

**COLLECTION AND EVALUATION
OF DATA RELATED TO
SUBSTANCE USE, ABUSE AND
ADDICTION PROGRAMS**

For Submittal to Members of the
Connecticut General Assembly
Office of Policy and Management
Connecticut Alcohol and Drug Policy Council

Prepared by
Department of Mental Health
and Addiction Services

Thomas A. Kirk, Jr., Ph.D.
Commissioner

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Department of Mental Health and Addiction Services
Member: Thomas A. Kirk, Jr. (Commissioner, Co-Chairperson)

Office of Policy and Management
Member: Robert L. Genuario (Secretary, Co-Chairperson)
Designee: John A. Mengacci (Undersecretary)

Judicial Branch
Member: Judge Joseph H. Pelligrino (Chief Court Administrator)
Designee: William Carbone

Department of Children and Families
Member: Darlene Dunbar (Commissioner)
Designee: Peter Panzarella

Department of Correction
Member: Theresa C. Lantz (Commissioner)
Designee: Patricia Ottolini, Robert Foltz

Department of Education
Member: Betty J. Sternberg (Commissioner)
Designee: George Coleman

Department of Motor Vehicles
Member: Ralph Carpenter (Commissioner)
Designee: Marilyn Lukie

Department of Public Health
Member: J. Robert Galvin, M.D. (Commissioner)
Designee: Meg A. Hooper

Department of Public Safety
Member: Leonard C. Boyle (Commissioner)
Designee: Lt. Colonel Ralph Carpenter

Department of Social Services
Member: Patricia Wilson-Coker (Commissioner)
Designee: Mark Schaefer

Department of Transportation
Member: Stephen E. Korta (Commissioner)
Designee: Susan Maloney

Board of Pardons & Paroles
Member: Gregory Everett (Chairman)

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Enacted in 1999, Connecticut General Statutes (CGS) Section 17a-451(o) requires the Department of Mental Health and Addiction Services (DMHAS) to establish uniform policies and procedures for collecting, standardizing, managing, and evaluating data related to substance use, abuse, and addiction programs administered by state agencies, state-funded community-based programs, and the Judicial Branch.

As part of this charge, DMHAS is to maintain a central data repository of substance abuse services and submit a report (once every two years) to the General Assembly, the Office of Policy and Management, and the Connecticut Alcohol and Drug Policy Council. This report shall include: a) client and patient demographic information; b) trends and risk factors associated with alcohol and drug use, abuse and addiction; c) effectiveness of services based on outcome measures; and d) a statewide cost analysis.

Today, nine state departments, the Office of Policy and Management, the Judicial Branch and Board of Pardons and Paroles work collaboratively to fulfill the state mandate. Their efforts are evident by the range of studies and findings reported in the **2004 Biennial Report on the Collection and Evaluation of Data Related to Substance Use, Abuse and Addiction Programs** (2004 Biennial Report). Information contained in the 2004 Biennial Report is meant to inform discussions about Connecticut's addiction services system. Hopefully, through these discussions, interest in other studies or data collection activities will be raised leading to information that continues to guide policy and decision-making.

The 2004 Biennial Report contains the culmination of years of work on some very important cross-agency projects. Among them are:

1. Connecticut Substance Abuse Treatment Needs Assessment

This family of studies included three projects funded by the federal Center for Substance Abuse Treatment and managed by DMHAS. Each study had as its goal to examine the need for and access to treatment services in Connecticut. The Adult Household Survey (AHS), conducted jointly by the University of Connecticut Health Center and Center for Survey Research and Analysis (Storrs), measured the prevalence rate of substance use, misuse, abuse and dependence in the state's adult population. Based upon a similar telephone survey conducted in 1996, the 2004 AHS found that 7.6% of adults need treatment. Again as in the earlier survey, young adults (age 18-25) were shown to have a treatment need rate that far exceeded other age groups. Also of importance, about 10% of alcohol or drug dependent persons who recognized their problem were unable to get treatment. Many more in need of treatment were unable to act on their addiction due to issues of stigma, denial or lack of treatment access.

The second study, the Substance Abuse Need for Treatment among Probationers (SANTP) was a collaborative project with DMHAS, the Judicial Branch's Court Support Services Division and Yale University's School of Medicine. Adult probationers in three probation offices (Bridgeport, New Haven and Hartford) were interviewed in person to determine the rate of substance use, abuse and dependence. Overall, 48% of those interviewed needed substance abuse treatment, yet about one-third of probationers were currently receiving care. The Yale study also explored co-existing conditions such as mental illness and AIDS. Motivation to and perceived importance of treatment were analyzed in an effort to see differences among the probationer population.

The third study was a trend analysis of DMHAS' Substance Abuse Treatment Information System (SATIS). SATIS is DMHAS' repository of client data on admissions and discharges across Connecticut's state operated and licensed treatment programs. Three State Fiscal Years (SFY 2001 - SFY 2003) were examined for trends. While most trends were similar to those from previous studies, one stood out from the rest. In SFY 2003, heroin, as a percent of all primary substances reported at admission, exceeded alcohol admissions. This was the first time that alcohol admissions fell to second place as the primary problem reported.

2. Probabilistic Population Estimation (PPE)

The Data Sharing Project, initiated in December 2000, draws upon data from seven state agencies and the Judicial Branch. This project has been highly successful in generating statistical information including access to treatment trends for the past five years. Analyses conducted using PPE have been instrumental in measuring the "population overlap" of Connecticut's substance abuse treatment system with criminal justice, and health and human service systems. A series of reports have been produced which include a count of persons in each state agency population, the percent and number of persons served in both systems, and demographics such as age, race and gender. Findings from the PPE study continue to demonstrate the need to increase outreach and access to care in Connecticut's most vulnerable populations including criminal justice and welfare.

3. Treatment Effects on Wages

In May 2004, DMHAS and the Department of Labor (DOL) entered into a Memorandum of Agreement to link substance abuse treatment records with the state's Unemployment Insurance (UI) files. This, the first study by DMHAS to match individuals from

two databases, was a collaborative effort between Yale University and DOL's and DMHAS' Offices of Research. The study was designed to 1) determine the employment history of persons treated for substance use disorders, 2) measure the effects of treatment on employment, wage earnings and societal cost offsets associated with effective treatment and 3) expand the knowledge of treatment outcomes, as an aid in setting service priorities.

An analysis of the "public" client was completed for all persons admitted to treatment between July 1, 2000 to June 30, 2001. Wages for the two years before and after entering treatment were analyzed. All wages were adjusted for inflation and findings were reported as inflation-adjusted dollars. Overall, persons receiving treatment were able to increase their wages by about 99% one year after treatment. Those persons who completed treatment, had longer treatment stays and received vocational or educational services during treatment had substantially better wage increases one and two years after entering treatment.

4. Prevention Services

Over the past two years, important strides have been made in DMHAS' capacity to collect prevention data. Instrumental to this effort has been funding acquired from the federal Center for Substance Abuse Prevention's State Incentive Grants (SIG). SIG funding has allowed DMHAS, in collaboration with other state agencies, to enhance its data collection and analysis at the provider, regional, and state levels. This expanded capacity includes core performance measures which will allow for improved accountability reporting.

In spring 2000 and 2002, the University of Connecticut Health Center conducted student surveys with in-school populations for SIG-funded communities. Results of the 2000 and 2002 student surveys were grouped into four domains (individual/peer, family, school and community) to assess statewide risk and protective factors. Other areas of data collection and analysis for prevention include the Core Alcohol and Drug Survey for Colleges (Core Survey) and Prevention Program Data or Minimum Data Set (MDS). The Core Survey is designed to assess the nature, scope, and consequences of alcohol and other drug use on college campuses within the state. Using Core Survey data, participating campuses can assess changes in the attitudes and behaviors of students and evaluate the effectiveness of prevention and intervention strategies. MDS provides the data infrastructure support to uniformly collect group level data on prevention service activities and participant demographics.

5. Statewide Cost Analysis

DMHAS continues to report information regarding the funding, directly or indirectly, of substance abuse services from thirteen state agencies, including the Judicial Branch and OPM. Overall, funding for substance abuse prevention, deterrence and treatment services has grown from SFY 1999 to SFY 2003. Within service categories, some moderate fluctuations have occurred with funding for treatment services expanding throughout the years. Looking at more recent funding, eight of the thirteen reporting state agencies reduced SFY 2003 expenditures for substance abuse related services, primarily in prevention services.

6. Conclusion and Recommendations

The 2004 Biennial Report demonstrates the capacity of DMHAS, the Judicial Branch and other contributing state agencies to work collaboratively to meet the requirements of the legislative mandate. These efforts, which began prior to the 1999 legislation, are even stronger today. Still there is more work to be done to provide the range of information most beneficial to decision making. Continued investment in a comprehensive addiction services information system i.e., one that provides multiple methods of data collection, sharing and analysis, is essential to Connecticut's future. Continued outside funding is uncertain calling into question the state's ability to continue these valuable studies.

To advance Connecticut's understanding of addiction and those involved with the criminal justice system, two studies within this population have been identified as priority projects. Both of these projects require additional funding if to be fully realized. First, it has been recommended that data from Yale University's Substance Abuse Treatment Need among Probationers study be linked to the Judicial Branch's Court Support Services Division's probationer evaluation and risk records. Once linked, these two data sets will enable a more complete analysis as to which probationers in need of addiction services received or did not receive treatment and why. In this way, it will be possible to track substance abuse treatment received since the Yale interview along with probation status. Anticipated cost for this study is \$80,000.

The second proposal is to link DMHAS treatment records with Department of Correction (DOC) inmate files for the purpose of conducting an outcomes study regarding recidivism rates. This study was first recommended in the 2003 Performance Audit of Alternative Incarcerations and then most recently in the Prison and Jail Overcrowding Commission report. In both reports, decision makers

clearly stated and understood the value of tracking recidivism as a performance measure. Linking records across DMHAS and the DOC will allow for an outcomes analysis similar to that done in the Yale wage study. Limited initial funding is available to assist the DOC with this project but additional funding is required for completing the statistical analysis. Cost for this project is estimated to be \$120,000.

Other efforts for the next two years include re-instating the Interagency Substance Abuse Treatment Information (I-SATIS) which combines data from DMHAS, Department of Children and Families, DOC and JB-CSSD on persons receiving state funded or operated treatment. Two additional state fiscal years (2003 and 2004) of human service and criminal justice populations will be analyzed using PPE to determine population overlaps and treatment access rates. Under a new federally funded initiative, the Strategic Prevention Framework (SPF), collection of social indicators from various state agencies will once again resume. Social indicators such as Driving Under the Influence (DUI) and drug related offenses, alcohol-related accidents and fatalities, child abuse and neglect cases, and other indicators will be analyzed as part of the SPF. These indicators will form one data source used in prioritizing prevention service needs and allocation of resources.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
EXECUTIVE SUMMARY	iii
BACKGROUND	1
TREATMENT DATA	4
PREVENTION AND DETERRENCE DATA	19
STATEWIDE COST ANALYSIS	21
CONCLUSION AND RECOMMENDATIONS	23

BACKGROUND

Enacted in 1999, Connecticut General Statutes (CGS) Section 17a-451(o) requires the Department of Mental Health and Addiction Services (DMHAS) to establish uniform policies and procedures for collecting, standardizing, managing, and evaluating data related to substance use, abuse, and addiction programs administered by state agencies, state-funded community-based programs, and the Judicial Branch.

Furthermore, it is DMHAS' responsibility to establish and maintain a central data repository of substance abuse services and submit a report to the General Assembly, the Office of Policy and Management (OPM), and the Connecticut Alcohol and Drug Policy Council (ADPC). This report shall include: a) client and patient demographic information; b) trends and risk factors associated with alcohol and drug use, abuse and addiction; c) effectiveness of services based on outcome measures; and d) a statewide cost analysis. In 2002, CGS Section 17a-451 was amended changing the submission of the report from annual to biennial.

Since the enactment of CGS 17a-451, the number of collaborating state agencies and scope of data sharing has grown immensely. Today nine state departments, the Office of Policy and Management, the Judicial Branch and Board of Pardons and Paroles all work together to contribute to the findings presented in the **2004 Biennial Report on the Collection and Evaluation of Data Related to Substance Use, Abuse and Addiction Programs** (2004 Biennial Report). This broad-based interagency collaboration has resulted in the submission of four previous reports (February 2000, July 2001, February 2002 and December 2003).

Progress made over the past five years towards achieving the legislative directive has included:

1. establishing uniform procedures and a minimum data set for substance abuse treatment and prevention services across all state agencies;
2. sharing data across state agencies to determine the interrelated service needs of those receiving substance abuse treatment; and
3. enhancing the level of interagency collaboration leading to more effective and efficient use of scarce resources.

In 2004, the first of a series of outcome and cost offset studies was initiated. Collaborating with the Department of Labor, DMHAS' Research Division and Yale University, conducted a study of earnings two years before and after receiving treatment. The **Treatment Effects on Wages Study** is the first in Connecticut to directly link employment wage data with substance abuse treatment records. Looking at variations in wage outcomes, differences by length of stay, treatment completers and those receiving vocational and/or educational services were explored.

The second phase of the study will analyze the effects of treatment with a comparison population. Findings from this study have the potential to inform efforts at building a stronger system of care focused on long-term recovery.

BACKGROUND

Another collaborative study, the **Substance Abuse Need for Treatment Among Probationers** is a partnership among DMHAS, Yale University's School of Medicine and the Judicial Branch's Court Support Services Division (JB-CSSD). Results from over 700 in-person interviews of adult (age 16 and older) probationers are presented on need for substance abuse treatment, co-occurring conditions, access to treatment and motivation for treatment. Discussion of the findings have already led to interest in linking the research database with JD-CSSD's probationer data to explore further issues of access, motivation and sustained recovery. Work in this area has profound implications on the recommendations in the Prison and Jail Overcrowding Commission report.

Again in 2004, work continued on population overlaps through the **Data Sharing Project**. Who in Connecticut's vast criminal justice and health and human services system are also receiving treatment for alcohol and other drug addiction? Using a patented process known as, Probabilistic Population Estimation or PPE, millions of state agency records have been analyzed over five state fiscal years (1999–2003). PPE affords us a view of how well Connecticut's substance abuse treatment system is reaching critical populations (the criminally involved, welfare recipients, child protective services, etc.) and points to areas for possible improvement. As this method provides a high degree of confidentiality, cross-agency collaboration has and continues to be strong.

Major findings from another collaborative effort between DMHAS and its academic partner, the University of Connecticut Health Center (UCHC), presents a picture of prevalence of alcohol and illicit drug use within the state. The Adult Household Survey (AHS), included over 4,000 telephone interviews with persons 18 or older across the state. Last conducted in 1995/96, the 2004 AHS reveals patterns of use, abuse and dependence across age, race, gender and communities.

An initiative begun in September 2002, the Interagency Substance Abuse Treatment Information System (I-SATIS), met with some challenges in SFYs 2003 and 2004. Staff reductions and the subsequent changes in staffing limited the efforts to sustain an interagency data repository on substance abuse treatment clients. Nonetheless, work continues in this area, although delayed.

While progress has been made, there remain some obstacles to overcome. With the enactment of stronger federal requirements under the Health Insurance Portability and Accountability Act (HIPAA), confidentiality safeguards continue to be a common concern possibly limiting the extent of cross-agency data sharing. Also, infrastructure costs for revamping state agencies' information systems to meet any new data collection requirements pose a real impediment. Finally, limited resources to house and analyze the data could hinder future progress.

While most of the 2004 Biennial Report focuses primarily on substance abuse treatment, previous work by the State Prevention Council, created in 2001, continues to provide a strong framework to establishing standard measures of prevention services and outcomes. The Council, as stated in its January 2003 Statewide Comprehensive Prevention Plan, has as one of its main objectives to improve data collection of prevention programs to enhance system measurement capabilities. The Council has defined three distinct action steps and desired outcomes as follows:

BACKGROUND

1. *Collect basic participant information, e.g. demographics, numbers served.*
Promulgate a minimum data set of measures for agencies to use with their programs on timetables they develop.
2. *Compile outcome and indicator measurements in identified program area.*
Determine program results measures for agencies to implement with programs and providers. Define related indicators and track statewide status on them.
3. *Train, assist, monitor and intervene, as needed with providers.*
Enhance professional skills, support & provide oversight for services improvement.

The Statewide Comprehensive Prevention Plan is available on the web at:
<http://www.opm.state.ct.us/pdpd4/prevention/2003PLAN.htm>.

SUBSTANCE ABUSE TREATMENT INFORMATION SYSTEM (SATIS)

TREND ANALYSIS OF ADMISSIONS FOR STATE FISCAL YEARS 2001–2003

Most Connecticut substance abuse treatment programs report client information to DMHAS through its data collection system, SATIS. Submitted routinely via an electronic reporting system, client-level data contain information on each admitted or discharged client. The range of client information collected at admission includes: demographic, employment, education, type of drug use, frequency of drug use, living arrangements, and arrest history.

All substance abuse treatment programs licensed by the Department of Public Health (DPH) are required, by state statute, to report to SATIS. Also, some non-licensed programs report as well, including DMHAS operated hospitals and Department of Correction prison-based services. This mandatory reporting system ensures that privately insured, fee-for-service, and publicly supported clients are included in DMHAS' database. Excluded from the SATIS are those who receive services through the Veterans' Administration, general hospitals (if not funded by DMHAS), or private practitioners. Approximately 75% of clients reporting to DMHAS are "public" clients, i.e., have no insurance or have their treatment paid from a governmental program, such as Medicaid. Trends over the three-year (SFYs 2001–2003) period include:

Demographics and Employment

- ◆ The percent of admissions by Hispanics grew approximately 10% (1,281).
- ◆ Whites comprised just over half of all admissions while blacks accounted for 20%.
- ◆ The ratio of male to female admissions held steady (70% male).
- ◆ There was little change in the average age at admission (36 years), although admissions of young adults (18–24) and persons over 45 showed slight increases (Graph 1).
- ◆ The rate of employed persons entering treatment dropped somewhat from 23.9% in SFY 2001 to 22.7% in SFY 2003.

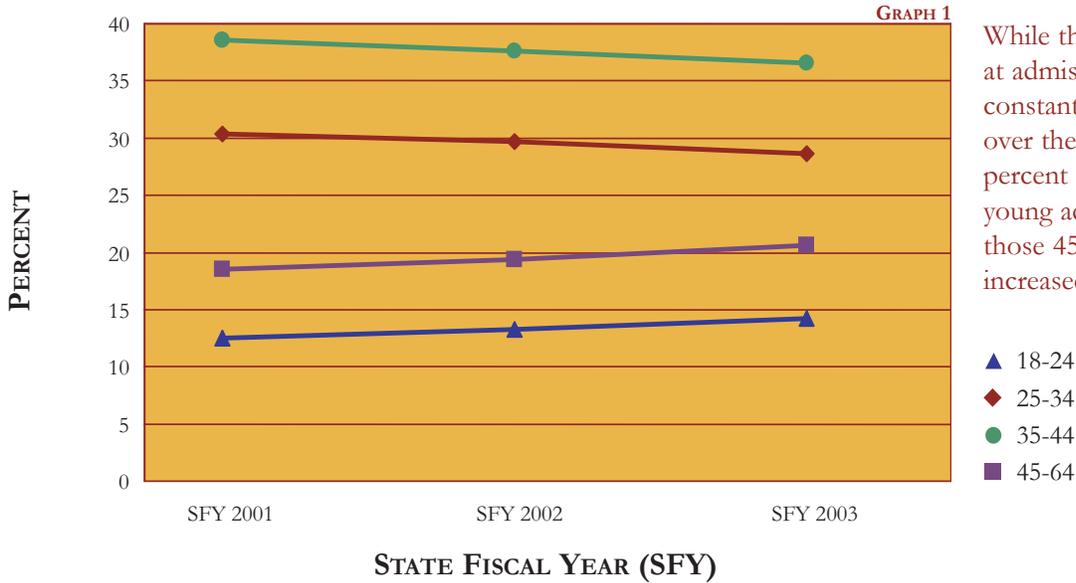
Primary Problem Substance, Type of Care and Injection Drug Use

- ◆ The percent of primary alcohol admissions fell as heroin admissions grew, surpassing alcohol in SFY 2003 in number and percent of all admissions (Graph 2).
- ◆ Synthetic opiates (e.g., oxycodone, vicodin) had the greatest percentage increase (45%) as a reported primary problem substance (Graph 2).
- ◆ Trends of primary substances by race or ethnicity remained similar to past analyses. Whites reported alcohol, followed by heroin and cocaine. Blacks reported mostly cocaine and Hispanics heroin as their primary problem substance. Marijuana was reported at about the same rate across all race and ethnic groups (Table 1).
- ◆ Age of first use held steady across nearly all major primary problem substances, the exception being marijuana where it dropped by a half year from 14.3 to 13.7.
- ◆ Type of care received followed past analyses with persons reporting a primary alcohol or heroin problem using detoxification services, those with a primary cocaine problem using residential programs, and marijuana abusers accessing outpatient services (Table 2).
- ◆ The percent of persons who reported injecting illicit drugs increased slightly from 19.9% to 22.5% in SFY 2003.

SATIS* TRENDS

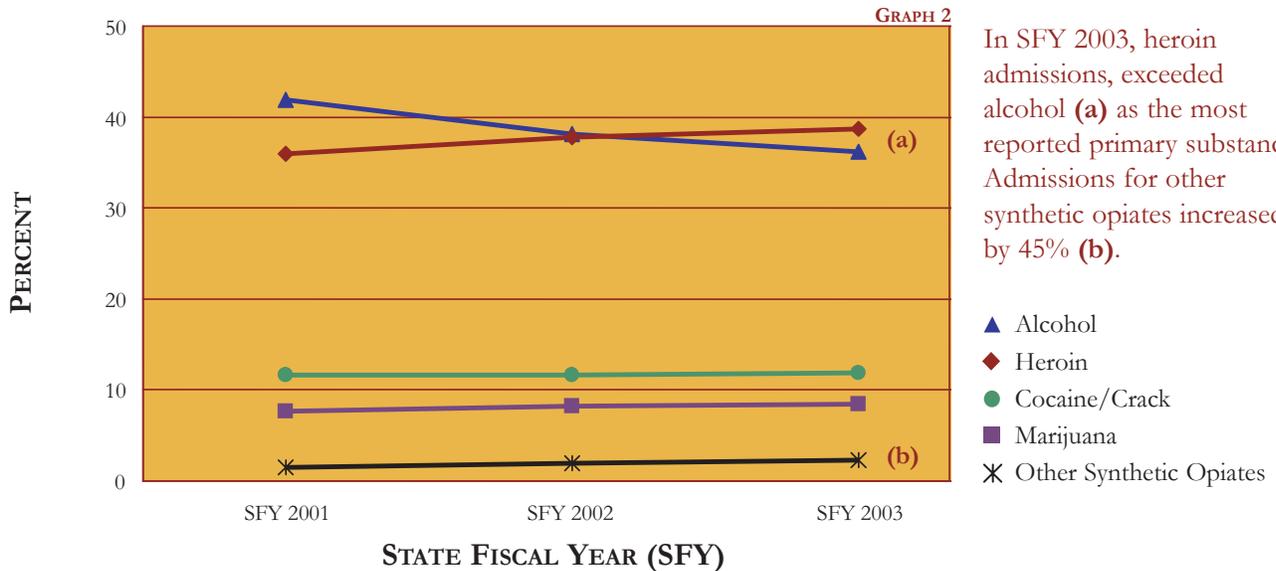
* SUBSTANCE ABUSE TREATMENT INFORMATION SYSTEM

ADMISSIONS TO SUBSTANCE ABUSE TREATMENT
BY AGE AT TIME OF ADMISSION



While the average age at admission has stayed constant (36 years old) over the three years, the percent of admissions by young adults (18-24) and those 45 and older has increased.

PRIMARY PROBLEM SUBSTANCE
REPORTED AT TIME OF ADMISSION



In SFY 2003, heroin admissions, exceeded alcohol (a) as the most reported primary substance. Admissions for other synthetic opiates increased by 45% (b).

SATIS* TRENDS

* SUBSTANCE ABUSE TREATMENT INFORMATION SYSTEM

CHARACTERISTICS OF SUBSTANCE ABUSE TREATMENT CLIENTS BY PRIMARY PROBLEM SUBSTANCE AT ADMISSION — SFY 2003

TABLE 1

	ALCOHOL	HEROIN	COCAINE	MARIJUANA
% Female	25.5	27.2	36.3	19.2
Mean age (years)	39.9	34.9	36.5	25.4
Race				
% White	68.5	53.1	44.3	39.3
% Black	18.1	12.7	40.0	37.6
% Other	13.3	34.2	15.6	23.1
Ethnicity				
% Hispanic	19.2	44.1	19.6	30.8
% Non-Hispanic	74.2	52.6	74.3	62.5

Types of primary substances reported at admission vary by gender, age, race and ethnicity. For instance, those with a primary marijuana problem are younger and male, while those reporting cocaine are disproportionately female and black. While Hispanics represent one quarter of all admissions, four out of ten admissions for heroin are of Hispanic persons. Those reporting primary alcohol problem are mostly white and have the highest mean age.

LEVEL OF SERVICE BY PRIMARY SUBSTANCE AMONG SUBSTANCE ABUSE TREATMENT ADMISSIONS — SFY 2003

TABLE 2

	ALCOHOL	HEROIN	COCAINE	MARIJUANA
% Residential Detoxification	36.9	49.5	12.6	0.0
% Residential Rehabilitation	19.2	15.1	33.4	15.8
% Outpatient Services	43.6	11.5	53.1	84.2
% Methadone Services	0.0	17.7	0.0	0.0
% Ambulatory Detoxification	0.3	6.1	0.9	0.0

Treatment received varies by type of substance and severity. Persons reporting heroin mainly use detoxification services followed by methadone. Four out of ten admissions for alcohol find treatment in outpatient programs with another third getting detoxification services. Half of all cocaine admissions are for outpatient services with one-third entering residential care. Eight out of ten admissions for marijuana are to community-based outpatient programs.

ADULT HOUSEHOLD SURVEY (AHS)

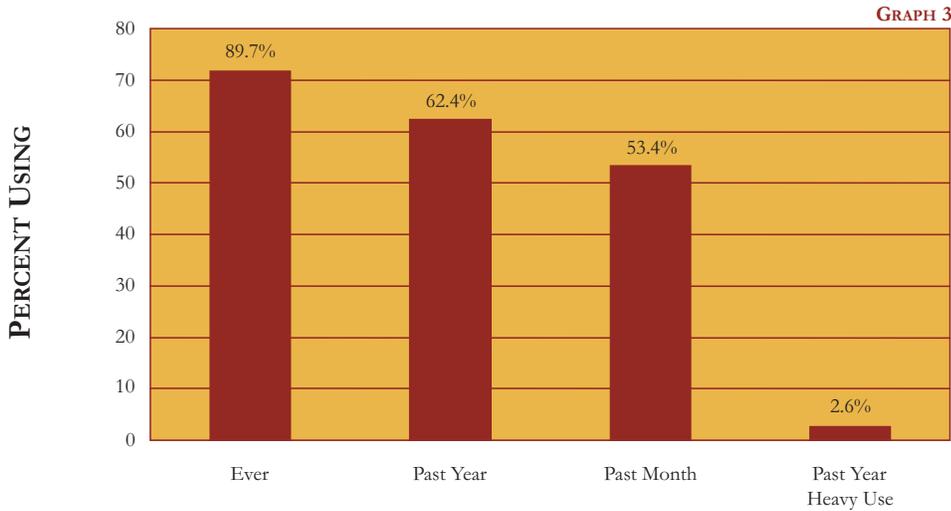
The AHS was conducted by DMHAS as part of a federally funded needs assessment study in collaboration with the University of Connecticut's Center for Survey Research and Analysis and the University of Connecticut Health Center. Similar to a telephone survey conducted by DMHAS in 1995/96, the AHS was administered to households across the state from July 2003 to April 2004. Its primary purpose was to determine statewide estimates of treatment need in the general adult population. Targeted over-sampling of those communities with high concentrations of Latinos was part of the project design to allow for a more accurate assessment of treatment need among this ethnic group. Analysis of alcohol and illicit drug use, abuse and dependence included comparisons by gender, race, age, community type (affluent vs. urban centers) and sub-state planning regions. A total of 4,467 completed interviews were conducted.

Findings in variations and patterns of substance use and abuse for the 2003/04 study were similar to those in the 1995/96 study. Due to changes in question wording and analysis the two studies cannot be directly compared. Nonetheless the patterns that emerge, in most part, are similar and include:

- ◆ Alcohol continues to be the most prevalent substance used and accounts for the greatest proportion of treatment need (abuse, dependence and risky drinking). Heavy drinking (5 or more drinks for men and three or more for women) was more likely to be reported in the state's affluent communities (4.9%) than the urban centers (1.4%) which had the lowest rate (Graph 3).
- ◆ Of all illicit drugs, about two-thirds of reported ever (even once during lifetime), past year and past month use is from marijuana (Graph 4). The next most prevalent drug used is cocaine, especially for those reporting ever using. Four percent of survey participants reported ever using ecstasy while 9.5 % reported having used hallucinogens.
- ◆ While stimulants were the most commonly reported prescription drug ever used, pain relievers and other opiates (such as oxycodone) were more likely to be used in the past month by survey respondents.
- ◆ The ever use of heroin, although likely underreported, was 2.2% with 0.2% indicating they had used in the past month.
- ◆ Men were three and a half times more likely to report past month use of marijuana. Young adults (18-24) had a current marijuana use rate (16.6%) about four times that of the general adult population (4.3%). Those survey respondents from affluent communities had lower rates of current marijuana use (2.9%) when compared to Connecticut's large urban centers (4.5%).
- ◆ Overall, the need for substance abuse treatment (alcohol/drug abuse or dependence) was 7.6% for persons 18 and older. This rate did vary by age (Graph 5), with young adults (18-25) having a much higher rate (23.9%), and by gender, with men having a rate three times that of women.
- ◆ Many (67%) needing treatment (i.e., those with a substance dependence) noted that they have never received treatment. Sixteen percent report that they were in treatment in the past year while nine percent realized they needed treatment but didn't act on. Stigma, denial and lack of access to care were the most commonly reported barriers to treatment that survey respondents stated (Graph 6).

ADULT HOUSEHOLD SURVEY

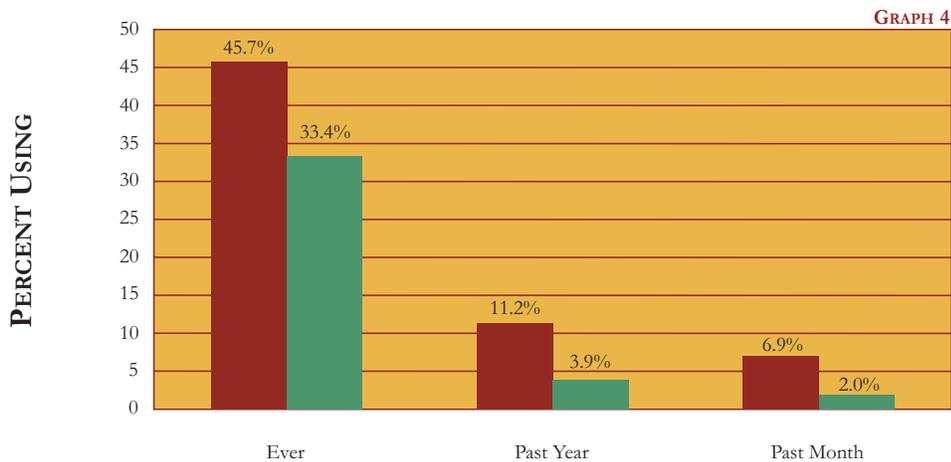
EVER, PAST YEAR, PAST MONTH AND HEAVY USE* OF ALCOHOL BY CONNECTICUT ADULTS



Alcohol remains the most commonly used substance. Close to 3% of survey respondents reported heavy alcohol use in the past year.

* FIVE OR MORE DRINKS MEN/THREE OR MORE WOMEN

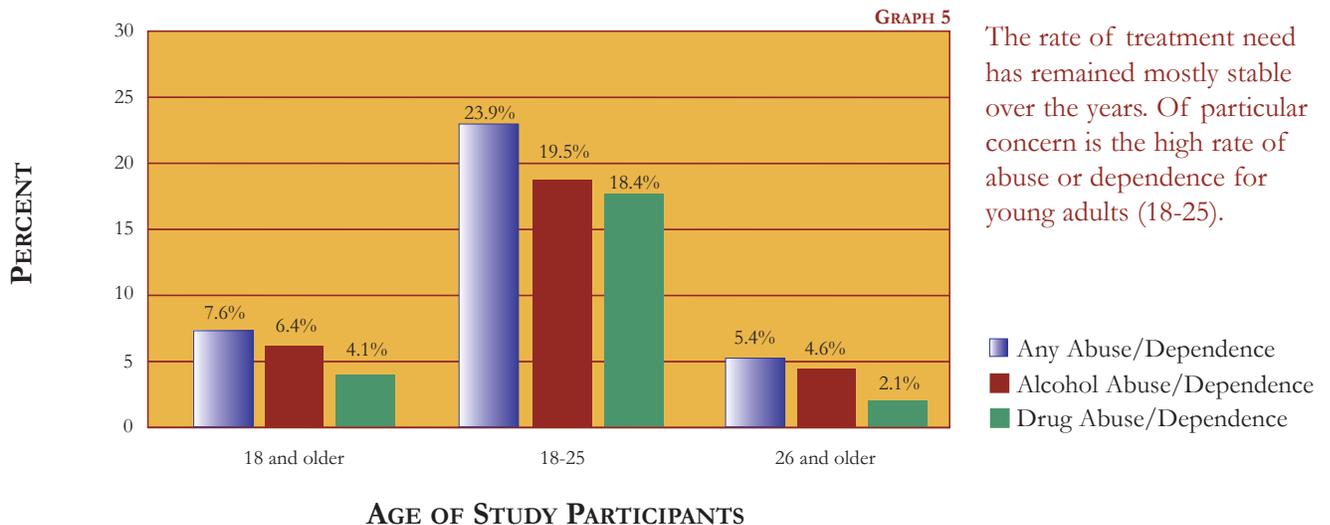
EVER, PAST YEAR, AND PAST MONTH USE OF MARIJUANA OF ADULTS BY GENDER



About two-thirds of reported illicit drug use (ever, past year and past month) is from marijuana. Males are more likely to have used than females, especially for past month use.

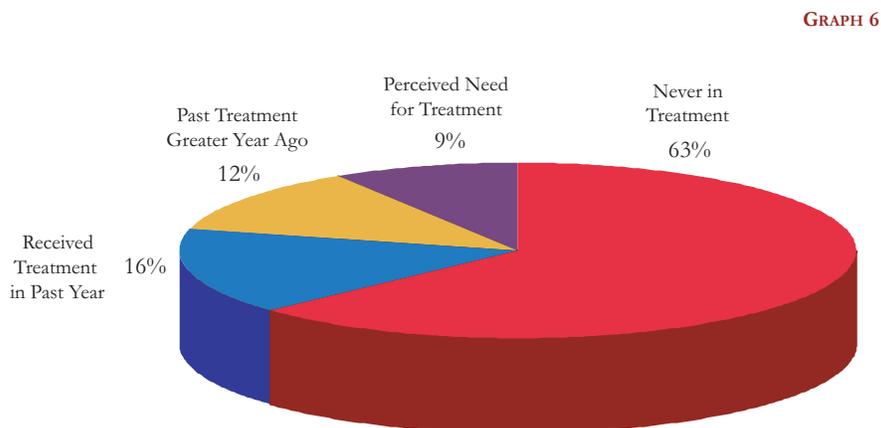
ADULT HOUSEHOLD SURVEY

**TREATMENT NEED RATES
FOR ALCOHOL AND DRUG ABUSE AND DEPENDENCE BY AGE**



The rate of treatment need has remained mostly stable over the years. Of particular concern is the high rate of abuse or dependence for young adults (18-25).

**MET AND UNMET TREATMENT NEED:
ADULTS WITH SUBSTANCE DEPENDENCE IN THE PAST YEAR**



Almost one out of ten persons deemed substance dependent indicated that they recognized the need for treatment but didn't receive it. Stigma, denial and lack of access to care were the most commonly reported barriers to treatment.

SUBSTANCE ABUSE NEED FOR TREATMENT AMONG PROBATIONERS (SANTP)

DMHAS, in collaboration with the Judicial Branch's Court Support Services Division, conducted a study of the need for substance abuse treatment among adult probationers. The SANTP study was administered by Yale University's School of Medicine and funded by the federal Center for Substance Abuse Treatment. In-person interviews were conducted over an eighteen-month period in three probation office locations (Bridgeport, New Haven and Hartford). A total of 707 active probationers were interviewed to determine their substance use, abuse and dependence, co-occurring conditions, and barriers, motivation and access to treatment. Also, urinalysis testing was requested of all probationers to validate self-reported drug use.

Highlights from the study include:

Substance Use, Abuse and Dependence (treatment need)

- ◆ Over half (54%) of probationers reported using alcohol in the past thirty days, followed by marijuana (30.7%), cocaine (18.8%), opiates (12.9%) or other substances (8.4%).
- ◆ Forty-eight percent of those probationers interviewed had a current (past 30 days) substance use disorder (Graph 7).
- ◆ Alcohol (22%) and marijuana (20.9%) were the two most frequent indicated current substance use disorders, followed by cocaine (15.6%) and opiates (10%) (Graph 8).
- ◆ Past year rates for treatment need (abuse or dependence) were just slightly higher at 50.6%: 40.7% drug and 24.3% alcohol abuse or dependence.

Urinalysis Results—Agreement with Self-Reported Substance Use

- ◆ Overall 44.8% or 300 interviewees were found to have a positive urine screen and, of those, 57% tested positive for marijuana, 45% for cocaine, 18% for opiates, and 5% for PCP.
- ◆ Most (91%) of those who reported **no use** in the past 30 days also had a **negative** screen.

Motivation, Barriers and Access to Treatment

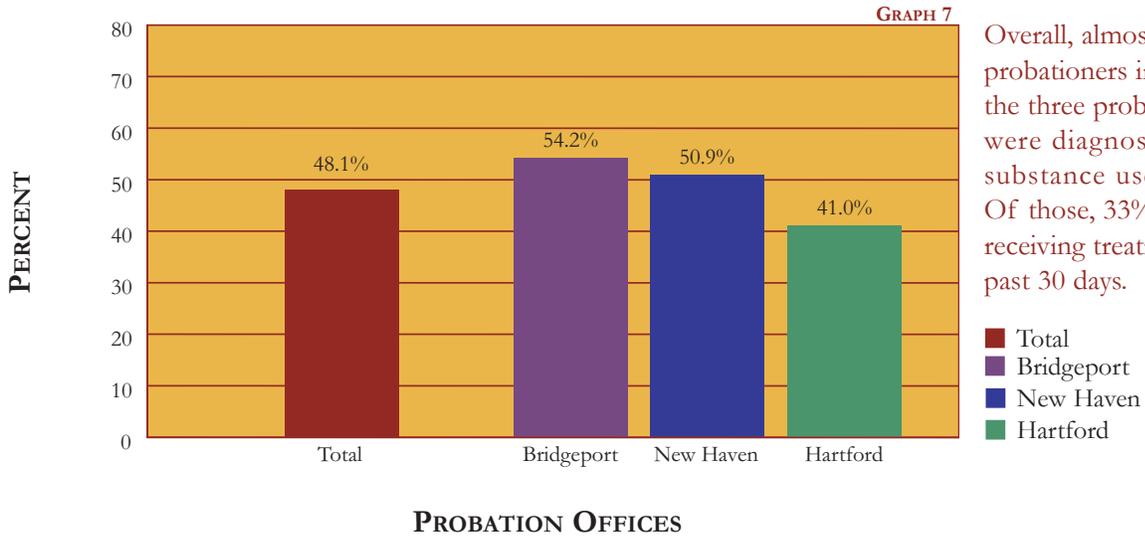
- ◆ The most common barriers to treatment reported among those with a current treatment need included issues related to denial, stigma and resources (Graph 9).
- ◆ Of those currently needing treatment, one out of three was currently receiving care.
- ◆ Of those very motivated to treatment (i.e., both very troubled by alcohol/drug problem, and thought receiving treatment now very important), 33% had not received treatment in the past year representing a potential unmet treatment demand.

Co-occurring Conditions and Other Findings

- ◆ Forty-three percent of those currently needing treatment also were identified as probably having depression vs. 28% of those probationers not needing treatment (Graph 10).
- ◆ There were very slight differences between those needing treatment or not in hospitalization rates, outpatient visits, chronic medical problems, or number of days experiencing medical problems.
- ◆ No significant differences were found between those probationers needing treatment and those not in need regarding income reported, months worked, living arrangements or education.

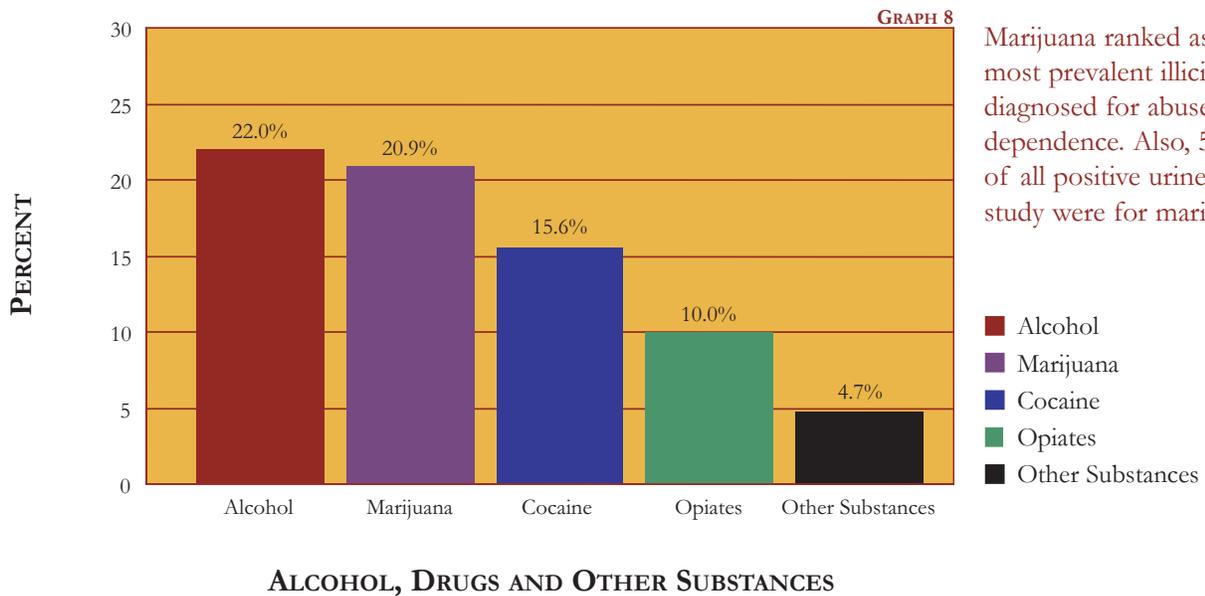
PROBATIONER STUDY

CURRENT RATES OF SUBSTANCE ABUSE OR DEPENDENCE BY PROBATION OFFICE



Overall, almost half of the probationers interviewed in the three probation offices were diagnosed with a substance use disorder. Of those, 33% reported receiving treatment in the past 30 days.

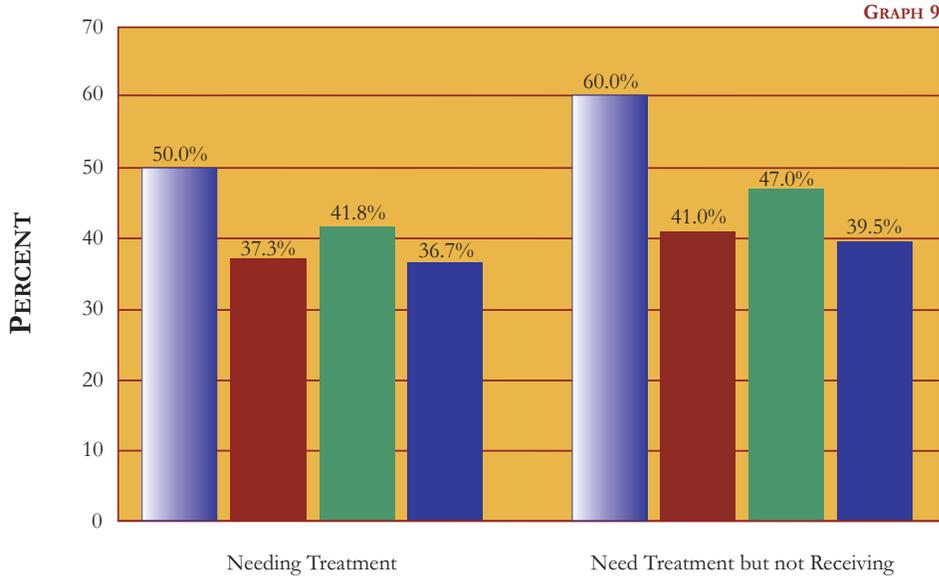
CURRENT RATES OF SUBSTANCE ABUSE OR DEPENDENCE BY DRUG



Marijuana ranked as the most prevalent illicit drug diagnosed for abuse or dependence. Also, 57% of all positive urines in the study were for marijuana.

PROBATIONER STUDY

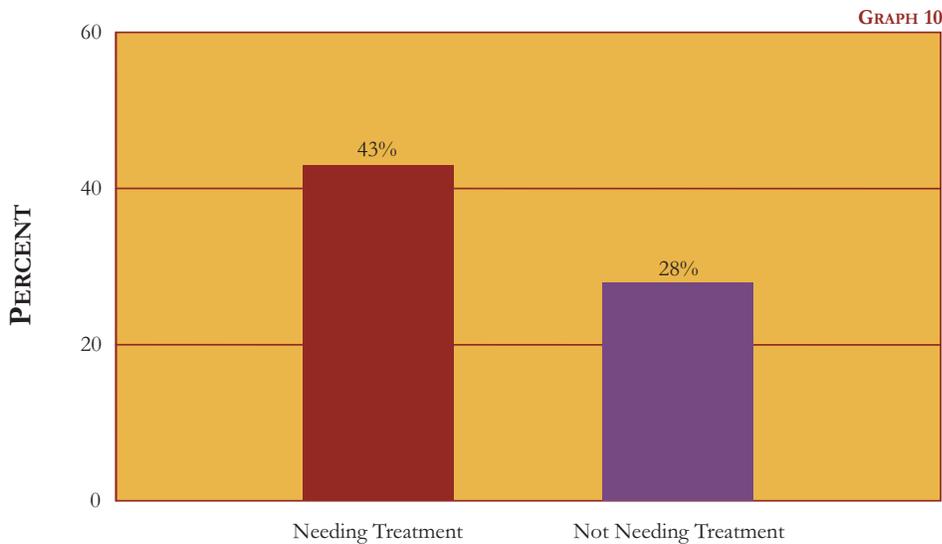
**BARRIERS TO ACCESSING
SUBSTANCE ABUSE TREATMENT**



Issues of denial, stigma and resources are key barriers to accessing treatment. Probationers needing treatment but not receiving it identified issues of denial and resources at higher rates than all probationers in need of treatment.

- Can handle problem
- Don't think have problem
- Don't have insurance/money
- Don't want family/friends to know

**SUBSTANCE USE AND MENTAL ILLNESS
PROBABLE DEPRESSION**



While probationers with and without a substance use disorder had similar rates of psychiatric disorders (39.7% vs 36.5%), of those needing treatment 43% were identified as probably having depression versus 28% of those not needing treatment.

- Needing Treatment
- Not Needing Treatment

PROBABILISTIC POPULATION ESTIMATION (PPE)

The Data Sharing Project, initiated in December 2000, draws upon data from seven state agencies and the Judicial Branch. This project has been highly successful in generating statistical information including trends for the past five years. Analyses conducted using PPE have been instrumental in measuring the "population overlap" of Connecticut's substance abuse treatment system with criminal justice, and health and human service systems. PPE uses only date of birth and gender to calculate population or caseload overlaps, limiting concern about confidentiality. Since the start of the project, participating state agencies have shared over two million records. A series of reports have been produced which include unduplicated counts of persons in each state agency population, the percent and number of overlap, and demographics such as age, race and gender.

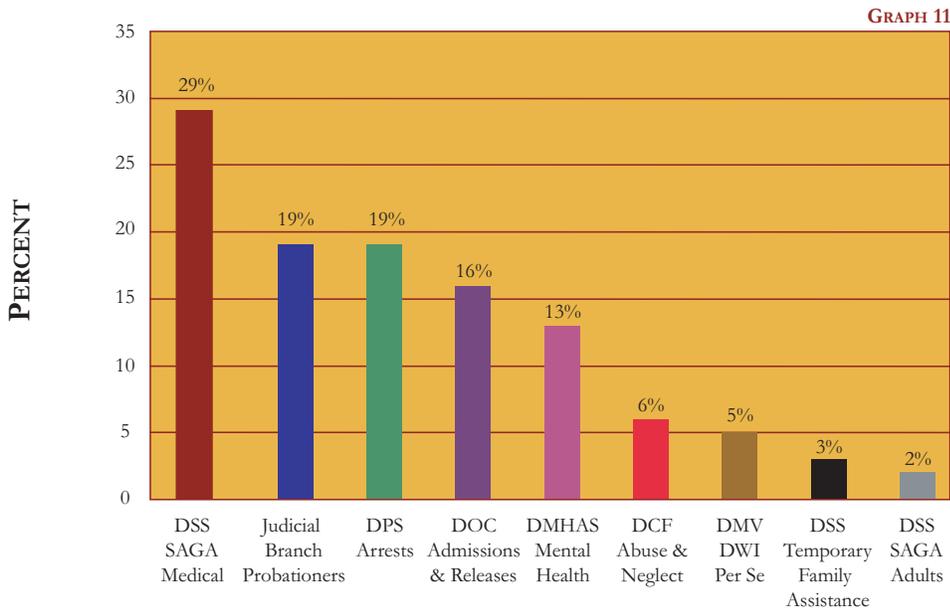
In the past, results of PPE overlaps have been used to determine the rate at which various populations in need of treatment access care. For instance, two studies conducted by Yale University for DMHAS have indicated that those involved with the criminal justice system have a substance treatment need rate of between 50% and 60%. Comparing the rate of treatment need to PPE overlap rates of treatment access (with a range of about 10% for arrestees and 20% for correctional admissions and releasees), it has been clear to see that less than half those needing treatment services are getting it. PPE analysis also provides a simple way to evaluate system outcomes. Although not as refined or as powerful as direct record linkage, use of PPE can indicate the rate of recidivism for correctional inmates or probation clients.

Major findings were:

- ◆ Of all state agency populations, State Administered General Assistance (SAGA) recipients continued to comprise the greatest percent of all persons admitted to treatment. About one-third of persons receiving treatment in a year are also SAGA recipients (Graph 11). This group also had the highest access rate (24%) to care within a state population (Graph 13). The next highest rates were for criminal justice populations.
- ◆ Access to substance abuse treatment by persons involved with the criminal justice system (arrests, incarceration, or probation) has remained steady for the last five state fiscal years (1999 - 2003). The only noticeable trend has been a slight downward dip in the access rate for DOC admissions and releases from 23% in SFY 2001 to 20% in SFY 2003 (Graph 12).
- ◆ The percent of Connecticut's Temporary Family Assistance (TFA) population receiving substance abuse treatment has not changed across the past five years, holding at five percent. In a Yale University study using face-to-face interviews, it was determined that 12% of TFA recipients have a substance use disorder (abuse or dependence). Therefore close to 60% of those welfare recipients needing treatment do not receive it.
- ◆ PPE analysis of arrest rates one year before entering treatment vs. one year after treatment indicates that there was an overall reduction of 12% in re-arrest rates. The greatest reduction was in the non-white population which was reduced 23% (30.7% to 23.7%). Arrests in this analysis included any arrest, including felonies or misdemeanors (Graph 14).

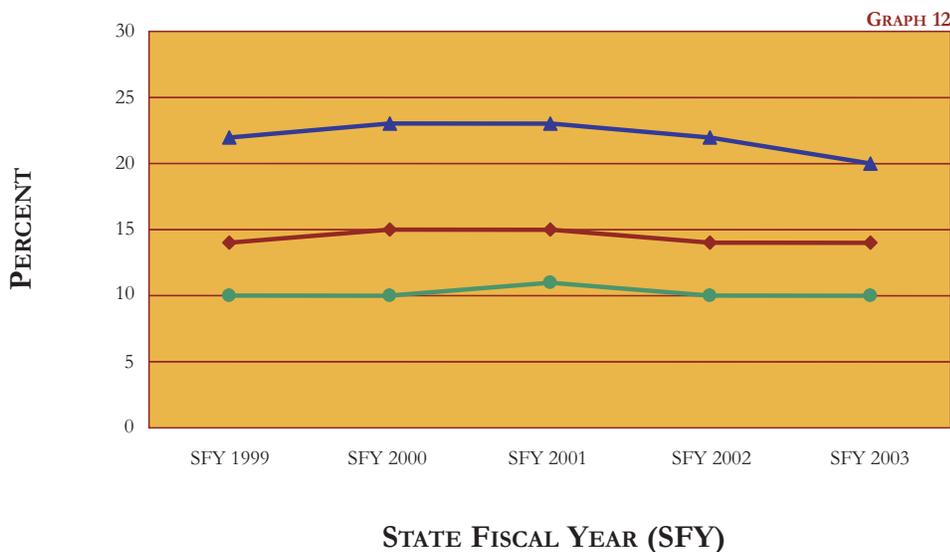
PROBABILISTIC POPULATION ESTIMATION

PERCENT OF PERSONS RECEIVING SUBSTANCE ABUSE TREATMENT SERVED BY OTHER STATE AGENCIES — STATE FISCAL YEAR 2003



Of all persons receiving substance abuse treatment in SFY 2003, as reported to DMHAS, many had contact with state agencies before, during or after treatment. The greatest proportion of those in treatment and also served by a state agency included DSS-SAGA (welfare), Judicial-CSSD (probation), DPS (arrested), and DOC (incarcerated).

PERCENT OF CRIMINAL JUSTICE INVOLVED PERSONS RECEIVING SUBSTANCE ABUSE TREATMENT — SFYs 1999–2003

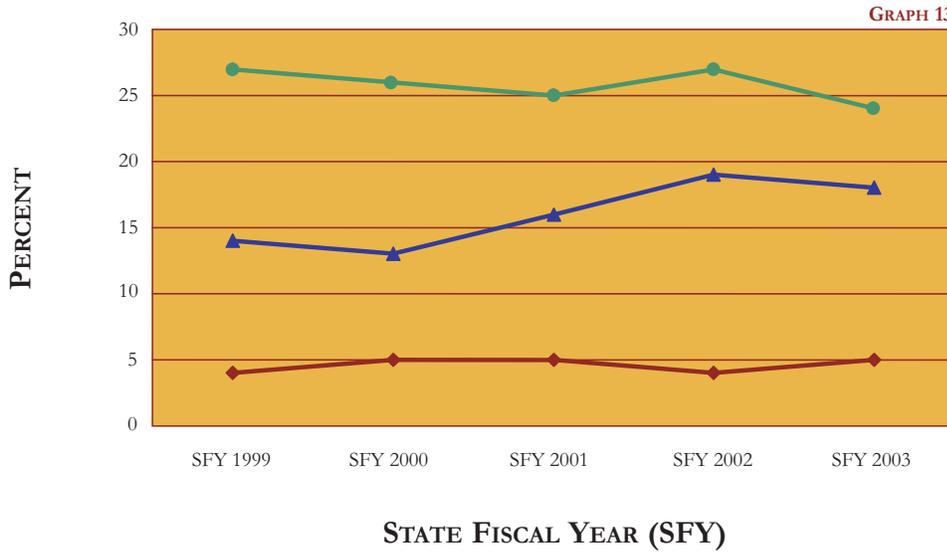


The rate of individuals serving probation, arrested, or admitted to or released from corrections and receiving substance abuse treatment has remained about the same. The only exception is within the DOC population with a slight decline from SFY 2001 to SFY 2003.

- ▲ DOC Admissions/Releases
- ◆ Judicial Branch Probationers
- DPS Arrests

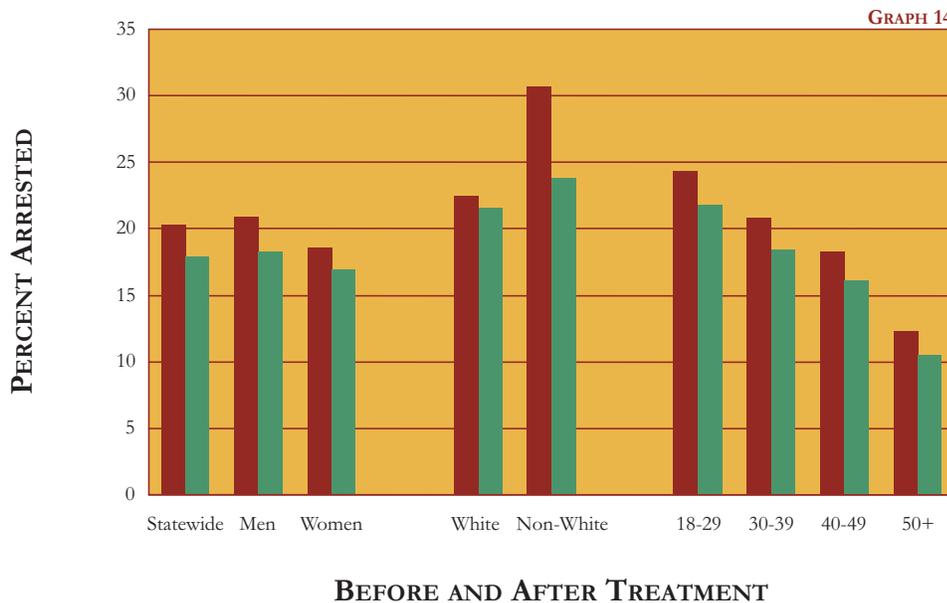
PROBABILISTIC POPULATION ESTIMATION

PERCENT OF PERSONS ON WELFARE RECEIVING ABUSE TREATMENT — SFYs 1999–2003



The percent of welfare recipients on DSS-TFA receiving substance abuse treatment remained the same while those receiving DSS-SAGA Medical (non-cash benefit) declined until SFY 2002, rose slightly and then dropped again. The rate of SAGA Adults receiving treatment has increased overall from 14% in SFY 1999 to 18% in SFY 2003.

EFFECT OF SUBSTANCE ABUSE TREATMENT AND CRIMINAL JUSTICE INVOLVEMENT RECEIVING TREATMENT IN SFYs 2000–2002



Overall, rates of arrests in the year after treatment decreased by 12% for those persons treated in SFYs 2000, 2001, or 2002. Men and non-whites had the greatest reduction in arrest rates following treatment at 13% and 23% respectively. Young adults (18-29) had the highest rate of arrest (24.3%) in the year before entering treatment.

TREATMENT EFFECTS ON WAGES STUDY

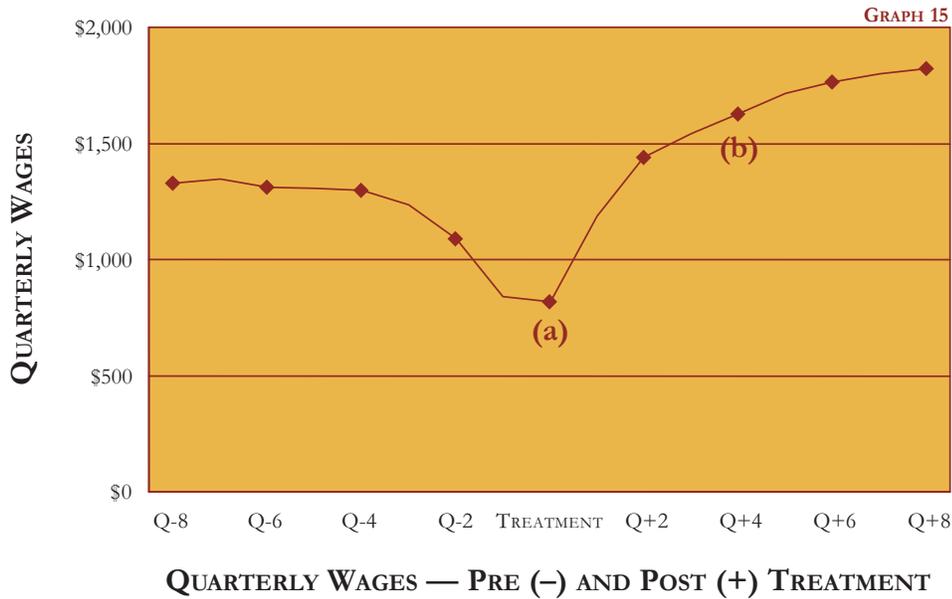
In May 2004, DMHAS and the Department of Labor (DOL) entered into a Memorandum of Agreement to link substance abuse treatment records with the state's Unemployment Insurance files. This, the first study by DMHAS matching individuals from two databases, was designed to address the legislative requirement on treatment outcomes. Specifically, the study objectives were: 1) to determine the employment history of persons treated for substance use disorders, 2) to measure employment, wage earnings and societal cost offsets associated with effective treatment, and 3) to expand the knowledge of treatment outcomes, as an aid in setting service priorities. A collaborative effort among Yale University and DMHAS' and DOL's Offices of Research provided the analytic staff support and ongoing guidance for the project.

The study included all persons admitted to treatment, as reported to DMHAS' treatment information system, between July 1, 2000 and June 30, 2001, having a subsequent admission to treatment or reported wages between July 1, 2002 and June 30, 2003. Certain other criteria for inclusion in the study group were: 1) of working age (18 to 64), and 2) a public client, i.e., had less than \$5,050 of reported income in the quarter prior to being admitted to treatment and who reported having no insurance, was on a public entitlement program (Medicaid, SAGA) or insurance was unknown. Those with a detoxification only admission as well as all methadone maintenance clients were excluded from the study. Wages were matched for a five-year period (SFYs 1999-2003), which included two years before and after entering treatment in SFY 2001. All wages were adjusted for inflation and all findings reported in 2003 constant dollars. Over 3,000 persons were included in the final study group for analysis. Findings were:

- ◆ On average, quarterly wages for all persons in the study increased by 37% when comparing two years before and after treatment. Looking at one year after treatment admission, quarterly wages nearly doubled from \$815 to \$1,624 (Graph 15).
- ◆ Although having about the same reported quarterly earnings prior to entering treatment, persons completing treatment had double the wage earnings of non-completers one year after entering treatment. This trend continued up to two years after treatment with completers increasing quarterly wages by 162% vs. non-completers at 81% (Graph 16).
- ◆ Time in treatment or length of stay (LOS) has been shown to be an important determinant to successful client outcomes. This held true in Connecticut's wage study. Persons with a LOS of 90 days or more had quarterly earnings one year after entering treatment 1.5 times greater than those with a LOS of less than 90 days. This wage advantage for persons with a longer LOS continued two years after treatment (Graph 17).
- ◆ Receiving vocational or educational services while in treatment resulted in major differences in earning potential. Those that did receive educational or employment services experienced a 263% increase in quarterly wages two years after entering treatment as opposed to a 115% gain by those not receiving such services (Graph 18).
- ◆ Persons reporting their primary problem substance as heroin or cocaine had the greatest increase in quarterly wages one year after entering treatment, 162% and 124% respectively. This was followed by those reporting alcohol and then marijuana.

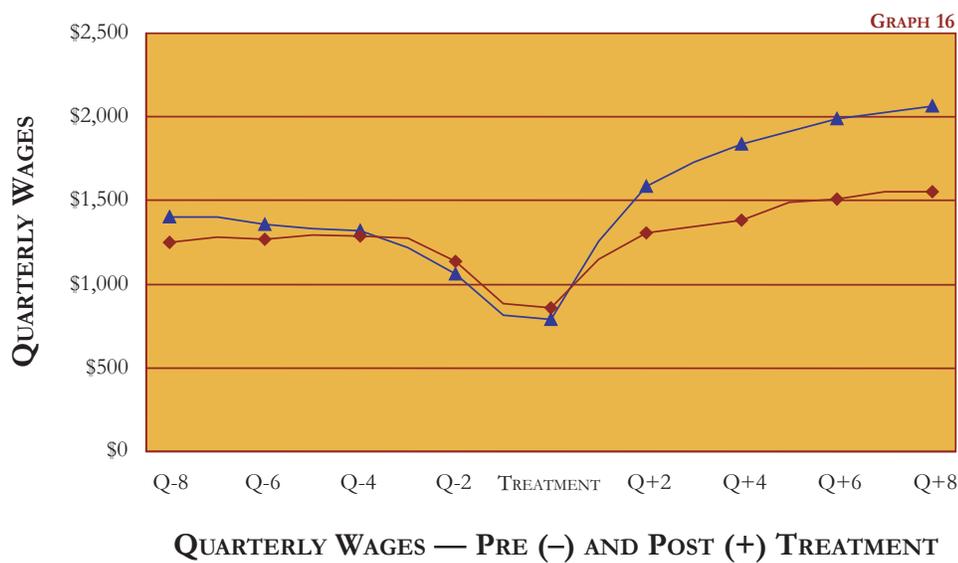
WAGE STUDY

**QUARTERLY WAGES
PRE AND POST TREATMENT FOR PUBLIC CLIENTS**



Persons in recovery increased wages by 99% from admission to one-year (a to b), post treatment and continued to increase wages two years post admission to treatment.

**QUARTERLY WAGES
PRE AND POST TREATMENT BY TREATMENT COMPLETION STATUS**

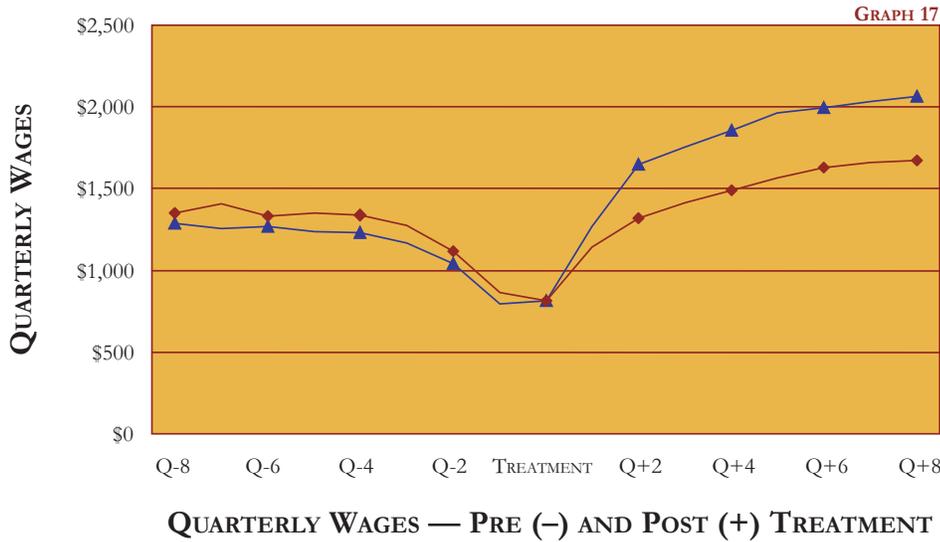


Persons successfully completing treatment had greater wage increases than non-completers and double the percent increase two years after entering treatment.

▲ Completers
◆ Non-completers

WAGE STUDY

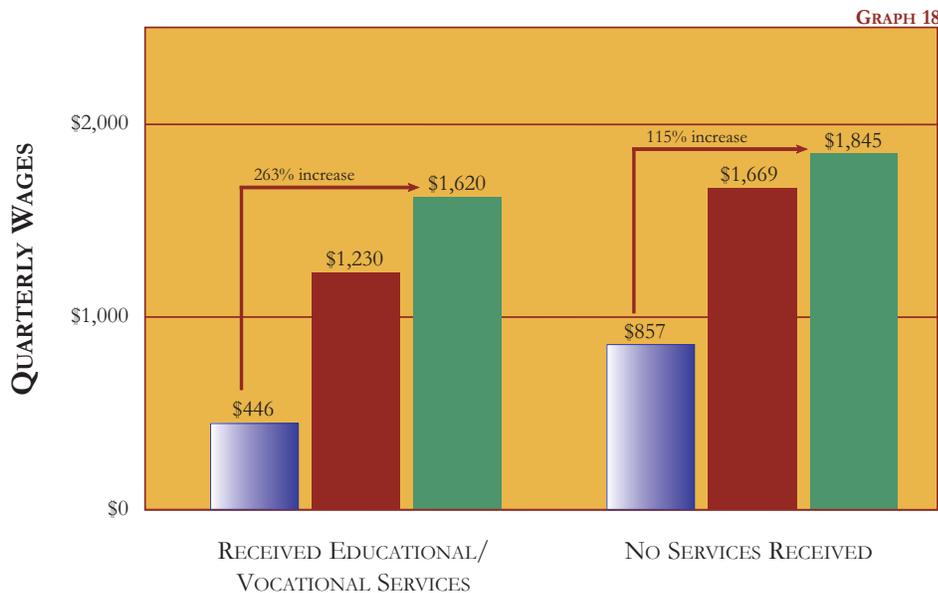
**QUARTERLY WAGES
PRE AND POST TREATMENT
BY LENGTH OF STAY (LOS) IN TREATMENT**



Studies show that treatment of 90 days or more works best. One year after treatment, persons with a LOS of 90 days or more increased their wages by \$1,039, while those with a shorter LOS had a much smaller increase of \$671.

- ▲ 90 days or greater
- ◆ Less than 90 days

**QUARTERLY WAGE INCREASES
ONE AND TWO YEARS POST TREATMENT
BY VOCATIONAL OR EDUCATIONAL SERVICES**



Persons who received vocational or educational services during treatment had more than twice the percentage wage increase two years after entering treatment when compared to those not receiving services.

- Treatment
- One year post treatment
- Two years post treatment

PREVENTION DATA

Over the past two years, important strides have been made in DMHAS' capacity to collect prevention data. Instrumental to this effort has been funding acquired from the federal Center for Substance Abuse Prevention's (CSAP) State Incentive Grants (SIG). SIG funding has allowed DMHAS, in collaboration with other state agencies, to enhance its data collection and analysis at the provider, regional, and state levels. This expanded capacity includes core performance measures leading to better accountability reporting. Also, during 2003 and 2004, DMHAS received CSAP and Center for Mental Health Services funding for several evaluative studies that promoted dissemination of best practices. These included family strengthening, mentoring, ecstasy prevention, and violence prevention programs. The family strengthening studies developed and evaluated effective prevention interventions for children of substance abusing parents. The mentoring program implemented and evaluated a school-based mentoring program for 10th grade, inner-city youth. The ecstasy initiative adapted an evidence-based curriculum to include ecstasy education. The violence prevention initiative promoted several K-12 model prevention programs.

Student Survey Findings (Ages 12-16)

In spring 2000 and 2002, the University of Connecticut Health Center conducted student surveys with in-school populations for SIG-funded communities across the state. In order to assess statewide risk and protective factors, results of the 2000 and 2002 GPIY Student Surveys were grouped into indexes across four domains (individual/peer, family, school and community). Not all SIG-funded districts that participated in 2000 opted to participate in 2002. However, the 2002 sample was sufficient to represent most communities by type (socioeconomic status) allowing for comparison of risk and protective factors across the SIG-funded school districts (Table 3).

Core Alcohol and Drug Survey

The Core Alcohol and Drug Survey for Colleges (Core Survey) is designed to assess the nature, scope, and consequences of alcohol and other drug use on college campuses within the state. As a part of a second phase of CSAP funding known as State Incentive Grant-Enhancement (SIG-E), DMHAS is assisting college campuses to increase their capacity to implement and coordinate effective, evidence-based alcohol and drug prevention programs and policies. Using Core Survey data, participating campuses can assess changes in the attitudes and behaviors of students and evaluate the effectiveness of prevention and intervention strategies. Comparison of Core Survey findings from 2001 and 2004 shows promising changes in alcohol and other drug use and attitudes on state campuses (Table 4).

DMHAS Prevention Program Data

DMHAS uniformly collects group level data on prevention service activities and participant demographics using the CSAP web-based Minimum Data Set (MDS). MDS data collection began in 2003 with a limited number of programs (Best Practices, The Governor's Prevention Initiative for Youth, and PRISM programs). In July 2004, all DMHAS prevention programs began using MDS, reporting on the following service categories: Information Dissemination, Education, Alternative Activities, Informational and Referral, Community Processes and Environmental.

PREVENTION DATA

2000 vs 2002 SIG STUDENT SURVEY RESULTS 7TH-8TH AND 9TH-10TH GRADE STUDENTS

TABLE 3

7th and 8th Grade Students	Decreased Risk
Peer use of ATOD	✓
Antisocial behavior	✓
Attitude toward ATOD	✓
Academic performance	✓
Number of days absent from school	✓
Perceived neighborhood cohesion	✓
9th and 10th Grade Students	Decreased Risk
Peer use of ATOD	✓
Antisocial behavior	✓
Number of days absent from school	✓
Perceived neighborhood ATOD use	✓

COLLEGE CAMPUSES CONNECTICUT CORE ALCOHOL AND DRUG SURVEY (AGES 17-25)

TABLE 4

Attitudes and Behaviors	2001	2004	Change*
Consumed alcohol in past year	85.9%	86.7%	+0.8%
Consumed alcohol in last 30 days	77.4	71.9	-2.8
Consumed alcohol in last 30 days (underage students)	72.3	63.4	-8.9
Reported binge drinking in last 2 weeks	51.3	45.8	-5.5
Reported smoking marijuana in the last year	40.6	34.7	-5.9
Reported smoking marijuana in last 30 days	26.1	20.5	-5.6
Used an illegal drug other than marijuana in last year	15.8	15.0	-0.8
Used an illegal drug other than marijuana in last 30 days	8.2	7.4	-0.8
Reported using amphetamines in past 30 days	5.3	3.6	-1.7
Reported using cocaine in past 30 days	2.7	2.3	-0.4
Feel that campus is concerned about the prevention of AOD use	74.4	75.6	+1.2
Believes average student uses alcohol once a week or more	88.9	88.1	-0.8
Felt there was “great risk” associated with the following:			
Try marijuana once or twice	6.8	9.0	+2.2
Smoke marijuana regularly	38.1	44.9	+6.8
Take one or two alcoholic beverages nearly every day	20.9	19.6	-1.3
Take four or five alcoholic beverages nearly every day	56.4	59.6	+3.2
Prefer not to have alcohol available at parties they attend	23.3	24.2	+0.9
* Percentage change and improvement in attitude or behavior in bold			

STATEWIDE COST ANALYSIS

Information regarding the funding, directly or indirectly, of substance abuse services was gathered from thirteen state agencies, including the Judicial Branch and OPM. Clearly, the most easily defined service is substance abuse treatment. Treatment dollars, for the most part, are readily identified and reported. Less clearly defined are intervention activities, as the range of services in this category often overlap into prevention services. Therefore, intervention funds are included within prevention. While CGS Section 17a-451(o) speaks about prevention and education, for purposes of reporting, these two activities have been combined, as education is one segment of the prevention continuum. The category "deterrence", also a component of prevention services, was added in the 2001 **Annual Report** to include law enforcement activities. A summary of statewide service expenditures by years is shown in Table 5, while substance abuse expenditures by agency for SFY 2003 are included in Table 6.

The increase in total service expenditures for SFYs 2000 and 2001 is partially due to the identification and inclusion of service expenditures in additional agencies that were not included in previous reports.

Overall, funding for all substance abuse services has grown from SFY 1999 to SFY 2003. Within service categories there has been some moderate fluctuations with treatment funding expanding throughout the years. Most noticeably, prevention funding decreased by about \$6 million from SFY 2002 to 2003. The increase in treatment funding from SFY 2001 to SFY 2002 is solely due to reporting of Medicaid dollars which had not been included in past years. In SFY 2003, eight of thirteen reporting agencies reduced expenditures for substance abuse related services, primarily in prevention services.

**Substance Abuse Service Expenditures
By State Fiscal Years
(Dollars in Millions)**

TABLE 5

Services	Prevention*	Deterrence	Treatment	Total
SFY 1999**	\$53.70	NA	\$136.80	\$190.50
SFY 2000	\$54.80	\$6.80	\$152.40***	\$214.00
SFY 2001	\$55.90	\$8.50	\$153.20	\$217.60
SFY 2002****	\$53.60	\$7.60	\$175.00	\$236.20
SFY 2003	\$47.25	\$8.93	\$182.94	\$239.12

* Includes education, substance abuse prevention and intervention funds.

** Expenditures for SFY 1999 updated to include Board of Pardons and Paroles and Department of Veteran Affairs, but missing Department of Public Health. Department of Social Services prevention expenditures moved to treatment.

*** Expenditures for SFY 2000 updated to include DVA. DSS prevention dollars moved to treatment.

**** DSS treatment dollars previously omitted were added.

STATEWIDE COST ANALYSIS

Substance Abuse Service Expenditures By State Agency State Fiscal Year 2003

TABLE 6

Agency	Deterrence	Prevention	Treatment	Total
DMHAS	\$0	\$14,816,275	\$121,558,383	\$136,374,658
JUDICIAL-CSSD ¹	\$0	\$11,765,754	\$11,511,890	\$23,277,644
DCF ²	\$0	\$3,152,206	\$13,422,785	\$16,574,991
DOC	\$0	\$0	\$8,690,024	\$8,690,024
SDE	\$0	\$9,337,159	\$0	\$9,337,159
DMV ³	\$0	\$0	\$0	\$0
DOT ⁴	\$4,515,570	\$2,199,533	\$0	\$6,715,103
DPH	\$0	\$192,103	\$0	\$192,103
DPS ⁵	\$4,389,000	\$61,800	\$0	\$4,450,800
DSS	\$0	\$0	\$27,335,085	\$27,335,085
DVA	\$0	\$0	\$424,254	\$424,254
OPM ⁶	\$0	\$5,721,799	\$0	\$5,721,799
PAROLE ⁷	\$24,580	\$0	\$0	\$24,580
TOTAL	\$8,929,150	\$47,246,629	\$182,942,421	\$239,118,200

¹ Treatment expenditures include \$2,234,041 transferred from Board of Pardons and Paroles.

² Prevention dollars include all prevention programs, not just those specific to substance abuse. DCF treatment includes Adolescent Outpatient & Residential Treatment Services and Protective Service Abuse Services.

³ Clients pay for retraining/education and required substance abuse treatment programs.

⁴ Division of Highway Safety implemented prevention and deterrence programs for driving under the influence by means of overtime police enforcement, and high profile media/public information programs.

⁵ Salaries only.

⁶ The decrease in OPM substance abuse service expenditures between SFY 2002 and 2003 is due to reductions in state funding.

⁷ All of the Board of Pardons and Paroles outpatient and residential drug treatment expenditures captured in Judicial Branch expenditures.

CONCLUSION & RECOMMENDATIONS

The findings reported in the 2004 Biennial Report build upon past efforts at understanding the complexities of addiction and how it relates to state agency systems such as criminal justice. The Yale University study of adult probationers underscores the need to explore more fully what motivates individuals to treatment. While half of all probationers have a substance use disorder, only one in three actively seeks help. Many probationers raise issues of denial, stigma or lack of resources as major barriers to seeking care. Understanding the differences in who does or doesn't access care and why are crucial to redesigning a probation system responsive to and supportive of a sustained recovery from addiction. While the Yale study has revealed some of the important issues facing access to care, more work is needed.

The University of Connecticut Health Center's analysis of the 2003/04 Adult Household Survey provides insight to substance misuse, abuse or dependence among the state's adults. One telling finding from both the 1995/96 and 2003/04 Adult Household Surveys is the rate of young adults (18-25 year olds) who engage in heavy or binge drinking. Early interventions, such as screening and brief treatment, can divert some of these young adults from more serious addiction in the future. This approach will provide savings in needless consequences such as alcohol-related fatalities, poor health conditions, domestic violence and other negative effects. In order to determine changing treatment need and demand, especially within specific populations (young adults, women, etc.), ongoing epidemiological studies must be part of Connecticut's comprehensive information system for addiction services.

Probabilistic Population Estimation (PPE) provides an economical method to cross-agency data sharing while assuring that confidentiality is maintained. Use of PPE for cross-agency data analysis will continue to assess how well critical populations within Connecticut's service systems (e.g. criminal justice, child protection, welfare) access treatment. At the same time, limitations within PPE make it necessary to explore alternative approaches to outcome analysis. Therefore, specialized studies that link individual records and persons across substance abuse treatment and other state agency databases are necessary. One example of this method was presented in the 2004 Biennial Report. Results from Yale's outcome study of treatment effects on wages demonstrates that treatment does make a difference given sufficient time in treatment and access to vocational services. Further outcome analysis is warranted to measure other areas of interest to key decision makers. For instance, given the recent concern over prison overcrowding, a study which links Department of Correction (DOC) inmate files with DMHAS substance abuse treatment records is of great importance. Analysis of these linked records can provide the basis for determining recidivism rates, identifying factors that influence access to treatment and estimating cost offsets associated with reduced rates of incarceration.

Regarding prevention services, work continues to develop the capacity of state agencies to collect and analyze a set of common data. Again, a sustained effort in this area requires that adequate resources be directed to this purpose. Ongoing monitoring of substance use trends, evaluation of successful programs, and application of best practices is a cycle of quality improvement that can bring significant results. The formation and initial work of the State Prevention Council has furthered these efforts, promoting cross-agency collaboration and coordination.

CONCLUSION & RECOMMENDATIONS

The 2004 Biennial Report demonstrates the capacity of DMHAS, the Judicial Branch and other contributing state agencies to work collaboratively to meet the requirements of the legislative mandate. These efforts, which began prior to the 1999 legislation, are even stronger today. Still there is more work to be done to provide the range of information most beneficial to decision making. Continued investment in a comprehensive addiction services information system, i.e., one that provides multiple methods of data collection, sharing and analysis is essential to Connecticut's future. Yet, many of the findings presented in the 2004 Biennial Report have been supported through federal funding. Continued outside funding is uncertain calling into question the state's ability to sustain these valuable studies.

RECOMMENDATIONS

Efforts for the next two years will focus on resumption of the Interagency Substance Abuse Treatment Information (I-SATIS) which combines data from DMHAS, DOC, DCF and JB-CSSD on persons receiving state funded or operated treatment. Two additional state fiscal years (2003 and 2004) of human service and criminal justice population data will be analyzed using PPE to determine overlaps and treatment access rates. Under a new federally funded initiative, the Strategic Prevention Framework (SPF), collection of social indicators from various state agencies will once again resume. Social indicators such as Driving Under the Influence (DUI) and drug related offenses, alcohol-related accidents and fatalities, child abuse and neglect cases, and other indicators will be analyzed as part of the SPF. These indicators will form one data source used in prioritizing prevention service needs and allocation of resources.

Also, two studies within the criminal justice population have been identified as priority projects. Both of these projects require additional funding if to be fully realized. First, it has been recommended that data from Yale University's Substance Abuse Treatment Need among Probationers study be linked to the JB-CSSD's probationer evaluation and risk records. Certainly preserving the confidentiality of those who participated in the Yale study is of primary importance. Once linked these two data sets will enable a more complete analysis as to which probationers in need of addiction services received or did not receive treatment and why. Additionally, there is consideration of linking the Yale study participants to DMHAS' treatment records. In this way, it will be possible to track substance abuse treatment received since the Yale interview along with probation status. Anticipated cost for this study is \$80,000.

The second proposal is to link DMHAS treatment records with DOC inmate files for the purpose of conducting an outcomes study regarding recidivism rates. This study was recommended in the 2003 Performance Audit of Alternative Incarcerations and the most recent Prison and Jail Overcrowding Commission report. In both reports, decision makers clearly stated and understood the value of tracking recidivism as a performance measure within the criminal justice system. As many inmates (60% - 80%) report substance use disorders, meeting the treatment and ongoing recovery needs is critical for this population. Linking records across DMHAS and the DOC will allow for an outcomes analysis similar to that done in the Yale wage study. Limited initial funding is available to assist the DOC with this project but additional funding is required for completing the statistical analysis. Cost for this project is estimated to be \$120,000.

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