

NEDS ANALYTIC SUMMARY

Summary #1

March 2000

Highlights

Following treatment:

- **DUI/DWI arrests** for clients who abused alcohol were reduced.
- **Criminal behaviors** were reduced among alcohol-abusing and drug using clients.
- **Employment rates** increased among alcohol-abusing and drug using clients.
- **Self-ratings of physical and mental health** among treatment clients improved.



A Profile of Clients Entering Treatment for Alcohol Problems



NEDS Analytic Summary Series

The Center for Substance Abuse Treatment (CSAT) works to improve the lives of those affected by alcohol and other substance abuse, and, through treatment, to reduce the ill effects of substance abuse on individuals, families, communities, and society at large. Thus, one important CSAT mission is to expand the knowledge about effective substance abuse treatment and recovery services. In support of these efforts, CSAT established the National Evaluation Data Services (NEDS) contract to provide a wide array of secondary data analysis products to the substance abuse treatment field.

Specifically, the NEDS project is focused upon providing CSAT with an analytic capability to use existing data to address policy- and practice-relevant topics as well as future research and evaluation activities. NEDS has developed several product lines designed to provide analytic findings to analytic substance abuse treatment policy makers, service providers, services researchers and evaluators in a format that is most useful to the end user.

The Analytic Summary is one of the NEDS product lines. The purpose of the Analytic Summary is to provide a brief summary of each technical report produced by NEDS written in non-technical language. Readers who find the Analytic Summary results of interest can contact the original NEDS technical report authors for more detailed information. Through this process, the NEDS Analytic Summaries provide information to the substance abuse treatment field and promote linkages among different areas in the field.

This Analytic Summary

This particular NEDS Analytic Summary is based on the NEDS Technical Report titled *A Profile of Clients Entering Treatment for Alcohol Problems*. For a more thorough discussion of the analysis and findings, please obtain a copy of the complete Technical Report. Information for doing so is provided on the last page of this summary.

Contents

Analytic Importance	2
Analytic Approach	2
Findings	3
Implications	8
Future Steps	10

A Profile of Clients Entering Treatment for Alcohol Problems

Analytic Importance

Alcohol abuse is a pervasive source of dysfunction in our culture. Previous studies have shown that alcohol abuse affects a large proportion of clients in publicly-funded substance abuse treatment centers, yet there are large gaps in our knowledge of treatment efficiency and effectiveness.

Most large-scale studies have shown that substance abuse treatment is effective, but don't pinpoint the effective components or specify how treatment can be made more effective. One important function of CSAT is to expand the knowledge about and the availability of effective treatment and recovery services for those affected by alcohol and other substance abuse. In sponsoring these analyses of the data they have collected, CSAT is attempting to gain useful insight into the fundamental question: *What actually constitutes effective (and cost-effective) treatment, and for what populations?*

Analytic Purpose

This analysis is part of the larger National Evaluation Data Services (NEDS) initiative, and represents an attempt to determine what data for understanding alcohol substance abuse are available in the NTIES database, and to learn what the data can tell us. Specifically, the analysis centers on the experiences of clients who entered treatment because of alcohol abuse only, and compares their experience with those who entered because of abuse of alcohol plus other substance(s), and those who used other drugs but did not abuse alcohol. The purpose of the analysis is to answer the question: **How does the outcome of alcohol abuse treatment differ**

from that of other drugs, whether in combination with alcohol or not?

In order to answer these crucial questions, we need to understand the structure, content and messages of the data:

- **What are the characteristics of the sample we are using?** What cautions should be used when generalizing to the larger population of alcohol abusers and other treatment options?
- **How do the abusers of alcohol, alcohol-plus other drugs, and other drugs only differ from one another, besides in their choice of substance?** These differences are important if we are to understand treatment outcomes more completely.

Analytic Approach

Comparison between groups.

Data for this secondary analysis were derived from the NTIES data set (see p. 10), and serve as the basis for comparison between those clients entering treatment for (self-reported) reasons of alcohol abuse only and those entering treatment for use of other substances. To facilitate this comparison, the sample of 4411 is categorized into three subgroups based on self-reported reasons for entering treatment and recent substance abuse:

- Alcohol only (A group): N=464
- Alcohol plus other drugs (AD group): N=1523
- Other drugs only (D group): N=2424.

What *is* effective and cost-effective treatment... and for what populations?

How does the outcome of alcohol abuse treatment differ from that of other drugs, whether in combination with alcohol or not?



A Profile of Clients Entering Treatment for Alcohol Problems (cont.)

Analysis of these groupings indicate that they do not differ from each other in type of CSAT demonstration program or Service Delivery Unit enrollment.

Throughout the analysis, appropriate tests of significance such as Chi-square and 2-way tests of proportions are used to point up areas where the differences between groups are greater than would have been expected by chance. Results that are statistically as well as substantively significant are described in this summary.

Pre- to post-treatment comparisons. Four major types of post-treatment outcomes were assessed in the pre- to post-treatment comparisons:

- Drug and alcohol use
- Criminal behaviors
- Physical and mental health
- Employment

Pre- to post-treatment differences in these areas were evaluated using logistic regression. Odds Ratios are statistical measures used to assess the degree of change, in this case from pre-treatment

to post-treatment. These Odds Ratios were used to control for the effects of age, gender, race and ethnicity on treatment outcomes, and Chi-square was once again used to determine significance of differences.

By controlling for the effects of these types of demographic characteristics, we can eliminate other possible explanations for observed outcomes, and hopefully come closer to providing answers to the key questions posed by the analysis.

Findings

- **What are the characteristics of the sample we are using? What cautions should be used when generalizing to the larger population of alcohol abusers and treatment options?**

The sample of 4411 has some characteristics (e.g. percentage of males) that distinguish it from the population at large. Knowledge of these factors enables us to interpret the data more clearly. (See Exhibits 1 and 2.)

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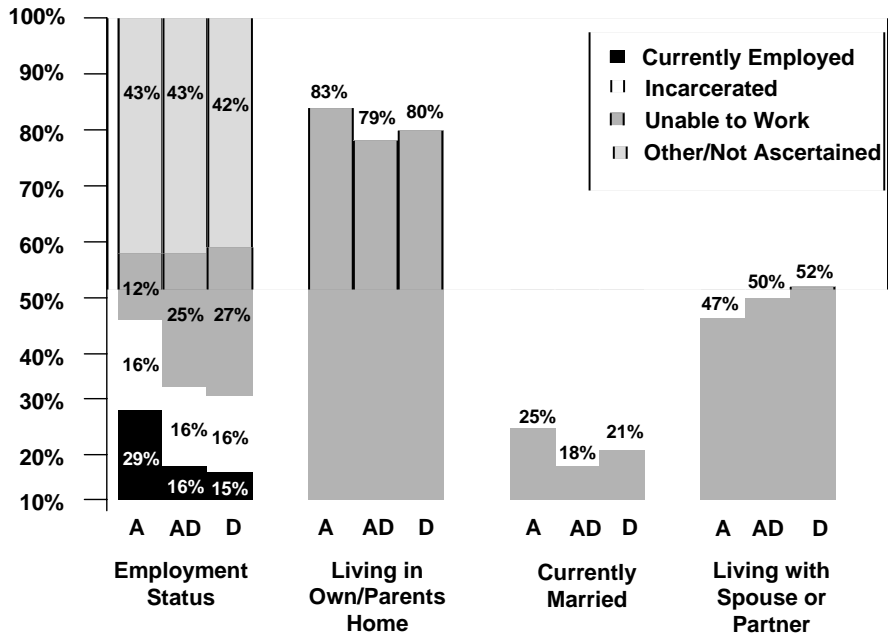
Exhibit 1 Intake Profile of Alcohol Only (A) (n=464), Alcohol and Other Drugs (AD) (n=1,523), and Drugs Only (D) (n=2,424) Users			
Client Characteristic	Alcohol Only	Alcohol And Other Drugs	Other Drugs Only
Sex: Male	77%	72%	66%
Female	24%	28%	34%
Race/ethnicity			
Hispanic	18%	14%	15%
Black (non-Hispanic)	37%	58%	58%
White (non-Hispanic)	37%	24%	25%
Other (non-Hispanic)	9%	4%	2%
Education: HS Diploma or GED	60%	52%	55%
Age: Less than 21 years	7%	13%	11%
21 to 34	36%	51%	53%
35 to 44	33%	30%	30%
45 years or older	24%	7%	6%



A Profile of Clients Entering Treatment for Alcohol Problems (cont.)

Exhibit 2

Employment and Living Status of Alcohol Only (A) (n=464), Alcohol and Other Drug (AD) (n=1,523), and Drug Only (D) (n=2,424) Users at Intake



A large proportion of clients in all groups reported they tried to stick to treatment goals (79%-82%).

Most clients (61%-67%) considered treatment received to have been helpful.

In many respects, the three groups are more alike than they are different. For example, when the characteristics of the *Alcohol Only*, *Alcohol and Other Drugs and Drugs Only* groups are aggregated, all three groups are very likely (over 45%) to have the following characteristics (percentages shown represent the range of percentages within the three groups, from low to high):

Background Characteristics.

Clients are most likely to be males (66%-77%), living in their own, or a parents' house (79%-83%), and to have received at least a high school diploma or GED (52%-60%).

Living Arrangements. Clients are most likely to live with a spouse or partner (47%-52%), someone from whom they receive some financial support (48%-60%). Very few live with another alcohol abuser or drug user (2%-11%). A consistent 16% of all three groups is currently incarcerated.

Reasons for Seeking Treatment. The largest portion of all three groups sought treatment for personal reasons (55%-71%), such as displeasure with their current ways of life, rather than having such motivators as criminal justice pressure or physical health reasons.

Prior Treatment History. Most have received prior treatments for alcohol or drug problems (54%-66%). Of these prior treatments, most (63%-72%) were in inpatient settings. Most had participated in at least one of the 12-step programs such as AA (53%-69%).

Paying the Cost of Treatment. Financing for their treatment was most likely to come from a government source (57%-70%).

Participant Support of Treatment Goals. A large proportion of clients in all groups reported they tried to stick to treatment goals (79%-82%), and most (61%-67%) considered the treatment they received to have been helpful.



A Profile of Clients Entering Treatment for Alcohol Problems (cont.)

- How do the users of alcohol, alcohol-plus other drugs, and other drugs only differ from one another, besides in their choice of substance?

The *Alcohol Only* and *Drug Only* groups differ significantly in several major areas:

The *Alcohol Only* and *Drug Only* groups differ significantly in a number of major areas:

- Client characteristics
- Prior treatment history and arrest record
- Current treatment type
- Reasons for seeking treatment
- Methods of financing treatment
- Treatment completion rate.

Client Characteristics: Demographically, the *Alcohol Only* group is more likely to consist of males, whites, people over 45 years old, to be employed and to have health insurance.

Prior Treatment Histories: Members of the *Alcohol Only* group were less likely to have received prior substance abuse treatment than were those in the *Drug Only* group (54% vs. 59%). As would be expected, they were more likely to have received alcohol treatment (52% vs. 21%) and less likely to have received prior drug treatment (13% vs. 56%).

Prior Arrest Records: “A” group members had fewer self-reported crimes and arrests prior to treatment. They were less likely to have committed physical assaults (15% vs. 30%), prostitution (2% vs. 23%) or shoplifting (8% vs. 34%).

Current Treatment: The *Alcohol Only* group was more likely to be enrolled in outpatient treatment (61%) than were the *Alcohol and Other Drugs* and *Drug Only* groups (38% and 29%), who entered residential or (in the case of the *Drug Only* group) methadone programs.

Reasons for Seeking Treatment: When reasons for seeking treatment are

compared, the *Alcohol Only* group is more likely than the *Drug Only* group to have entered treatment because of criminal justice pressures, because of medical and/or psychiatric referrals and for physical health reasons. They were also comparatively less likely to have entered treatment for personal reasons, or to be self-referred.

Financing Treatment: A clients were more likely than the *Alcohol and Other Drugs* or *Drug Only* clients to be financing their treatment themselves or to have health insurance (35% vs. 23%). They were less likely to use financing from government sources (57% vs. 67% and 70%).

Treatment Completion: Clients in the *Alcohol Only* group were most likely to complete their treatment programs, when compared to the *Drug Only* group (44% vs. 31%), and less likely to terminate treatment at their own behest (19% vs. 27%).

- Were the treatment outcomes different for each of the three groups?

Treatment outcomes differed for the three groups. For the *Alcohol Only* group, there was a lack of improvement in drinking behavior during the post-treatment period; the other two groups showed improvements in drug and alcohol abuse. For all three groups, however, improvements in criminal behavior, employment and health outcomes prevailed. (See Exhibits 3, 4 and 5).

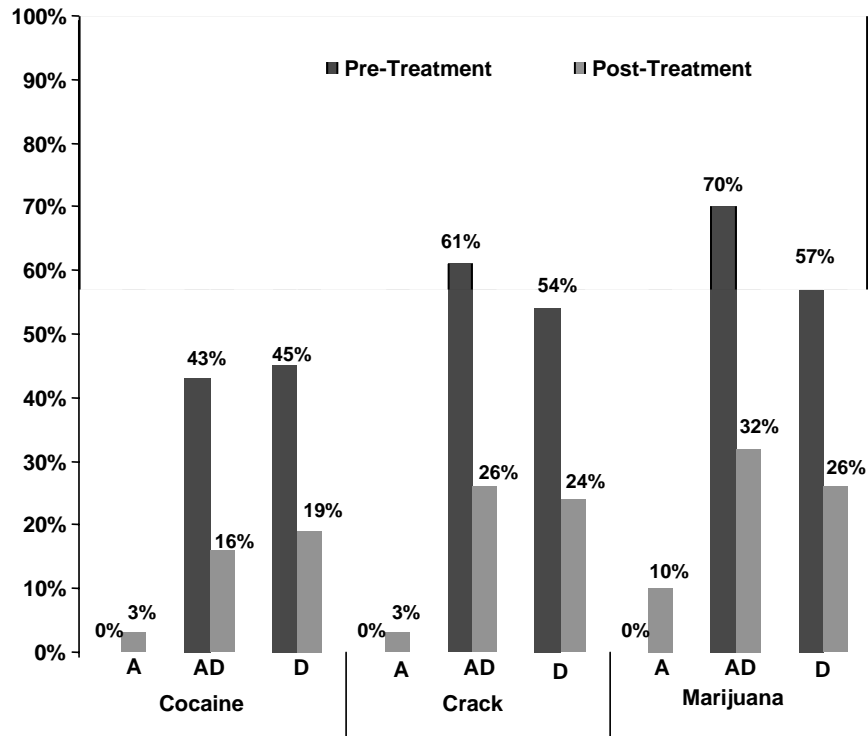
The *Drug Only* and *Alcohol and Other Drugs* groups demonstrated significant reductions in post-treatment drug (and alcohol) use.



A Profile of Clients Entering Treatment for Alcohol Problems (cont.)

Exhibit 3

Pre- and Post-Treatment Use of Selected Substances by Alcohol Only (A) (n=464), Alcohol and Other Drug (AD) (n=1,523), and Drug Only (D) (n=2,424) Users

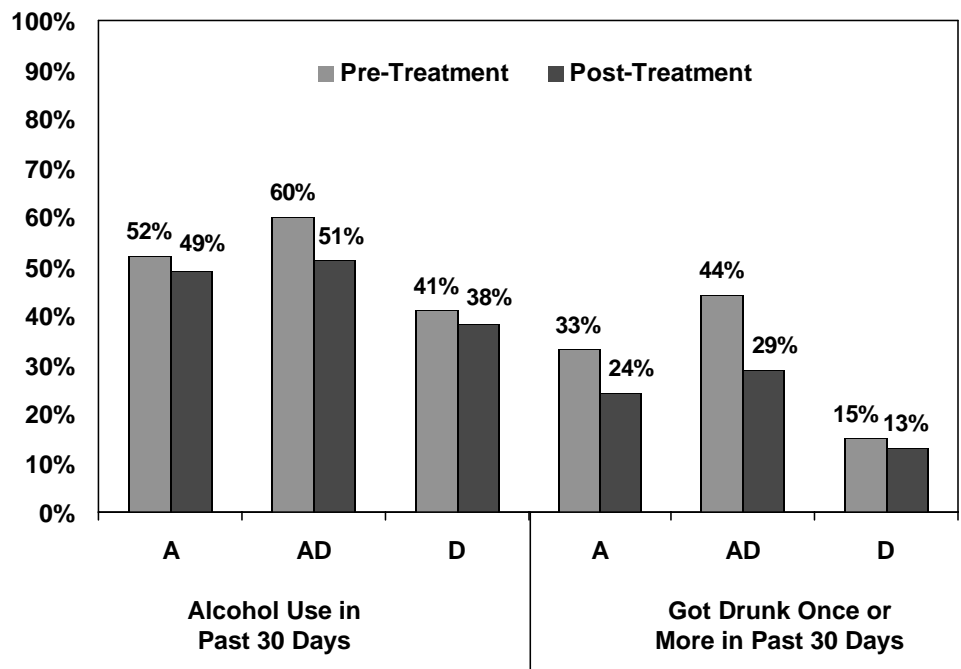


Treatment outcomes differed for the three groups. For all three groups, however, improvements in criminal behavior, employment and health outcomes prevailed.

"Getting drunk" did decline in all three groups.

Exhibit 4

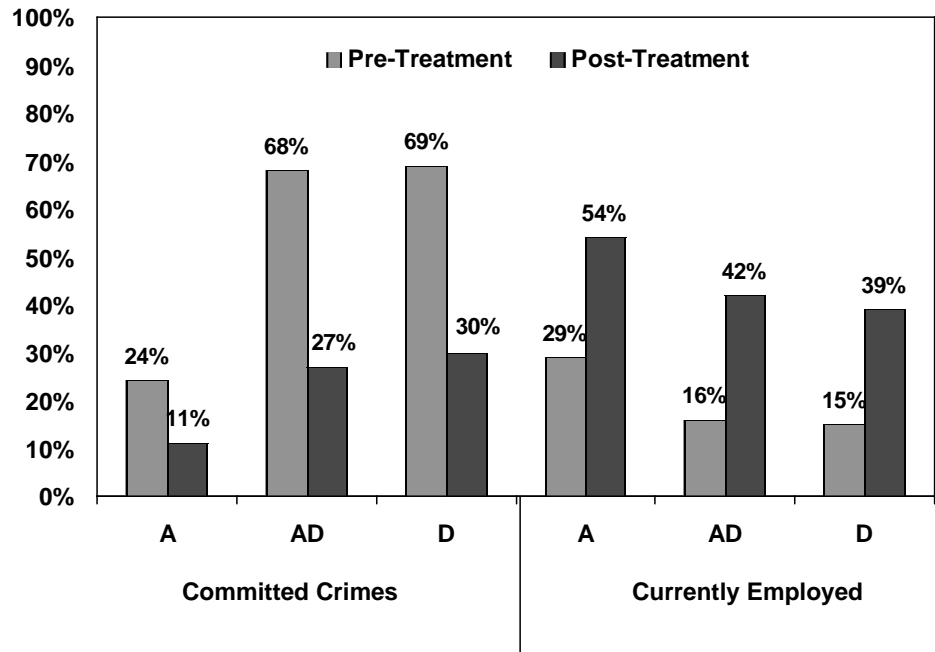
Pre- and Post-Treatment Use of Alcohol By Alcohol Only (A) (n=464), Alcohol and Other Drug (AD) (n=1,423), and Drug Only (D) (n=2,424) Users



A Profile of Clients Entering Treatment for Alcohol Problems (cont.)

Exhibit 5

Pre- and Post-Treatment Criminal and Employment Behavior Outcomes Among Alcohol Only (A) (n=464, Alcohol and Other Drug (AD) (n=1,523), and Drug Only (D) (n=2,424) Users



If one aim of alcohol abuse treatment is to reduce criminal behavior and drunk-driving incidence, and to improve mental and physical health, then the analysis shows some impressive successes.

If the only aim [of substance abuse treatment] is to reduce the abuse of alcohol, then the results of this analysis are not as encouraging as hoped.



While the *Alcohol Only* group did not demonstrate a comparable reduction in alcohol abuse, the behavior of “getting drunk” did decline in all three groups. The current analysis does not provide the information needed to determine **when drinking began again**, since when the data were collected at 12 months post-treatment, queries only covered the past 30 days’ drinking behavior.

All groups reported a substantial reduction in criminal behavior during the post-treatment period. The members of the *Alcohol Only* group had a significant reduction in physical assaults and shoplifting; the other two groups showed significant reductions in all seven criminal behaviors investigated (armed robbery, breaking and entering, physical assaults, prostitution, vehicle theft, shoplifting and selling drugs).

DUI/DWI arrests for the *Alcohol Only* group were significantly reduced (24% vs. 4%); improvements also occurred in the other two groups. This is an indication that the measurement of alcohol reduction may not be sensitive enough to detect those improvements that have apparently resulted in safer driving behavior.

All three groups showed significant pre- to post-treatment increases in rates of employment, and reductions in unemployment due to incarceration.

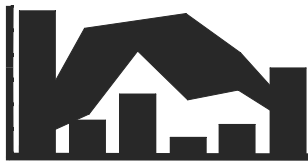
***Alcohol Only* and *Alcohol and Other Drugs* groups improved on self-ratings of physical and mental health status.**

If one aim of alcohol abuse treatment is to reduce criminal behavior and drunk-driving incidence, and to improve mental and physical health, then

A Profile of Clients Entering Treatment for Alcohol Problems (cont.)

Enhancements to the research design could provide more useful data:

- Obtain a larger sample
- Refine some of the response categories
- Reword questions about post-treatment alcohol abuse
- Consider random sampling
- Introduce comparison groups
- Use more graduated and longer post-treatment follow-up periods
- Compare outcomes for treatment completers vs. non-completers.



the analysis shows some impressive successes. If the only aim is to reduce the abuse of alcohol, then the results of this analysis are not as encouraging as hoped. The major implications of this analysis point to a need for further analysis and possibly additional studies. These implications, along with methodological issues raised, are discussed below.

Implications

This analysis represents an effective use of existing data collected from three different demonstration projects to answer some fundamental questions about alcohol abuse and treatment. Every statistical and conceptual analysis that could effectively be used to understand these data was used, yet the results leave some of the major questions unanswered.

Implications for Research and Analysis

What actually constitutes effective (and cost-effective) treatment, and for what populations? The current data do not provide the information needed to answer this question fully. Ideally, certain enhancements to the research design could enable us to provide answers to this all-important question.

- **Obtain a larger sample size.** Although the overall size of the sample is large, the number in the *Alcohol Only group* is fairly small, especially when broken down into the subsets (male vs. female, employed vs. unemployed, inpatient vs. outpatient) that would enable us to answer questions and draw conclusions about treatment efficacy. The treatment modalities in the dif-

ferent demonstration projects vary, and without a larger sample, it cannot be determined which one(s) affect outcomes. There are three major opportunities for collecting a larger sample:

- **Get additional data from demonstration projects.** The data on which this analysis is based represent a small portion of the demonstration programs sponsored by CSAT between 1990 and 1999. If additional data were available from the unsampled SDUs, it would enhance the results of this analysis.
 - **Combine these data with other research** from drug and alcohol treatment programs outside the CSAT universe. It is frequently difficult to amalgamate research findings, however, because of different measuring techniques and conceptual frameworks.
 - **Collect new data custom-designed to meet requirements.** This is the most expensive, but potentially most productive option. Data collection could then be focused on information that would provide the answers to the compelling research questions posed in this report.
- As an example, it would help to know more about treatment received. Although the demonstration projects on which this analysis is based include a set of advanced treatment options, we don't know which specific treatments or support services have been received by the individual respondents.
- **Refine some of the response categories.** Certain response categories

A Profile of Clients Entering Treatment for Alcohol Problems (cont.)

are presently too broad to be useful: “Other” employment, and “personal” reasons for entering treatment are two examples.

- **Reword the questions about post-treatment alcohol abuse** to clarify the point when increased alcohol abuse occurred.
- **Consider random sampling** at some point. Use of a purposive sample leaves assumptions of representativeness undetermined. Also, the statistical tests of significance are based on the assumption of random sampling.
- **Introduce comparison groups.** Less comprehensive treatment options should be included using comparison groups, in order to determine whether treatment in itself has the desired effect on alcohol abuse.
- **Consider incorporating more graduated (e.g., 3, 6, 12, 18, 24, 36 months) and longer post-treatment periods** in order to obtain definitive post-treatment results.
- **Compare outcomes** for those who completed treatment as compared to those that did not complete treatment.

Who is likely to benefit from each type of treatment option? What are the factors in the treatment itself that affect success? Even with the broadly generalized treatment options as they are characterized in this data set (inpatient, outpatient, methadone, etc.), there are too many options to produce a definitive answer, given the sample size and study design. This is particularly true if we are to focus on which treatments are

effective for specific subsets of the alcohol abuser population.

Implications for Policy-Makers

How can we use the existing data that has been collected (such as the NTIES study) to help determine where public support should be given? The results of this analysis show that treatment is beneficial for public health and safety. Resources expended upon treatment programs are well spent, if only for that reason. We need to understand why extensive and expensive treatment for alcohol abuse does not appear to reduce alcohol consumption significantly over time, however.

The Demonstration projects on which this report is based have been innovative and comprehensive, encompassing such support functions as provision of comprehensive services, improved inter-agency coordination, and services for special populations. The major question is: Why are they not as effective as anticipated for this sample of alcohol abuse treatment recipients, while appearing to be more effective for drugs?

Implications for Treatment Providers/Clients

The results of this analysis should provide encouragement for providers and clients. The many positive outcomes show that something beneficial is happening in the treatment programs clients currently attend. The reduction in DUI/DWI convictions and unlawful behavior combined with the improved employment levels and more positive physical and mental health status indicate a generally beneficial result.

The results of this analysis show that treatment is beneficial for public health and safety.

Resources expended... are well spent, if only for that reason.

The reduction in DUI/DWI convictions and unlawful behavior combined with improved employment levels and more positive physical and mental health status indicate a generally beneficial result.



A Profile of Clients Entering Treatment for Alcohol Problems (cont.)

Future Steps

The NTIES is a far-reaching analysis, with a lot of data, and the current analyses being conducted using these data will certainly prove beneficial. However, much more needs to be learned about the effectiveness of treatment options on different situational factors. The value of further research in this area is immense.

Cost-effective assignment to programs. Research that clarifies the relationship between treatment modalities and background and other characteristics of the clients would produce better results for lower cost in the long run, allowing people to participate in programs that are effective for their particular problems.

Waste avoidance. Gaining the ability to focus attention on the components of treatment that research has shown to be effective would result in time and cost savings for both the individuals and the programs.

The cost of alcoholism and substance abuse, whether it is measured financially or in human suffering, is great. The more we know about effective treatment, the more likely it is that we can finally understand the causes and prevention of alcoholism and other addictions.

References

- Finkbiner, R., *A Profile of Clients Entering Treatment For Alcohol Problems*, June 1999. Prepared for the Center for Substance Abuse Treatment under the National Evaluation Data Services (NEDS) contract.
- National Opinion Research Center. *The National Treatment Improvement Evaluation Study Final Report*, March 1997. Prepared for the Center for Substance Abuse Treatment, U.S. Department of Health and Human Services.

For more information, please contact the National Evaluation Data Services analysis team at (703) 385-3200, or visit the NEDS Web site

**Find more on the web
<http://neds.calib.com>**

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National Treatment Improvement Evaluation Study (NTIES)

This analysis was performed on data derived from the National Treatment Improvement Evaluation Study (NTIES). The NTIES was a national treatment services evaluation of the effectiveness of substance abuse treatment services delivered in comprehensive treatment demonstration programs supported by the Center for Substance Abuse Treatment (CSAT). The

NTIES project collected longitudinal data between FY 1992 and FY 1995 on a purposive sample of clients in treatment programs receiving demonstration grant funding from CSAT. Data are derived from client interviews conducted at three points in time: at treatment intake, at treatment exit, and 12 months after treatment exit.



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