04, with a large majority (90.4%) of clients receiving training (see Table 3.7). Just over three quarters (77.0%) of clients had received special skills training in 2000–01. In the years in between, the figure was near 85%.

Table 3.7 Treatment Features

Variable	%	n
Received skills training		
Yes	90.4	161
No	9.6	17
Type of skills acquired[a]		
Relapse prevention	97.5	157
Coping skills	82.0	132
Cultural competency	19.9	32
Vocational skills	14.3	23
Other	0.0	0

[a] Percentages may not add up to 100% because some clients gave multiple responses.

The first report on the ADAT-DUI Program in 2000–01 indicated that relapse prevention training was very popular (96.5%) among clients and continues to be so: 82.5% in 2001–02, 95.7% in 2002–03, and 97.5% in 2003–04.

Relapse prevention remains the most popular form of special skills training among clients.

Level of Treatment Completion

The vast majority of clients in 2003–04 (97.8%) completed treatment (see Figure 3.5), representing the pinnacle of an upward trend begun in 2000–01 (86.5%) and evident in 2001–02 (86.7%) and 2002–03 (93.6%) as well.

Participation in Aftercare and Continuing Recovery Programs

"Aftercare" refers to those post-treatment activities designed to aid clients in the recovery process, such as classes, counseling, family and group meetings, as well as social events such as dinners, dances, or sports events. Aftercare was not a common choice for clients interviewed in 2003–04; only 20.8% participated (see Figure 3.6). The same was true in 2002–03 (20.2%) and in 2001–02 (23.8%). Of those who did participate from the 2003–04 group, 73.0% of them attended 1 to 2 times per week (see Table 3.8), an upward spike from the previous year (45.5%) and 2001–02 (61.8%). Most (62.2%) respondents said that aftercare had been "very helpful" (see Table 3.8), preceded by 45.5% in 2002–03 and 64.7% in 2001–02.

Figure 3.5
Level of Treatment Completion

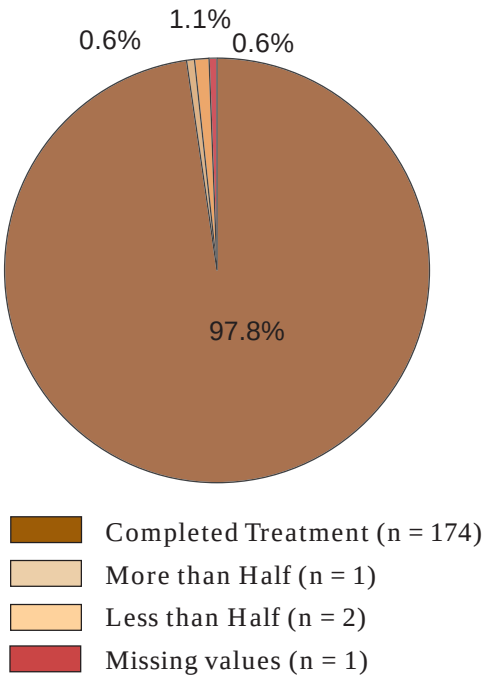


Figure 3.6
Participation in Aftercare

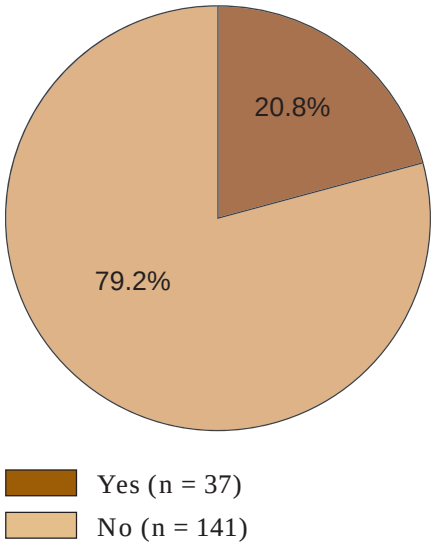


Table 3.8 Frequency and Helpfulness of Participation in Aftercare and Continuing Recovery Programs

Variable	%	n
Frequency of attendance (Aftercare)		
Less than once per week	10.8	4
1 to 2 times per week	73.0	27
3 to 6 times per week	10.8	4
Daily	5.4	2
Helpfulness (Aftercare)		
Very helpful	62.2	23
Somewhat helpful	21.6	8
Not helpful at all	5.4	2
Missing values	10.8	4

In 2003–04, the percentage of females participating in aftercare (25.8%) exceeded participation by males (19.7%), and a higher percentage of African American clients (44.4%) participated than White clients (18.4%). None of the clients surveyed reported having attended middle school only (see Table 3.9). The rate of those in 2003–04 who reported having attended college (23.8%) declined from recent years: 2002–03 (33.3%) and 2001–02 (31.6%).

Proportionately, more females and African Americans participated in aftercare activities.

Participation in Alcoholics Anonymous and Narcotics Anonymous

Typically, AA/NA attracted greater participation by clients than did aftercare, with 69.1% reporting attendance; 52.8% went to meetings 1 to 2 times per week (see Figure 3.7 and Table 3.10). However, in 2002–03 fewer (35.3%) clients attended 1 to 2 times per week, while correspondingly more (33.8%) attended 3 to 6 times per week and daily (16.2%). In 2001–02, 44.2% attended 1 to 2 times per week, 25.3% several times a week, and 13.7% daily.

Table 3.9 Participation in Aftercare and Continuing Recovery Programs by Subgroup

	Yes		No	
Variable	**%[a]**	**n**	**%[a]**	**n**
Gender[b]				
Male	19.7	29	80.3	118
Female	25.8	8	74.2	23
Ethnicity[c]				
White	18.4	29	81.6	129
African American	44.4	8	55.6	10
Other	0.0	0	100.0	2
Education level[b]				
Middle school	0.0	0	100.0	5
High school	20.0	23	80.0	92
College	23.8	5	76.2	16

Note. Missing values are not represented.
[a]The values across rows, not columns, add up to 100%.
[b]The distribution of the categories within each group is not statistically significant at the $p < .05$ level using the Chi-square test.
[c]The distribution of the categories within each group is statistically significant at the $p < .05$ level using the Chi-square test.

Figure 3.7
Participation in AA/NA

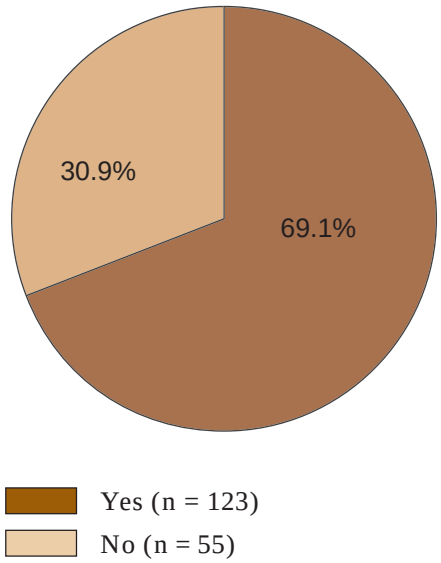


Table 3.10 Frequency and Helpfulness of Participation in AA/NA

Variable	%[a]	n
Frequency of attendance (AA/NA)		
Less than once per week	12.2	15
1 to 2 times per week	52.8	65
3 to 6 times per week	26.0	32
Daily	8.9	11
Helpfulness (AA/NA)		
Very helpful	62.6	77
Somewhat helpful	30.9	38
Not helpful at all	6.5	8

[a]Percentages may not add up to 100% because of rounding.

Only 6.5% found AA/NA "not helpful at all" (see Table 3.10), whereas over three fifths (62.6%) found such programs "very helpful." Still, this percentage is a decline from previous years: in 2002–03, 67.6% of clients responded positively, in 2001–02 67.4%, and in 2000–01 72.9%.

More males and White clients attend AA/NA meetings.

More males (70.1%) participated in AA/NA than their female counterparts (64.5%). Ethnicity data regarding AA/NA participation is the reverse of aftercare data. Close to 70% of White clients chose AA/NA for their post-treatment recovery, whereas 61.1% of African Americans did so. The two clients of other ethnicities participated in AA/NA as well. However, the education levels of those in AA/NA were similar to those attending aftercare: middle school (60.0%), high school (70.4%), and college (85.7%) (see Table 3.11).

Clients' Overall Perceptions of Treatment

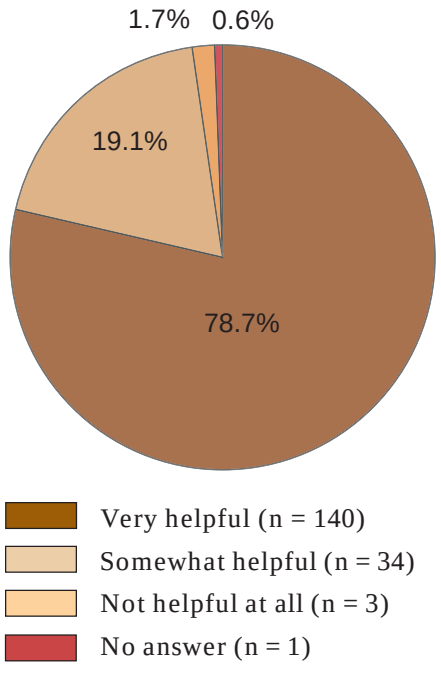
Clients were asked to rate their perceptions of treatment helpfulness. The majority of clients described it as "very helpful" (78.7%), close to the percentage reported for 2002–03 (78.9%), and up from that reported for 2001–02 (72.7%). One fifth (19.1%) described their experience as "somewhat helpful." A quite small percentage (1.7%) felt that their experience was "not helpful at all" (see Figure 3.8), which represents a large decline from 2001–02 (3.5%), and especially from the previous year (6.4%).

Table 3.11 Participation in AA/NA by Subgroup

	Yes		No	
Variable	**%[a]**	**n**	**%[a]**	**n**
Gender[b]				
Male	70.1	103	29.9	44
Female	64.5	20	35.5	11
Ethnicity[b]				
White	69.6	110	30.4	48
African American	61.1	11	38.9	7
Other	100.0	2	0.0	0
Education level[b]				
Middle school	60.0	3	40.0	2
High school	70.4	81	29.6	34
College	85.7	18	14.3	3

Note. Missing values are not represented.
[a]Values across rows, not down columns, add up to 100%.
[b]The distribution of the categories within each group is not statistically significant at the $p < .05$ level using the Chi-square test.

Figure 3.8
Clients' Overall Perceptions of Treatment



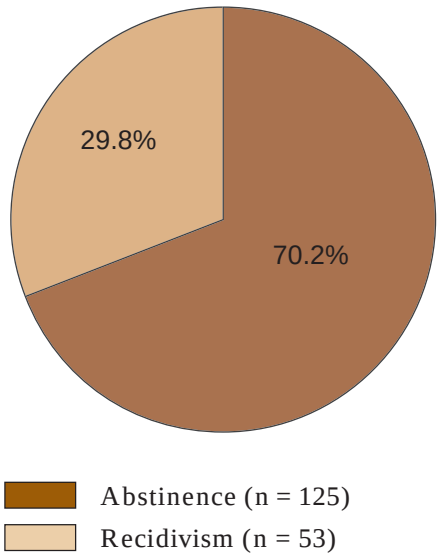
A Geographic Information Systems (GIS) map illustrates the perceived helpfulness of treatment statewide, subdivided by region and metro area, for the 2003–04 study population (see Map 1).

Treatment Outcomes and Performance Indicators

Alcohol and/or Drug Abuse at Six-month Follow-up

In 2003–04, a significant majority (70.2%) of clients had achieved abstinence by the 6-month follow-up interview; 29.8% reported continued substance abuse (see Figure 3.9). These rates are close to those for 2002–03, when 72.5% of clients reported abstinence and 27.5% had recidivated, but

Figure 3.9
Abstinence and Recidivism at Six-month Follow-up



represent an improvement from the 2001–02 reporting year, when 60.8% of clients were abstinent and 39.2% continued to abuse substances.

A Geographic Information Systems (GIS) map illustrates the 2003–04 mean abstinence ratings for various regions and metro areas in Tennessee (see Map 2).

In the current study year, alcohol (92.1%) was by far the most frequently abused substance. Follow-up data show a decisive decline at 28.7%. Marijuana abuse dropped from 16.9% at admission to 1.7% at follow-up, and cocaine abuse dropped from 9.0% to 1.1%. Abuse of other substances also declined as the result of treatment: sedatives/hypnotics, from 6.2% to 0.6%; opiates/narcotics, from 5.1% to 1.1%; and stimulants/amphetamines, from 2.2% to 0.0% (see Figure 3.10 and Table 3.12).

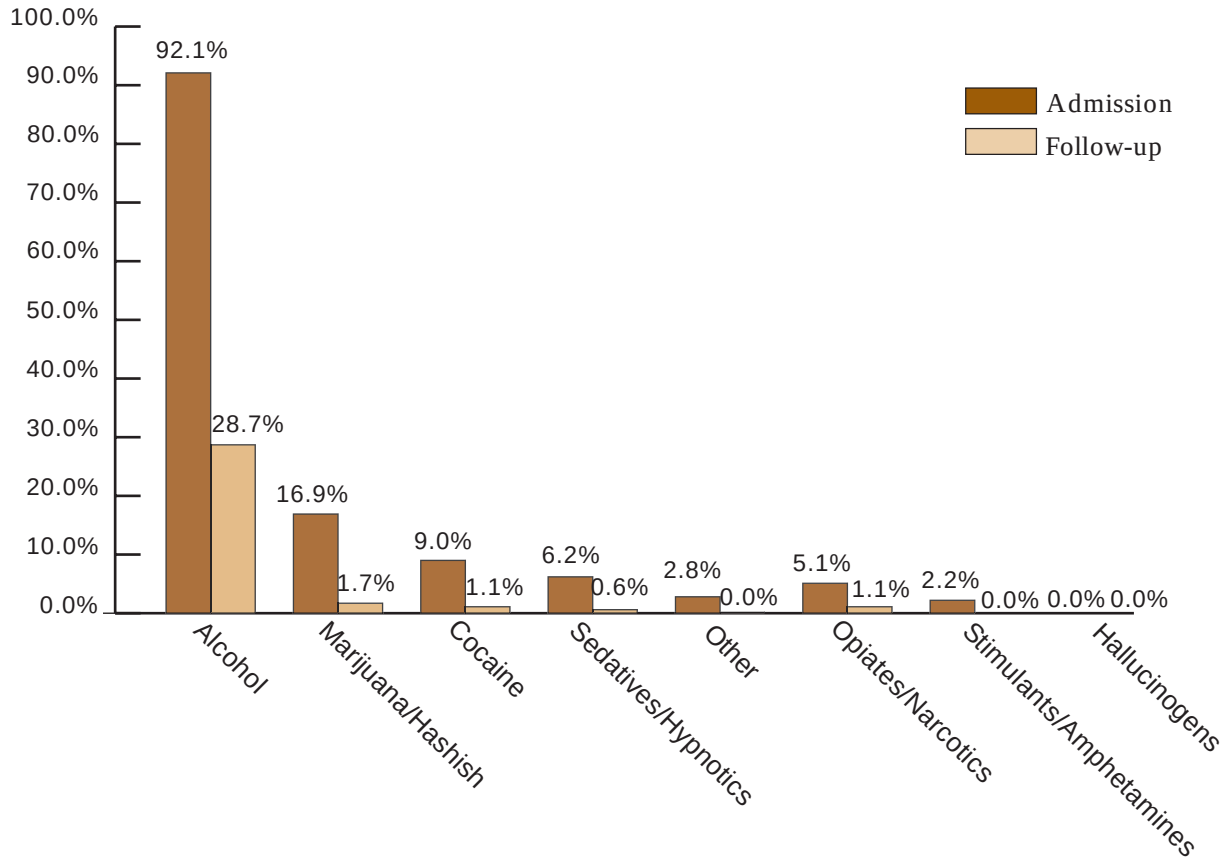
Such dramatic declines mirror the results of previous years. In 2002–03, alcohol abuse went from 89.9% at intake to 26.6% 6 months after admission. Marijuana/hashish abuse declined precipitously as well, from 28.4% to 3.7%. For all other categories of substances, clients reported zero or near-zero abuse rates at follow-up.

After treatment, clients' abuse of alcohol and other substances decreased between 68% and 100%.

The frequency with which clients abused substances also declined. In 2003–04, a 78.1% daily abuse rate at admission plummeted to 3.9% at the 6-month follow-up (see Table 3.13). In the previous reporting year, 67.9% said that they abused substances daily; this figure dropped to 16.7% at the follow-up.

At follow-up, when clients were asked whether they used tobacco, 86.5% said yes; 92.9% of them reported using cigarettes (see Table 3.14). In 2002–03, as in all the other years reported, tobacco use was prevalent among clients at follow-up (80.7%); cigarettes were the product used most often (90.9%).

Figure 3.10
Alcohol and/or Drugs Abused at Admission and Six-month Follow-up



Alcohol and Drug Abuse within Various Subgroups since Treatment

In 2003–04, abstinence rates varied within different demographic groups (see Table 3.15). Males had a higher abstinence rate (71.4%) than females (64.5%); however, both were close to the rate of the general client population (70.2%). Whites had an abstinence rate of 71.5% and African Americans at 55.6%, while the two individuals from other ethnic groups abstained as well. Interestingly, as education levels increased, abstinence rates decreased: middle school, 100.0%; high school, 72.2%; college, 61.9%. Abstinence was a predictor of decreased arrest rates: 72.5% had not been arrested since treatment.

One significant change seen in the current study year is that abstinence rates for African Americans, which in the past three reports surpassed those of White clients, returned to earlier levels: 2000–01, 55.6%; 2001–02, 63.2%; 2002–03, 77.8%; 2003–04, 55.6%.

Those who participated in AA/NA and aftercare in 2003–04 achieved similar rates of abstinence, 77.2% and 75.7% respectively (see Table 3.16). In 2002–03, those participating in AA/NA, and especially af-

Table 3.12 Alcohol and/or Drugs Abused at Admission and Six-month Follow-up

	Admission		Six-month Follow-up		Change[a]
Substance	%[b]	n_1	%[b]	n_2	%
Alcohol[c]	92.1	164	28.7	51	-68.9
Marijuana/hashish[c]	16.9	30	1.7	3	-90.0
Cocaine[c]	9.0	16	1.1	2	-87.5
Sedatives/hypnotics[c]	6.2	11	0.6	1	-90.9
Opiates/narcotics[d]	5.1	9	1.1	2	-77.8
Other[e]	2.8	5	0.0	0	-100.0
Stimulants/amphetamines[e]	2.2	4	0.0	0	-100.0
Hallucinogens[e]	0.0	0	0.0	0	NA

Note. NA = not applicable.
[a]Percent of change is calculated based on *n* values at the time of admission and follow-up using the formula $(n_2 - n_1)/n_1$ x 100.
[b]Percentages may not add up to 100% because some clients gave multiple responses.
[c]The change in the use of each substance between admission and the 6-month follow-up is statistically significant at the $p < .01$ level using the McNemar test.
[d]The change in the use of each substance between admission and the 6-month follow-up is not statistically significant at the $p < .01$ level using the McNemar test.
[e]The test of significance was not used for this category.

Table 3.13 Alcohol and/or Drug Abuse Frequency at Admission and Six-month Follow-up

	Admission		Six-month Follow-up		Change[a]
Frequency[b]	%	n_1	%	n_2	%
Daily[c]	78.1	139	3.9	7	-95.0
Several times per week[d]	7.9	14	2.8	5	-64.3
1 to 2 times per week[c]	3.4	6	10.7	19	216.7
Less than once per week[c]	0.6	1	9.0	16	1500.0
No use during prior month[d]	10.1	18	3.4	6	-66.7

[a] Percent of change is calculated based on *n* values at the time of admission and 6-month follow-up using the formula $(n_2 - n_1)/n_1$ x 100.
[b] Values represent frequency of use of any substance.
[c] The change in the use of each substance between admission and the 6-month follow-up is statistically significant at the $p < .01$ level using the McNemar test.
[d] The change in the use of each substance between admission and the 6-month follow-up is not statistically significant at the $p < .01$ level using the McNemar test.

Table 3.14 Tobacco Use at Six-month Follow-up		
Variable	**%**	**n**
Tobacco use at follow-up		
Yes	86.5	154
No	12.9	23
Missing values	0.6	1
Tobacco products primarily used		
Cigarettes	92.9	143
Chewing tobacco/snuff/ smokeless tobacco	7.1	11

tercare, seemed to have an advantage over those who did not: 75.0% of AA/NA participants (compared to 68.3% who did not) achieved abstinence, and 90.9% of those who participated in aftercare (compared to 67.8%) achieved abstinence.

Those clients who participated in aftercare and AA/NA achieved higher rates of abstinence than the general population.

Table 3.15 Abstinence and Recidivism within Various Subgroups at Six-month Follow-up

	Abstinence		Recidivism	
Variable	**%[a]**	**n**	**%[a]**	**n**
Total client population	70.2	125	29.8	53
Gender[b]				
Male	71.4	105	28.6	42
Female	64.5	20	35.5	11
Ethnicity[b]				
White	71.5	113	28.5	45
African American	55.6	10	44.4	8
Other	100.0	2	0.0	0
Education level[b]				
Middle school	100.0	5	0.0	0
High school	72.2	83	27.8	32
College	61.9	13	38.1	8
Arrested since treatment[c]				
Yes	36.4	4	63.6	7
No	72.5	121	27.5	46

Note: Missing values are excluded from this table.
[a]The values across rows, not columns, add up to 100%.
[b] The distribution of the categories within each variable is not statistically significant at the $p < .05$ level using the Chi-square test.
[c] The distribution of the categories within each variable is statistically significant at the $p < .05$ level using the Chi-square test.

Table 3.16 Abstinence and Recidivism by Participation in AA/NA

	Abstinence		Recidivism	
Variable	**%[a]**	**n**	**%[a]**	**n**
Total client participation	70.2	125	29.8	53
Participation in AA/NA[b]				
Yes	77.2	95	22.8	28
No	54.5	30	45.5	25
Participation in aftercare[c]				
Yes	75.7	28	24.3	9
No	68.8	97	31.2	44

Note. Missing values are excluded from this table.
[a] Values across rows, not down columns, add up to 100%.
[b] The distribution of the categories within each variable is statistically significant at the $p < .05$ level using the Chi-square test.
[c] The distribution of the categories within each variable is not statistically significant at the $p < .05$ level using the Chi-square test.

Quality of Life Measures at Admission and Six-month Follow-up

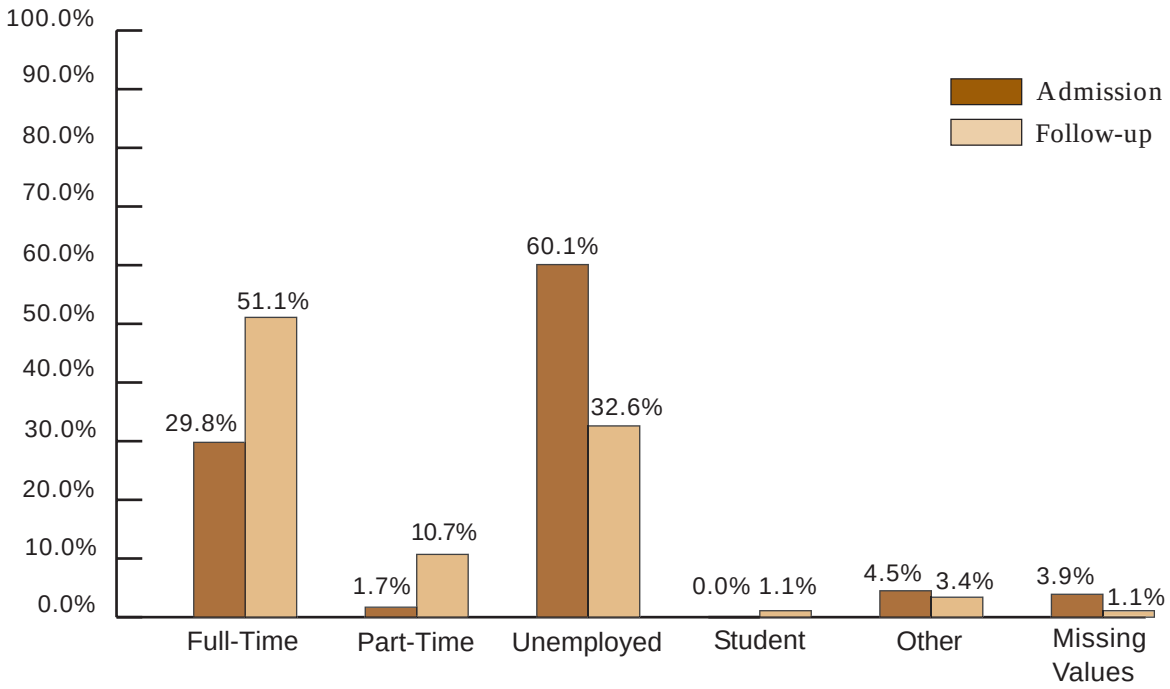
Employment and Usual Occupation

In 2003–04, many clients experienced an improved quality of life after treatment. Unemployment was cut by nearly half, dropping from 60.1% at admission to 32.6% at follow-up. Contributing to this change was the difference between the rates of full-time employment at admission (29.8%) and follow-up (51.1%) and that between part-time employment rates at admission (1.7%) and follow-up (10.7%). The percentage of clients identifying themselves as professionals almost tripled, from 4.5% to 12.4%, and the proportion of skilled workers increased as well, from 22.5% to 33.7% (see Figure 3.11 and Table 3.17).

The correlation between treatment and lower unemployment rates among clients is a consistent feature of I-SATE's findings for the ADAT-DUI Program. In 2002–03, overall unemployment dropped from 70.6% to 32.1%; those employed full-time rose from 13.8% to 53.2%; and those employed part-time increased from 3.7% to 9.2%. In 2001–02, whereas 67.8% of clients were unemployed at admission, 26.6% were unemployed at follow-up, and while only 11.9% were working full-time at admission, 51.7% were at follow-up.

Treatment improved clients' employment rates dramatically: the percentage of those working full-time increased over 71%, and those working part-time increased significantly.

Figure 3.11
Change in Employment since Treatment



In 2003–04, 69.7% of clients said their performance at school or work had improved (see Table 3.18). This figure represents a 4-year high, up from 60.6% in 2002–03, 66.4% in 2001–02, and 39.2% in 2000–01.

Living Arrangement

In the current study year, there were considerable changes in clients' living arrangements between admission and follow-up. Almost half (46.6%) of clients lived with other relatives at admission, but by the time of the follow-up, 60.1% reported living with immediate family, and only 6.2% were still living with other relatives (see Table 3.19). In 2002–03, 51.4% of clients lived with other relatives at admission; coincidently, 51.4% reported living with immediate family at follow-up. The change in 2001–02 was very close to that seen in 2002–03. However, in 2000–01, 71.6% were living with other relatives at admission, which dropped slightly to 66.2% at follow-up.

Marital Status

Clients' marital status since treatment changed little in 2003–04. The percentage of those reporting having never been married declined from 38.8% to 32.6%; those reporting being married rose from 21.9% to 25.8%; and those reporting have been separated or divorced increased from 36.5% to 41.6% (see Figure 3.12 and Table 3.20). Likewise, in the two previous study

Table 3.17 Employment Situation and Usual Occupation at Admission and Six-month Follow-up

	Admission		Six-month Follow-up		Change[a]
Variable	%	n_1	%	n_2	%
Employment situation					
Full-time[b]	29.8	53	51.1	91	71.7
Part-time[b]	1.7	3	10.7	19	533.3
Unemployed[b]	60.1	107	32.6	58	-45.8
Student[c]	0.0	0	1.1	2	NA
Other[d]	4.5	8	3.4	6	-25.0
Missing values[c]	3.9	7	1.1	2	NA
Usual occupation					
Professional[b]	4.5	8	12.4	22	175.0
Skilled worker[d]	22.5	40	33.7	60	50.0
Housewife/homemaker[c]	0.0	0	1.1	2	NA
Laborer[d]	16.9	30	9.0	16	-46.7
Unemployed[b]	52.2	93	36.5	65	-30.1
Missing values[c]	3.9	7	7.3	13	NA

Note. NA = not applicable.

[a] Percent of change is calculated based on *n* values at the time of admission and follow-up using the formula $(n_2 - n_1)/n_1$ x 100.

[b] The percent of change for this category between admission and the 6-month follow-up is statistically significant at the $p < 0.1$ level using the McNemar test.

[c] The test of significance was not used for this category.

[d] The percent of change for this category between admission and the 6-month follow-up is not statistically significant at the $p < .01$ level using the McNemar test.

Table 3.18 Performance at School or Work at Six-month Follow-up

Variable	%	n
Improved	69.7	124
Not improved	8.4	15
Not applicable	21.9	39

periods, there was only small variation in this demographic feature between admission and follow-up. For 2000–01, the separated/divorced/widowed category was the only one that increased, from 43.2% to 50.0%.

Table 3.19 Living Arrangement at Admission and Six-month Follow-up

	Admission		Six-month Follow-up		Change[a]
Arrangement	%	n_1	%	n_2	%
Alone[b]	24.7	44	19.1	34	-22.7
With immediate family[c]	7.9	14	60.1	107	664.3
With other relatives[c]	46.6	83	6.2	11	-86.7
Other[b]	15.7	28	13.5	24	-14.3
Missing values[d]	5.1	9	1.1	2	NA

Note. NA = not applicable.

[a] Percent of change is calculated based on *n* values at the time of admission and follow-up using the formula $(n_2 - n_1)/n_1$ x 100.

[b] The percent of change for this category between admission and the 6-month follow-up is not statistically significant at the $p < .01$ level using the McNemar test.

[c] The percent of change for this category between admission and the 6-month follow-up is statistically significant at the $p < .01$ level using the McNemar test.

[d] The test of significance was not used for this category.

Figure 3.12
Change in Marital Status since Treatment

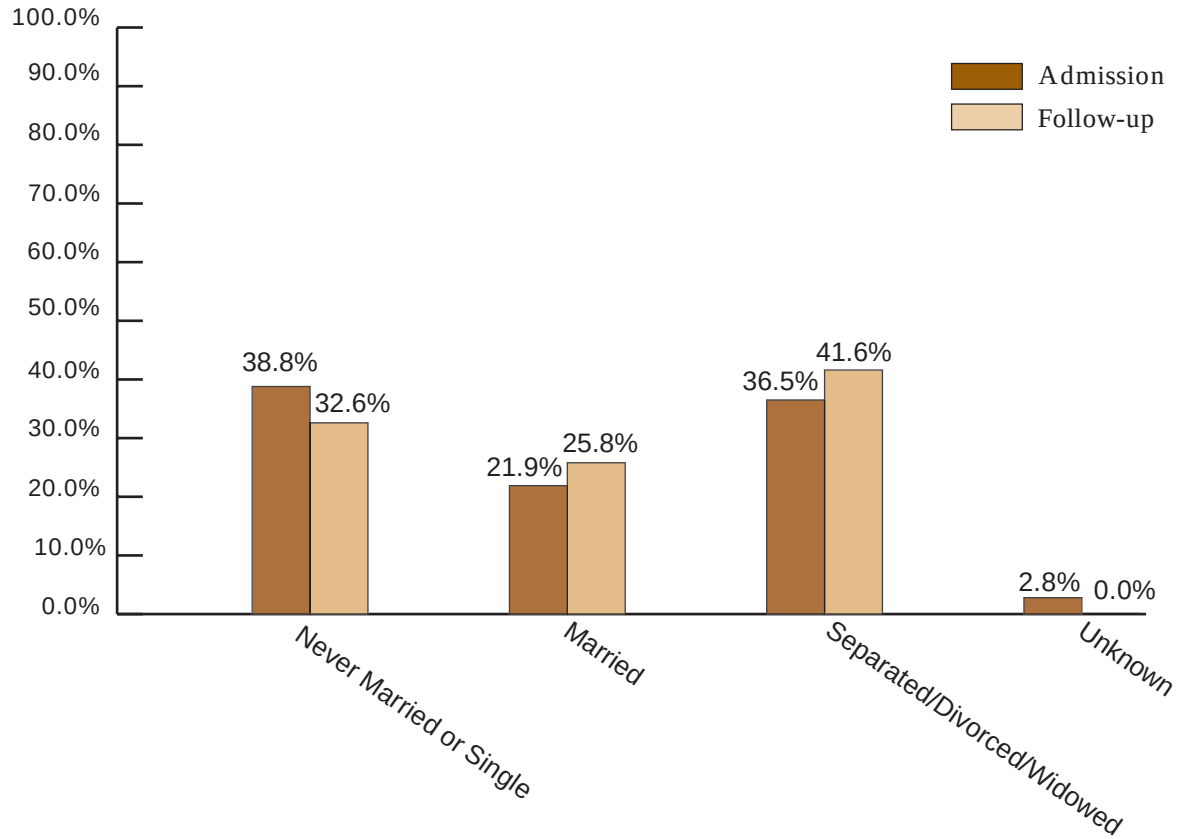


Table 3.20 Marital Status at Admission and Six-month Follow-up

	Admission		Six-month Follow-up		Change[a]
Status	%	n_1	%	n_2	%
Never married[b]	38.8	69	32.6	58	-15.9
Married[c]	21.9	39	25.8	46	17.9
Separated/divorced/widowed[c]	36.5	65	41.6	74	13.8
Unknown[d]	2.8	5	0.0	0	NA

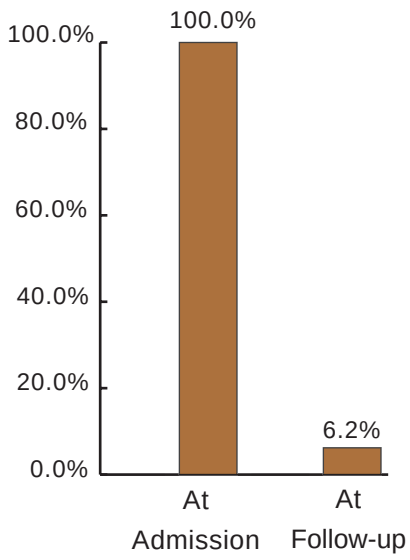
Note. NA = not applicable.
[a] Percent of change is calculated based on *n* values at the time of admission and follow-up using the formula $(n_2 - n_1)/n_1 \times 100$.
[b] The percent of change for this category between admission and the 6-month follow-up is statistically significant at the $p < .01$ level using the McNemar test.
[c] The percent of change for this category between admission and the 6-month follow-up is not statistically significant at the $p < .01$ level using the McNemar test.
[d] The test of significance was not used for this category.

Arrest Record

All clients in 2003–04 had been arrested in the 2 years prior to admission (see Figure 3.13 and Table 3.21), and as in previous years, almost all (92.1%) had experienced driver's license revocation for Driving Under the Influence (DUI) prior to treatment (see Figure 3.14). However, since 2000 fewer and fewer clients have been rearrested after treatment: from 10.8% in 2000–01, 8.4% in 2001-02, 7.3% in 2002–03, to a low of 6.2% in the current reporting year.

Of those 2003–04 clients who had been rearrested, the leading reasons were major driving violations (18.2%) and driving under the influence (18.2%) (see Table 3.22). In 2001–02, there was a spike in two other reasons—parole or probation violations (36.4%) and disorderly conduct (27.3%)—for clients' rearrest, but by the current reporting year these had dropped to 9.1% for each reason.

Figure 3.13
Change in Arrest Record



Following treatment, only 6.2% of clients had been rearrested.

Table 3.21 Recent Arrest Record at Admission and Six-month Follow-up

	Admission		Six-month Follow-up		Change[a]
Arrested[b]	%	n	%	n	%
Yes	100.0	178	6.2	11	-93.8
No	0.0	0	93.8	167	NA

Note. NA = Not applicable.
[a] Percent of change is calculated based on *n* values at the time of admission and follow-up using the formula $(n_2 - n_1)/n_1$ x 100.
[b] Clients were considered to have an arrest record at admission if they had been arrested in the 2 years before admission or at follow-up if they had been arrested in the 6 months since admission.

Figure 3.14
Revoked Driver's License

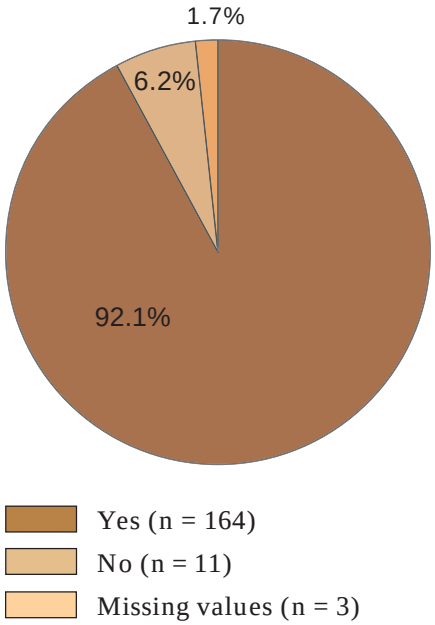


Table 3.22 Reasons for Arrest since Treatment

Variable	%	n
Major driving violations	18.2	2
Driving Under the Influence	18.2	2
Parole or probation violations	9.1	1
Assault	9.1	1
Disorderly conduct	9.1	1
Other	18.2	2
Missing values	36.4	4

[a]Percentages may not add up to 100% because some clients gave multiple responses.

A Geographic Information Systems (GIS) map illustrates the reduction in arrests at follow-up by region and metro areas for the 2003–04 reporting year (see Map 3).

Domestic Violence Involvement

For the current study year, at admission a small proportion of clients said that they committed domestic violence (14.0%) or were victims of domestic violence (14.0%). At follow-up, the rates had fallen to 1.1% and 1.7%, respectively (see Table 3.23). While the percentage of clients who at admission had committed domestic violence has remained stable (14.0% in 2001–02 and 12.8% in 2002–03), the rate of victims has fluctuated significantly: 16.8% in 2001–02 and 24.8% in 2002–03. Still, each year by the time of follow-up, the incidence of domestic violence had fallen sharply in both categories.

Physical and Mental Health at Six-month Follow-up

A majority of clients in the 2003–04 sample population (86.0%) felt that they had experienced better health since treatment, with 14.6% rating their overall physical state as "excellent," 35.4% as "very good," or 37.1% as "good." Much smaller percentages described their overall health as "fair" (7.3%) or "poor" (5.1%). However, over two fifths (42.7%) said that they had experienced a mental health problem since treatment. Serious anxiety or tension (60.5%) was the biggest emotional problem for clients in the 30 days before follow-up. Other significant problems include serious depression (57.9%) and trouble

Table 3.23 Domestic Violence Involvement at Admission and Six-month Follow-up

	Admission		Six-month Follow-up		Change[a]
Variable	%[b]	n_1	%[b]	n_2	%
Committed domestic violence					
Yes[c]	14.0	25	1.1	2	-92.0
No[c]	84.8	151	97.8	174	15.2
Missing values[d]	1.1	2	1.1	2	NA
Victim of domestic violence					
Yes[c]	14.0	25	1.7	3	-88.0
No[c]	84.8	151	95.5	170	12.6
Missing values[d]	1.1	2	2.8	5	NA

Note. All data were collected at the time of the follow-up when clients were asked whether they had committed or had been a victim of domestic violence before or since treatment.
Note. NA = not applicable.
[a] Percent of change is calculated based on *n* values at the time of admission and follow-up using the formula $(n_2 - n_1)/n_1$ x 100.
[b] Values in this column may not add up to 100% because of rounding.
[c] The change for this category between admission and the 6-month follow-up is statistically significant at the $p < .01$ level using the McNemar test.
[d] The test of significance was not used for this category.

understanding concepts (34.2%). Nearly half (44.7%) were taking prescribed medication (see Table 3.24).

Most clients reported that they were in better health since treatment, and half described their physical condition as "excellent" or "very good."

This pattern was seen in the earlier studies as well. In each year since 2000, more than 80% of clients felt they were in better health since treatment and assessed their physical state fairly positively: for example, in 2001–02, 15.4% of clients described their health as excellent, 39.2% as very good, and 30.1% as good; in 2002–03, 20.2% described their health as excellent, 32.1% as very good, and 33.0% as good. But they also experienced emotional problems in the 30 days before follow-up, including serious depression (25.2% in 2001–02 and 66.7% in 2002–03) and serious anxiety or tension (28.7% in 2001–02 and 64.8% in 2002–03). In the 2000–01 study, 69% of clients reported serious depression; 58.6%, serious anxiety or tension; and 20.7%, difficulty understanding, concentrating, or remembering.

Table 3.24 Physical and Mental Health at Six-month Follow-up

Variable	%	n
Had better physical health since treatment[a]		
Yes	86.0	153
No	11.2	20
Missing values	2.8	5
Current overall health rating[a]		
Excellent	14.6	26
Very good	35.4	63
Good	37.1	66
Fair	7.3	13
Poor	5.1	9
Missing values	0.6	1
Experienced a mental health problem since treatment[a]		
Yes	42.7	76
No	55.1	98
Missing values	2.2	4
Type of emotional problem experienced in the 30 days before follow-up[b]		
Serious depression	57.9	44
Serious anxiety or tension	60.5	46
Taking prescribed medication	44.7	34
Trouble understanding concepts	34.2	26
Hallucinations	5.3	4
Thoughts of suicide	3.9	3
Trouble controlling violent behavior	2.6	2

[a]Percentages in this column may not add up to 100% because of rounding.
[b]Percentages may not add up to 100% because some clients gave multiple responses.

Chapter 4
Conclusion

This chapter summarizes the results of this 2003–04 ADAT-DUI outcomes evaluation and provides some qualitative data about clients' responses to treatment, which clearly demonstrate that substance abuse treatment helps DUI offenders maintain abstinence and improves their quality of life. Research shows the cost-effectiveness of treatment over other punitive measures.

Treatment Outcomes

Of the 178 respondents who completed interviews for this study, nearly three fourths (70.2%) reported being abstinent 6 months after admission. Alcohol abuse was reduced significantly, from 92.1% reporting abuse at admission to 28.7% after treatment.

Clients also experienced reductions in unemployment (from 60.1% to 32.6%); the number who found full-time work increased 71.7% and part-time work increased dramatically. The percentage of those clients who lived with their immediate family shot up from 7.9% to 60.1%.

Whereas all clients had been arrested during the 2 years prior to admission, at the 6-month follow-up only 6.2% of clients had been rearrested. Few ADAT-DUT clients were involved in domestic violence, but still after treatment the percentages of those involved declined, both as perpetrators (from 14.0% to 1.1%) and as victims (14.0% to 1.7%).

A majority of clients (86%) felt that their physical health had improved since treatment, with 14.6% rating their overall condition as "excellent" and 35.4% rating it "very good."

Clients' Perceptions of Treatment

To get a more detailed picture of clients' experiences, interviewers asked them several open-ended questions about treatment as a whole, including "What did you like best about this service?" and "What could be done to enhance your treatment experience?" What follows is a summary of their responses.

Regarding what they liked best, the vast majority of clients cited the counselors and/or staff, a finding consistent with previous years. As one respondent commented, "the staff was excellent, very understanding,

considerate, courteous and generous," and another appreciated "the staff and the way they treated you and took time out to help you." This type of response to the work of facility counselors and staff was very common.

Other clients said that they found the education and/or information they learned during their treatment most valuable: "[It] gave me insight as to why I was drinking as much as I was," commented one, "it was getting out of hand." Another "found the program very informative [as] I learned how to stay sober."

For some clients, being in treatment compelled them to realize the seriousness of their situation and the need to resolve it; they often credited this "reality check" as the key to their success. The program, one client said, "gave me a chance to re-evaluate myself and [learn] how to live a drug-free lifestyle"; another reported that "after about a week and a half, something clicked and I realized I was in denial about myself."

Other clients liked the group meetings and the chance to open up to people who were either going or had been through the same experiences, including some of the staff. As one commented, it was especially helpful "that the counselors were ex-addicts themselves and knew where I was coming from." Another felt that "the staff really cared and with most of them in recovery, it really helped me in opening my feelings to them." Some valued the opportunity to share with others in the program; according to one client, "everybody there had been where I was. They were easy to talk to." Another commented that "the group helped a lot of people. It was a good program."

A few clients found the entire experience in treatment to be positive, citing the structured and rigorous approach: "It was an intense program, very thorough," one client responded, and another found it "aggressive [but] positive." One respondent especially appreciated how "the program and staff helped you out mentally and spiritually."

In terms of what could be done to enhance their treatment experience, a majority of clients said that nothing needed to be changed because they found all aspects of the program positive and helpful. Still, some clients made a few suggestions for improving treatment, saying that a longer stay would have been even more beneficial and that more one-on-one counseling would have been helpful. In addition, a few respondents would have preferred "more recreational activities" and even greater variety in skills training, including "anger management classes."

Cost-Effectiveness Analysis

Treatment not only helps DUI offenders regain control over their lives, it also alleviates the harmful economic impact of substance abuse on society as a whole—an overburdened criminal justice system, higher insurance rates, loss of life, diminished productivity, and the adverse impact on affected families.

Although the costs associated with DUI far exceed most other crimes, DUI drivers often pay only a portion of the costs associated with an accident. In 2000, Tennessee victims of alcohol-related crashes paid $1.4 billion in expenses. The average cost per injury in an alcohol-related crash is $92,000: $45,000 in monetary costs and $47,000 in quality of life losses (Taylor, Miller, & Cox, 2002b, p. 1). Additionally, 13% of automobile insurance claims in Tennessee involve alcohol-related crashes. It is estimated that automobile insurance companies' expenses could decrease by as much as $40 million if the number of alcohol-related accidents was reduced by only 10% (p. 1).

In 2001, it cost approximately $2,670 to treat an ADAT-DUI client, compared with (a) the estimated cost of $26,000 incurred by a victim of a DUI-related traffic accident, (b) the approximately $22,000 required to incarcerate a person for a year, or (c) the much greater costs associated with the healthcare and criminal justice systems, lost productivity, and diminished quality of life resulting from an accident. The anticipated savings from treatment exceeds the potential costs resulting from untreated drivers who remain on the road. With more than 70% of clients abstinent, a less than 6.2% rearrest rate after treatment, and improvement in other performance indicators 6 months after admission, the Tennessee ADAT-DUI Program continues to demonstrate the effectiveness of treatment for DUI clients in the state.

In addition, public opinion in the United States supports treatment as an alternative to incarceration. In a 2002 report, Peter D. Hart Research Associates, Inc., stated that "it is time for a new approach to dealing with drug addiction. Nationwide, three quarters of those polled (76%) favor a proposal requiring supervised mandatory drug treatment and community service rather than prison time for people convicted of drug possession. This progressive approach even extends to minor drug sellers—71% favor a policy that would mandate drug treatment and community service rather than prison for people found guilty of selling small amounts of drugs" (2002, p. 10).

References

Beck, K. H., Rauch, W. J., Baker, E. A., & Williams, A. F. (1999). Effects of ignition interlock license restrictions on drivers with multiple alcohol offenses: A randomized trial in Maryland. *American Journal of Public Health, 89*(11), 1696–1700.

Bureau of Alcohol and Drug Abuse Services, Tennessee Department of Health. (2002). *ADAT unit rate reimbursement schedule*. Nashville, TN: Author.

California Department of Alcohol and Drug Programs. (2003). *Evaluation of Substance Abuse and Crime Prevention Act: 2002 Report*. Retrieved January 13, 2004, from http://www.cadpaac.org/Final%20SACPA%20Annual%20Report%20Year%20June%20242.pdf

California Department of Alcohol and Drug Programs. (2002). *Substance Abuse and Crime Prevention Act of 2000 (SACPA - Proposition 36): First annual report to the legislature*. Sacramento, CA: Author.

Flynn, P. M., Craddock, S. G., Hubbard, R. L., Anderson, J., & Etheridge, R. M. (1997). Methodological overview and research design for the Drug Abuse Treatment Outcome Study (DATOS). *Psychology of Addictive Behaviors, 11*, 230–243.

Flynn, P. M., Simpson, D. D., Anglin, M. D., & Hubbard, R. L. (2001). Comment on "Nonresponse and selection bias in treatment follow-up studies" [Letter to the editor]. *Substance Use & Misuse, 36*(12), 1749–1751.

Gerstein, D. R., & Johnson, R. A. (2000). Nonresponse and selection bias in treatment follow-up studies. *Substance Use & Misuse, 35*(6-8), 971–1014.

Green, R. E., French, J. F., Haberman, P. W., & Holland, P. W. (1991). The effects of combining sanctions and rehabilitation for Driving Under the Influence: An evaluation of the New Jersey Alcohol Countermeasures Program. *Accident Analysis and Prevention, 22*(6), 543–555.

Juhnke, G., Sullivan, T., & Harman, A. (1995, April). Attitude changes in DWI offenders: A study of a short-term treatment program. *Journal of Addictions & Offender Counseling, 15*(2). Retrieved October 10, 2003, from http://www.ncadd.com/tsra/abstracts/002.html

Kedia, S. (2004). *Tennessee ADAT-DUI outcomes evaluation 2002-2003.* Memphis: Tennessee Outcomes for Alcohol and Drug Services.

Kedia, S. (2003). *Tennessee ADAT-DUI outcomes evaluation 2001-2002*. Anthropological Research Center Occasional Paper 24. Memphis: Tennessee Outcomes for Alcohol and Drug Services.

Kedia, S. (2002). *Tennessee ADAT-DUI outcomes evaluation 2000-2001*. Anthropological Research Center Occasional Paper 21. Memphis: Tennessee Outcomes for Alcohol and Drug Services.

Kentucky Department of Mental Health. (2003). *The Kentucky substance abuse treatment outcome study: 2000 follow-up findings*. Frankfort: Kentucky Department of Mental Health and Mental Retardation.

Kunitz, S. J., Woodall, W. G., Zhao, H., Wheeler, D. R., Lillis, R., & Rogers, E. (2002). Rearrest rates after incarceration for DWI: A comparative study in a Southwestern US county. *American Journal of Public Health, 92*(11), 1826–1831.

Little, G. L., Robinson, K. D., & Burnette, K. (1990). Treating drunk drivers with moral reconation therapy: A two-year recidivism study. *Psychological Reports, 66*, 1379–1387.

MADD [Mothers Against Drunk Driving]. (2004). *MADD statistics and resources*. Retrieved October 25, 2004, from http://www.madd.org/stats/

Malfetti, J. L., & Simon, K. J. (1974). Evaluation of a program to rehabilitate drunken drivers. *Traffic Quarterly, 20*(1), 49–59.

Marion County Prosecutor's Office. (2001). *Marion County study of alternative sentences for impaired drivers: Final report*. Retrieved January 16, 2004, from http://www.in.gov/cji/research/crash_facts/MC_FinalRprt.pdf

Maryland Alcohol and Drug Abuse Administration. (2003). *Outlooks and outcomes in Maryland substance abuse treatment: Fiscal year 2002.* Catonsville, MD: Author.

National Highway Traffic Safety Administration. (2004). *Traffic safety facts: Repeat intoxicated driver laws.* Retrieved October 25, 2004, from http://www.nhtsa.dot.gov/people/injury/New-fact-sheet03/RepeatIntoxicated.pdf

National Highway Traffic Safety Administration. (2003a). *DOT releases preliminary estimates of 2002 highway fatalities.* Retrieved October 25, 2004, from http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2002/2002ovrfacts.pdf

National Highway Traffic Safety Administration, Office of Research and Traffic Records. (2003b). *2001 National Survey of Drinking and Driving*. Retrieved October 25, 2004, from www.nhtsa.dot.gov/people/injury/alcohol/marvin-drink-drive01/volISum.pdf

National Highway Traffic Safety Administration, Traffic Safety Programs. (2001b). A legislative history of .08 per se laws. *Traffic Tech*, *256*, 1-3. Retrieved January 9, 2004, from http://www.nhtsa. dot.gov/people/outreach/traftech/TT256.htm

National Highway Traffic Safety Administration, National Center for Statistics & Analysis. (2001a). *Traffic safety facts 2000: Alcohol*. Retrieved October 7, 2003, from http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2000/2000alcfacts.pdf

Peter D. Hart Research Associates, Inc. (2002). *Changing public attitudes toward the criminal justice system*. Retrieved November 15, 2004, from http://www.soros.org/initiatives/justice/articles_publications/publications/hartpoll_20020201/Hart-Poll.pdf

Portney, L. G., & Watkins, M. P. (2000). *Foundations of clinical research: Applications to practice* (2nd ed.). Upper Saddle River, NJ: Prentice Hall Health.

Salzberg, P. M., & Klingberg, C. L. (1983). The effectiveness of deferred prosecution for driving while intoxicated. *Journal of Studies on Alcohol, 44*(2), 299–306.

Scoles, P., & Fine, E. W. (1977). Short-term effects of an educational program for drinking drivers. *Journal of Studies on Alcohol*, *38*(3), 633–637.

Siegel, H. A. (1985). The intervention approach to drunk driver rehabilitation. Part II: Evaluation. *International Journal of the Addictions, 20*(5), 675–689.

Subramanian, R. (2003). *Research Note: Total and alcohol-related fatality rates by state, 2001-2001.* Retrieved October 21, 2003, from National Highway Traffic Safety Administration web site: http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/Rnotes/2003/809644_bw.pdf

Substance Abuse and Mental Health Services Administration, Office of Applied Studies, U.S. Department of Health and Human Services. (2003). *Overview of findings from the 2002 National Survey on Drug Use and Health.* Retrieved October 25, 2004, from http://www.drug-help.net/pdf/2k2SoFOverviewW.pdf

Swenson, P. R., Struckman-Johnson, D. L., Ellingstad, V. S., Clay, T. R., & Nichols, J. L. (1981). Results of a longitudinal evaluation of court-mandated DWI treatment programs in Phoenix, Arizona. *Journal of Studies on Alcohol*, *42*(7), 642–653.

Taylor, D., Miller, T. R., & Cox, K. L. (2002a). *Impaired driving in the United States*. Retrieved October 7, 2003, from National Highway Traffic Safety Administration web site: http://www.nhtsa.dot.gov/people/injury/alcohol/impaired-drivingusa/US.pdf

Taylor, D., Miller, T. R., & Cox, K. L. (2002b). *Impaired driving in Tennessee*. Retrieved October 28, 2004, from National Highway Traffic Safety Administration web site: http://www.nhtsa.dot.gov/people/injury/alcohol/impaired_driving_pg2/TN.htm

Tennessee Code Commission. (2004). *Tennessee Code Annotated 1-1-105*. Retrieved May 13, 2004, from www.michie. com

Tennessee Department of Safety. (2002). *DUI offenses outline*. Retrieved October 20, 2003, from http://www.tennessee.gov/safety/dui/dui-1-2-3offender.html

U.S. Department of Health and Human Services. (2000). *10th Special Report to the U.S. Congress on Alcohol and Health*. Washington, DC: Public Health Service, National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism.

Voas, R. B., & DeYoung, D. J. (2002). Vehicle action: Effective policy for controlling drunk and other high-risk drivers? *Accident Analysis and Prevention*, *34*, 263–270.

Voas, R. B., & Tippetts, A. S. (1990). Evaluation of treatment and monitoring programs for drunken drivers. *Journal of Traffic Medicine, 18*, 15–26.

Wells-Parker, E., Bangert-Drowns, R., McMillen, R., & Williams, M. (1995). Final results from a meta-analysis of remedial interventions with drink/drive offenders. Retrieved October 27, 2004, from http://www.ncadd.com/027.cfm

Treatment Agencies in Tennessee Participating in the ADAT-DUI Program

Action Counseling & Consulting
151 Durkee Road N.E.
Cleveland, TN 37323
(423) 339-2713

Alcohol & Chemical Abuse Rehab Center, Inc.
633 Monroe Avenue
Memphis, TN 38103
(901) 527-3100

Addiction & Mental Health Services, Inc.
Bradford Health Services
6160 Shallowford Road, Suite 103
Chattanooga, TN 37421
(800) 892-2639
www.bradfordhealth.com

Buffalo Valley, Inc.
P.O. Box 879
501 South Park Avenue
Hohenwald, TN 38462
(800) 447-2766
(931) 796-5427
www.buffalovalley.com

Camelot Care Center
215 Centerview Drive, Suite 261
Brentwood, TN 37027
(615) 370-4228
www.camelotcare.com

Carey Counseling Center, Inc.
P.O. Box 30
408 Virginia Street
Paris, TN 38242
(731) 642-0521
www.bhillc.org

Catholic Charities, Inc.
1325 Jefferson Avenue
Memphis, TN 38104
(901) 722-4700
www.cathchar.org

Centerstone Community Mental Health Centers, Inc.
P.O. Box 40406
1101 6th Avenue North
Nashville, TN 37204-0406
(615) 463-6600
www.centerstone.org

Child & Family Tennessee
901 East Summit Hill Drive
Knoxville, TN 37915
(865) 524-7483
www.child-family.org

Cocaine and Alcohol Awareness Program Inc. (CAAP)
1656 Lamar Avenue
Memphis, TN 38114
(901) 272-2227

Community Outreach Solutions
714 West C. Street, Suite A
Elizabethton, TN 37643
(423) 547-3001

Comprehensive Community Services, Inc. (CCS)
321 West Walnut Street
Johnson City, TN 37604
(423) 928-6581

Council for Alcohol and Drug Abuse Services, Inc. (CADAS)
P.O. Box 4797
207 Spears Avenue
Chattanooga, TN 37405-0797
(423) 756-7644
www.cadas.org

Foundations Associates
220 Ventura Circle
Nashville, TN 37228
(615) 256-9002
www.dualdiagnosis.org/foundations.html

Frayser-Millington North Shelby Mental Health Center, Inc.
2150 Whitney Avenue
Memphis, TN 38127
(901) 353-5440

Frontier Health
Center of Tri-cities Business Park
1167 Spratlin Park Drive
Gray, TN 37615
(423) 467-3600
www.frontierhealth.org

Grace House of Memphis
329 North Bellevue Street
Memphis, TN 38105
(901) 722-8460

Harbor House, Inc.
1979 Alcy Road
Memphis, TN 38114
(901) 743-1836
www.harborhousememphis.org

Helen Ross McNabb Center, Inc.
1520 Cherokee Trail
Knoxville, TN 37920
(865) 637-9711
www.mcnabbcenter.org

Hope of East Tennessee, Inc.
188 Raleigh Road, P.O. Box 4342
Oak Ridge, TN 37830
(865) 482-4826
www.hopeofet.org

Innovative Counseling & Consulting
1420 Union Avenue, Suite 230
Memphis, TN 38104
(901) 276-0220

Jackson Area Council on Alcoholism and Drug Dependency (JACOA)
900 East Chester Street
Jackson, TN 38301
(731) 423-3653
www.jacoa.org

Journey to Recovery
400 Pageant Lane
Clarksville, TN 37040
(913) 906-2070

Meharry Medical College dba Lloyd C. Elam Mental Health Center
1005 David B. Todd Boulevard
Elam Center 2
Nashville, TN 37208
(615) 327-6609
www.mmc.edu/MMC/VisCtr/Home/Buildings/Elam.html

Memphis Alcohol & Drug Council, Inc.
1430 Poplar Avenue
Memphis, TN 38104
(901) 274-0056

Memphis Recovery Centers, Inc.
219 North Montgomery Avenue
Memphis, TN 38104
(901) 272-7751
www.memphisrecovery.com

Metro Public Health Department of Nashville/Davidson County
526 8th Avenue South
Nashville, TN 37203
(615) 340-5616
http://healthweb.nashville.org

Mid-South A&D Education Center
3355 Poplar Avenue, Suite 108
Memphis, TN 38111
(901) 458-4707

Midtown Mental Health Center
427 Linden Avenue
Memphis, TN 38126
(901) 577-9470
www.midtownmentalhealth.org

New Directions, Inc.
642 Semmes Street
Memphis, TN 38111
(901) 327-4244

New Hope Recovery Center
233 West Main Street
Morristown, TN 37814
(423) 581-2411
www.newhoperecovery.com

New Life Foundation
Hope Recovery Center
5925 O'Brien
Nashville, TN 37029
(615) 354-1488

New Life Lodge, Inc.
P.O. Box 430
999 Girl Scout Road
Burns, TN 37029
(615) 446-7034
www.newlifelodge.com

The Pathfinders, Inc.
432 East Main Street
Gallatin, TN 37066
(615) 452-5688
www.pathfinderstn.org

Pathways of Tennessee, Inc.
238 Summar Drive
Jackson, TN 38301
(731) 935-8200

Phoenix Restoration Facilities
3976 Knight Arnold Road
Memphis, TN 38118
(901) 369-4676

The Place of Hope, Inc.
105 North James Campbell Boulevard
Columbia, TN 38401
(931) 388-9406

Professional Counseling Services, Inc.
1997 Highway 51 South
Covington, TN 38019
(901) 476-8967
www.bhillc.org/pcsweb

Samaritan Recovery Community, Inc.
319 South Fourth Street
Nashville, TN 37206

Serenity Recovery Center, Inc.
1094 Poplar Avenue
Memphis, TN 38105
(901) 521-1131

The Synergy Foundation, Inc.
2305 Airport Interchange Avenue
Memphis, TN 38132
(901) 332-2227
www.synergytc.org

T.A.M.B. of Jackson Tennessee, Inc.
331 North Highland Avenue
Jackson, TN 38302
(901) 427-7238

Tony Rice Center, Inc.
1300 Railroad Avenue
Shelbyville, TN 37160
(931) 685-0957
www.tonyricecenter.com

Volunteer Behavioral Healthcare System
P.O. Box 4755
413 Spring Street
Chattanooga, TN 37405
(423) 756-2740

Wade Prince and Associates, LLC
1100 Kermit Drive, Suite 26
Nashville, TN 37217
(615) 627-4761

Wellpath
250 W. 5th Street
Cookeville, TN 38501
(931) 979-5158

Whitehaven South West Mental Health Center, Inc.
1087 Alice Avenue
Memphis, TN 38106
(901) 259-1920

Institute for Substance Abuse Treatment Evaluation (I-SATE)

The University of Memphis
316 Manning Hall
Memphis, Tennessee 38152-3390
Phone: (901) 678-1753
Fax: (901) 678-0707
www.toads.memphis.edu

Tennessee Association of Alcohol and Drug Abuse Services
TAADAS Statewide Clearinghouse

One Vantage Way, Suite B-240
Nashville, Tennessee 37228
Phone: (615) 780-5901
Fax: (615) 780-5905
www.tnclearinghouse.com
Redline Phone: (800) 889-9789

Bureau of Alcohol and Drug Abuse Services
Tennessee Department of Health

William R. Snodgrass Tennessee Tower
26th Floor, 312 8th Avenue North
Nashville, Tennessee 37247-4401
Phone: (615) 741-1921
Fax: (615) 532-2419
www2.state.tn.us/health/A&D

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Institute for Substance Abuse Treatment Evaluation