The Costs and Effectiveness of Substance Use Disorder Programs in the State of Colorado

Report to
The General Assembly
House and Senate
Health and Human Services Committees

Submitted by
The Division of Behavioral Health
Colorado Department of Human Services

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Addiction begins with casual use.

The consequences of alcohol misuse and illicit drugs are the single greatest drain on state budgets.

(Excerpt from Blueprint for the States: Policies to Improve the Ways States Organize and Deliver Alcohol and Drug Prevention and Treatment, Findings and Recommendations of a National Policy Panel, by Join Together, 2006)

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EXECUTIVE SUMMARY

Substance use disorders in the State of Colorado are a significant health, social, public safety and economic problem. Prevention and treatment are crucial public safety measures.

- Substance use disorders continue to be a problem in Colorado, although rates of use have declined since 1979 because of prevention, treatment and enforcement.
- Prevention and treatment are effective in reducing the amount of substance use disorders in Colorado. A substance use disorder is a preventable behavior and addiction is a treatable disease.
- It is more economical to prevent or treat a substance use disorder than to deal with its impact on the individual or society.
- Resources to provide substance use disorder prevention and treatment are limited; the problem far outpaces the resources.
- Incarceration alone is an ineffective and costly way to control drugs.
- Treatment not only saves lives, it saves money.
- During FY08, clients in substance abuse treatment showed several positive outcomes, including:
  - ✓ An increase from 52% at admission to 78% at discharge in the proportion of all treatment clients reporting abstinence from substance use (note that a considerable proportion of clients report abstinence at admission because they were transferred from a jail, prison, or other supervised setting);
  - ✓ An increase from 61% to 81% (admission to discharge) in the proportion of outpatient treatment clients reporting abstinence from any substance use;
  - ✓ Decreases in DUI/DWAI and other arrests;
  - ✓ Decreases in medical and psychiatric emergency room visits, and hospital admissions; and improvements in mental health status, family, social, and employment issues, and living situation.

INTRODUCTION

The Division of Behavioral Health (DBH) formerly, Alcohol and Drug Abuse Division (ADAD) of the Colorado Department of Human Services submits this report to the General Assembly House and Senate Committees on Health and Human Services in compliance with:

A) Colorado Revised Statute 25-1-210 as amended by House Bill 00-1297
"25-1-210. Reports. The division shall submit a report not later than November 1 of each year to the house and senate committees on health, environment, welfare, and institutions on the costs and effectiveness of alcohol and drug abuse programs in this state and on recommended legislation in the field of alcohol and drug abuse," and

B) Colorado Revised Statute 16-13-311 (a) (VII) (B) from SB 03-133
"The remaining amount (50% of the post-fee portion from sale of forfeited property) to the managed service organization contracting with the department of human services, alcohol and drug abuse division serving the judicial district where the forfeiture proceeding was prosecuted to fund detoxification and substance abuse treatment. Money appropriated to the managed service organization shall be in addition to, and shall not be used to supplant, other funding appropriated to the department of human services, alcohol and drug abuse division.

The alcohol and drug abuse division in the department of human services shall prepare an annual accounting report of moneys received by the managed service organization pursuant to section 16-13-311 (3) (a) (VII) (B), including revenues, expenditures, beginning and ending balances, and services provided. The alcohol and drug abuse division shall provide this information in its annual report pursuant to section 25-1-210, C.R.S."

OVERVIEW OF THE DIVISION OF BEHAVIORAL HEALTH

ADAD was established by state law in 1971 with the mission to develop, support and advocate for comprehensive services to reduce substance use disorders and promote healthy individuals, families and communities.

In March 2006, the Alcohol and Drug Abuse Division (ADAD)and the Division of Mental Health were consolidated into Behavioral Health Services within the Office of Behavioral Health and Housing in the Department of Human Services.

In August 2008, Behavioral Health Services was renamed the Division of Behavioral Health (DBH) and the staff of the former Division of Mental Health and the Alcohol and Drug Abuse Division were physically located together at 3824 West Princeton Circle, Denver 80236. The mission of DBH is as follows:

> "We are dedicated to strengthening the health, resiliency, and recovery of Coloradans through quality and effective behavioral health prevention, intervention, and treatment."

The goals of the newly formed Division of Behavioral Health are:

1. To continually improve the quality of services for prevention, intervention, and treatment.
2. To advance collaboration among internal and external stakeholders.
3. To enhance knowledge, understanding, and awareness of behavioral health disorders.
4. To secure, preserve, and maximize resources.
5. To strengthen the system infrastructure and workforce.
6. To design, develop, and maintain a comprehensive evaluation and reporting system.

Former duties of the Alcohol and Drug Abuse Division that are carried out by DBH staff include:

Treatment

- Monitoring Federal Block Grant-funded contracts with 4 managed service organizations (MSOs) that subcontract with 42 treatment providers with 200 sites in 54 of Colorado's 64 counties for alcohol and other drug treatment services with emphasis on the following population of substance abusers:
  - Persons involuntarily committed by the courts, pursuant to 25-1-1101 CRS;
  - Pregnant women of any age;
  - Adult and adolescent injecting drug users;
  - Adult and adolescent women with dependent children;
  - Adult and adolescent drug dependent persons who are infected with HIV;
  - Adult and adolescent drug dependent persons who are infected with TB

- Writing and enforcing substance use disorder treatment rules for 300 treatment providers (including the 42 MSO-funded providers) who operate 700 treatment sites throughout Colorado.

- Licensing agencies to furnish treatment and specialized services of varying intensities and durations through a range of treatment levels of care including:
  - Residential non-hospital detoxification
  - Medically managed detoxification
  - Opiate replacement treatment (e.g., Methadone and Buprenorphine maintenance)
  - Therapeutic communities
  - Intensive and transitional residential treatment
  - Intensive and traditional outpatient treatment.

- Investigating complaints and critical incidents involving licensed treatment providers.

- Managing the statewide involuntary commitment process for approximately 210 persons a year who are legally committed to the Division by the court because they pose a danger and/or are incapacitated due to the abuse of alcohol or other drugs.

- Maintaining a central registry of clients in opiate replacement treatment programs to lower the risk for multiple enrollments and diversion of controlled substances. In FY07 there were 1,972 (an increase of 4% from FY07) active clients in this registry.

- Developing and expanding specialized substance abuse services for pregnant women and women with dependent children to ensure that barriers to treatment services are identified and reduced or eliminated for these women, and to promote the implementation of essential ancillary services such as linkage to prenatal care, other medical and dental care, medical care for children, mental health care, childcare during treatment, transportation to medical appointments and treatment, etc.

    1. Special Connections – a partnership between DBH and the Department of Health Care Policy and Financing to provide specialized residential and outpatient treatment and related services to Medicaid-eligible substance abusing pregnant women (between 250 and 330 clients per year). Services commence at anytime during a pregnancy and conclude 12 months after delivery.

    2. Specialized Women's Services – provides gender-specific treatment and services for substance-abusing women with dependent children and pregnant women not eligible for Medicaid.

- Overseeing the effectiveness of the Statewide Alcohol Drug Driving Safety Program (ADDS), including oversight of the education and treatment services delivered to Driving Under the Influence (DUI) and Driving While Ability Impaired (DWAI) offenders.

- Managing data for the ADDS Program, recording court evaluations and assessments and tracking client completion of substance abuse education and/or treatment required before the client may reclaim their license from the Division of Motor Vehicles.

- Collaborating with the State Department of Corrections (DOC), the Department of Public Safety's Division of Criminal Justice, and the State Court Administrator's Office to improve effectiveness of supervision and treatment to offender populations.

- Overseeing the training of addiction counselors and supervisors by determining required curriculum content for certification and licensure, and approves instructors and content for required and elective courses.

Prevention

- Promoting an understanding that substance abuse can be prevented and creates an awareness that communities can take action to address this and related concerns.
- Promoting the implementation of effective, research-based prevention strategies and approaches that are implemented in an age, gender and culturally appropriate service delivery system.
- Establishing and maintaining linkages with State, federal, local, private and business/industry to reduce substance abuse in Colorado.
- Setting standards for quality substance abuse prevention services.
- Identifying research findings and best practices, and proactively shares this information with the community.

- Providing a range of services that include education, training, problem identification and referral, community and school-based strategies, information dissemination and environmental programs.
- Coordinating statewide substance abuse prevention services with the Prevention Services Division, Interagency Prevention Systems Project at the Colorado Department of Public Health and Environment.
- Sponsoring statewide prevention training opportunities
    - Training services for DBH contractors
    - Substance Abuse Prevention Specialist Training
    - Regional Prevention Summits.

- Maintaining a comprehensive evaluation system for its prevention contractors called PEP (Prevention Evaluation Partners.) This evaluation system is shared across multiple agencies, and includes cross-discipline prevention evaluation approaches

Presentations

In addition to the responsibilities listed above, DBH staff used every opportunity to educate others about substance use disorder treatment, prevention, prevalence and incidence. In fiscal year 2008 (FY08), staff spent numerous hours preparing and giving 134 presentations to over 5,700 individuals state- and nationwide.

State Statutory Authority

Title 12, Article 22, Part 3 CRS*	Title 24, Article 1, Part 1 CRS
Title 16, Article 11.5, Part 1 CRS	Title 25, Article 1, Parts 2, 3 and 11 CRS
Title 16, Article 11.9, Part 1 CRS	Title 25.5, Article 4, Part 1 CRS
Title 16, Article 13, Part 3 CRS	Title 26, Article 1, Part 1 CRS
Title 17, Article 2, Part 2 CRS	Title 26, Article 2, Part 1 CRS
Title 17, Article 27.1, Part 1 CRS	Title 42, Article 2, Part 1 CRS
Title 17, Article 27.9, Part 1 CRS	Title 42, Article 3, Part 1, CRS
Title 18, Article 1.3, Parts 2 and 3 CRS	Title 42, Article 4, Part 13, CRS
Title 18, Article 18, Part 3 CRS*	Title 43, Article 4, Part 4, CRS

*Authority derived from the Colorado Department of Human Services by executive delegation

THE CONTINUING PROBLEM: ALCOHOL AND SUBSTANCE USE DISORDERS IN COLORADO

Colorado Statistics

- Colorado ranks 19% higher than the national average in per capita consumption of beverage alcohol. Only 4 other states (Alaska, Delaware, Nevada and Wisconsin) rank higher in per capita consumption than Colorado.[1]
- Based on state estimates from averages of the 2005 and 2006 National Survey on Drug Use and Health (NSDUH), Colorado ranked 10th among the 50 states in illicit drug use other than marijuana in the past month, 6th in illicit drug dependence in the past year, and 7th in cocaine use in the past year, in alcohol dependence in the past year, and in needing but not receiving treatment for illicit drug use in the past year.[2]

- According to the Colorado Bureau of Investigation in 2007 there were 28,917 adult DUI arrests and 531 juvenile DUI arrests in the state of Colorado. This is down from 31,130 adult DUI arrests and 561 juvenile DUI arrests in 2006.[3]
- The alcohol impaired fatalities in Colorado totaled 170 in 2007. This represents 30.7% of total fatalities in the state. This is a decrease from 2006 when there were 179 alcohol impaired fatalities representing 33.5%.[4]
- In FY 2008, there were 5,154 emergency room visits related to alcohol in Denver and 1,291 alcohol-related visits by youth under the age of 21.[5]
- In 2007, there were 858 calls to the Rocky Mountain Poison Control Center related to alcohol (a 1.2% decrease from 2006), 257 related to stimulants and amphetamines, and 91 related to cocaine.[6]
- Seventy-six percent of injecting drug users are infected with Hepatitis C, a chronic and sometimes fatal disease of the liver.[7]
- In 2007, 740 Colorado residents died of drug related causes and 598 died of alcohol related causes.[8]
- Clients discharged from treatment, DUI and detoxification programs during FY08 had primary responsibility for 36,617 dependent children under the age of 18. [9]

Colorado Youth In Crisis

- In FY08 there were 1,684 clients under age 18 who were discharged from DUI, detoxification and treatment programs.[9] This comprised only 5.6% of the estimated 30,000 (ages 12 - 17) adolescent substance abusers in Colorado.[10]
- Of these 1,684 clients under the age of 18, 82% received treatment services, 11% were discharged from DUI programs and 7% received detoxification services.[9]
- Of the 1,379 youth discharged from treatment[9],
  - ❖ 33% were diagnosed as drug-dependent;
  - ❖ 55% were diagnosed with a mental health issue in addition to their substance abuse;
  - ❖ the primary drug used was marijuana, followed by alcohol;
  - ❖ 52% successfully discharged from treatment, 25% left treatment or were terminated, 11% were transferred, the
- 60-80% of youth in the juvenile justice system have substance abuse issues.[10]

National and Colorado Reports on Youth and Substance Abuse

Monitoring the Future's 2007 study[11] found that, nationally, 72% of today's teens have consumed (more than just a few sips) alcohol by the end of high school, and 39% have done so by 8th grade. Fifty-five percent of 12th graders and 18% of 8th graders in 2007 reported having been drunk at least once. Moreover, 47% of America's secondary school students have tried an illicit drug by the time they finish high school, and the Northeastern and Western regions of the country historically have reported the highest proportions of students using any illicit drug.

A 2005 Colorado survey[12] of 734 public high-school students found that:

- 42% had ever used marijuana, and 12% had done so before the age of 13.
- 23% had used marijuana more than once in the past 30 days.
- 11% had ever used cocaine and 4% had done so in the past month.
- 75% had ever drank alcoholic beverages and 49% had done so in the past month.
- 32% reported having 5 or more drinks of alcohol in a row.
- 29% of students reported that in the past month, they rode with a drinking driver and 11% said that they drove after drinking in the past month.

Another area of concern for today's youth is the growing use of prescription (Rx) and over-the-counter (OTC) drugs. In fact, the 18th annual national study of teen drug abuse by the Partnership for a Drug-Free America reported[13] that today's teens are more likely to abuse Rx and OTC medications than many illegal drugs and think that abusing medicines to get high is "much safer" than using illegal drugs. Major findings included:

- nearly 1 in 5 teens surveyed had tried prescription medication to get high;
- 1 in 10 teens reported using cough medicine to get high;
- 40% of teens surveyed see use of prescription drugs to get high as "much safer" than use of street drugs;
- 29% said that prescription painkillers are not addictive;
- teens cited "ease of access" as the major factor related to an increase in prescription drug abuse;
- 37% reported experimenting with marijuana in 2005, compared to 42% in 1998;
- 20% reported using inhalants to get high; and
- data reported significant and sustained declines in the number of teens using tobacco and/or alcohol.

Another report on Rx drug abuse[14] found that teens who abuse prescription drugs are:

- Twice as likely to use alcohol;
- 5 times as likely to use marijuana;
- 12 times likelier to use heroin;
- 15 times likelier to use Ecstasy; and
- 21 times likelier to use cocaine, compared to teens who do not abuse such drugs.

However, despite the findings that drug use is still widespread among today's teens, there is a growing body of empirical findings suggesting that drug use education and prevention efforts have worked. The 2007 National Survey on Drug Use and Health[15] found that the national rates of current illicit drug (excluding tobacco and alcohol) use among 12 to 17 year olds declined slightly each year from 11.6% in 2002 to 8% in 2007. The 2005 Partnership Attitude Tracking Study[16] also reported decreasing substance abuse among 7th through 12th grade students.

Colorado/US Comparison

In 2007, an estimated 19.9 million Americans (8% of the total U.S. population aged 12 or older) were classified as current illicit drug users[15]. Almost seven million (6.9 million) were current users of prescription-type psychotherapeutic drugs taken non-medically, and of these, 5.2 million used pain relievers. Just over fifty percent (51%) of Americans aged 12 or older were current drinkers. Of these self identified drinkers, 57.8 million (23%) were binge drinkers (defined as

five or more drinks on one occasion) and 17 million (7%) were binge drinkers on five or more days in a month.[15] According to SAMHSA's 2006 Treatment Episode Data Set (TEDS), 74% of Colorado treatment clients, versus 40% of treatment clients nationwide, identified alcohol as their primary substance of abuse.[17]

In addition, according to averaged findings from the 2005-2006 NSDUH[2], Colorado ranked, among all 50 states for the12 or older age group:

- 10th for illicit drug use other than marijuana in past month (1st in 2005);
- 6th for illicit drug dependence in past year (3rd in 2005);
- 15th for non-medical use of pain relievers in past year (6th in 2005);
- 7th for illicit drug use in past month (4th in 2005);
- 7th for cocaine use in past year (5th in 2005);
- 9th for alcohol dependence in the past year (5th in 2005);
- 7th for persons needing but not getting treatment for illicit drug use (5th in 2005);
- 8th for alcohol use in the past month (8th in 2005);
- 12th for first-time marijuana use (7th in 2005);
- 10th for marijuana use in past month (10th in 2005); and
- 10th for marijuana use in past year (11th in 2005).

In addition, substance use epidemiology has documented that the lower the perception that use involves risk, the higher the probability of use, and Colorado was among seven states with the lowest proportions who perceived smoking marijuana once a month as a great risk. Colorado was also among five states with the lowest proportion of those aged 12 to 17 that perceived having five or more drinks once or twice a week as having great risk.[2]

Despite these worrisome findings, several studies have suggested that Colorado has been deficient in funding substance abuse treatment. Nationwide, $27 per U.S. resident is spent on publicly funded substance abuse treatment compared to $7.50 spent per resident in Colorado.[18]

Comparison of Colorado with Other Frontier States

It was mentioned earlier that the Western region of the country has historically reported the highest proportions of illicit drug use by high-school students. To take a closer look at Colorado and other western states, Colorado was compared to ten other states identified as "frontier" on 11 performance indicators.[19] The frontier states examined were Alaska, Arizona, Idaho, Montana, Nevada, New Mexico, North Dakota, South Dakota, Utah and Wyoming. Of these states, Colorado ranked:

- 1st in the rate of admissions for alcohol treatment (per 100,000 age 12 and up);
- 2nd only to Alaska in percent reporting use of any illicit drug;
- 3rd in percent reporting alcohol or drug dependence or abuse in past year;
- 3rd in percent needing but not receiving treatment for alcohol use;
- 4th in percent needing but not receiving treatment for illicit drug use;
- 4th in binge alcohol use; and
- 6th for alcohol-related traffic fatalities.

What This Problem Costs

The estimated cost of substance abuse in the U.S. exceeds $168 billion/year.[20] The White House Office of National Drug Control Policy found that between 1988 and 1995 drug users in America spent $57 billion buying illegal drugs, funds which would have otherwise supported legitimate spending or savings by the user.[21]

Beyond the cost of purchasing illegal drugs, substance abuse drives multiple indirect societal costs, including expenses related to criminal behavior, enforcement of drug laws, incarceration costs, cost due to lost productivity from incarceration or criminal careers, victimization, property damage, property loss from vehicular crashes, domestic violence, child welfare and foster care, illness and premature death, and health care.[21]

Coloradans are affected by the societal costs of substance abuse in many ways. The magnitude of public funds spent on the direct and indirect consequences of substance use and abuse is staggering[22] and dozens of Colorado public agencies play a part in controlling substance abuse or dealing with its consequences.

Regarding health-care costs, it is estimated that one-fourth of all people admitted to general hospitals have alcoholism and 30% of emergency room patients are problem drinkers or drug users. These individuals are seeking medical attention for alcohol or drug-related illness or injury, not for their addiction problem.[23] In addition, it is estimated that one emergency room visit costs $600 minimum and people with untreated alcoholism seek emergency room attention 60% more often than the rest of the population.[23] They are also nearly twice as likely to be hospitalized overnight, and stay in the hospital three days longer. In Colorado in 2006, there were 6,269 hospitalized inpatients with a diagnosis of "alcohol/drug use and alcohol/drug-induced organic mental problems," totaling to 30,967 patient days. The hospital charges for these patients added up to $88,853,475; a cost per case of $14,173.47.[22]

Potential costs for incarcerating substance abusers in Colorado have also been estimated. In FY06, there were 22,424 adult offenders and 213 youth offenders incarcerated in Colorado's Department of Corrections and 82% of court commitments were identified as needing substance abuse treatment.[24]

Based on daily prison costs of $75.58 for adult and $207.68 youth offenders[25] in FY06 the total cost per day for incarceration of substance abusers can be estimated at $1,293,902. Beyond those costs, incarcerated substance users demonstrated higher levels of need than non-substance users academically, vocationally and psychologically, and were more likely to be seriously mentally ill and/or developmentally challenged.

Another substance abuse related cost involves family violence. Among male alcoholics, 50 to 60% have been violent toward a female partner in the year before treatment and alcohol use is involved in 30% of child abuse cases.[26] Further, Fetal Alcohol Syndrome (FAS) is the leading preventable cause of birth defects and mental retardation in the nation. It is estimated that the total lifetime cost for a child born with FAS in 1980 would cost around $596,000[27]. Based on the 2006 number of live births in Colorado[28] (70,737) and a prevalence rate of 0.5 to 2.0 per 1000

births[29], Colorado could have between 35 and 142 FAS births per year, an expenditure of $21 million to $85 million.

CLIENT DEMOGRAPHICS: A COMPARISON BETWEEN TREATMENT, DUI AND DETOXIFICATION CLIENTS, AND PREVENTION DATA

(Note: Numbers and percentages are rounded to the nearest whole number.)

Overview

While certain sections of this report are based on the number of Drug/Alcohol Coordinated Data System (DACODS)[9] discharges for FY08 (n=81,692), the following demographic data are based on the number of clients (n=62,457). DBH only recently began phasing in a requirement for DUI providers to submit DACODS data on their clientele. This process is not yet complete, so the number of DACODS for DUI clients is less than the number of DUI discharges. Detailed tables and graphs of client demographics are located in Appendix A of this document.

Demographic Summary

Treatment Clients:

Of 18,998 discharges from substance abuse treatment in FY08, 16,466 were unique clients. Most were treated in MSO-contracted outpatient services and 43% had been referred for treatment by the criminal justice system (not related to DUI). These clients were more likely to be single, white male adults between the ages of 18 and 45 with a median age of 31.9. The highest proportions were in treatment for alcohol, followed by marijuana and had 1-2 prior treatment episodes. They had, on average, been using their primary drug for 14.8 years and sixty-two percent reported starting use of their primary drug before the age of 18. They tended to be daily users of tobacco, and had no dependent children. Nearly 40% worked full-time and 70% achieved a high school education or higher.

Detoxification Clients:

There were 41,741 discharges from detoxification services, 26,197 of which were unique clients. Detox clients were typically served in MSO-contracted residential non-medical detoxification units. Similar to those in treatment, clients in detox were also typically single, white male adults with no dependent children. They were slightly older than treatment clients with a median age of 36. Seventy-nine percent achieved a 12th grade education or higher and 42% worked full-time. Nearly all (93%) were in detox for alcohol abuse, which they typically started using before the age of 18 (59%). Detox clients had been using their primary substance for an average of 19.5 years and also tended to use tobacco daily. Unlike treatment clients, they generally (58%) had no prior treatment episodes.

DUI Clients:

There were 20,953 discharges from DUI and 19,794 unique clients, who also tended to be single, white male adults with no dependent children. Their median age was 33.8 and this group was more likely to have a 12th grade education or higher (82%) and work full-time (70%). Ninety-four percent received their DUIs for being under the influence of alcohol. These clients started using their primary substance before the age of 18 (60%) and had been using for an average of 15.9 years. Fifty percent used tobacco daily and 61% had no prior treatment episodes.

Select Demographics

Residents versus Non-residents

All of the clients discharged from treatment in FY 08 were from Colorado. There were only 13 detox clients and 1 DUI clients discharged in FY08 that were from out of state.

MSO versus Non-MSO

In 1997, Colorado changed its substance abuse treatment methodology to a regional managed care system. Managed Service Organizations (MSOs) provide additional oversight and quality assurance of services for clients receiving care in their subcontracted agencies. During FY08, 98% of clients discharged from detox and 59% of discharged treatment clients were MSO-related. Conversely, only 19% of DUI clients were treated in clinics overseen by MSOs.

Gender

The proportion of males discharged from treatment was 66% and males comprised nearly 78% of clients discharged from DUI and detox. See Appendix A, Graph 1.

Pregnancy

Four percent (n=247) of females in treatment, 2% of females in DUI (n=73) and 0.3% in detox (n=17) were pregnant in FY07. In 2006, there were 70,737 live births[28] and the 2006 census estimates[30] identified 1,532,180 females (age 15 to 60), indicating that potentially 4.6% of the females in Colorado were pregnant during 2006. Nationally, SAMHSA's Treatment Episode Data Set (TEDS)[31] from 2006 indicated that 3.9% of 567,011 females in treatment were pregnant. Substance abusing pregnant women are a priority population for DBH and over-representation in treatment reflects aggressive outreach efforts. See Appendix A, Graph 2.

Client Age

Age of clients in treatment and DUI are consistent with (average ages of 33.5 and 33.8 respectively) the national average of 34 years. Twenty-six percent of DUI clients were within the 18 - 24 year age group, compared to 19% in treatment. However, there were more clients under age 18 in treatment (7%) than in DUI (0.4%) and this may reflect the legal minimum driving age of 16. SAMHSA's TEDS data for 2006 indicated 7.9% of treatment clients nationally were under age 18.

Of the three groups, detox clients were the oldest (median age = 36). While 19% of clients in detox were within the 18 -24 age category, less than 1% were under the age of 18. The low numbers of minors in detox may be due to the limited capacity of detox centers to comply with facility requirements that would permit them to accept younger clients. Moreover, police often transport intoxicated youth to their homes, so these episodes are not captured in the data.

Client Race/Ethnicity

The largest proportions of clients discharged from treatment, DUI and detox in FY07 were White. Compared with the 2000 census figures for Colorado, Hispanics and American Indians were over-represented in all three of these service types. Hispanics represented 17% and American Indians comprised 1% of Colorado's general population. In treatment, DUI and detox, Hispanics made up 23%, 25% and 28% and American Indians comprised 2%, 2% and 5% of the clientele, respectively. The race/ethnicity breakdown in 2006 national TEDS data was: 64%

White, 23% Black, 15% Hispanic and 2% American Indian. Comparatively, Colorado has fewer Blacks and more Hispanics. See Appendix A, Graph 3.

Marital Status
Less than 25% of the clients in treatment, DUI and detox services were married, and more than half in each service type were single. Even fewer were separated, divorced or widowed. According to the Colorado 2000 census, 27% of the general population never married, 56% married, 2% separated, 5% widowed and 11% divorced. Compared to the census, it appears that single and widowed clients are over-represented in DBH's data. See Appendix A, Graph 4.

Dependent Children
Thirty-three percent of treatment, 30% of DUI and 25% of detox clients were responsible for children. The total number of children dependent upon clients in treatment, DUI and detox services was 10,642; 11,584 and 14,391 respectively. See Appendix A, Graph 5.

Highest School Grade Completed
For all three service types, the majority of clients had a high school degree or more (77%). Twenty-seven percent of the treatment clients attained some college or more, compared to 35% in detox and 38% in DUI. According to the Colorado Census 2000, 53% of the general state population had some college and 11% had graduate course work. Thus, clients discharged from substance abuse treatment, detox and DUI services in FY08 were less educated than the general population. See Appendix A, Graph 6.

Income and Source of Payment
Sixty percent of treatment, 55% of detox and 83% of DUI clients indicated that wages were their primary source of income. Also, 49% of treatment, 54% of detox and 92% of DUI were self-pay clients. Approximately 41% of treatment and 40% of detox clients indicated they had no income at the time of admission (see Appendix A, Graph 7). The median monthly incomes for treatment, detox and DUI reported at admission were $488, $600 and $1,400 respectively. When these are annualized, median income of clients is substantially smaller than that of $47,000 for Colorado households in 1999 (Colorado Census 2000).

Number of Persons Living on Client's Income
Forty percent each of treatment and DUI clients, and 26% of detox clients indicated that their income supported someone in addition to themselves. See Appendix A, Graph 8.

Veteran Status
Only 6% of treatment, 10% of DUI and 10% of detox clients indicated they were veterans. The Colorado Census 2000 identified 14% of the general population as veterans.[31]

Client Disability
Ten percent of treatment, 5% of detox, and 3% of DUI clients indicated they had one or more disabilities. Of the specified disabilities, psychiatric disorders was reported the most by clients in all three service types. Overall the treatment, detox and DUI clients indicating disabilities matches the 6% disability rate in the general Colorado population recorded by the Census 2000.

Tobacco Use
Compared to state and national population figures, cigarette smokers are greatly over-represented in DBH's database. Sixty-nine percent of treatment, 58% of detox and 49% of DUI clients used tobacco daily compared to 19% of Colorado adults and 23% nationwide.[32]

Prior Treatment Episodes
TEDS data for 2005 discharges indicated that 55% of clients nationally had one or more previous encounters with the treatment system and 11% had five or more prior treatment episodes. In Colorado, of the FY08 discharges, 62% of treatment clients had at least one prior encounter and 6% had more than five. Fifty-three percent of detox and 66% of DUI clients had one or more prior encounters. However 9% of detox clients and only 1% of DUI clients had more than five.

Transfer/Referral Source
Non-DUI Criminal Justice was the referral source for 43% of clients in treatment and 37% in detox, a pattern similar to TEDS national referral data (see Graph 9, Appendix A). As expected, the majority (77%) of DUI clients were referred from DUI-related criminal justice sources. Self-referrals in Colorado comprised 12% and 18% of detox and treatment respectively and 8% of DUI clients. Nationally, 34% of all clients self-referred into treatment.[31] Health care entities in Colorado, including substance abuse treatment providers, referred more clients to detox that treatment. Employer and educational agencies had minimal referrals and were combined with "Other" in Appendix A, Graph 9.

Admission/Discharge Modality
Outpatient services comprised the most highly utilized modality for treatment clients, with 62% in traditional and 9% in intensive outpatient modalities. Twenty-three percent of treatment clients were in some form of residential modality, including Therapeutic Community (TC), intensive, short-term intensive and transitional residential settings. Ninety-nine percent of detox received care in residential (non-hospital) detox. Nearly 1% received care in ambulatory medical detox settings and 0.1% were treated in a medically managed setting. See Appendix A, Graph 10.

Primary Drug Type
Alcohol abuse is Colorado's number one problem, followed by marijuana and methamphetamine (see Appendix A, Graph 11). In recent years Colorado providers had noted a switch from cocaine to methamphetamine because of price, availability and a longer lasting high.[33] National data for 2006 had more clients identify alcohol (40%) as their primary drug, followed by marijuana (16%), cocaine (14%), heroin (13%) and methamphetamine (8%).

SERVICE UTILIZATION

Prevention Services for FY 07-08
Services are delivered in multiple ways. *Direct Services* are more intensive and focus on individuals with multiple risk factors (e.g., Selected, and Indicated Populations), while *Indirect Services* focus on Universal Strategies aimed at the community at-large.

Total Served: 1,924,923
Total Served by Gender: Female 982,171 (51%); Male 942,752 (49%)
Total Served by DIRECT Services: 5,517 (Total Units Delivered*: 44,722)
Total Served by INDIRECT Services**: 1,919,406

*Individual participants are tracked throughout the year. Total units delivered reflect the sum of all sessions/lessons/activities received.

**This number reflects overall units of service delivery, e.g., number of flyers disseminated, number reached by media campaign

Treatment Discharges FY 07-08

The largest number of individuals was seen in detoxification, followed by the Drinking Driver program and then the combined treatment modalities. Research has shown that the longer an individual stays in substance abuse treatment the better their outcome. A "return to treatment" in the addiction field is encouraged since any contact with treatment counselors supports a more positive long-term outcome and addiction is a chronic, relapsing disease that must be managed over the course of one's life. Thus, the number of discharges is expected to be greater than the number of unique individuals.

In FY07, there were 91,162 discharges from treatment, DUI, and detox services, comprising 67,955 unique individuals. In FY08, the number of discharges was 81,692 and the number of unique persons was 62,457.

Length of Stay

Length of stay by modality was examined using both the median and average number of days. Opioid Replacement Therapy (ORT) and Therapeutic Community had, as expected, the longest stays with medians of 171 and 142 days respectively. The average days stayed was 203 for TC and 321 for ORT, which is much longer that the 2005 national average[31] for ORT of 172 days. See Table 2 in Appendix B for comparisons in length of stay broken down by treatment category.

In FY 08, outpatient treatment had a median of 99 days and an average of 145 days. Outpatient length of stay is a performance measure for our MSOs who are asked to maintain or improve the proportion of clients who stay in outpatient treatment for more than 90 days. All MSOs combined improved from 47% in FY05 to 49% in FY06, to 50.1% in FY07 and 54% in FY08.

Reason for Discharge

Ninety-four percent of detox clients completed their detoxification at the facility to which they were admitted. Three percent left against professional advice, one percent was terminated by the facility, and the remaining two percent were either transferred, incarcerated, died, or otherwise unspecified.

Across treatment modalities, 34% of FY08 discharges completed their treatment with no further treatment recommended; 18% completed treatment at that facility and were referred for more treatment; 19% left against professional advice; 10% each were terminated by the facility and 11% transferred to another facility. Twenty-nine percent of clients left treatment by walking away or being terminated.

BARRIERS TO TREATMENT

Number of Years Between First Use and Treatment – Client Readiness

Addiction is a chronic disease and it frequently takes years for personal recognition of the need for treatment to occur. In Appendix C, Graph 1 shows that for treatment and detox modalities, those with alcohol as their primary drug take the longest time to enter treatment. Time to enter treatment was calculated as the number of years from reported first use to first treatment episode and was based only on clients who reported having no previous treatment episodes. Overall, clients in treatment averaged 14.8 years (median=12 years) from first use of their primary drug until they entered treatment. Detox clients averaged 19.5 years (with a median of 18 years) from first use to first treatment.

Public Barriers

- Public stigma and a negative perception of the field affect both clients and providers.
- Many fear personal loss if others (such as employers) find out about their need for or being in treatment.
- Many have greater fears of discovery while in treatment than while abusing substances.
- Few individuals in recovery are willing to share their experiences, resulting in largely silent and invisible advocates.
- Many still view addiction as a poor moral choice in which an individual voluntarily engages, rather than a chronic, relapsing disease of the brain, similar to diabetes or high blood pressure, which requires extended care.
- Public tolerance of substance use is influenced by a multi-billion dollar liquor industry with huge advertising budgets that glamorize drinking.

Economic Barriers

- Insurance coverage is limited or non-existent for substance abuse prevention and treatment.
- Many who could benefit from treatment services also have other pressing needs, such as mental health care, medical care, housing, education and job training, employment assistance, legal assistance, etc.[20]
- Youth learn quickly that they can make more money dealing drugs than they can in legitimate employment.
- Addiction counselors and staff are chronically underpaid, creating high staff turnover and disrupting established counselor-client rapport.
- Public policy frequently supports incarceration over treatment, limiting funding to support prevention and treatment.
- Poverty and the perception that one cannot afford treatment frequently delays health seeking behavior.

Physical Barriers

- Service locations may be geographically challenging to reach (e.g., mountain passes in winter).
- Limited transportation options frequently exist in rural areas.
- Intensive forms of treatment, such as, residential services are not available in all parts of the state.

Individual Barriers

- Clients often do not believe they have a problem that requires treatment. This denial may prevent or delay them from seeking treatment.
- There may be cultural reasons as well as a shortage of local, culturally responsive treatment settings that prevent or delay individuals from seeking treatment.
- Additional barriers to women include greater stigma and risk of losing their children.

THE BENEFITS OF SUBSTANCE ABUSE TREATMENT AND PREVENTION

The Economic Benefits of Drug Treatment: A Critical Review of the Evidence for Policy Makers (2005)[20] cites nearly two decades of research finding that:

- substance abuse treatment achieves clinically significant reductions in substance use and crime, and improvements in personal health and social function for many clients;
- treatment effects include significant gains to both the client and to society;
- available cost-benefit studies consistently found that economic benefits exceed treatment costs;
- treatment benefits include reduced criminal behavior and health care costs and increased employment;
- specific treatment approaches are more cost-effective than others, e.g., outpatient vs. inpatient treatment, although the latter may be more effective for high-risk clients;
- residential prison treatment is cost-effective only in conjunction with post-release aftercare services; and
- long-term benefits of treatment are probably understated, and more studies are needed to determine the long-term impact of treatment.

In addition, studies conducted in Colorado, California, Ohio, Oregon and New York have demonstrated that substance abuse treatment results in tax dollar savings, decreased criminal activity, and improved health and employment rates. Specific findings follow.

Tax Dollars

- $7 is saved for every dollar spent on alcohol and drug abuse treatment programs.[34]
- Investment in prevention/treatment programs produces significant cost savings in other publicly funded programs.

- Every $1 spent on school-based drug prevention results in a cost savings of $5.50.[35]
- Iowa State University researchers have conservatively estimated that the prevention of a single case of adult alcohol abuse produces an average savings of $119,633 in avoided costs to society.[36]
- The Office of National Drug Control Policy (ONDCP) has documented a direct correlation between increases in drug prevention investments and decreases in the prevalence of use/abuse. Programs show cost-benefit ratios in the range of 8:1 to 15:1 in reduced costs in crime, school and work absenteeism, as well as reduced need for and costs of substance abuse treatment.[35]
- In Washington State, Medicaid medical cost savings averaged $4500 per person for those in alcohol and drug treatment.[37]
- In Oregon, treatment resulted in a $5.60 savings in social programs for every dollar spent on treatment and a 50% reduction in child welfare cases.[38]
- Six months in treatment in New York State produced tax savings of $143 million.[39]
- Clients on welfare declined 11% nationwide and homelessness dropped 43% nationwide.[40]
- Inpatient mental health visits decreased 28% nationwide.[40]

Criminal Activity

- Colorado noted a 97% decrease in arrests for all offense categories following treatment.[41]
- Colorado reported 46% of clients who had treatment completely abstained from alcohol or drugs.[41]
- Criminal activity decreased 80% nationwide.[40]

Health

- Ohio noted a 58% decrease in hospital admissions and a 67% decrease in emergency room utilization.[42]
- Treatment reduces hospital admissions by 1/3 and improves many primary health areas.[34]
- In 1992, five treatment types cost California $200 million, but saved approximately $1.5 billion.[34]

Employment

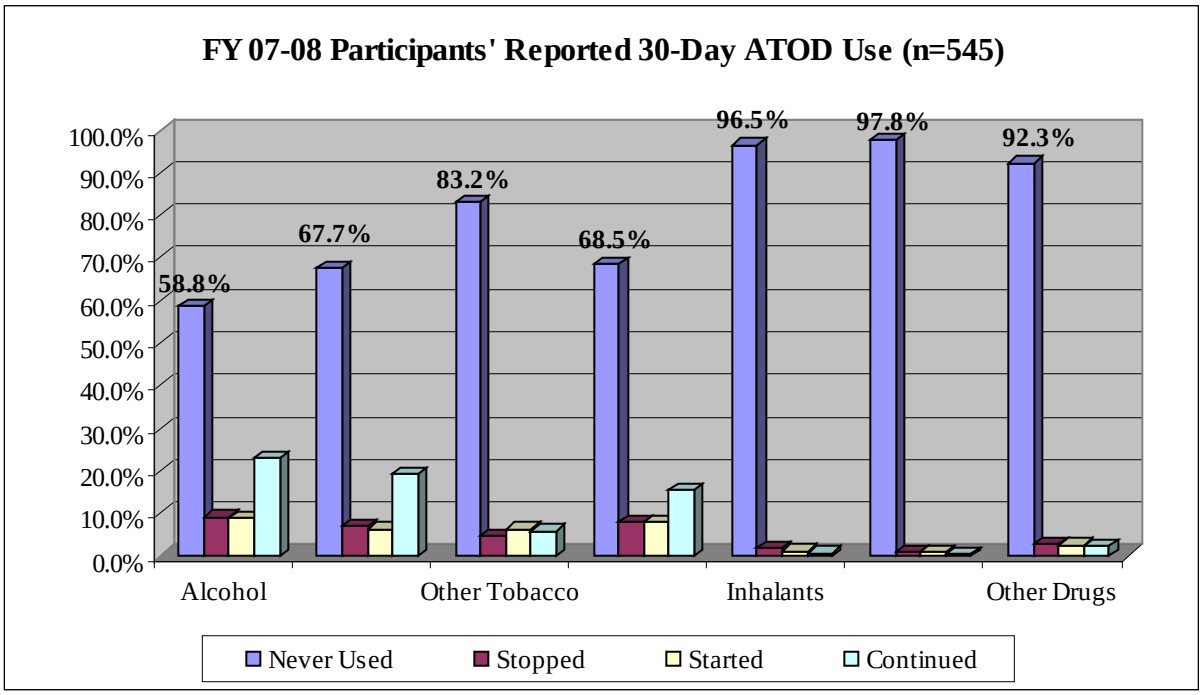
- Colorado noted a 67% increase in employment following treatment.[43]
- Employment increased 19% nationwide following treatment.[40]
- Every dollar spent on Employee Assistance Programs saves businesses between $8 and $20.[44]
- Ohio noted a 97% decrease in on-the-job injuries.[42]

PREVENTION AND TREATMENT OUTCOMES

Prevention Outcomes FY 07-08

1. Statistically significant decreases ($p<.05$) were noted in 30 day use of alcohol (both any consumption and getting drunk), smokeless tobacco, and LSD/hallucinogens for surveyed youth ages 12 to 17 who had received prevention services.
    - For those participants who used a given substance at pre-test, statistically significant decreases ($p<.05$) were noted in 30 day use of that substance for cigarettes, alcohol, smokeless tobacco, marijuana, inhalants, and other drug use (LSD/hallucinogens, amphetamines, crack, and cocaine).

2. Statistically significant increases were noted in:
    - Disapproval of marijuana use showed a statistically significant increase over the course of services provide ($p<.05$).
    - There were statistically significant increases in participants' perception of risk related to smoking marijuana once or twice a week, smoking one or more packs of cigarettes per day, and having five or more drinks of alcohol once or twice a week ($p<.01$).



Graph 1: FY 07-08 Participants' Reported 30-Day ATOD Use

Table 1: FY 07-08 Participants Reported 30 Day Substance Use

30-Day Use (n = 545)	Never Used	Stopped	Started	Continued
Alcohol	58.80%	9.10%	9.00%	23.10%
Cigarettes	67.70%	6.90%	6.30%	19.10%
Other Tobacco	83.20%	4.60%	6.30%	5.90%
Marijuana	68.50%	8.00%	8.10%	15.40%
Inhalants	96.50%	1.70%	1.10%	0.70%
Methamphetamine	97.80%	0.90%	0.90%	0.40%
Other Drugs	92.30%	2.90%	2.60%	2.20%

Treatment Outcomes FY 07-08, Admission to Discharge Change

Discharges from treatment modalities excluding Differential Assessments Only were used to calculate change from admission to discharge. Detox was excluded because its primary goal is to provide a safe, short-term environment in which the client may detoxify and then be referred to treatment. DUI was excluded because it focuses primarily on reducing the practice of driving while intoxicated, rather than reducing substance abuse exclusively. Based on these exclusions, the total number of discharges, not individuals, used to calculate outcome data was 17,308.

Summary of Treatment Outcomes:

1. Sixty-five percent of clients discharged from substance abuse treatment had moderate to high achievement of treatment goals.
2. Overall the severity of problems or issues with family, socialization, employment or school and medical or physical problems was reduced at discharge.
3. Use of primary drug decreased from admission to discharge.
4. The number of arrests, emergency department visits and hospital admissions all declined from admission to discharge, but there are at least two extraneous factors contributing to this decrease. One is that the reporting periods at admission and discharge vary, and the second is those in residential treatment, as well as those in outpatient treatment who are on probation have much less opportunity to be arrested than they did before treatment.
5. Slight improvements were noted in employment status and living situation at discharge.

Progress towards Treatment Goals

During the treatment process, addiction counselors partner with their clients to develop individualized treatment plans. These plans identify goals clients wish to attain from their treatment. At time of discharge, counselors and clients assess progress made toward these goals. In FY08, 65% of all treatment clients had made moderate to high progress toward their goals. (see Graph 1, Appendix D)

Use of Primary Drug at Admission and at Discharge

Perhaps the most critical measure of substance abuse treatment success is the change in frequency of drug use from admission to discharge. In FY08, there was a decline from 48% to 22% (admission to discharge) in the proportion of all treatment clients reporting any substance use in the previous 30 days. These results were similar to those from FY07.

Since outpatient treatment clients have more opportunity to engage in substance use than residential treatment clients, we also conduct an analysis of drug use frequency restricted to outpatient treatment clients (n=11,816). Graph 2 in Appendix D shows that in FY08, the proportion of outpatient clients who reported any use of their primary substance decreased from 39% at admission to 19% at discharge.

Mental Health Status

During FY08, 43% of clients in substance abuse treatment (all modalities) were assessed as having a current mental health issues at admission. This proportion remained the same at discharge. Although, 87% of youth discharges (n=125) and 53% of women discharges (n=1,508) in residential treatment programs have reported a higher prevalence of mental health issues at admission than the general population.

Family Issues/Problems

Counselors assess the severity of several of the client's issues or problems at both admission and discharge, using terms defined in the DACODS User Manual. The percentage of clients with no or slight family issues at admission increased at discharge, and those with moderate and severe family issues decreased at discharge. See Graph 3, Appendix D.

Socialization Issues

The percentage of clients reporting no or slight socialization issues or problems at admission increased at discharge, and those with moderate to severe problems at admission decreased at discharge. Socialization is defined as the ability and social skills to form relationships with others. See Graph 4, Appendix D.

Education/Employment Issues

The proportion of clients without education or employment problems at discharge increased, as did those with slight problems. The number with moderate or severe problems decreased at discharge. See Graph 5, Appendix D.

Medical/Physical Issues

The proportion of clients without medical/physical problems at discharge increased from admission to discharge, while the proportion of clients with slight, moderate or severe problems decreased at discharge. See Graph 6, Appendix D.

Employment Status and Living Situation

Slight increases occurred from admission to discharge in the proportions of clients working full-time and living independently. See Graphs 7 & 8, Appendix D.

Arrests, Emergency Room and Hospital Admissions

From admission to discharge from treatment, decreases were noted in DUI/DWAI and Other arrests, medical and psychiatric emergency room visits and medical and psychiatric hospital admissions. See Table 1, Appendix D.

Factors Relating to Achievement of Treatment Goals

Compared to clients with minimal progress, clients assessed with high progress were more likely to have been in treatment for 90 or more days (55% vs. 29%), more likely to be White (69% vs. 62%) and be married (24% vs. 20%). High achievers were less likely than low achievers to have a mental health diagnosis (42% vs. 45%) be black (5% vs. 9%) or Hispanic/Latino (22% vs. 26%), and be less than 35 years of age (53% vs. 61%).

Primary Drug Type

High achievers were more likely than low achievers to report alcohol as their primary drug (46% vs. 41%) and less likely to report heroin as their primary substance (2% vs. 6%). This finding may be skewed by the fact that most heroin users remain in treatment for years or even decades. Those discharged from an agency after only a short span of treatment are usually discharged because of poor performance or compliance.

Primary Drug Route

High achievers were more likely than low achievers to use their drug orally (51% vs. 41%) and less likely to inject their drug of use (6% vs. 10%). The drug type, however, may confound these findings. Alcohol is usually ingested orally. Heroin is frequently injected.

Geographic Area

High-achieving clients were more likely to be from the Colorado Springs area (21% vs. 18%), southeast (17% vs. 12%) or southwest (6% vs. 4%) areas of the state. Clients from the Denver area were less likely to be high achieving (35% vs. 43%).

SERVICE COSTS

The Division pays approximately 52.4% of service costs rendered by the Managed Service Organizations and their subcontractors.

Table 2: Average Cost Per Client By Year for Treatment Services funded by DBH

Year	DBH's* Average Cost/Client	Total** Average Cost/Client
2008	$809	$1,543
2007	$774	$1,509
2006	$759	$1,497
2005	$721	$1,948
2004	$715	$1,551
2003	$710	$1,544
2002	$687	$1,494
2001	$618	$1,344
2000	$584	$1,270
1999	$561	$1,220
1998	$542	$1,178
1997	$402	$ 874
1996	$390	$ 848
1995	$378	$ 822

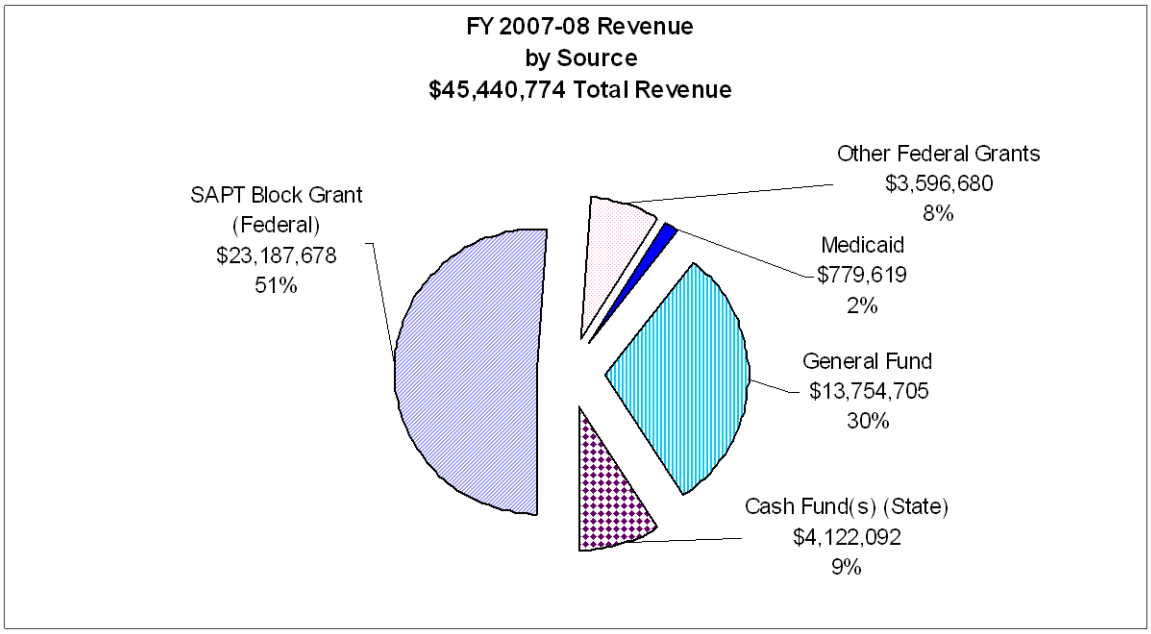
Note: Detoxification services and costs are excluded;
*Data were generated from DBH's funding database, using number of clients treated with DBH monies;
**Data reflect all clients funded by DBH and by self-pay or insurance; Average costs per TANF client, for outpatient substance abuse services only are $2,100/year.

In 2002, publicly funded programs provided 31% of the total treatment episodes in the state of Colorado. Drinking and driving (DUI) programs provided 47%. Licensed, non-funded, non-Drinking-Driver programs provided the remaining 22%[43].

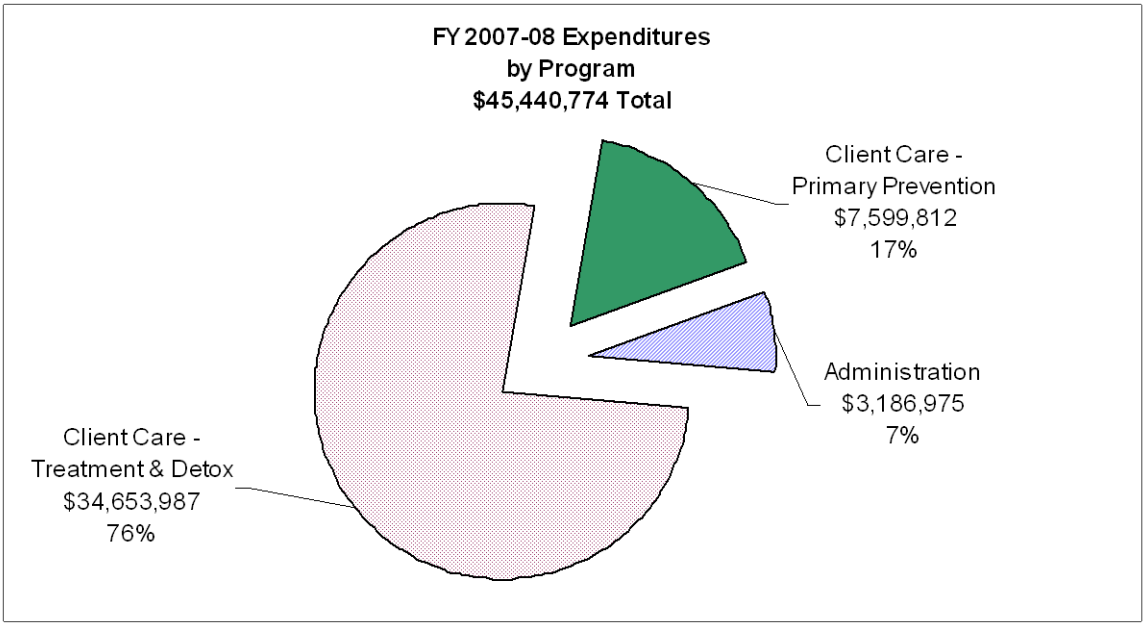
RESOURCES FY 07-08

Staffing: DBH pays for 34 FTEs in the Colorado Department of Human Services.

DBH Revenue and Expenses for FY 07-08



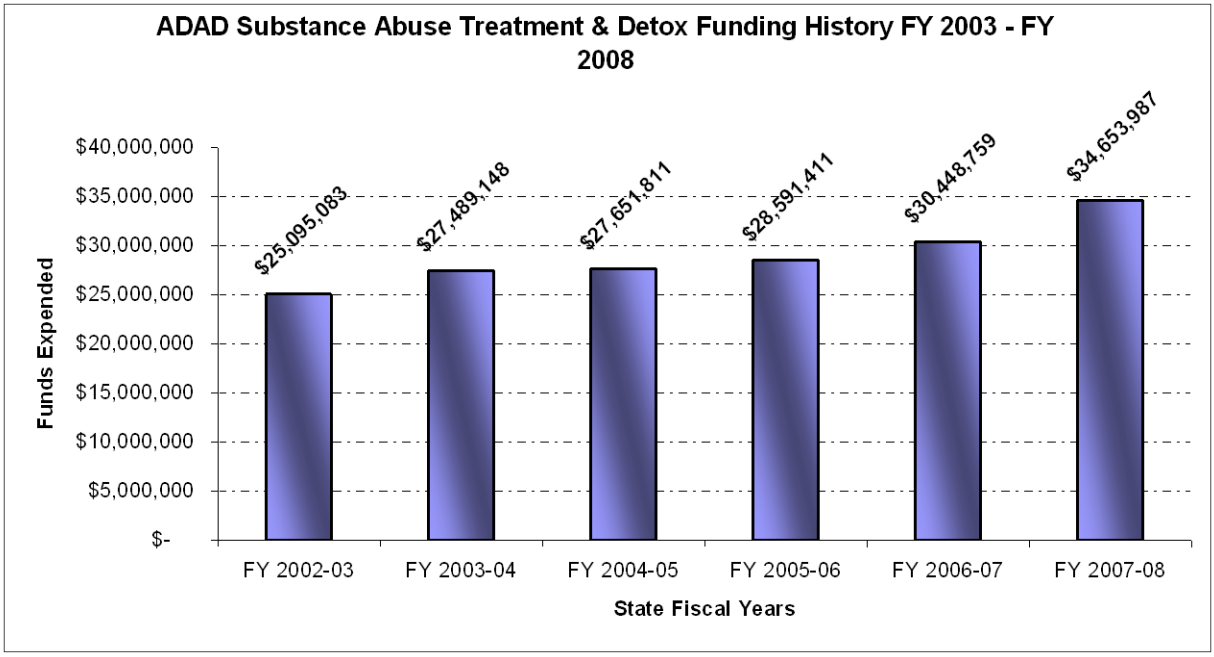
Graph 2: FY 07-08 Revenue by Source



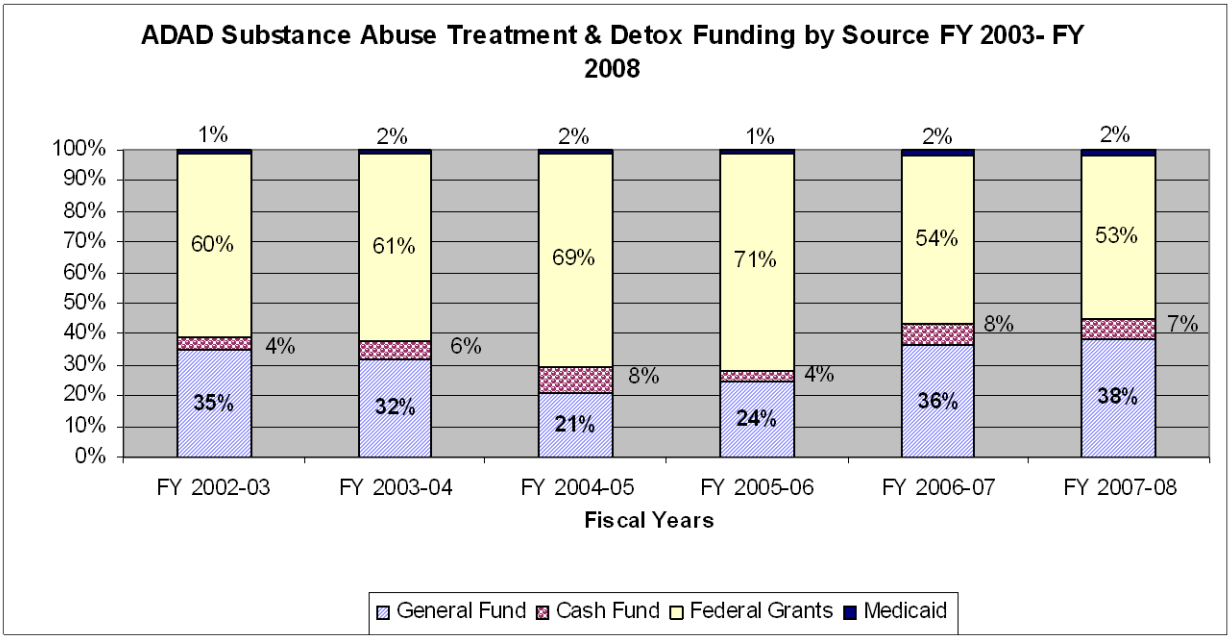
Graph 3: FY 07-08 Expenditures by Program

The next three charts demonstrate the funding trends for fiscal years 2003 through 2008 in the following three areas:

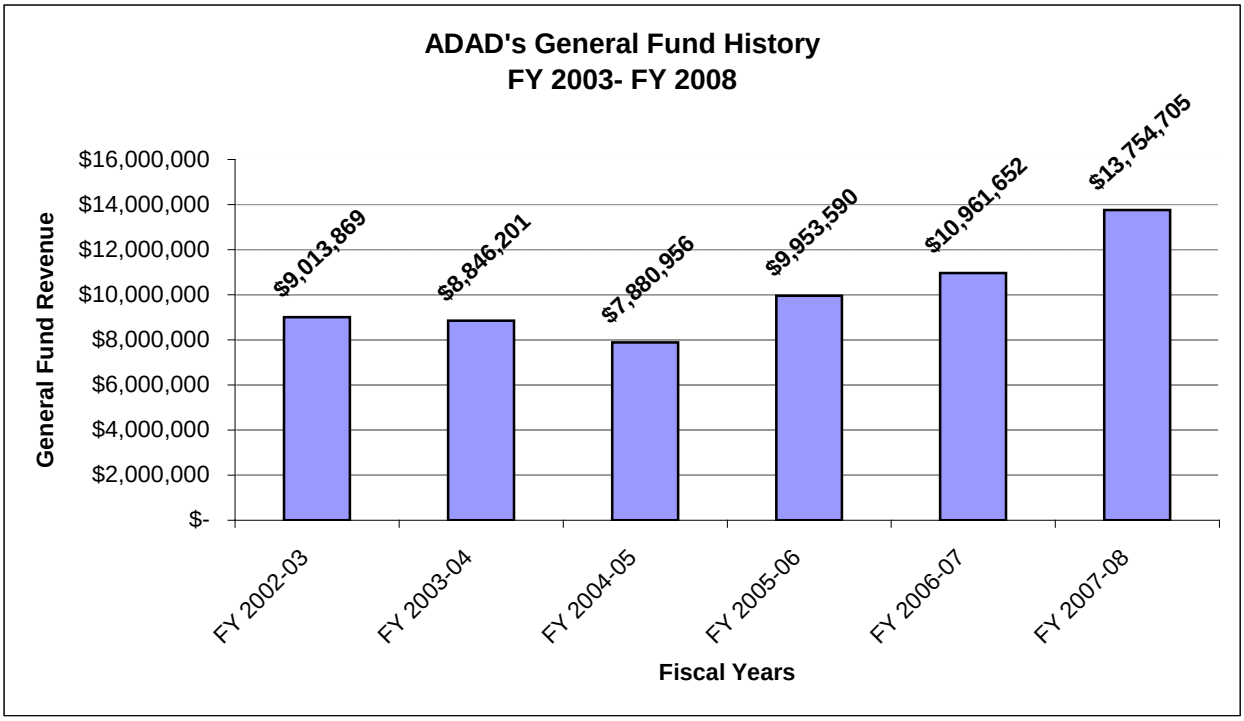
1) DBH's funding history for substance abuse treatment, from fiscal years 2003 through 2008;
2) the proportion of different funding sources; and
3) detail of DBH's General Fund dollars.



Graph 4: DBH Substance Abuse Treatment Funding History: FY 03 – FY 08



Graph 5: DBH Substance Abuse Treatment Funding Proportions: FY 03 – FY 08



Graph 6: DBH General Fund: FY 03 – FY 08

Tracking Civil Forfeiture (SB 03-133) for FY 07-08

As legislated by SB03-133, the MSOs allocate monies to substance abuse treatment and detoxification programs in the Judicial Districts in which forfeiture proceedings were prosecuted. These monies are in addition to the appropriated funds through the Department of Human Services, DBH and the MSOs. The following table details the reporting of civil forfeiture funds for fiscal year 2008 by four Colorado MSOs, as required by SB03-133.

Table 3: Civil Forfeiture for FY 07-08

MSO Provider / Description	Signal Behavioral Health	West Slope Casa	Connect Care	Boulder County Public Health	Total All
Beginning Balance	$ 492,184	$ 54,108	$ 246,006	$ 0	**$ 792,298**
Distribution	$ (447,675)	$ (32,305)	$ (9,620)	$ 0	**$ (489,600)**
Forfeiture Funds Received	$ 391,987	$ 15,839	$ 132,616	$ 0	**$ 540,443**
Ending Balance	$ 436,496	$ 37,642	$ 369,002	$ 0	**$ 843,140**

Summary:

Signal Behavioral Health Network expended $447,675 of forfeiture funds during the year. Of this, $389,505 was spent on treatment and detoxification services and $58,170 was allocated to administrative costs (13% of total funds distributed). West Slope Casa (Judicial District #21) reported $32,505 of expenditures for client services from forfeiture funds. Connect Care (Judicial District #4) reported $9,620 in expenditures for client services during the year from forfeiture

funds. Boulder County Public Health Department has not received any funds from civil forfeiture. In total, an additional $50,443 in forfeiture revenues were collected in fiscal year 2007-08, representing an increase of 18.7% increase over the previous year.

TREATMENT AND SERVICE GAPS

According to the 2005-2006 NSDUH[2], Colorado ranks sixth (4th in 2004-2005 report) nationwide in the proportion of persons 26 & older needing but not getting treatment for alcohol use in the past year and seventh (5th in 2004-2005 report) in the proportion of persons 12 & older needing but not getting treatment for illicit drug use in the past year.

According to a 2002 analysis of substance abuse prevalence and treatment gaps in Colorado[43]:

- 81% of the Coloradans abusing or dependent on substances are not in a treatment program;
- only 3% of the abusing or dependent population not yet in treatment are ready to seek treatment; and
- it would cost an additional $10.1 million to close the current treatment gap for those wanting but currently not receiving treatment

In ADAD's Special Connections Annual Report, March 2007,[45] staff noted 68,922 births in Colorado in 2006, and estimated that approximately 5.2% (based on a national estimate from 2006 and 2007 National Survey on Drug Use & Health data[15]), of pregnant women aged 15 to 44 used illicit drugs in the past month. ADAD met 13% of this need by treating 282 pregnant women in Special Connections in FY08.

Three multi-year studies on treatment gaps and daily management of the substance abuse issues in Colorado have identified several populations that, even if treatment were widely available, would require special effort to recruit and retain in treatment. These include:

- all abusing adolescents, especially pregnant female adolescent substance abusers with a focus on Hispanics;
- pregnant substance abusing females via outreach in physicians' offices and hospitals throughout the state;
- women substance abusers who have dependent children;
- the elderly who abuse prescription medications;
- persons who are homeless; and
- substance abusers in the southeastern part of Colorado, since studies indicate this is a high area of need.

Additionally studies have found that the public sector provides only a percentage (31%) of the treatment services needed in Colorado, and expansion of public sector is critical to meet the needs of those individuals who require but currently are not in treatment.

Household surveys of Colorado's population should be administered on a regular basis, at least once per decade to determine areas of high need for both prevention and treatment and to assist in targeting limited resources for optimal effectiveness. Given limited resources, the cost of these

surveys is prohibitive and ADAD has depended on gleaning information from federal household surveys, which provide national and state level data.

DBH management is acutely aware that regular follow-up surveys on clients need to be done to determine the post-discharge impact and continuing effects of treatment. Based on the difficulty of tracking transient populations as well as the stigma associated with this field, follow-up studies have been expensive to administer, and DBH chose not to divert funds away from direct client treatment services to perform follow-up studies.

SPECIAL ISSUES/REPORTS

Methamphetamine In Colorado

Methamphetamine use has been a problem in Colorado for several years, impacting many communities and burdening a broad spectrum of community services, including law enforcement, public safety, corrections, child welfare, social services, environmental clean-up and medical and mental health care. According to the June 2008 Patterns and Trends in Drug Abuse: Denver and Colorado[33] report, excluding alcohol, methamphetamine ranked second behind marijuana in statewide treatment admissions and third in Denver area treatment admissions behind marijuana and cocaine. In 2007, the statewide methamphetamine new user proportion declined to 17.8 percent (21.5% in 2006), the lowest percentage in the eight year time period. Similarly, in Denver, the proportion of new users in treatment decreased from 20.8 percent in 2006 to 17.6 percent in 2007. Statewide, the average age of onset for methamphetamine use reported in 2007 first-time admissions was 22.1 (median=19.0), and for Denver, 22.7 (median=20.0). The average age of onset for treatment admission for methamphetamine has ranged between 20 and 23 statewide since 2000 (median age ranged from 18-20). Since 2002, meth laboratory closures have declined steadily, interestingly the quantity of meth seized in law enforcement raids had been rising from 2003 (14.8 kgs) to 2006 (50.3 kgs), but declined sharply in 2007 (8kgs). Denver Vice Detectives report that the larger quantities of meth being seized from 2003 to 2006 was due to the rise of Colorado's supply of Mexican methamphetamine to compensate for less local production.

Methamphetamine Task Force. House Bill 06-1145, mandating the formation of the Colorado State Methamphetamine Task Force (SMTF), was passed in FY06. The SMTF is the state's largest coordinated, comprehensive approach to address methamphetamine (meth) abuse in Colorado and aims to assist local communities in curbing meth abuse. The SMTF is responsible for reviewing best practices from across the state and country for implementation and has a specific focus on protecting drug endangered children. The SMTF will also evaluate the progress of the state's current efforts to prevent and treat meth abuse and evaluate approaches to increase public awareness of the drug's production, distribution and abuse.

In July 2007, the SMTF partnered with the Colorado Drug Endangered Children (DEC). This partnership provides a link to policy makers in the state giving Colorado DEC leverage and credibility while working with communities. At the same time, Colorado DEC members and partnerships in the field represent the grassroots movement, and provide an accurate representation of the needs of local communities to policy makers. The SMTF also has a strategic plan commonly referred to as the Colorado Blueprint. At the core of the Colorado

Blueprint is a four part continuous course of action involving policy, implementation, practice and science. In this respect, evidence and practice informs implementation, as well as, legislative and policy improvements.

General Demographics. During calendar year 2007, 18% of Colorado treatment admissions and 11% of Denver treatment admissions were for clients who reported their primary drug as methamphetamine. Compared to users of other illicit drugs, Meth users were more likely to be female, between the ages of 18 and 34, White, separated or divorced and have dependent children. Meth users were unlikely to be younger than 18 or older than 34 years of age, Black or Hispanic, or have educational attainment beyond high school. Meth users were less likely to be working or living independently, or be self-referrals into treatment. More meth users were likely to be referred into the treatment system by social services or non-DUI criminal justice. Meth-using clients were likely to have had prior treatment episodes and be enrolled in more intensive treatment modalities. They were likely to use tobacco products and be poly-substance users with drug dependency. Clients with meth as their primary drug were less likely to report using it in the 30 days prior to treatment admission. This finding probably relates to two issues: 1) non-meth users most likely reported alcohol, a legal substance, as their primary drug; and 2) most meth users were referred into treatment by the criminal justice system, indicating a supervised setting prior to admission. Methamphetamine users were more likely to have moderate to severe family, socialization and work/school issues or problems at admission.

Pregnant Women in Substance Abuse Treatment

The following is based on the Special Connections Annual Report for July 1, 2007-June 30, 2008 that will be available December 31, 2008.

Special Connections is a collaboration between DBH and the Department of Health Care Policy and Financing to provide Medicaid prenatal care and substance abuse treatment services for pregnant women in Colorado. To be eligible for enrollment in Special Connections women must be at high risk for poor birth outcomes due to substance abuse or dependence, eligible for Medicaid and willing to receive prenatal care during pregnancy.

Special Connections' goals are to:

- produce a healthy infant;
- reduce or stop the substance using behavior of the pregnant woman during and after the pregnancy;
- promote and assure a safe child-rearing environment for the newborn and other children; and
- maintain the family unit.

The full extent of the effects of prenatal drug exposure on a child is not known, however studies show that various drugs of abuse result in premature birth, miscarriage, low birth weight and a variety of behavioral and cognitive problems.[46] The average cost to the Colorado taxpayer of one low birth weight baby was $6,362 in the year 2000.[47]

Prevalence

In January, 2004, the National Survey on Drug Use and Health issued a report entitled *Pregnancy and Substance Use* (SAMHSA, 2004), in which 3 percent of pregnant women reported use of illicit drugs in the past month, and 3 percent reported binge alcohol use. It is unclear from this report how much overlap there is between the two groups, but even using the 3% figure to estimate the number of pregnant women in Colorado in need of treatment, with 70,969 live births in 2006, which is the most recent data available from Vital Statistics (National Vital Statistics Reports, August 28, 2007) there would have been 2,129 substance exposed pregnancies. The 282 women contacted by our Special Connections programs in FY 2008 constitute 13% of the women who may be assumed to have benefited from substance abuse treatment during this time period. Assuming that each of the 129 normal birth weight babies born to this very high risk group of women during in FY 2008 saved taxpayers $6,362, this program saved Colorado taxpayers $820,698 in hospital costs.

Clients with Mental Health Issues in Substance Abuse Treatment

A recent examination of clients with co-occurring mental health and substance abuse issues analyzed 17,308 discharges from treatment occurred during FY2008. Of those discharges, 7,505 (43%) indicated having mental health issues at admission[9].

Overall, treatment demographics for FY08 co-occurring clients are similar to those of FY07. Small variations in demographic patterns were noted between the 7,505 co-occurring clients and 9,803 discharged clients without co-occurring disorders at admission. These variations indicated that co-occurring clients were slightly more likely to:

- be female;
- be under 18 years of age;
- be White;
- be educated beyond high school.
- have had prior treatment episodes;
- have been placed in more intensive treatment modalities;
- have used tobacco products daily;
- have moderate to severe problems with family, socialization, work or school and physical health;
- have used their primary drug within 30 days of admission and during treatment;
- have visited psychiatric and medical emergency rooms; and
- have been admitted to psychiatric and medical hospitals.

Similar to FY07, FY08 co-occurring clients were less likely to be employed, married, have dependent children, or be referred into treatment by the criminal justice system.

Regarding treatment outcomes, clients with co-occurring disorders were less likely to have completed treatment with no further treatment recommended and achieved high progress towards treatment goals.

As with the general treatment population, co-occurring clients had overall positive treatment outcomes. However, because they had more severe issues to address at time of admission to treatment, they were also more likely to be assessed with those issues at discharge.

In 2007, a task force was created for the study of behavioral health funding and treatment (House Joint Resolution 07-1050). The purpose of the task force was to study mental health and substance abuse services in order to coordinate state agency efforts, stream line services provided, and maximize federal and other funding sources.[48] The report made the following recommendations that have since been considered by the Governor's newly formed Behavioral Health Cabinet. With the exception of creating a Behavioral Health Commission, the Behavioral Health Cabinet and its working group of Behavioral Health Coordinating Council members, support the general concepts and work done by the 1050 Task Force.

- Establish a Behavioral Health Commission with leadership from the three branches of state government, adult and youth consumers and families, providers, and communities. The Commission's charge would be to implement the 1050 Task Force's and its own recommendations and provide oversight and support to Colorado's vision for an integrated behavioral health system.
- Develop and implement a set of shared outcomes across key systems to enable joint accountability
- Align service areas across systems
- Expand the use of joint auditing across systems, which could include fiscal and/or programmatic audits.
- Develop and implement a multi-year joint budget and strategic planning process across departments to support long term and cross-system needs.
- Develop an integrated behavioral health fiscal policies, rules, and regulations that align with integrated behavioral health service delivery.
- Support financing reform to maximize and efficiently utilize funds to support an integrated behavioral health system.
- Use electronic cross-system data collection, sharing, and evaluation, including an electronic health record and shared screening tools, assessments, and evaluations.
- Adopt consistent cross-system standards for cultural competency/responsiveness and for adult, youth, and child consumer and family involvement
- Develop strategies for an integrated behavioral health system.

SPECIAL PROJECTS

Prevention

Prevention Leadership Council (PLC)

DBH continues to participate in the Prevention Leadership Council (PLC)(C.R.S. 25-20.5), an ongoing collaboration among state agencies aimed at implementing a seamless interagency approach to the delivery of state and federally funded prevention programs. Colorado is the first state in the nation to have a multi-agency, cross-discipline prevention evaluation system. Five state agencies that fund prevention services are now using this

system. A web-based resource and indicator database, ASPIRE, has been developed primarily for communities to use. Communities can readily see data regarding their county or community pertinent to prevention issues as well as what prevention resources are currently being received by their county or community.

Prevention Summits

DBH participated with the PLC to host a Statewide Prevention summit in September 2007. Many prevention coalitions and DBH Prevention Contractors participated. The Department of Transportation was instrumental in providing a national facilitator to work with community coalition development in order to encourage community prevention providers to join forces and obtain community level change. The PLC is responsible for implementing C.R.S. 25-20.5-102, The Prevention, Intervention and Treatment Services for Children and Youth Act.

Community Level Development Study formerly called the Diffusion Consortium Project

Colorado continues to participate in the University of Washington's study along with six other states. In Colorado, an experimental community has been chosen to study the prevention of youth substance abuse through the development and funding of the Communities That Care operating system. Outcomes compared with a similar control community that is not implementing that system of training and technical assistance shows a decrease in substance use in the control communities. Prevention staff participate in regularly scheduled conference calls, annual meetings and in the Advisory Committee that provides assistance to 12 community action plans in the seven states to ensure both the experimental and control communities participate in student surveys.

Persistent Drunk Driving (PDD) and Law Enforcement Assistance Funds (LEAF)

PDD education funds support programs intended to deter persistent drunk driving or to educate the public on the dangers of persistent drunk driving, with particular emphasis on young drivers. Sixteen Colorado counties were served, based on their juvenile-alcohol and DUI related arrest rates. Thirteen counties received $25,000 each and three counties received start-up funds of $7,500 for a total allocation of $347,500.

The LEAF funds occur through a legislative surcharge that focused on drunk and drugged driving convictions to help pay for enforcement, laboratory charges and prevention. In FY07-08 Judicial allocated $250,000 of the surcharge dollars to DBH to establish community-based impaired driving prevention programs for these mandated populations: the general population; teachers of youth; health professionals; and law enforcement.

The following results are a combination of PDD and LEAF funded contracts. In FY07-08:

- 620 youth, average age 14.94, from nine counties, received evidence-based curricula. They were 43.9% male, 50% white, and 34% Hispanic/Latino.
- Pre/post-surveys administered to youth in all nine counties showed that alcohol use in the previous 30 days decreased slightly from 34.9% to 33.1%. For those participants who used a given substance at pre-test, statistically significant decreases ($p<.05$) from pretest to posttest were noted in 30 day use of that substance for cigarettes, alcohol, marijuana, and inhalants.

- Pre/post survey data also indicated statistically significant changes from pretest to posttest where youth demonstrated significantly greater attitudes against alcohol use ($p<.05$), significantly greater perceived risk of harm from substance use ($p<.05$), and a significantly lower prevalence of being a passenger in a car with a driver who drank more than a sip or two of alcohol ($p<.05$).

PDD and LEAF Prevention Services for FY07-08
Total Served: 476,126
Total Served by Gender: Female 235,358 (49%); Male 240,766 (51%)
Total DIRECT Services: 609
Total INDIRECT Services: 263

SYNAR and Funding Impact

The federal block grant requires Colorado maintain enforcement activities to reduce underage access to tobacco. Non-compliance (exceeding a predetermined sales rate of 20% to youth) with SYNAR will result in a penalty of 40% of the Block Grant (approximately $9.5 million for Colorado). DBH works closely with the Department of Revenue and the Department of Public Health and Environment to conduct enforcement activities. Current compliance checks and analyses show that Colorado meets all Synar requirements. The non-compliance rate for 2008 was 8.5%.

Capacity Development

DBH formed a workgroup of representatives from state agencies that provide prevention services to address standards and competencies for coordinated capacity development (previously called workforce development). This task falls under the purview of the Prevention Leadership Council (PLC). The goal is to develop a research-based process that assures the availability of quality training and technical assistance to the prevention workforce in Colorado. In FY07 this planning group completed a tool and process for assessing the application of the Uniform Minimum Standards. This tool, called the Uniform Minimum Standards Assessment Tool, is intended to be standard across agencies and be used to determine training and technical assistance needs. The tool was piloted in Spring 07 and piloting will continue in FY08.

Prevention Peer Review

ADAD and the Colorado Association of Alcohol and Drug Service Providers (CAADSP) developed a prevention peer review process to promote continuous quality improvement of prevention programs. This process is based on research, literature and past experience.

Higher Education Initiatives

DBH continued to increase its efforts to address underage drinking in higher education by collaborating with the Coalition of Campus Alcohol and Drug Educators (CADE) and the federally funded Center for College Health and Safety's Higher Education Center for Alcohol and Drug Prevention. In FY08 ADAD continued its funding of the BACCHUS Network to provide state coordination services for CADE. This contract provides training, resources, information and support for campus professionals responsible for alcohol and drug prevention and health promotions at two and four year institutions of higher education in

Colorado. CADE created a subcommittee that focuses on the special needs of two-year colleges. CADE is also consulting with Colorado Prevention Partners communities (see below) on how to involve higher education representatives in local planning efforts.

Strategic Prevention Framework, State Incentive Grant (SPF SIG)

Colorado is one of twenty states awarded the SPF SIG on September 30, 2004. The SPF SIG is funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Substance Abuse Prevention (CSAP) and brings approximately $2,350,000 to Colorado each year for five years. It is based on interagency collaboration and DBH is the fiscal agency for the Governor's office. The SPF SIG, known in Colorado as "Colorado Prevention Partners" or "CPP," is designed to build capacity and infrastructure at State and community levels, reduce substance abuse-related problems in communities and prevent the onset and reduce the progression of substance abuse, including underage drinking. In the first year of the grant a state epidemiological and outcomes workgroup (SEOW) conducted an assessment of highest need areas in Colorado. A CPP Advisory Council used these data to prioritize areas as potential funding sites and partners, selecting a diversity of urban, rural and frontier communities. In the second year of the grant (2005-2006), 13 counties and one tribal community were notified of the opportunity to participate in CPP and 13 of the sites received funding for start-up and pre-planning activities. All sites attended regional and state orientation and training. In the third year of the grant (2006-2007) funded communities began work in the Strategic Prevention Framework, conducting needs & resource assessment activities, building local capacity, developing strategic plans and implementing evidence-based programs, policies and practices. Program implementation and evaluation began in FY08, and will continue in the final year of funding, beginning October 1, 2008.

Screening, Brief Intervention, Referral and Treatment (SBIRT) Programs

In FY06, Colorado received a federal Screening, Brief Intervention, Referral and Treatment (SBIRT) grant from SAMHSA/CSAT. This grant aims to reduce healthcare costs associated with substance abuse by more effectively identifying persons at risk for addiction and substance abuse disorders. Specifically, the grant focuses on screening and intervention in primary healthcare settings, particularly emergency rooms. DBH and its contractors are working with local hospitals, and other healthcare settings to integrate screening, brief intervention, and referral to treatment procedures into the routine medical evaluation process. We are also collaborating with other agencies and organizations to effect policy changes necessary to sustain SBIRT services statewide after grant funding has ceased.

SBIRT services are being offered in several health care settings throughout Colorado, including: Denver Health Medical Center (Emergency Department, Adult Urgent Care and STD Clinic), Littleton Adventist Hospital (Emergency Department and Trauma Surgery Floors), St. Anthony Central Hospital in Denver (Trauma Surgery Floors and Orthopedic Floor), St. Mary's Hospital in Grand Junction (Emergency Department and Trauma Surgery Floors), Community Hospital in Grand Junction (Emergency Department and Trauma Surgery Floors), Vail Valley Medical Center (Emergency Department, Trauma Surgery Floors, Intensive Care Unit and Patient Care Unit), Eagle County Care Clinic in Eagle, High

Plains Community Clinic in Lamar, Loveland Community Health Center, Summit County Community Care Clinic in Frisco and the Monfort Family Clinic in Greeley.

During the initial two years of the grant, 21,426 people have been screened across all sites. Approximately 42% received a brief intervention in addition to the initial screening and 5% were referred to brief therapy and/or treatment services. Alcohol appeared to be the most commonly used substance. Preliminary analysis was conducted to determine if any changes had occurred for patients between intake and follow-up during this reporting period. The average number of days using alcohol dropped by 62% from 10.55 days per month prior to the initial screening, to 3.95 days per month at the six-month follow-up interview. The average number of days patients used cannabis dropped by 57% from 10.35 days per month prior to the initial screening to 4.52 days per month at the six-month follow-up interview.

DBH, in collaboration with The Colorado Department of Public Health and Environment, has also implemented SBIRT services in HIV care clinics and AIDS Service Organizations, including the Northern Colorado AIDS Project, Beacon Center for Infectious Disease and the Western Colorado AIDS Project.

SBIRT also provides funding to increase the availability of Brief Treatment services (a limited course of highly focused cognitive behavior clinical sessions) in the state and make the DBH licensed treatment provider database more user friendly and available to healthcare providers.

In addition, an SBIRT guideline was developed and distributed to over 5,000 primary care offices in Colorado. The guideline provides an easy to use, brief instrument to assist physicians and nurses in private practice to identify and help patients who are misusing alcohol or other drugs.

Treatment

The Interagency Advisory Committee on Adult and Juvenile Correctional Treatment (IACAJCT) continues to work collaboratively to improve the supervision and treatment of offenders. Four sub-committees of cross-agency staff: Juvenile and Adult, Screening and Assessment, Treatment, and Research work on the following projects, respectively: 1) improve the quality and utility of standardized juvenile and adult screening, assessment instruments and procedures used by the member agencies; 2) improve the quality of offender specific curriculum; and 3) establish a cross system response to the evaluation of interagency program data and program effectiveness. The IACAJCT oversees the Drug Offender Surcharge Fund budget and the implementation of SB03-318.

Access to Recovery Grant

DBH received a federal grant that focuses on two distinct populations: Methamphetamine users and adolescents and young adults, ages 12 -25, as they represent the populations with the greatest unmet need in the state. The grant offers the opportunity to change and enhance the clinical treatment system and add valuable recovery support services in Colorado. The sharp contrasts that exist between urban and rural settings will provide an opportunity to examine how a voucher system can best be implemented in two very different settings. The

urban setting provides an opportunity to address the significant needs and complexity of substance abuse in large metropolitan areas, as well as a chance to build a strong collaborative effort among a diverse set of treatment and recovery support providers who are often in competition for funding. The rural setting allows us to address the exact opposite situation: sparse population isolated and spread over large areas, and a lack of treatment and recovery support providers. By including both, we hope to design a system that can be adapted and sustained in a variety of settings statewide.

Access to Recovery (ATR) is located in Metro Denver, Metro Colorado Springs, Northern Colorado (including Fort Collins, Greeley, Loveland, and Fort Morgan), and the I-70 corridor from Summit County through Mesa County, as well as Delta County. During the first year of the grant 1,125 individuals received services through the voucher-based system. 6,440 vouchers were issued for both treatment and recovery support services provided by 92 community and faith based organizations at 186 sites. The project has emphasized a comprehensive approach that unites services from treatment and recovery support organizations to increase the potential for sustained sobriety and full reintegration into the community. The ATR and SBIRT programs have forged a strong working relationship with SBIRT providing referrals to ATR and ATR covering the cost of their treatment and recovery support.

Short Term Intensive Residential Remedial (STIRRT) and Related Programs

The Short Term Intensive Residential Remedial Treatment (STIRRT) program is designed to motivate substance abusing offenders to comply with substance abuse treatment. It is a nine-month program which begins with two-weeks of intensive residential treatment that provides a minimum of 112 therapeutic hours during the residential stay. After the intensive residential treatment, clients transition into a continuing care Intensive Outpatient (IOP), Enhanced Outpatient (EOP), or traditional Outpatient Program (OP) for another eight or nine months. The outpatient programs include group education, therapy and ancillary services to help offenders successfully complete treatment. Male and female substance-abusing offenders who are 18 years of age or older qualify for the program when they meet the following criteria: had at least one prior felony conviction; had a positive urinalysis prior to admission; had been recommended to a level four treatment (enhanced treatment services) based on the Standardized Offender Assessment - Revised (SOA-R); received a level of supervision (LSI) score of 29 or higher; and is facing jail/prison time if not compliant with STIRRT.

The STIRRT program was the first offender-specific treatment program funded by DBH through the "Drug Offender Surcharge Fund" and was exclusively for male offenders. The first STIRRT program opened at Arapahoe House, a Denver-based, private, non-profit substance abuse treatment agency. This unit, opened in April 1996, provided 20 intensive residential treatment beds for adult male offenders. However, in October 2000, general fund monies were awarded to the Pueblo STIRRT, which opened a 12-bed residential treatment unit for male and female offenders at Crossroads Turning Point, a private treatment agency in Pueblo.

As a result of the Governor's Recidivism Reduction Package, two additional STIRRT Residential programs received funding beginning in FY 07-08. In Fort Collins, Colorado, Larimer County Community Corrections (LCCC) received funding for a ten-bed male intensive

two-week residential program. In Grand Junction, Colorado, Mesa County Criminal Justice Services Department opened a ten-bed male and a five-bed female two-week intensive residential program. Both of these programs also provide specialized services for the treatment of methamphetamine addiction and psychiatric services for clients diagnosed with co-occurring disorders of mental health and substance use.

Research has shown that length of stay in treatment is associated with more successful outcomes including a lower recidivism rate. Funding from the Governor's Recidivism Reduction Package is supporting this by also providing STIRRT Continuing Care funds for up to eight months for clients who complete the STIRRT Residential program.

The Colorado Social Research Associates (CSRA), affiliated with Arapahoe House, issued a STIRRT Outcome Evaluation Report for DBH/ADAD in September 2008. In addition, as part of the FY 2007-08 Recidivism Reduction Package funding was appropriated to the Division of Criminal Justice to evaluate the fidelity of STIRRT across all four residential programs and to report actual recidivism rates on all STIRRT clients across programs one year following programming. The following are two of the six "significant" findings of the (CSRA) report:

1. Reduced use of drugs and alcohol. There was a significant decrease in the proportion of STIRRT clients who used alcohol (42% to 20%), marijuana (41% to 12%), cocaine (23% to 3%), and amphetamines (19% to 3%) in the past 30 days when comparing baseline to the six-month follow-up. At the six month follow up interview, 71% of clients reported that they had not used any drugs or alcohol in the past 30 days, and 65% reported they had not used any drugs or alcohol in the past 6 months or longer. In addition, STIRRT clients significantly decreased the number of days they used alcohol, alcohol to intoxication, marijuana, and multiple drugs from baseline to the six- month follow-up.
2. Reduced severity of legal problems. Based on results from the Addiction Severity Index-Lite (ASI-Lite) composite score for legal status, STIRRT men significantly reduced their severity of legal problems from baseline to six months. At follow-up, 65% of clients reported that they had not spent any days in jail or prison in the past 30 days. More than half (57%) of STIRRT clients remained arrest-free by the six-month follow-up. Probation and/or parole violations were the number one reason for time spent in jail or prison.

Medicaid Outpatient Substance Abuse Treatment Benefit

The legislature authorized an outpatient Medicaid substance abuse treatment benefit for Medicaid enrolled clients experiencing difficulties with substance use disorders. The benefit went into effect on July 1, 2006. Eligible providers include DBH licensed outpatient treatment programs, as well as individual licensed practitioners who demonstrate experience and who have received specialized training in the treatment of substance use disorders. The number of sessions of group and individual treatment is determined by the benefit design. Treatment sessions which exceed specified limits are not reimbursable. The Department of Health Care Policy and Financing, (HCPF), has oversight and administration of this program. DBH is available to provide technical assistance regarding substance abuse treatment issues to providers and Health Care Policy and Financing at any time. Due to an increase in reimbursement rates by HCPF, and education and outreach to licensed providers by DBH staff, there has been an increase in the number of agencies enrolled to provide the service. This has resulted in an increase in

utilization of the benefit. Information is not yet available to determine the savings to the state on emergency medical and psychiatric hospital visits, law enforcement and the courts.

Evidence-based Practices

DBH is working closely with treatment providers and researchers to incorporate the use of evidence-based practices and curricula into treatment programming. At the request of the State Court Administrator's office, a curriculum has been developed and subsequently revised to increase familiarity with treatment concepts and to increase competence of probation officers when dealing with their clients with substance use disorders. This two-day training has taken place several times and has been very well-received. In addition, DBH has been working with the Mountain West Addiction Technology Transfer Center on several projects aimed at increasing knowledge and implementation of evidence-based practices. They have worked with Colorado to develop an online training on gender specific treatment for women. Additionally, Colorado trainers and clinicians have received training on a new package of tools for clinical supervisors to use in helping counselors improve their Motivational Interviewing skills, called MIA: STEP. The tools were developed by the Addiction Technology Transfer Centers in cooperation with the National Institute on Drug Abuse (NIDA). Also, the Divison of Behavioral Health has partnered with Signal Behavioral Health Network on a grant from Robert Wood Johnson Foundation to impact system changes to improve implementation of evidence-based practices. The grant is specifically focused on increasing the amount of treatment admissions among persons admitted into detoxification facilities, and to increase the use of medication assisted therapy in the treatment of alcohol dependence.

DBH Research Forums

The no-cost February 21, 2008 DBH Research Forum was titled **"Reducing Youth Access to Tobacco: Aligning State and Local Efforts."** Dr. Arnold H. Levinson, Ph.D., of Colorado Tobacco Sales Age-Control Program, discussed "Age-Control Policies for Tobacco: What Works?" "Enforcement" was discussed by Laura Harris, Director, Liquor and Tobacco Enforcement Division, Colorado Department of Revenue; and Sergeant Loren Sharp, Fort Moran (Colorado) Police Department. This was followed by a panel discussion on "State and Local Efforts to Impact Policy" with representatives from: Colorado Tobacco Education and Prevention Alliance, American Lung Association, Community Coalitions, and State Departments.

The July 17, 2008 Research Forum was again offered at no charge to those attending. The title was **"Prescription for Health, Not Abuse: Examining Prescription Drug Abuse."** Dr. Jeremy Dubin, Medical Director, North Colorado Behavioral Health of Fort Collins, discussed "Prescription Drug Abuse: Who, What, Why, and What to Do." Other presentation topics were "Prescription Drug Monitoring Program," a presentation by the Health Care Section of the Colorado Division of Registrations, State Board of Pharmacy; and a panel discussion featuring Helen Kaupang, United States Department of Justice, Drug Enforcement Administration, Diversion Group Supervisor, Denver Field Division; Daniel Brookoff, M.D., Medical Director, Center for Medical Pain Management, Presbyterian-St. Luke's Medical Center, Denver; Janet L. Laning Krug, M.S. Ed, Student Assistance Support Center, Coordinator for At-Risk and Expulsion Grant, Douglas County Schools; and Echo Romero, CAC III, Program Director, Colorado Springs Treatment Center.

The DUI Web Based Monitoring (WBM) System

DBH converted the DUI reporting system from a discharge-based information to a real-time client tracking system that records events from client admission through discharge. The new system enables judicial and probation officers to track progress of DUI clients as DUI clinicians electronically record events. Specifically, the new system enables clinicians and officers to: share changes in client attitude, attendance, compliance with court-ordered adjuncts etc.; request intervention if the client is in danger of an unsuccessful discharge; view and print a client's entire treatment history from one screen; maintain an entire class roster on one screen to lessen their paperwork; and the new system generates several new reports that no longer need to be manually maintained. Easy and rapid access to these data promotes better coordination between these interdepartmental entities, allows for swift identification and redirection of non-compliant clients, and improves the safety of Colorado's highways. This system is in full compliance with federal and state confidentiality laws, including 42 CFR and HIPAA.

The new web based DUI reporting system is part of the Treatment Management System (TMS) and went "live" in August 2007. All judicial districts in the state were trained and received access to TMS. Virtually all DUI treatment programs are submitting necessary information into this DUI tracking system, most of which are doing their own data entry directly into the web based database. Training continues to be offered on a monthly basis at DBH and on location when requested.

In FY08, the web-based monitoring system has entered a new phase by having the computer systems at the State Court Administrators Office (ICON) communicate directly with DBH's system (TMS). The TMS system was changed to allow probation officers the ability to retrieve court cases from the ICON system and enter their alcohol evaluations directly into the TMS system. By having the evaluation entered directly into TMS will enhance the ability to track clients because now the tracking will begin at the time of their evaluation by the court rather than at time of admission to treatment. The system will also allow for web-based referrals. Having the initial evaluation and referral available for our DUI providers will save them the time of having to duplicate that information upon admission. It will also save the provider time, create more accurate and consistent client data and tighten our ability to track clients over their course of treatment.

<u>ADAD's Data Infrastructure</u>

DBH continues to improve and expand the Treatment Management System (TMS), the web-based client server system for DBH's primary data collection instruments: DACODS and the DUI Reporting System (DRS). The Persistent Drunk Driver Project (PDD) is one such expansion. PDD 1, a collaborative effort among DBH, Judicial and Motor Vehicles, was developed and tested in late FY06 and deployed in early FY07. User training sessions were conducted statewide in August and September 2006. DBH has finished the second phase of that project: PDD 2: Judicial ADDSCODS Interface. This phase will link the ADDSCODS and DRS client databases by using information provided by Judicial's ICON system. This linkage will allow for easier, more accurate reporting. Judicial officers will be able to enter their evaluations (ADDSCODS) directly into TMS so that client tracking can begin immediately. The ADDSCODS will then be used as a web-based referral for the clinicians to create their DRS

admissions in the next phase of the project: PDD 3: Web based Referral Project. This project will be the model for other referral projects between DBH and Judicial, such as the project to create referrals into
Colorado's Drug Courts.

Other major enhancements to TMS finished in FY08 were implementing changes to our DACODS system to incorporate the final National Outcome Measures (NOMS). These changes give us better information to track customers active in self-help groups before and during treatment. Tracking abuses of prescription drugs, nicotine and bupenorphine usage, and better disseminating prior detox episodes will give us better demographic and outcome information on this priority population in order to better meet their needs . DBH is currently compliant with the NOMS required by SAMHSA. DBH also has plans for a more sophisticated treatment directory that will help customers locate the services they need

STRENGTHENING THE OPERATION: PLANS FOR THE FUTURE

Building a Division of Behavioral Health and Integrated Service Delivery System

It was mentioned earlier that ADAD and the Division of Mental Health (DMH) were consolidated into Division of Behavioral Health (DBH) within the Office of Behavioral Health and Housing. It is expected that this consolidation will improve access to and quality of services for the increasing numbers of individuals having both SA and MH disorders that present to various public health care systems. These persons, known as Co-Occurring Disorder (COD) clients for their co-occurring psychiatric and substance use disorders, represent a challenging population associated with poorer outcomes and higher costs in multiple domains. COD clients often require a continuum of services that neither the SA or MH system alone can provide. Historically, some SA facilities were reluctant to admit people w/ serious psychiatric issues and some MH treatment centers had requirements like the need to be substance free for a year before admission. As a result, persons with COD frequently got bounced back and forth between systems, and often do not get the treatment they need. One of the Healthy People 2010 objectives is to increase the proportion of persons w/ COD who receive treatment for both conditions. It is believed that the consolidation of ADAD and DMH will improve services to these individuals, and increase the likelihood of getting both conditions treated.

Interagency Task Force on Drunk Driving

DBH participates in the Interagency Task Force on Drunk Driving, a group formed in accordance with Senate Bill 06-192 to investigate ways to reduce DUI incidents and make recommendations to the State regarding the enhancement of government services, education, and intervention to prevent drunk and impaired driving.

Regional Offender Treatment Meetings

2008 was the fourth consecutive year of Offender Treatment Meetings, among probation officers, treatment providers and state agencies for DUI and non-DUI offenders. These meetings provide networking and collaborative opportunities in addition to training and technical assistance. Approximately 300 people attended four meetings held in locations around the state this year.

RECOMMENDED LEGISLATION IN THE FIELD OF SUBSTANCE ABUSE

The following are three areas recommended for legislative attention:

1. Support Legislation that clearly define final agency action decisions are within the Department of Human Services authority for the denial of licensure and for the Division of Behavioral Health (DBH) authority for the denial of licensure of addiction treatment programs.
2. Support legislation to overturn the amendment established in HB08-1061 concerning the expansion of scope of practice for the Advanced Practice Nurse to provide examination, certification, and testimony of drug and alcohol abusers before the court to commit a person to legal custody against their will for up to 7 months. The Department/Division would recommend a strikethrough of all references of the Advanced Practice Nurse in C.R.S. Section 10. 25-1-311 (1), (1.5), (3), and (10); Section 11. 25-1-1107 (1), (1.5), (3); and (11).
3. Support legislation that would approve and fund Medicaid reimbursement for Screening and Brief Intervention for alcohol or other drug use in primary healthcare settings.

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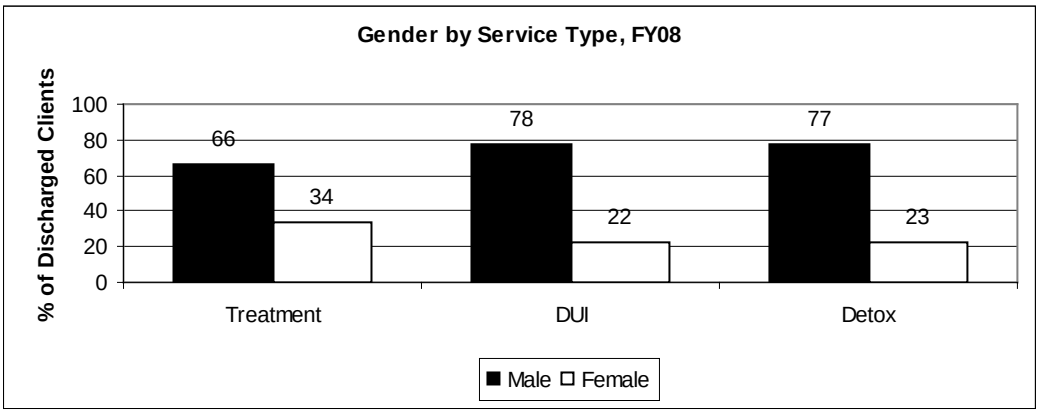
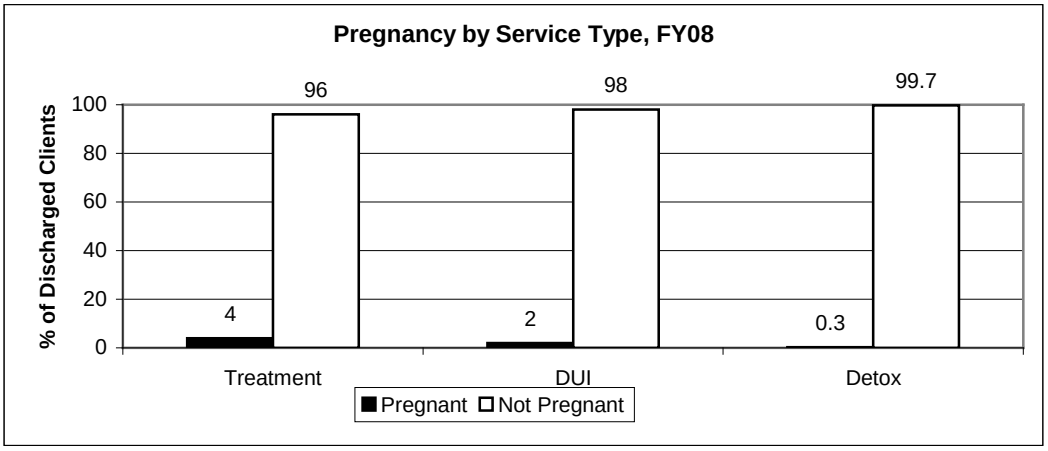
APPENDICES

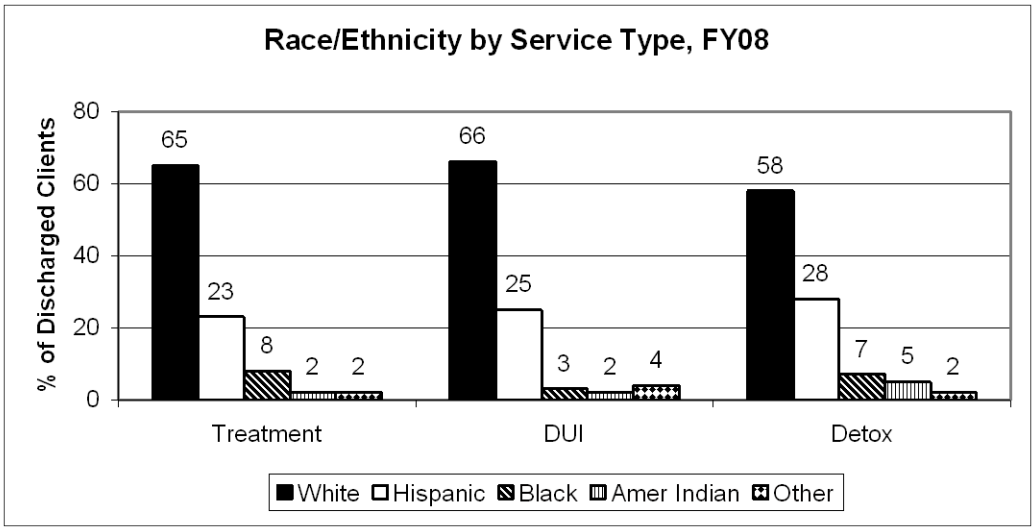
Appendix A: Detailed Tables and Graphs of Discharged Client Demographics for FY 07-08



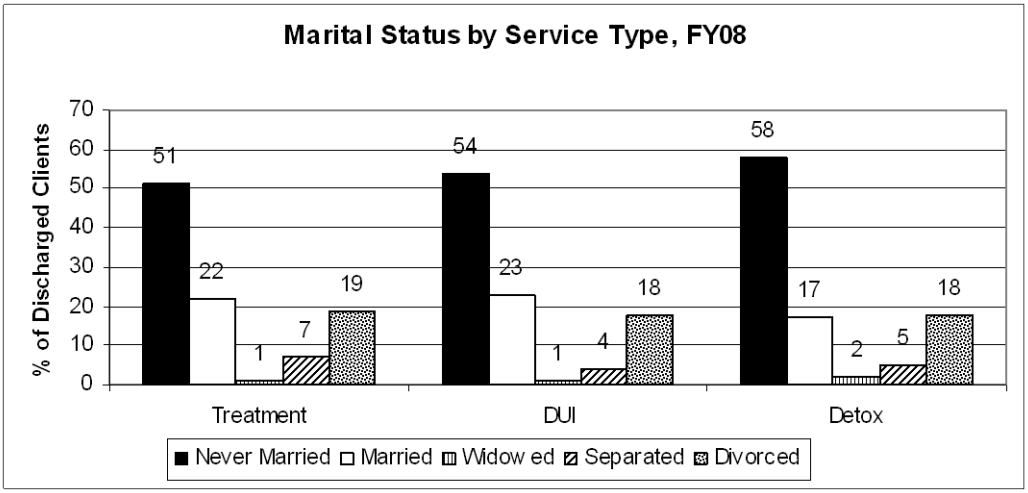
Graph 1: Gender by Service Type, FY 07-08



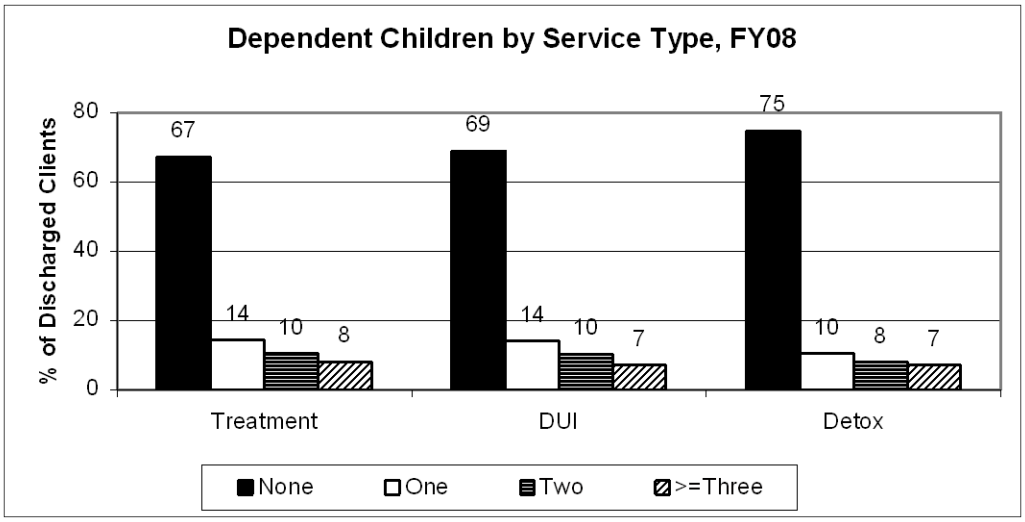
Graph 2: Pregnancy by Service Type, FY 07-08



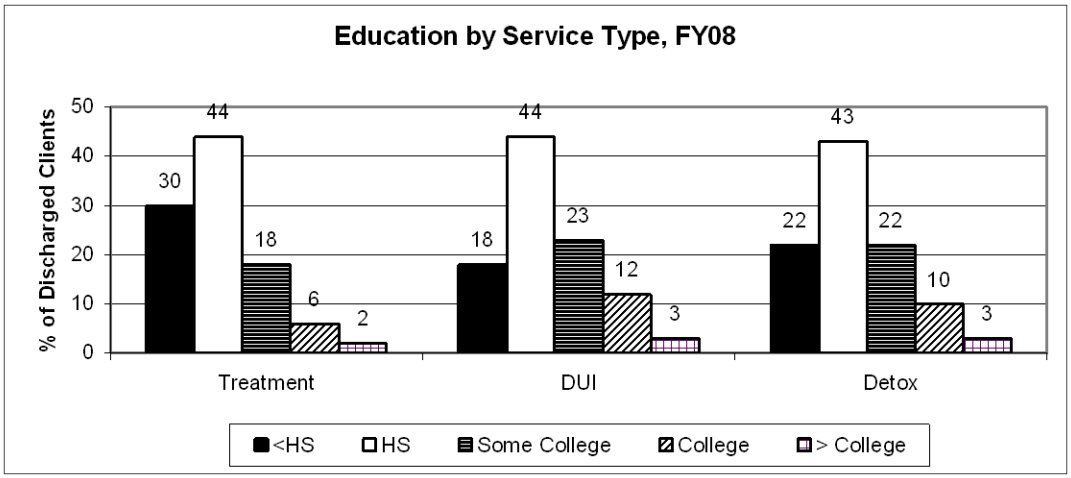
Graph 3: Race/Ethnicity by Service Type, FY 07-08



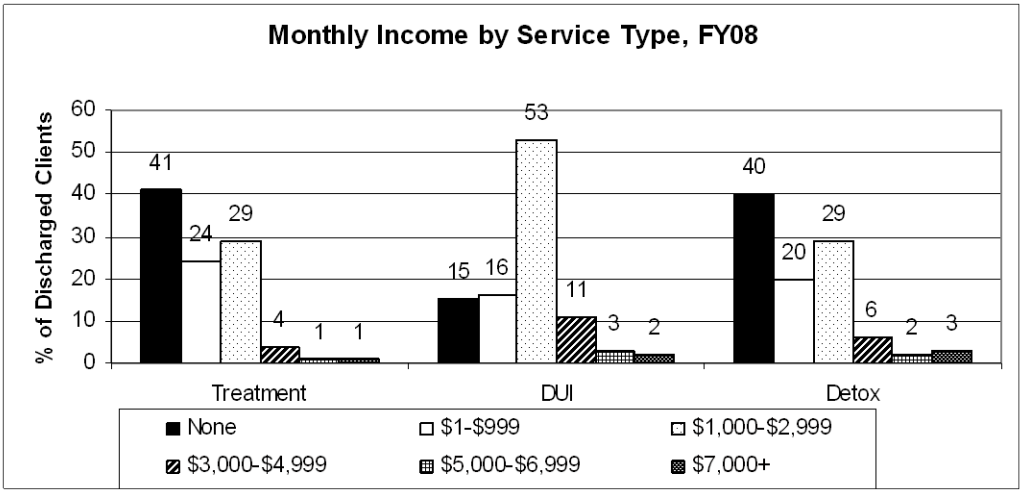
Graph 4: Marital Status by Service Type, FY 07-08



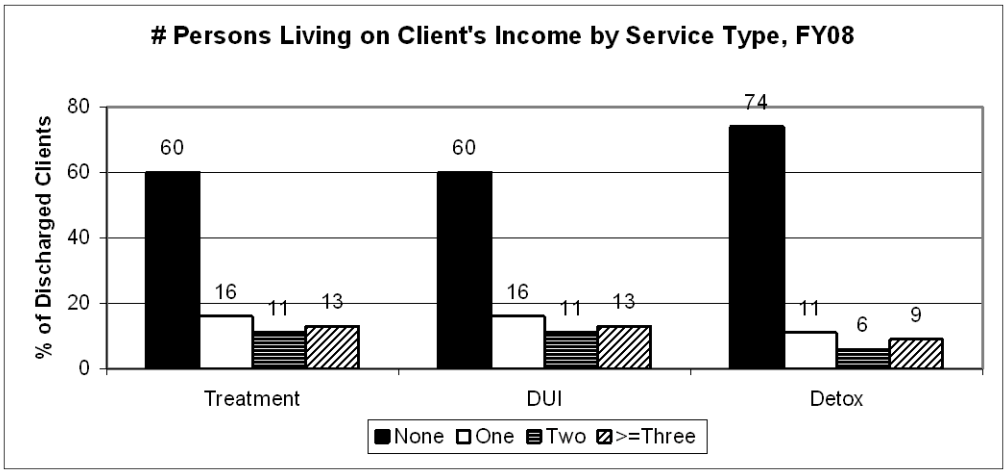
Graph 5: Dependent Children, FY 07-08



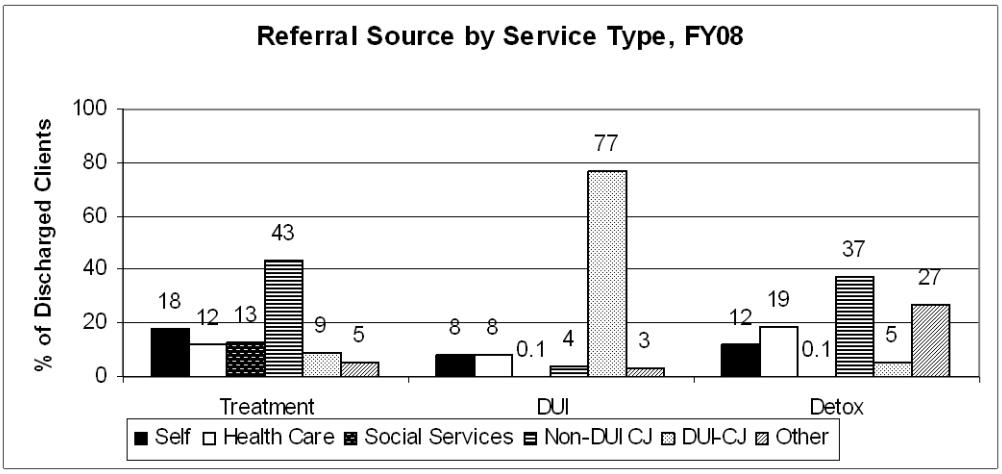
Graph 6: Educational Attainment by Service Type, FY 07-08



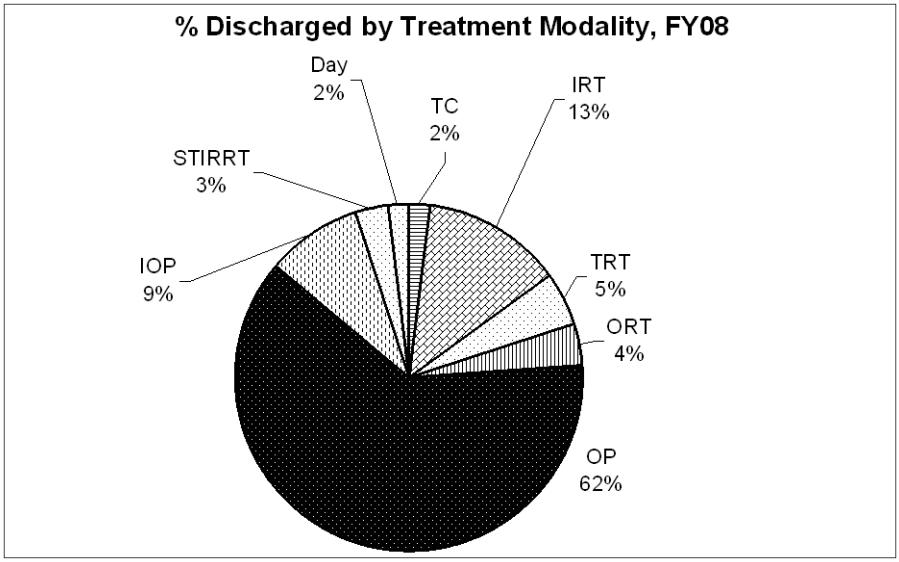
Graph 7: Monthly Income by Service Type, FY 07-08



Graph 8: Number of Persons Living on Client's Income by Service Type, FY 07-08

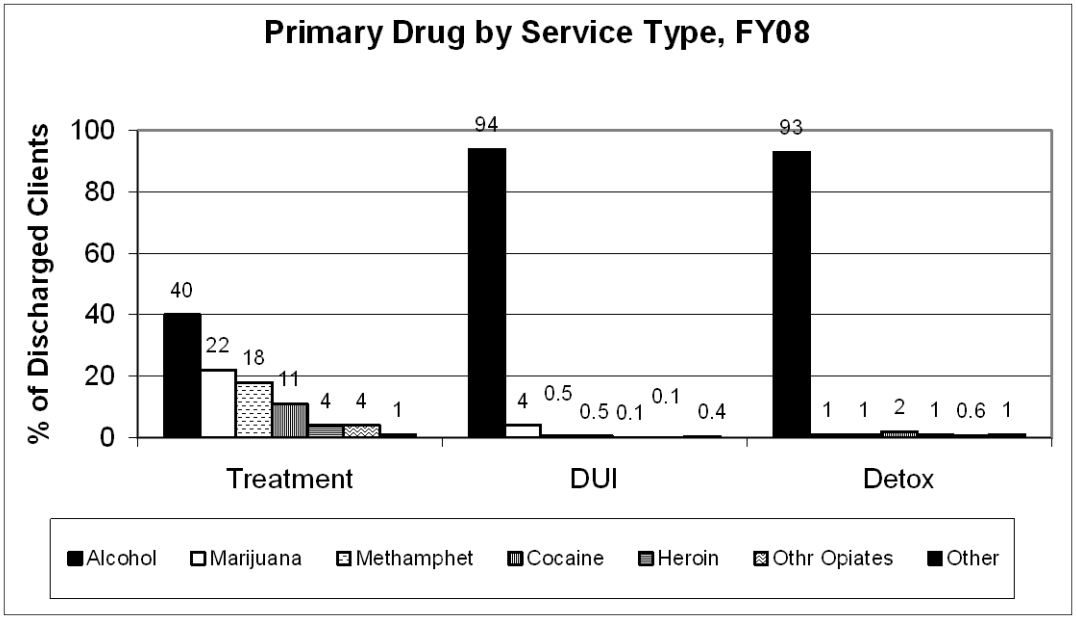


Graph 9: Transfer/Referral Source by Service Type, FY 07-08



OP=Traditional Outpatient; IOP=Intensive Outpatient; TC=Therapeutic Community
IRT=Intensive Residential; STIRRT=Short-Term Intensive Residential Remedial Treatment;
TRT=Transitional Residential; ORT=Opioid Replacement Therapy

Graph 10: Percent of Discharged Clients by Treatment Modality, FY 07-08



Graph 11: Primary Drug by Service Type, FY 07-08

Appendix B: Service Utilization

Table 1: Numbers of Clients in and Discharges from Treatment Services for FY 07 and FY 08 and the Percent Change from FY07

Service Type	# of Discharges FY07	# of Discharges FY08	% Change from FY07	# of Clients FY07	# of Clients FY08	% Change from FY07
Treatment*	22,265	18,998	-14.7%	17,637	16,466	-6.64%
DUI	21,149	20,953	-0.9%	19,584	19,794	1.07%
Detox	47,748	41,741	-12.6%	30,734	26,197	-14.76%
Total	91,162	81,692	-10.4%	67,955	62,457	-8.09%

* Excludes "Differential Assessments Only"

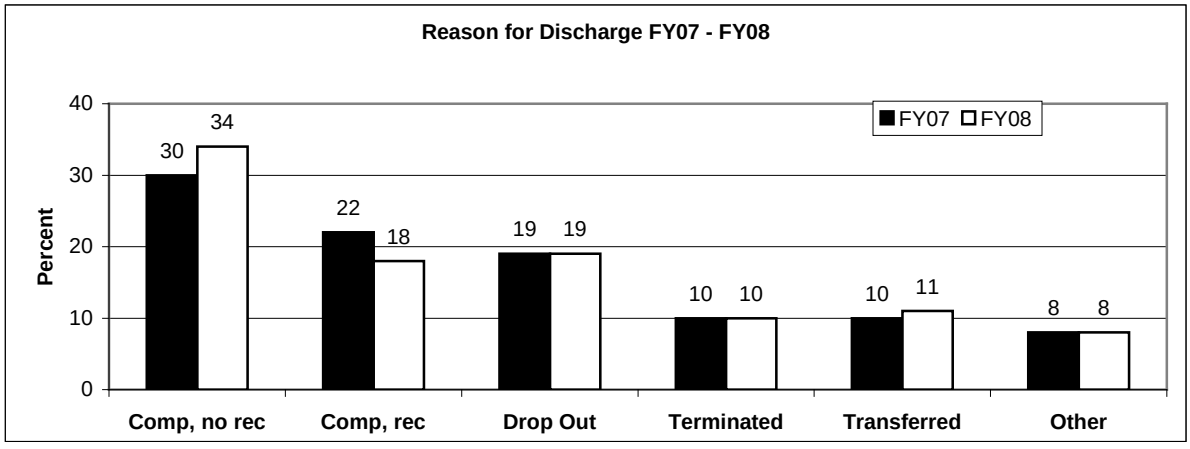
Table 2: Length of Stay, Treatment and Detox FY 08, Comparison with FY 07 (in Days) and TEDS

Modality	**Average Colorado #Days, FY07**	**Average Colorado #Days, FY08**	**Change in Avg. # Days from FY07**	**Median Colorado # Days, FY07**	**Median Colorado # Days, FY08**	**Change in Median # Days from FY07**	**Average TEDS** # Days 2005 (national)**
Residential	54	55.88	3.5%	29	28	-3.4%	88
Therapeutic Community	195	203.4	4.3%	108	142	35.2%	NA
Outpatient	138	144.78	4.9%	93	99	6.5%	NA
Traditional OP	142	149.33	5.2%	98	105	7.1%	117
Intensive OP	111	115.13	3.7%	57	57	0.0%	79
Opioid Replacement Therapy	249	320.7	28.8%	108	171	58.3%	172
STIRRT***	14	13.45	-3.9%	13	13	0.0%	26
Day Treatment	53	52.76	-0.5%	15	11	-26.7%	NA
Detox	1.8	1.07	-40.6%	0	0	0.0%	9

*Avg. length of stay was calculated using date of admission and date of last contact for clients in treatment. Excluded from these calculations are: discharges coded as "Differential Assessments Only"; discharges from both Detox and DUI services, and discharges from Outpatient. DUI and Outpatient treatment services were excluded from the calculations for Length of Stay because the length of time from admission to discharge may not accurately reflect active service.

** Treatment Episode Data Set (TEDS) for 2005 was national composite data from 34 states.

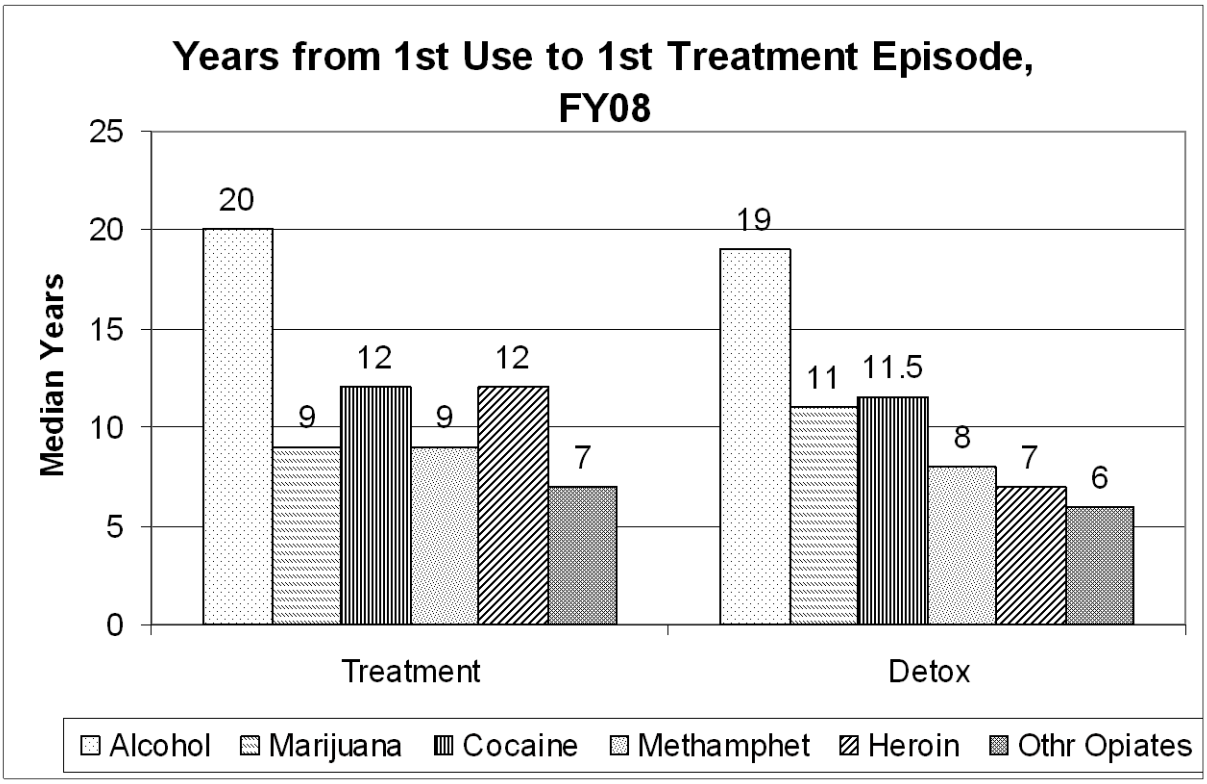
***STIRRT=Short-term Intensive Residential Remedial Treatment;



Comp, no rec = Treatment completed, no further treatment recommended; Comp, rec = Treatment completed at this facility, additional treatment recommended; Drop Out= Left against counselor advice/dropped out; Terminated = Terminated by facility; Other includes incarcerations and deaths. Discharges coded as Differential Assessment Only were excluded from calculations.

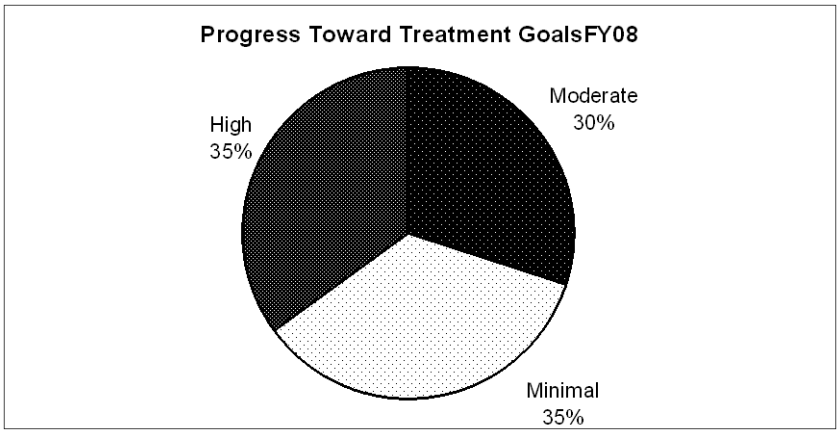
Graph 1: Reason for Discharge, FY 07-08 Compared with FY 06-07

Appendix C: Barriers to Treatment

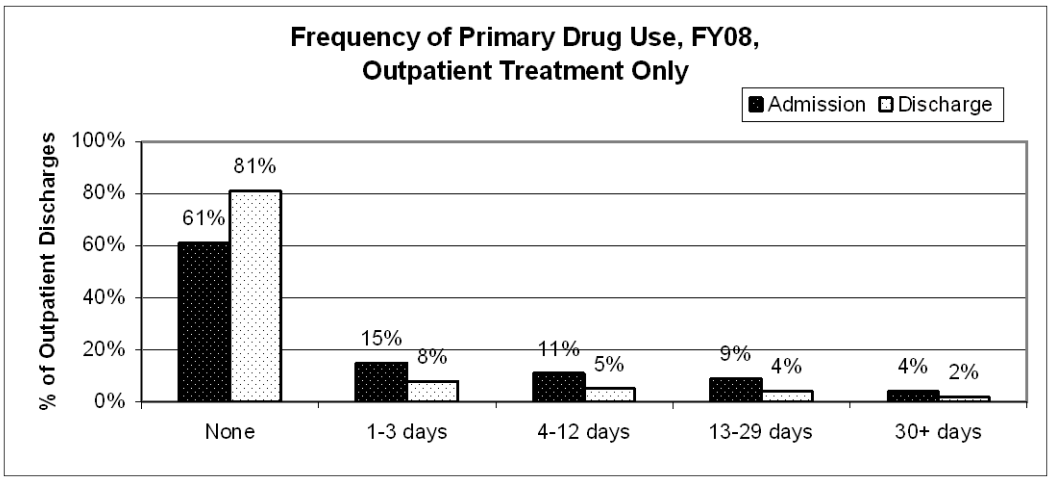


Graph 1: Years from First Use to First Treatment Encounter, FY 07-08

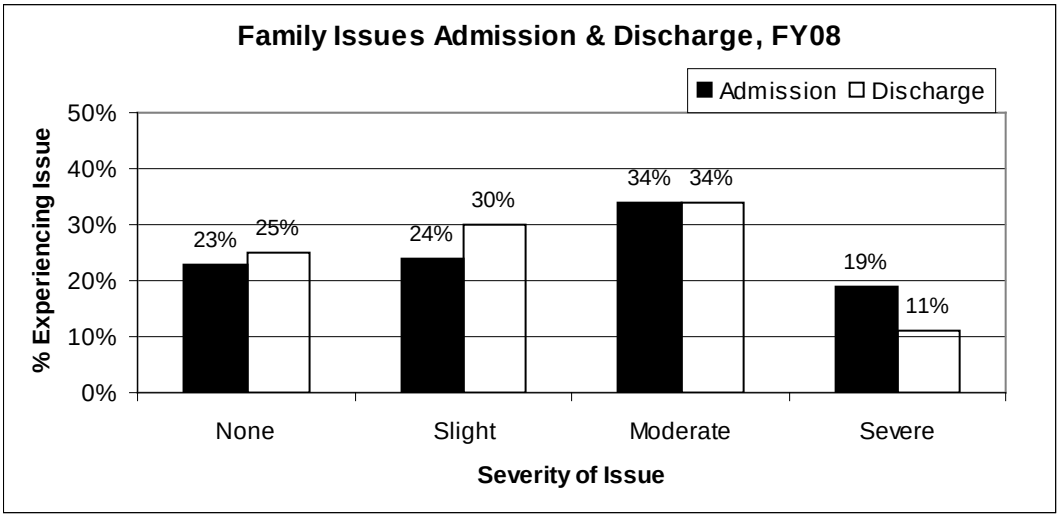
Appendix D: Prevention and Treatment Outcomes



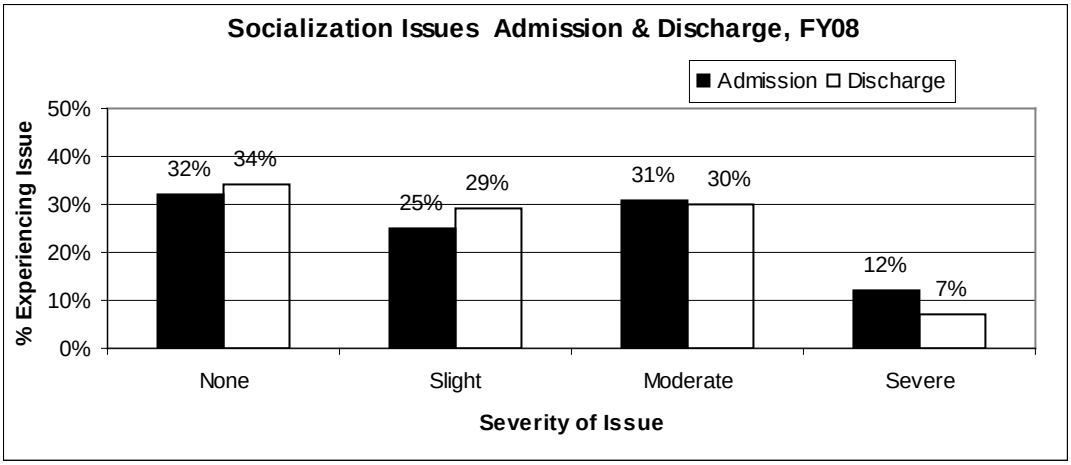
Graph 1: Progress Towards Treatment Goals, FY 07-08



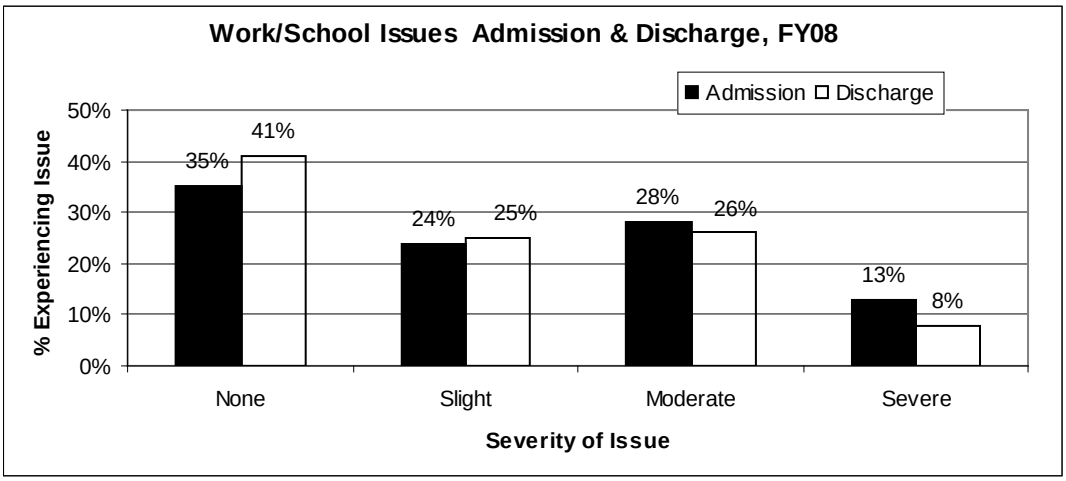
Graph 2: Frequency of Primary Drug Use, FY 07-08, for Outpatient Treatment



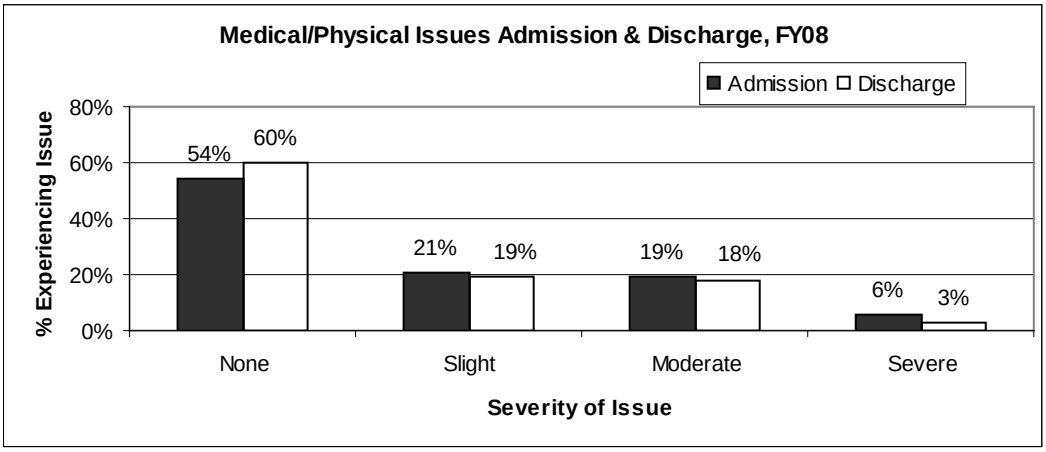
Graph 3: Family Issues/Problems from Admission to Discharge, FY 07-08



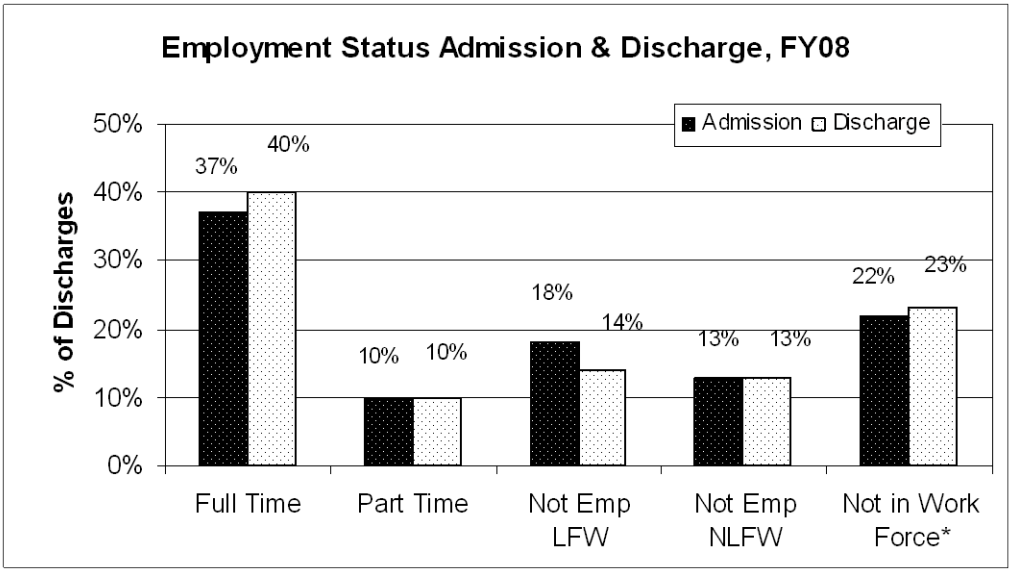
Graph 4: Socialization Issues/Problems from Admission to Discharge, FY 07-08



Graph 5: Work/School Issues/Problems from Admission to Discharge, FY 07-08

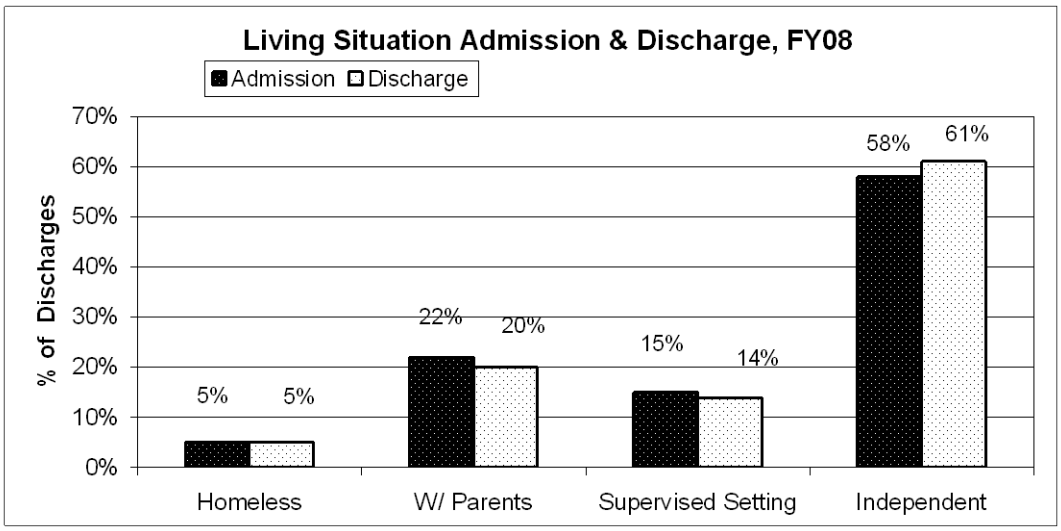


Graph 6: Medical/Physical Issues/Problems from Admission to Discharge, FY 07-08



Not Empl LFW = Not Employed, Looking for Work; Not Empl NLFW = Not Employed, Not Looking for Work

Graph 7: Employment Status from Admission to Discharge, FY 07-08



Graph 8: Living Situation from Admission to Discharge, FY 07-08

Table 1: Proportions of Clients at Admission and Discharge with Arrests, Emergency Room (ER) Visits or Hospital Admissions, FY 07-08

Outcome Measure	Admission (%)	Discharge (%)
DUI/DWAI Arrests during 24 months prior to . . .		
None	94.0	98.6
1-2	5.6	1.3
3+	0.4	0.1
Other Arrests 24 months prior to . . .		
None	85.6	94.3
1-2	11.9	5.1
3+	2.5	0.6
Medical ER visits during 6 months prior to . . .		
None	77.4	86.9
1-2	17.6	10.2
3+	5.0	2.9
Medical Hospital Admissions during 6 months prior to. . .		
None	88.8	92.5
1-2	9.3	6.1
3+	1.9	1.4
Psychiatric ER visits during 6 months prior to . . .		
None	96.0	97.1
1-2	3.5	2.5
3+	0.5	0.4
Psychiatric Hospital Admission 6 months prior to . . .		
None	95.9	97.1
1-2	3.7	2.5
3+	0.4	0.4

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