STATE OF COLORADO

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

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

Submitted by
The Alcohol and Drug Abuse Division
Colorado Department of Human Services

October 31, 2006

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)

Reducing the social and economic consequences of untreated substance use disorders requires an investment in evidence-based prevention, intervention and treatment.

(Excerpt from the Alcohol and Drug Abuse Division's Strategic Plan)

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1. 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 FY06, clients in substance abuse treatment showed several positive outcomes, including:

  - ✓ A decline from 48% at admission to 21% at discharge in the proportion of all treatment clients reporting any substance use;
  - ✓ A decline from 44% to 24% (admission to discharge) in the proportion of outpatient treatment clients reporting 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.

2. INTRODUCTION

The 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."

3. OVERVIEW OF THE ALCOHOL AND DRUG ABUSE DIVISION

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. Its goals are to:

1. Increase understanding of substance use disorders to guide decision-making to reduce stigma and attract increased resources for prevention, intervention and treatment.
2. Strengthen and expand the prevention, intervention and treatment infrastructure in order to have an efficient and effective evidence-based service delivery system that is sufficient to meet the need.
3. Forge a common direction among stakeholders in order to maximize resources to better serve our shared recipients and communities.
4. Ensure quality prevention, intervention and treatment outcomes by applying evidence-based practices and strategies to continually improve service delivery.
5. Maintain a comprehensive measurement and reporting system that provides valuable information for decision-making and guides effective prevention, intervention and treatment services.
6. In March 2006, ADAD and the Division of Mental Health were consolidated into Behavioral Health Services within the Office of Behavioral Health and Housing. The former ADAD director is the current director of Behavioral Health Services.

Services: Substance Abuse Treatment and Prevention

ADAD is composed of administrative, fiscal, treatment, prevention and data sections that arrange for, monitor, support and report on substance use disorder prevention and treatment services statewide. ADAD's Treatment-Quality Improvement and Prevention Sections support its mission by carrying out the following responsibilities.

Treatment

- Monitors Federal Block Grant-funded contracts with 4 managed service organizations (MSOs) that subcontract with 40 treatment providers with 183 sites in 7 geographical areas of Colorado for alcohol and other drug treatment services with emphasis on the following population of substance abusers:
    1. Involuntarily committed individuals
    2. Pregnant women who inject drugs
    3. All other pregnant women who abuse substances
    4. All others who inject drugs
    5. Women with dependent children
    6. Drug-dependent persons at risk for HIV
    7. Drug-dependent persons at risk for Tuberculosis
    8. Recipients of Aid to the Needy and Disabled
    9. Referrals from Child Welfare
    10. Minors/adolescents
    11. Criminal Justice referrals
    12. Persons with a mental health diagnosis
    13. Indigent DUI offenders.

- Writes and enforces alcohol and other drug treatment program licensing standards for 290 treatment providers (including the 40 MSO-funded providers) who operate 653 treatment sites throughout Colorado.

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

- Investigates complaints and critical incidents involving licensed treatment providers.

- Manages the statewide involuntary commitment process for approximately 165 persons a year who are legally committed to the Division by the court because they pose a danger or are incapacitated due to the abuse of alcohol or other drugs.

- Maintains a central registry of clients in opiate replacement treatment programs to lower the risk for multiple enrollments and diversion of controlled substances. In FY06 there were 1,911 active (a decrease of 28% from FY05) and 8,611 inactive (an increase of 20% from FY05) clients in this registry.

- Develops and expands 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 ADAD 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 (approximately 330 clients per year).

    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.

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

- Manages 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.

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

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

Prevention

- Promotes an understanding that substance abuse can be prevented and creates an awareness that communities can take action to address this and related concerns.

- Promotes the implementation of effective, research-based prevention strategies and approaches that are implemented in an age, gender and culturally appropriate service delivery system.

- Establishes and maintains linkages with State, federal, local, private and business/industry to reduce substance abuse in Colorado.

- Sets the standards for quality substance abuse prevention services.

- Identifies research findings and best practices, and proactively shares this information with the community.

- Funds 94 contracts with 79 prevention contractors that target youth, adults, families and communities. Funded services include education, training, problem identification and referral, community and school-based strategies, information and environmental programs.

- Coordinates Statewide Substance Abuse Prevention Services with the Division of Prevention and Intervention in the Colorado Department of Public Health and Environment.

- Sponsors statewide prevention training opportunities
  - Training services for ADAD contractors
  - Substance Abuse Prevention Specialist Training
  - Regional Prevention Summits.

- Maintains a comprehensive evaluation system for its prevention contractors from five state agencies called CO KIT. Colorado is the first state in the nation to have a multi-agency, cross-discipline prevention evaluation system.

Presentations

In addition to the responsibilities listed above, ADAD staff used every opportunity to educate others about substance use disorder treatment, prevention, prevalence and incidence. In fiscal year 2006 (FY06), staff spent numerous hours preparing and giving 94 presentations to approximately 6,000 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 26, Article 1, Part 1 CRS
Title 16, Article 13, Part 3 CRS	Title 26, Article 2, Part 1 CRS
Title 17, Article 2, Part 2 CRS	Title 26, Article 4, Part 5 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, Part 2 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

Staffing: ADAD pays for 33 FTEs in the Colorado Department of Human Services.

4. THE GROWING 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 the most recent state-level data from the National Survey on Drug Use and Health (NSDUH, 2004), Colorado ranked 1st among the 50 states in illicit drug use other than marijuana in the past month and 2nd in cocaine use in the past year.[2]
- The number of DUI citations issued by the Colorado State Patrol increased from 8,200 in 2002, 8,600 in 2003, to 9,509 in 2004.[3]
- In 2003, 57% of DUI-caused crashes resulted in fatalities or injuries. When DUI was not the cause of the crash, only 30% resulted in fatalities or injuries.[3]
- In 2005, there were 3,070 emergency room visits related to alcohol in Denver (a 33% increase from 2004) and 1,166 alcohol-related visits by youth under the age of 21(a 54% increase from 2004). [4]
- In 2005, there were 884 calls to the Rocky Mountain Poison Control Center related to alcohol (a 16% increase from 2004), 317 related to stimulants and amphetamines, and 107 related to cocaine.[5]
- Seventy-six percent of injecting drug users are infected with Hepatitis C, a chronic and sometimes fatal disease of the liver.[6]
- In 2005, 42 per 100,000 Colorado residents died of drug related causes and 25 per 100,000 died of alcohol related causes.[7]
- Clients discharged from treatment, DUI and detoxification programs during FY06 had primary responsibility for 41,544 dependent children under the age of 18.[8]

Colorado Youth In Crisis

- There are an estimated 30,000 adolescent (ages 12-17) substance abusers in Colorado.[9]

- In FY06 there were 2,424 clients under age 18 who were discharged from DUI, detoxification and treatment programs. This comprised only 8% of all adolescent substance abusers in Colorado.[8]

- Of these 2,424 clients under the age of 18, 1,978 (82%) received treatment services, 276 (11%) were discharged from DUI programs and 170 (7%) received detoxification services.[8]

- Of the 2,424 youth discharged from treatment,
  - 31% were diagnosed as drug-dependent;
  - 54% were diagnosed with a mental health issue in addition to their substance abuse; and
  - the primary drug used was marijuana, followed by alcohol.

- In FY06, 42% of youth in treatment had been referred by the criminal justice system.

- 60-80% of youth in the juvenile justice system have substance abuse issues.[9]

- Urban Peak, a licensed homeless and runaway youth shelter in Denver, participated in a Multi-City Collaborative Public Health Survey[10] to gauge risk factors and substance abuse trends in homeless and runaway youth in Colorado. This survey of 706 youth found:
  - 81% of those interviewed were between the ages of 14 and 21;
  - 1/3 were White and 1/3 were African American;
  - 50% had attended more than six schools;
  - 14% had visited an emergency room, 1/3 of which were substance abuse-related;
  - 40% had been admitted to a mental health hospital;
  - 36% had attempted suicide;
  - 41% had used an illegal substance with a family member;
  - 30% had been in treatment for substance abuse;
  - 27% had traded sex for money, food, drugs, shelter or clothing;
  - 13% used intravenous drugs, and half of these shared needles or works;
  - 79% had used marijuana, 39% cocaine and ecstasy, 26% methamphetamine and 18% had used either heroin or OxyContin.

National and Colorado Reports on Youth and Substance Abuse

Monitoring the Future's[11] 2005 study found that, nationally, 75% of today's teens have consumed (more than just a few sips) alcohol by the end of high school, and 41% have done so by 8th grade. Fifty-eight percent of 12th graders and 20% of 8th graders in 2005 reported having been drunk at least once. Moreover, 50% of American's youth 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 of 1,498[12] public high-school students found that:

- 42% had ever used marijuana, and 10% had done so before the age of 13.
- 23% had used marijuana more than once in the past 30 days.
- 8% had ever used cocaine and 3% had done so in the past month.
- 76% had ever drank alcoholic beverages and 47% had done so in the past month.
- 31% reported having 5 or more drinks of alcohol in a row.
- 27% 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[13] reported 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 are some positive empirical findings to suggest that drug use education and prevention efforts have worked. The 2005 National Survey on Drug Use and Health[15] found that the national rates of current illicit drug use among 12 to 17 year olds declined slightly each year from 11.6% in 2002 to 9.9% in 2005.

Colorado/US Comparison

In 2005, an estimated 19.7 million Americans (8% of the total U.S. population aged 12 or older) were classified as current illicit drug users, 6.4 million persons were current users of psychotherapeutic drugs taken non-medically, and 126 million (52%) aged 12 or older were current drinkers.[15] Fifty-five million (23%) were binge drinkers (defined as five or more drinks on one occasion) and 16 million (7%) were binge drinkers on five or more days in a month.[15] According to SAMHSA's 2004 Treatment Episode Data Set (TEDS), 75% of Colorado treatment clients, versus 41% of treatment clients nationwide, identified alcohol as their primary substance of abuse.[16] In addition, according to the 2004 NSDUH, [17] Colorado ranked, among all 50 states:

- first in illicit drug use other than marijuana in past 30 days;
- second in past year cocaine use;
- second in non-medical use of pain relievers in past year;
- third in first-time marijuana use;
- fourth in persons needing but not getting treatment for illicit drug use (persons 26 yrs. & older);
- in the top five states for illicit drug dependence in the past year among those aged 26 or older;
- in the top ten states for
  - alcohol use in the past month;
  - alcohol dependence in the past year;
  - marijuana use in past month (12 to 17 yrs.); and
  - marijuana use in past year.

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 five states with the lowest proportions who perceived smoking marijuana once a month as a great risk. Colorado was also among ten 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.[17] 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]

A study conducted by Columbia University's National Center on Addiction and Substance Abuse looked at state spending for treatment, prevention and research in 47 states, and found that Colorado spent the least.[19] Specifically, for every $100 Colorado spent on programs that address the negative consequences

of substance abuse, only six cents was spent on treatment, prevention or research, while the average amount spent by other states was $3.70 per $100 of spending.

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.[20] 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;
- 4th in binge alcohol use and for those needing but not receiving treatment;
- 6th in rate of drug treatment admissions and rate of deaths from chronic liver disease and cirrhosis; and
- 7th for alcohol-related traffic fatalities.

What This Problem Costs

The estimated cost of substance abuse in the U.S. exceeds $168 billion/year.[21] 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.[22] 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]

Coloradoans 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[23] 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 2004, there were 7,907 hospitalized inpatients with a diagnosis of "alcohol/drug use and alcohol/drug-induced organic mental problems," totaling to 35,027 patient days. The hospital charges for these patients added up to $84,656,902, a cost per case of $10,706.58.[24]

Potential costs for incarcerating substance abusers in Colorado have also been estimated. As of December 31 2004, there were 20,144 adult offenders and 225 youth offenders incarcerated in Colorado's Department of Corrections and 78% of the prison population was identified as substance abusers.[25] Based on daily prison costs of $76.23 for adult and $185.62 youth offenders[26], the total cost per day for incarceration of substance abusers can be estimated at $1,230,208. 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.[27] 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[28]. Based on the 2005 number of live births in Colorado (68,922) and a prevalence rate of 0.5 to 2.0 per 1000 births[29], Colorado could have between 34 and 138 FAS births per year, an expenditure of $20 million to $82 million.

5. CLIENT DEMOGRAPHICS: A COMPARISON BETWEEN TREATMENT, DUI AND DETOXIFICATION CLIENTS, AND LIMITED 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) discharges for FY06, the following demographic data are based on the number of clients.

ADAD 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: The most common clients discharged from treatment in FY06 were single, white male adults between the ages of 18 and 44 with a median age of 30. Approximately 42% achieved only a 12th grade education and more than a third worked full-time. The highest proportions were in treatment for alcohol, followed by marijuana. Sixty-one percent started using their primary drug before the age of 18 and had been using for an average of 14 years. These clients tended to be daily users of tobacco, had 1-2 prior treatment episodes, did not support children and were treated in MSO-contracted outpatient treatment services.

Detoxification Clients: Similar to those in treatment, clients in detox were also typically single, white male adults who were slightly older with a median age of 36. Forty-five percent achieved only a 12th grade education and 42% worked full-time. Nearly all (92%) were in detox for alcohol abuse, which they typically started using before the age of 18. Detox clients had been using their primary substance for an average of 19 years. They also tended to use tobacco daily, had no prior treatment episodes, no children to support and were served in MSO-contracted residential non-medical detoxification units.

DUI Clients: DUI clients also tended to be single, white male adults with no dependent children. Their median age was 29 and this group was more likely to have a 12th grade education or higher (81%) and work full-time (68%). The majority received their DUIs for being under the influence of alcohol. These clients started using their primary substance before the age of 18 and had been using for an average of 16 years. About half used tobacco daily and 61% had no prior treatment episodes.

Demographics

<u>Residents versus Non-residents</u>
The overwhelming majority of clients in treatment, detox and DUI were Colorado residents. Less than 1% of clients in any of these service types were from out of state.

MSO versus Non-MSO

In 1997, Colorado changed its substance abuse treatment methodology to a managed care system. Managed Service Organizations (MSOs) provide oversight and quality assurance of services for clients receiving care in their subcontracted agencies. During FY06 all but 1% of detox discharges and 77% of all treatment discharges were MSO-related. Conversely, 77% of DUI clients were treated in clinics licensed and monitored by ADAD.

Gender

The male to female ratio was 2:1 in[30] males are over-represented in all service types below except prevention. The gender breakdown in Colorado treatment was similar to national 2002[16] treatment numbers of 30% female and 70% males. See Appendix A, Graph 1.

Pregnancy

Seven percent (n=363) of females in treatment were pregnant, as were 2% of females in both DUI (n=97) and detox (n=73) for FY06. The 2000 census identified 2,135,278 females in Colorado and 63,917 births, indicating that at least 3% of the females in Colorado were pregnant during 2000.[30] Note: proportions for this specific item are based on all females and not just those of childbearing age. Substance abusing pregnant women are a priority population for ADAD and over-representation in treatment reflects ADAD's aggressive outreach efforts. See Appendix A, Graph 2.

Nationally, SAMHSA's Treatment Episode Data Set (TEDS)[16] from 1992 to 2003 indicated that 4.1% of 5,791,535 females in treatment were pregnant, and in 2004 3.8% of females in treatment were pregnant.

Client Age

Clients in treatment and DUI tend to be slightly younger (average ages of 32 and 33 respectively) than the state and national average of 34 years. Thirty-one percent of DUI clients were within the 18 – 24 year age group, compared to 21% in treatment. However, there were more clients under age 18 in treatment (11%) than in DUI (2%) and this may reflect the legal minimum driving age of 16.

Of the three groups, detox clients were the oldest (median age = 36). While 21% 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.

SAMHSA's TEDS data for 2004 (the most recent year data were available) indicated 8.5% of treatment clients nationally were less than 18 years of age.

Client Race/Ethnicity

The largest proportions of clients in treatment, DUI and detox were White in FY06. Compared with the 2000 census figures for Colorado, Hispanics and American Indians were over-represented in all three of these substance abuse service types. Hispanics represented 17% and American Indians comprised 1% of Colorado's general population. In treatment, DUI and detox, Hispanics made up 23%, 26% and 30% and American Indians comprised 3%, 2% and 5% respectively of the clientele. The race/ethnicity breakdown in 2004 national TEDS data was: 64% White, 23% Black, 14% 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 at least half of the clients 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 ADAD's data. See Appendix A, Graph 4.

Dependent Children
Forty-one percent of treatment, 32% of both DUI and detox clients were responsible for children. The total number of children dependent upon clients in treatment, DUI and detox services was 13,115, 10,624 and 17,805 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 less. Twenty-six percent of the clients in treatment attained some college, compared to 31% in detox and 39% 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 receiving substance abuse treatment, detox and DUI services in FY06 were less educated than the general population. See Appendix A, Graph 6.

Income
Fifty-seven percent of treatment, 56% of detox and 84% of DUI clients indicated that wages were their primary source of income. Forty-six percent of treatment, 57% of detox and 93% of DUI were self-pay clients. Approximately 42% of treatment and 39% 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 were $400, $500 and $1,280 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-one percent of treatment clients, 40% of DUI and 27% 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 11% of detox clients indicated they were veterans. The Colorado Census 2000 identified 14% of the general population as veterans.[30]

Client Disability
Ten percent of treatment, 5% of detox, and 3% of DUI clients indicated they had one or more disabilities. While the largest proportion in all three service types reported disability as "other," the largest subset of identified disabilities for all was psychiatric disorders. 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 ADAD's database. Sixty-nine percent of treatment, 62% of detox and 48% of DUI clients used tobacco daily compared to 19% of Colorado adults and 23% nationwide.[31]

Prior Treatment Episodes
TEDS data for 2002 indicated that 56% of clients nationally had one or more previous encounters with the treatment system and 11% had five or more prior treatment episodes. In Colorado 59% of treatment clients had at least one prior encounter and 5% had more than five. Forty-five percent of Colorado's detox clients had one or more prior encounters and 15% had more than five. DUI programs in Colorado had the fewest clients who had prior treatment episodes (32% had one, 3% had more than five).

Transfer/Referral Source
Non-DUI Criminal Justice was the referral source for 45% of clients in treatment and 41% in detox, a pattern similar to TEDS national referral data (see Graph 9, Appendix A). As expected, the majority (78%) of DUI clients were referred from DUI-related criminal justice sources. Self-referrals in Colorado comprised 14% and 15% of treatment and detox respectively and 7% of DUI clients. Nationally, 35% of all clients self-referred into treatment.[16] 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 Graph 9.

Admission/Discharge Modality
Outpatient services comprised the most highly utilized modality for treatment clients, with 66% in traditional and 10% in intensive outpatient modalities. Eighteen percent of treatment clients were in some form of residential modality, including Therapeutic Community (TC), intensive, short-term intensive and transitional residential settings. All but two detox clients received care in residential (non-hospital) detox. See Graph 10, Appendix A.

Primary Drug Type
Alcohol abuse is Colorado's number one problem, followed by marijuana and methamphetamine (see Graph 11, Appendix A). In the last three years Colorado providers have noted a switch from cocaine to methamphetamine because of price, availability and a longer lasting high.[32] National data for 2002 had more clients identify alcohol (59%) as their primary drug, followed by cocaine (18%) and opiates (12%). Nationally methamphetamine was only 1.4%.

6. SERVICE UTILIZATION

Prevention Services for FY05 (FY06 data are pending)
Total Attendees/Participants Served: 66,225, a 4% decrease from FY04 (68,705)
Total Attendees Served by SINGLE Services: 61,579 (93%), a 2% increase from FY04 (60,491)
Total Participants Served by RECURRING Services: 4,646 (7%)
Total Participants Completing RECURRING Services: 4,646
Total Attendees/Participants Served by Gender: Female 36,776 (56%); Male 29,286 (44%)
The proportion of both females and males discharged from prevention in FY05 increased by 5% from FY04.

In FY05, forty-two providers supported with ADAD funds delivered prevention services to 13,667 Colorado youth.

Treatment Discharges FY06
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. "Recidivism" in the addiction field is encouraged since any contact with treatment counselors supports a more positive long-term outcome. Thus the number of discharges is expected to be greater than the number of unique individuals.

In FY05, there were 82,371 discharges from treatment, DUI, and detox services, comprising 46,343 unique individuals. In FY06, the number of discharges increased by 5% to 86,593 and the number of unique persons increased by 33% to 61,472. A contributing factor to the large increase in unique individuals may be improved reporting, particularly with DUI and detox service agencies.

Length of Stay
Length of stay by modality was examined using both the median and average number of days. Opioid Replacement Therapy (ORT) had, as expected, the longest stay with a median of 84 days and an average of 269 days, which is much longer that the 2003 national average[33] for ORT of 155 days. The next longest stay was for Day treatment (median=50 days, average=74 days) and Residential (median=29), with an average of 64 days, which is shorter than the national 2003 average for Residential of 70.

Outpatient treatment had a median of 85 days and an average of 130 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. See Table 2 in Appendix B for FY05-FY06 comparisons in length of stay broken down by treatment category.

Reason for Discharge
Ninety-two percent of detox clients completed their detoxification at the facility to which they were admitted. Five percent left against professional advice.

Across treatment modalities, 30% of FY06 discharges completed their treatment with no further treatment recommended; 20% completed treatment at that facility and were referred for more treatment; 21% left against professional advice; 12% were terminated by the facility and 8% were transferred to another facility. Thirty-four percent of clients left treatment by walking away or being terminated.

7. 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. Graph 1 in Appendix C 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 on only on clients who reported having no previous treatment episodes. Overall, clients in treatment averaged 12 years (median=8 years) from first use of their primary drug until they entered treatment. Detox clients averaged 19 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.[21]
- 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.

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.

8. THE BENEFITS OF SUBSTANCE ABUSE TREATMENT AND PREVENTION

The Economic Benefits of Drug Treatment: A Critical Review of the Evidence for Policy Makers (2005)[21] 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.?[35]
- 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.[36]
- 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]

9. PREVENTION AND TREATMENT OUTCOMES

Prevention Outcomes FY05 (FY06 data are pending)

1. Statistically significant decreases ($p<.05$) were noted in 30 day use of cigarettes, alcohol, marijuana, inhalants, amphetamines and cocaine for surveyed youth ages 12 to 17 who had received prevention services.
2. Statistically significant increases ($p<.05$) were noted in:
   - disapproval of marijuana and other (LSD, cocaine, amphetamines and other illegal drugs) drug use for their age group
   - youth stating an intent to avoid alcohol
   - the number of youth believing use of alcohol or marijuana was wrong for their age group
   - the perception of risk related to smoking one or more packs of cigarettes, smoking marijuana regularly, taking one or two drinks daily, having four to five drinks nearly every day, having four to five drinks each weekend, occasional use of crack and regular use of cocaine.

Treatment Outcomes FY06, 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 on reducing driving while intoxicated behaviors and not on overall substance abuse treatment. The total number of discharges used to calculate outcome data was 18,848.

Summary of Treatment Outcomes:

1. Sixty-two percent of clients discharged from substance abuse treatment had moderate to high achievement of treatment goals.
2. At admission 35% of treatment clients were assessed as having a current mental health issue, an increase of 5% from FY05. This declined to 30% at time of discharge.
3. Overall the severity of problems or issues with family, socialization, employment or school and medical or physical problems was reduced at discharge.
4. Use of primary drug decreased from admission to discharge.
5. The number of arrests, emergency department visits and hospital admissions all declined from admission to discharge.
6. Slight improvement was noted in employment status and living situation at discharge.

Progress towards Treatment Goals

During the treatment process substance abuse 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 FY06, 62% of all treatment clients had made moderate to high progress toward their goals (see Graph 1, Appendix D) compared to 61% in FY05.

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 FY06, there was a decline from 48% to 21% (admission to discharge) in the proportion of all treatment clients reporting any substance use in the previous 30 days.

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. Graph 2 in Appendix D shows that in FY06, the proportion of outpatient clients who reported any use of their primary substance decreased from 44% at admission to 24% at discharge.

Mental Health Status

During FY06, 35% of clients in substance abuse treatment (all modalities) were assessed as having a current mental health issues at admission. This proportion declined to 30% at discharge.

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.

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 remained the same from admission to discharge, while the proportion of clients with moderate and 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 Graph 7, 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 2, Appendix D.

Factors Relating to Achievement of Treatment Goals

Of 18,848 discharges from treatment, 31% were assessed with high progress toward their treatment goals, 31% with moderate progress and 38% with minimal progress.

Adult clients assessed with high progress towards their treatment goals were more likely to have been in treatment for more than 90 days, be married, have children, report using alcohol as their primary drug, have used their primary drug orally, and reside in the southeast or southwest regions of Colorado.

Clients assessed as having minimal progress towards their treatment goals were more likely to report using heroin as their primary drug, use injection as their route of drug administration, and reside in Denver.

For more detailed information on factors relating to the achievement of treatment goals, see Appendix E.

10. SERVICE COSTS

Treatment Cost Per Client
The Division pays approximately 50.2% of service costs rendered by the Managed Service Organizations and their subcontractors.

Average Cost Per Client By Year for Treatment Services funded by ADAD

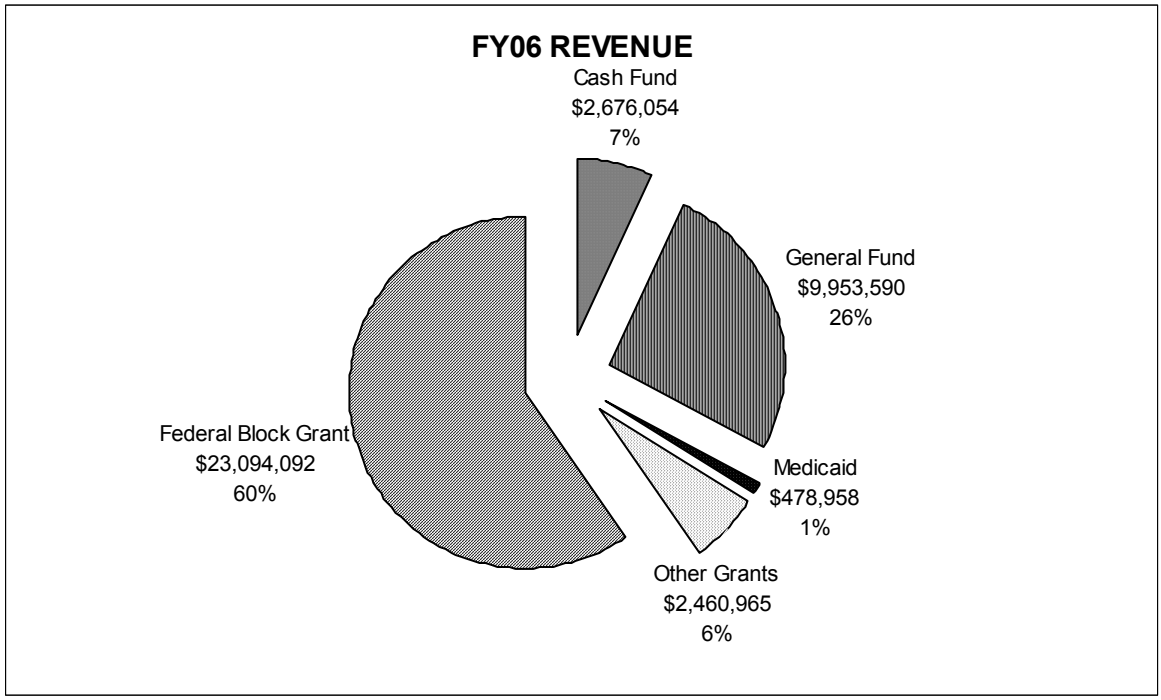
Year	ADAD's* Average Cost/Client	Total** Average Cost/Client
2006	$956	$1,838
2005	$721	$1,948
2004	$715	$1,551
2003	$710	$1,544
2002	$687	$1,494
2001	$618	$1,344
2000	$584	$1,270
1999	$561	$1,220
1998	$542	$1,178
1997	$402	$ 874
1996	$390	$ 848
1995	$378	$ 822

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

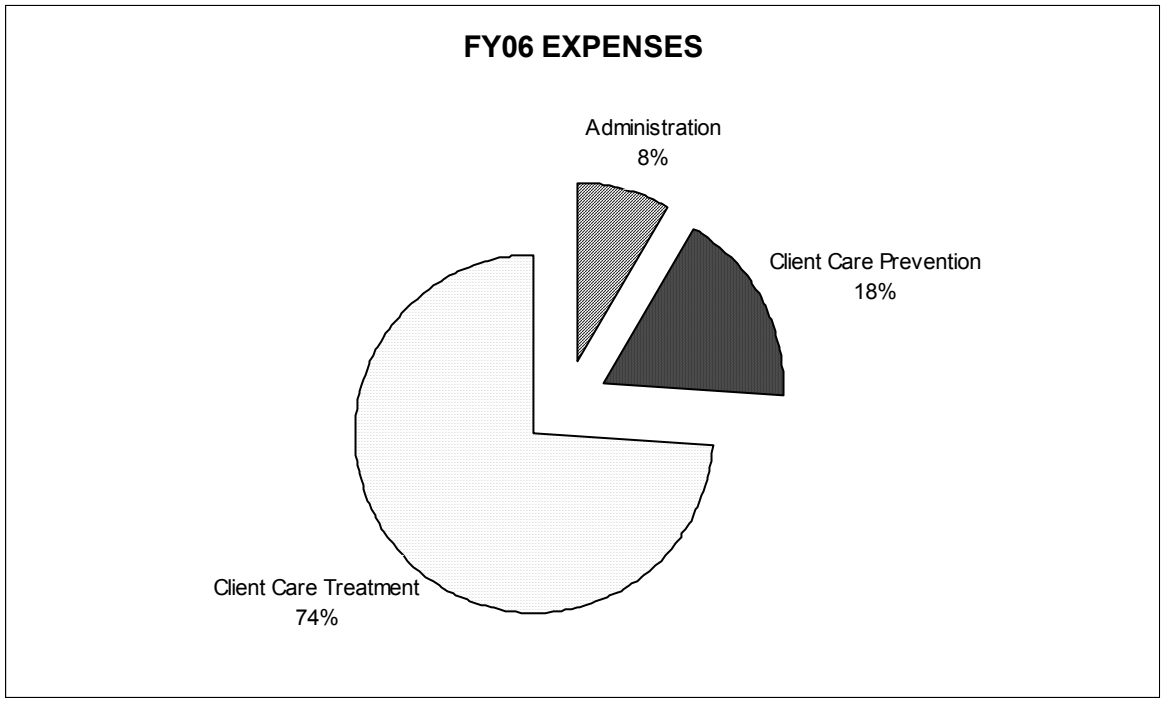
In 2002, publicly funded programs provided 31% of the total treatment episodes in the state of Colorado. Drinking and driving (DUI) programs provided 47%. Licensed, non-funded, non-Drinking-Driver programs provided the remaining 22%.[43]

11. RESOURCES FY2006

ADAD Revenue and Expenses for FY06



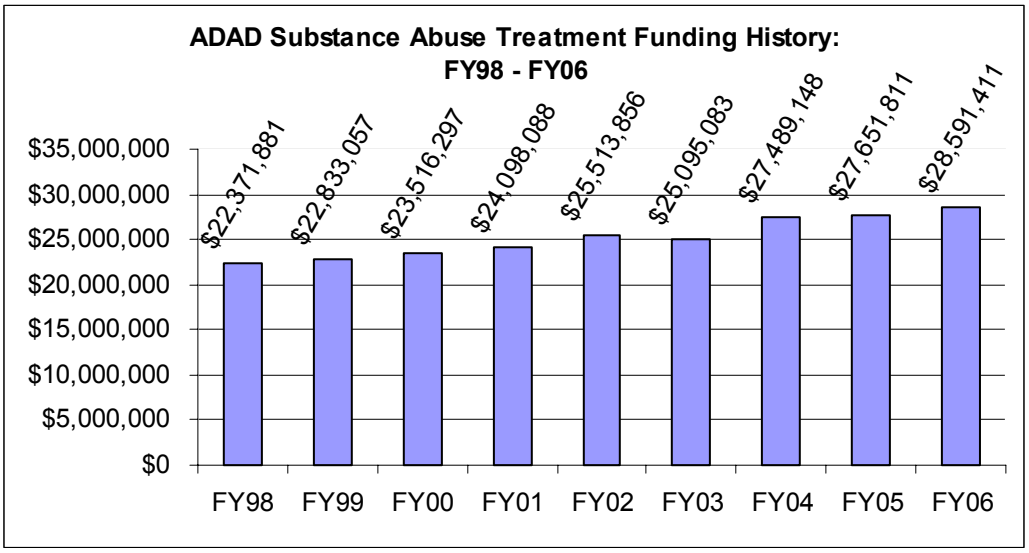
Total Revenue for FY06: $38,663,659

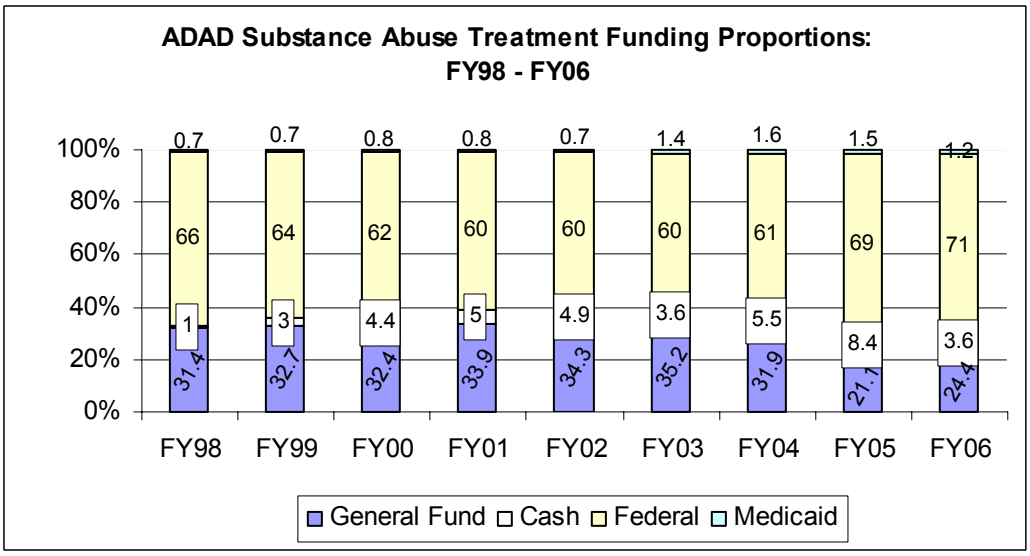


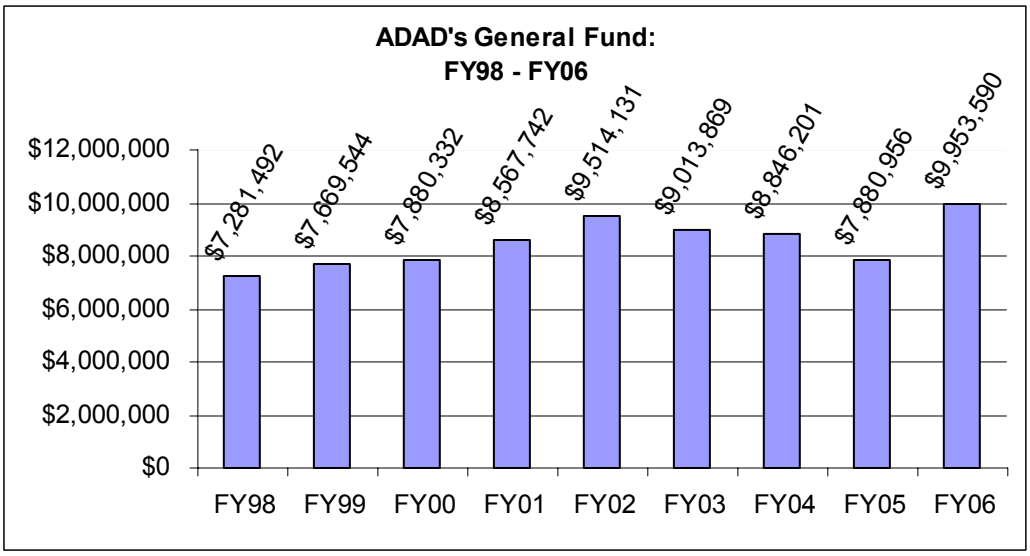
Total Expenses for FY06: $38,663,659

The next three charts demonstrate:

1) ADAD's funding history for substance abuse treatment, from fiscal years 98 through 06;
2) the proportion of different funding sources; and
3) detail of ADAD's General Fund dollars.







Tracking Civil Forfeiture (SB 03-133) for Calendar Year 2005

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, ADAD and the MSOs. The following table details the reporting of civil forfeiture funds for calendar year 2005 by three Colorado MSOs, as required by SB03-133.

MSO Provider / Description	Signal	West Slope	Connect Care	Total All
Beginning Balance	$ 285,765.75	$ 9,272.40	$ 19,779.81	**$ 314,817.96**
Distribution	$ (89,462.00)	$ (9,272.40)	$ -	**$ (98,734.40)**
Forfeiture Funds Received	$ 244,565.20	$ -	$ 69,246.55	**$ 313,811.75**
Ending Balance	$ 440,868.95	$ -	$ 89,026.36	**$ 529,895.31**

Summary:

- Signal Behavioral Health received a total of $244,565.20 in forfeiture funds from Judicial Districts 1 ($50,737.07), 2 ($142,285.39), 8 ($28,209.65), 17 ($17,499.35), and 18 ($5833.74). Signal distributed $89,462 of forfeiture funds during the year, $77,800 of which was designated for treatment and detox services and $11,662 for administrative costs (13% of total funds distributed).
- West Slope Casa had a beginning forfeiture fund balance of $9,272 and distributed all of it to Colorado West's Child and Family Program, which targets adolescent substance abuse treatment.
- Connect Care received $69,246.55 in forfeiture funds from Judicial District 4 and did not distribute any of these funds during 2005.
- Boulder County Public Health Department has not received any funds from civil forfeiture.

12. TREATMENT AND SERVICE GAPS

According to the NSDUH[2], Colorado ranks fourth nationwide for:

- needing but not getting treatment for alcohol use in the past year among persons aged 26 & older
- needing but not getting treatment for illicit drug use in the past year among persons aged 12 or older.

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

- 81% of the Coloradoans 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 2006,[45] staff noted 68,475 births in Colorado in 2004, and estimated approximately 8%, or 5,478 pregnant women were substance users at that time. ADAD met 7% of this need by treating 363 pregnant women in FY06. This compared to 3% nationally.[16]

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. ADAD currently depends on gleaning information from federal household surveys, which provide national and state level data.

ADAD 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, ADAD has found follow-up studies to be quite expensive to administer. Given current limited resources and the need for treatment in Colorado, ADAD has chosen not to divert funds away from direct client treatment services to perform a successful follow-up study at this time.

13. SPECIAL REPORTS

METHAMPHETAMINE IN COLORADO

Does Colorado have a methamphetamine problem?

Methamphetamine use is definitely a growing problem for Colorado that impacts many communities and burdens 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 Patterns and Trends in Drug Abuse: Denver and Colorado, 2005 report, most indicators for methamphetamine increased over the past few years: the number of methamphetamine-related emergency visits, hospital discharges, mortalities, arrests and Rocky Mountain Poison Control calls have all increased. Colorado treatment admissions for clients using methamphetamine as their primary drug have also increased dramatically, and methamphetamine is now the third most frequently reported drug, following alcohol and marijuana.

The October 3, 2005 issue of the Center for Substance Abuse Research (CESAR) weekly fax report indicated that overall 1.0 - 2.2% of Colorado's residents age 12 or older admitted to methamphetamine use in the past year.[46] This report also states: "it should be noted, however, that the average level of methamphetamine use across the U.S. (0.6%) remains substantially lower than those of almost all other

illicit drugs, including marijuana (10.6%), prescription pain relievers used non-medically (4.7%), cocaine (2.4%), tranquilizers (2.1%) and hallucinogens (1.6%)."

Several studies are presented in this report. Note that ADAD's database is constantly being updated, so total numbers of clients may differ in different studies about the same time period.

Methamphetamine Task Force
House Bill 06-1145, mandating the formation of a Methamphetamine Task Force, was passed in FY06. The Task Force 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 Task Force is responsible for reviewing best practices from across the state and country for implementation and has a specific focus on protecting meth-impacted children. The Task Force 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.

To help the Task Force implement its directive, Colorado Attorney General John Suthers requested help from the El Pomar Foundation, which will provide the Task Force with a grant of $50,000 to cover committee operations and expenses for two years. Including this grant, El Pomar has committed nearly $150,000 to date across the state to address meth abuse. ADAD's director has been appointed by the Speaker of the House to serve as the Vice-Chairperson on this task force.

Methamphetamine and Children in Selected Counties of Colorado
A special study of four Colorado counties, Adams, El Paso, Larimer and Weld, examined the interface of methamphetamine use and children. ADAD reviewed DACODS data for clients who were admitted in FY04 to residential, outpatient, methadone, STIRRT and Day treatment and reported primary or secondary use of methamphetamine. Overall, clients with children were more likely to use TANF as their primary source of payment for treatment and be referred into treatment by the social services system. Clients without children were more likely to be referred into treatment by the criminal justice system.

General Demographics
Another study completed by ADAD identified 17% of treatment clients (unique individuals) who reported methamphetamine as their primary drug of use in FY06. 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 were 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.

Methamphetamine and Treatment Outcomes
Clients using methamphetamine were less likely to be discharged successfully with no further treatment recommendation and conversely were more likely to be discharged with further treatment recommended. When methamphetamine users were compared with non-meth substance users in treatment, there were no differences in the proportions of drop-outs or terminations, or in progress toward treatment goals. Data show that treatment outcomes for clients who report methamphetamine as their primary or secondary drug are as good as and in some cases better than outcomes for clients using other

substances. Because at admission their family, social and work/school issues were of higher intensity they were still, at discharge, more likely to be assessed with those issues at discharge.

Fewer meth-using clients reported using their drug during their treatment episode. They were less likely to have DUI-related arrests or to have visited a medical emergency room prior to admission or during treatment. See Appendix F and ADAD's web site (www.cdhs.state.co.us/adad) under Presentations and Reports for more detailed information about these studies.

PREGNANT WOMEN IN SUBSTANCE ABUSE TREATMENT

The following is based on the Special Connections Annual Report for July 1, 2003-June 30, 2004 that became available on March 1, 2005.[45]

Special Connections is a collaboration between ADAD 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.

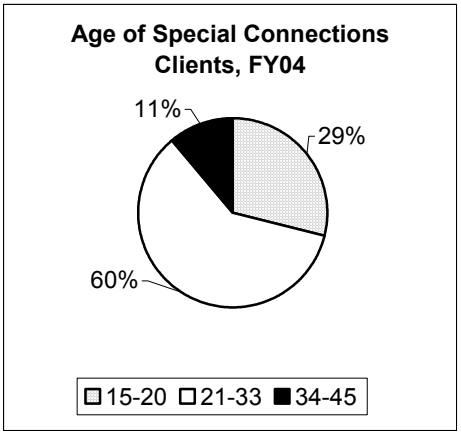
Special Connections' goals are to:

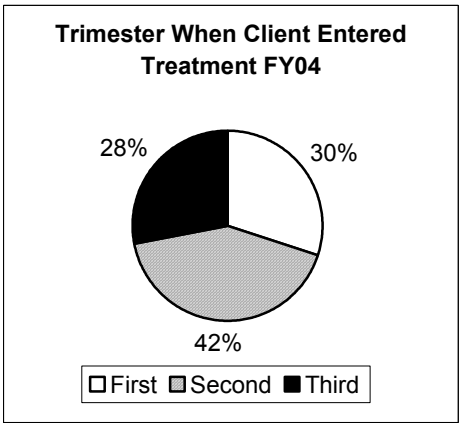
- produce a healthy infant;
- reduce or stop the substance using behavior of the pregnant woman during and after the pregnancy;
- promote and assure a safe child-rearing environment for the newborn and other children; and
- maintain the family unit.

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.[47] The average cost to the Colorado taxpayer of one low birth weight baby was $6,362 in the year 2000.[48]

Prevalence
In Colorado, the number of pregnant women in need of substance abuse treatment was estimated to be approximately 5,478 for FY04. In FY04 Special Connections served 329 women and collected information about 163 birth outcomes, indicating an overall treatment retention rate of 48%. Of these 163 births, 12 (7%) infants had low birth weight and 151 infants had normal birth weight, saving the taxpayer $960,662.

Demographics
Race/ethnicity, marital status and educational level are not considered primary risk factors related to prenatal or neonatal health status.





Almost half of these women were referred into treatment by substance abuse providers (22%) or the criminal justice system (26%).

The full report is available on the ADAD web site (www.cdhs.state.co.us/adad) under Presentations and Reports.

CLIENTS WITH MENTAL HEALTH ISSUES IN SUBSTANCE ABUSE TREATMENT

Prevalence, All Service Types
During FY06 there were 18,848 discharges from treatment. Of these, 37% (6,902) of all discharged clients met the criteria for co-occurring illness. This was an increase of 5% from FY05.

Treatment Demographics
The 6,902 discharges of co-occurring clients from treatment services had a 1.2 discharge rate per person and composed 36% of the 15,897 unique clients in substance abuse treatment during FY06. Overall, treatment demographics for FY06 co-occurring clients are similar to those of FY05.

Small variations in demographic patterns were noted between the 5,738 co-occurring clients and clients without co-occurring disorders. 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 FY05, FY06 co-occurring clients were less likely to:

- be employed;
- be married; and
- be referred into treatment by the criminal justice system.

Treatment Outcomes
Outcomes of the 6,092 discharges of co-occurring clients were compared to the outcomes of the general treatment population.

Clients with co-occurring disorders were less likely to:

- complete treatment with no further treatment recommended; and
- have achieved high progress towards treatment goals.

Similar to 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.

The full report is available on ADAD's web site, Presentation and Reports (www.cdhs.state.co.us/adad).

14. RESEARCH AND SPECIAL PROJECTS

PREVENTION

- **Prevention Leadership Council (PLC)**
  ADAD continues to participate in the Prevention Leadership Council (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 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**
  ADAD participated with the PLC to host a summit in September 2006. Many prevention coalitions and ADAD Prevention Contractors participated. Three national experts shared ideas about how community coalitions and community prevention providers can join forces to 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 with this university (University of Washington) based 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 will be compared with a similar control community that is not implementing that system of training and technical assistance. 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)**
  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.
  - In FY05, 14 Colorado counties were funded, based on juvenile-alcohol and DUI related arrest rates. Each county received $10,000-$15,000 from a total allocation of $210,000.
  - In FY05, 53% of the population who received PDD prevention services was between the ages of 12 and 20. A substantial increase in the percent of persons aged 25-44 was noted as a result of increased focus on parents (from 10% in FY04 to 21% in FY05) and their roles in monitoring youth substance use and driving behaviors.
  - In FY05, 21,000 individuals received PDD prevention services, compared to 14,000 in FY04. For those programs that provided direct services to youth, 30-day alcohol use decreased from 38% to 27%, as did marijuana use (22% to 11%). Only 4.8% of the population reported using amphetamines at the beginning of the program, and by the program end this decreased to less than 1%.
  - PDD funds were used to:
    - train an additional 148 addiction counselors in FY05 in the use of a model DUI curriculum, bringing the total number of counselors trained to almost 900;
    - train Alcohol and Drug Evaluation Specialists who conduct evaluations on DUI/DWAI offenders for the courts;
    - update and distribute brochures on the Ignition Interlock Program;
    - support a media campaign and educational worksite program in the San Luis Valley and Steamboat Springs, both areas at high risk for repeat DUI offenders, to interrupt the pattern of repeat offenses; and
    - evaluate the system for handling DUI/DWAI cases in Colorado; the final report, completed in 2004, includes recommendations for improving outcomes in DUI/DWAI cases.

- **Law Enforcement Assistance Funds (LEAF)**
  Legislation created a surcharge on drunk and drugged driving convictions to help pay for enforcement, laboratory charges and prevention. In FY05 Judicial allocated $250,000 of the surcharge dollars to ADAD to establish community-based impaired driving prevention programs for these mandated populations: the general population; teachers of youth; health professionals; and law enforcement. In LaPlata, the Summit/Lake partnership, Chaffee and Mesa counties, prevention programs focused on 13 -16 year old drinkers already at high risk for becoming impaired drivers. Program activities included life skills training, job skill preparation and substance-free recreational activities.These activities have resulted in a significant improvement in youth behavior. In Summit County, another project involving educators, health care providers and youth ages 5 to 26 targeted social norms and resulted in a dramatic decrease in DUI arrests. In Chaffee County, a program for first-time offenders for minors in possession of alcohol lowered youth self-reports of drinking and driving, marijuana use and being "drunk." Law enforcement, public safety officers and local non-profit agencies enthusiastically collaborated with ADAD on these projects.

- **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 $8 million for Colorado). ADAD 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 2006 was 7.2%.

- **Capacity Development**
  ADAD 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 was to develop a research-based process that assures the availability of quality training and technical assistance to the prevention workforce in Colorado. In FY06 this planning group continued to develop and refine the tool and process for assessing the application of the Uniform Minimum Standards and Agency Core Competencies. This process will be standard across agencies and will be used to determine training and technical assistance needs. The tool is scheduled to be piloted in FY07.

- **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 was based on research, literature and past experience. CAADSP also conducted annual peer review site visits of treatment programs in accordance with federal block grant requirements.

- **Higher Education Initiatives**
  ADAD 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 FY06 ADAD continued its funding of the BACCHUS Network to provide state coordination services for CADE. This contract, which will be continued in FY07, 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 recently 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 was 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 ADAD is the fiscal agency for the Governor's office. The SPF SIG, known in Colorado as "Colorado Prevention Partners or CPP," was 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 then used this data to prioritize these 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 will begin 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.

- **Screening, Brief Intervention, Referral and Treatment (SBIRT) Programs**
  In FY06, Colorado received a federal SBIRT grant from SAMHSA. 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 medical settings, particularly emergency rooms. ADAD will work with local hospitals to develop a medical setting-based screening and referral component for either brief treatment (a limited course of highly focused cognitive behavior clinical sessions) or if warranted, more intensive treatment.

TREATMENT

- **Parents are the Power Campaign**
  ADAD continues to partner with Channel 9 News, Urban Peak and the Daniels Fund to implement the "Parents Are the Power" campaign. Included in this campaign are public service announcements, an informative website and opportunities for dialogue such as a chat room and 9-Line volunteers to answer phone calls. Both the TV spots and the web site provide information for parents about the dangers of substance abuse, treatment options and other supports available in Colorado to keep teens drug-free.

- **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 budget and the implementation of SB03-318.

- **Colorado Unified Supervision Treatment Program (CUSP)**
  ADAD and three other state agencies (CDOC, CDPS, and the Judicial Branch) that participate on the IACAJCT continue to collaborate on developing an integrated services approach that would reduce the need to build a new 1,000 bed DOC prison each year. This project aims to reduce incarceration and associated costs by safely and cost-effectively maintaining offenders in the community. In this project, offenders who have been diagnosed with substance abuse and mental health disorders will be given priority and receive individualized supervision and treatment options developed by an interdisciplinary team comprised of staff from the above mentioned Departments.

- **Short Term Intensive Residential Remediation (STIRRT) and Related Programs**
  In cooperation with local treatment providers, ADAD offers a range of services for adult offenders. STIRRT is an intensive residential substance abuse treatment program with continuing care services for adult male and female offenders who have severe levels of alcohol/drug-related criminal behavior. Treatment through the STIRRT program offers offenders an alternative to imprisonment, and is funded with Colorado Drug Offender Surcharge Funds as well as block grant funding. Arapahoe House, Inc. in Denver operates a 20-bed seven-day intensive residential program for adult males, with a five-week aftercare component. Crossroads Managed Care Systems in Pueblo operates a ten-bed, 14-day intensive residential program for adult males and females (separate programs) with a nine to 28 week outpatient/aftercare component.

- **Outpatient Substance Abuse Treatment Benefit** The legislature authorized an outpatient Medicaid substance abuse treatment benefit for Medicaid enrolled clients experiencing difficulties with drug and alcohol use disorders. The benefit went into effect on July 1, 2006. Eligible providers include ADAD 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 these limits are not reimbursable. The Department of Health Care Policy and Financing has oversight and administration of this program. ADAD is available to provide technical assistance regarding substance abuse treatment issues to providers and Health Care Policy and Financing at any time.

- **Evidence-based Practices**
  ADAD 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 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, ADAD has been working with the Mountain West Addiction Technology Transfer Center on several projects including Network of Improvement for Addiction Treatment, otherwise known as NIATx. This is a Robert Wood Johnson sponsored program to assist agencies to improve their services to customers by focusing on streamlining business and clinical processes in order to more effectively enage and retain clients in treatment.

- **ADAD Forums**
  ADAD hosts two statewide informational forums annually to share the latest research, outcome studies and best clinical practices with those interested in substance abuse treatment and prevention in Colorado. In CY06, one forum was replaced with a provider training session for treatment of Medicaid covered individuals, and a second forum addressed methamphetamine. Overall evaluations for both events were “excellent,” and over 500 attended the Meth forum.

  1) **Substance Abuse Treatment for Medicaid-covered Individuals: A Provider’s Guide**, Thursday, February 23, 2006
     Primary Speakers: Marilyn Gaipa, who presented “Overview of the Outpatient Benefit: What Does it Mean For You,” and ADAD staff.
     This forum addressed requirements for becoming an approved Medicaid provider for the new substance abuse out-patient benefit, clinical care and documentation requirements, and claim filing and data submission procedures.

  2) **Methamphetamine: Effects of Abuse and Treatment Strategies**, Thursday, July 27, 2006
     Primary Speakers:
     a) Thomas Freese, Ph.D., Director of the Pacific Southwest Addiction Technology Transfer Center and Director of Training for UCLS Integrated Substance Abuse Programs.
     This forum addressed methamphetamine myths, current research on the drug’s harmful impact and addiction, and effective treatment approach that can and do work.
     b) Shelby Rajewich, young person in recovery from methamphetamine addiction.

Discussions for CY2007's forum topic are underway.

- **DUI Demographics**
  ADAD, in accordance with a legislative audit recommendation, completed the third year of phasing in a requirement that DUI providers submit DACODS demographic information on each of their DUI clients. During FY06 ADAD identified those DUI providers not yet submitting DACODS and invited them to another series of statewide trainings. These sessions reviewed in detail how to complete a DACODS data collection instrument and how to submit data electronically using ADAD's Treatment Management System (TMS). Overwhelmingly the provider response to these trainings continues to be positive and supportive.

  This phase-in process has expanded the percent of DUI providers submitting client data from 37% to 65%. This additional information has enhanced ADAD's view of statewide substance abuse issues, services and gaps as well as provided for a comparison population for those in non-DUI treatment programs.

  In FY07, ADAD will focus training efforts on those ADAD-licensed, community-based providers who have not yet submitted DACODS information. Staff will continue to offer periodic trainings as DACODS or TMS updates or provider staff turnover occur.

- **The DUI Web Based Monitoring (WBM) System**
  ADAD converted from a DUI-reporting system based on discharge information to a real-time 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 SA treatment 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 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.

15. STRENGTHENING THE OPERATION: PLANS FOR THE FUTURE

- **Building a Behavioral Health Organization**
  It was mentioned earlier that ADAD and the Division of Mental Health (DMH) were consolidated into Behavioral Health Services 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. Some SA facilities are reluctant to admit people w/ serious psychiatric issues and some MH treatment centers have requirements like the need to be substance free for a year before admission. As a result, persons with COD frequently get 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.

- **ADAD's Data Infrastructure**
  ADAD continues to improve and expand the Treatment Management System (TMS), the web-based client server system for ADAD'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 ADAD, 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. ADAD plans the following future enhancements to PDD: PDD 2 - linking the PDD database with Judicial's ICON system for easier, more accurate reporting; and PDD 3- broadening system access and function to encompass Colorado's Drug Courts.

Other major enhancements to TMS planned for FY07 are still being implemented. The federal funding agency recently began requiring states to submit National Outcome Measures (NOMS) that promotes consistent data collection on substance abuse treatment services nationwide. CSAP and CSAT has identified several of these NOMS measures and are in the process of defining the remainder. ADAD and the MSOs have begun revising DACODS and TMS to comply with these requirements.

- **Provider and Client Surveys**
  ADAD is investigating use of a survey instrument package to assess clinician and client satisfaction with the substance abuse treatment and prevention services in Colorado. ADAD is hopeful that such a package could also be used for on-going follow-up of client progress after discharge from treatment services.

- **DUI Task Force**
  ADAD participates in the DUI Task Force, an interagency 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.

16. RECOMMENDED LEGISLATION IN THE FIELD OF ALCOHOL AND DRUG ABUSE

Create a Parity Law for Substance Abuse Treatment in Colorado
Under parity, substance abuse treatment would be subject to the same benefit levels and limitations as other chronic relapsing disorders.

- Spending for substance abuse treatment has been shifting from private insurance to the public sector. Sixty four percent of treatment dollars came from the public sector[49], and states funded nearly 70% of all publicly funded mental health and substance abuse treatment.[50]

- Results from several studies indicate that parity for substance abuse treatment can be implemented with minimal cost increases[51] and would not drive up private insurance costs.[52]

- Treatment and management of addiction is essentially similar to that for any chronic and relapsing disorder, such as diabetes or hypertension; yet the insurance industry continues to impose restrictions on treatment. These restrictions cannot be justified as sound health care or drug control policy. Parity will help close the treatment gap by utilizing private health insurance coverage.

- Parity will help bring drug treatment more fully into the mainstream health care system, and will encourage the development of more pharmaceuticals to treat addiction.

- A study by the National Institute of Mental Health[53] found that in states where parity was introduced, the actual costs were even lower than was expected from actuarial estimates.

- Parity will reduce the overall burden of substance abuse to society. The costs associated with the abuse of alcohol and drugs are avoidable. Data from several major studies have demonstrated that abusers in treatment programs have shown decreased drug use, lower crime rates, better social functioning and reduced likelihood of transmitting serious disease through needle sharing.

17. DIVISION CONTACTS

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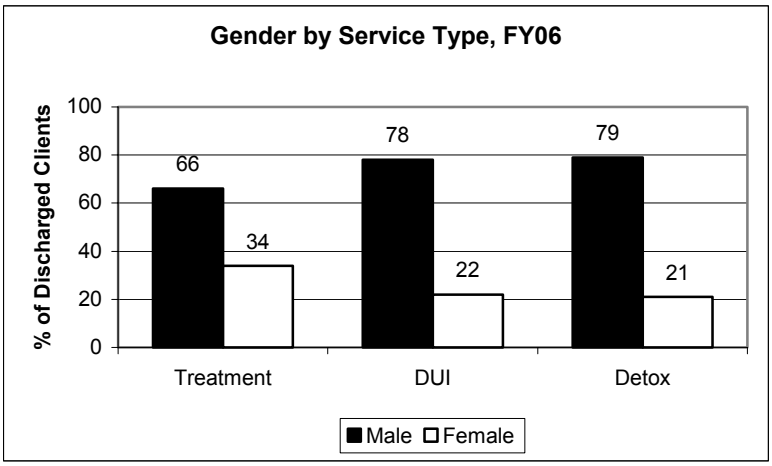
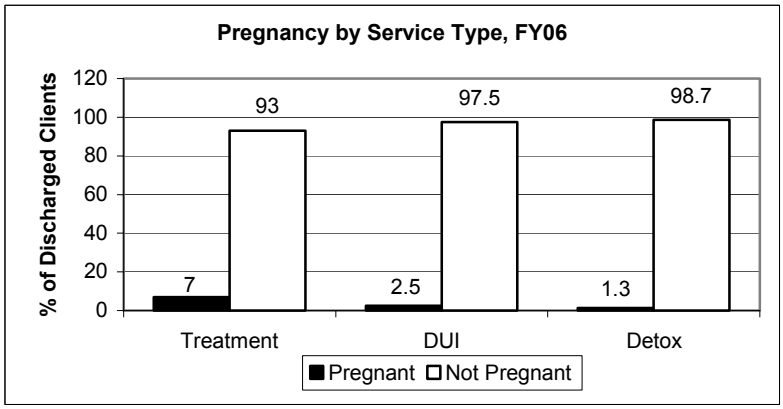
18. APPENDICES A THROUGH G

Appendix A: Detailed Tables and Graphs of Client Demographics

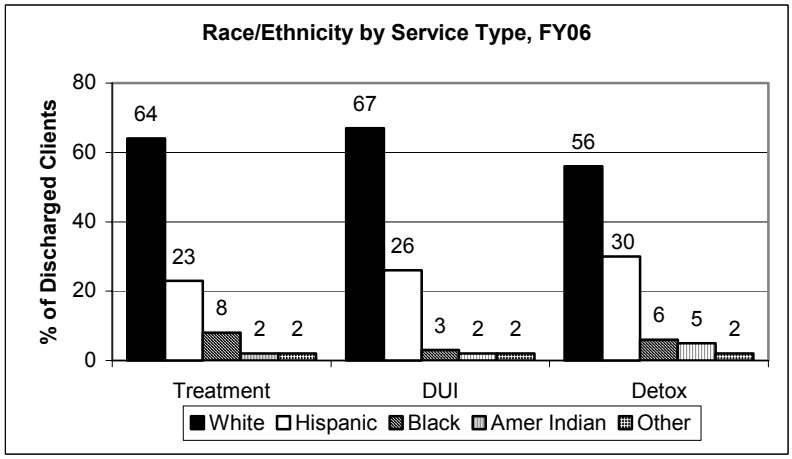
Graph 1: Gender by Service Type, FY06 (See page 13)



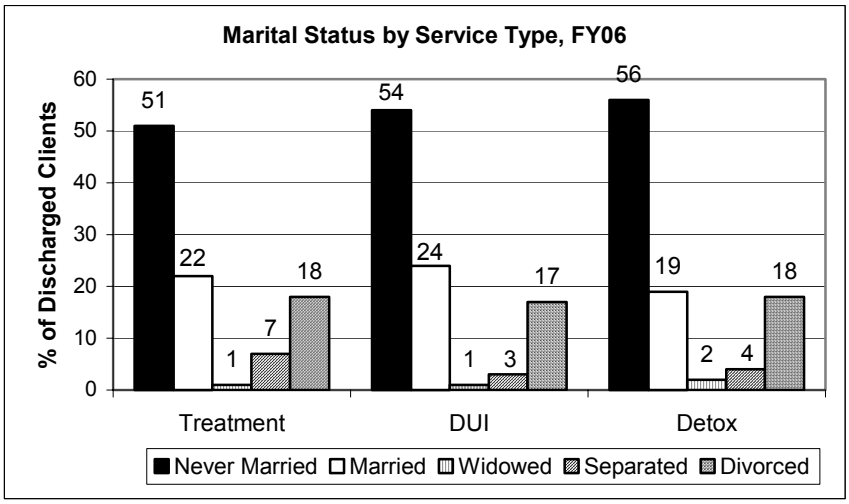
Graph 2: Pregnancy by Service Type, FY06 (See page 13)



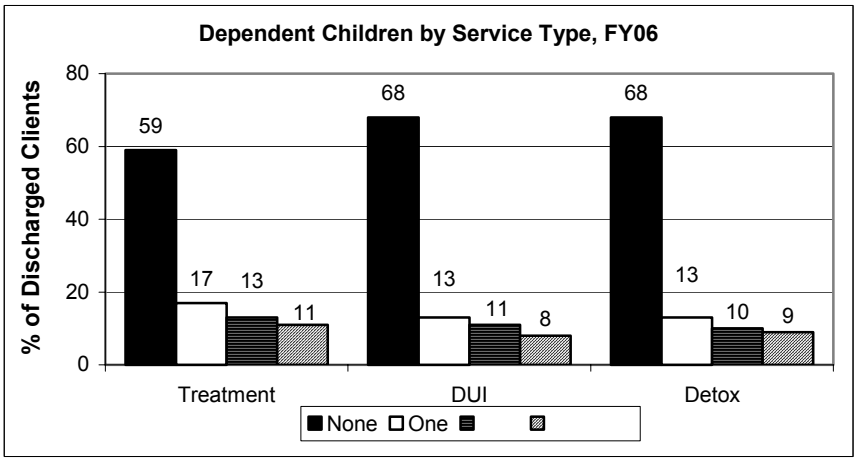
Graph 3: Race/Ethnicity by Service Type, FY05 (See page 13)



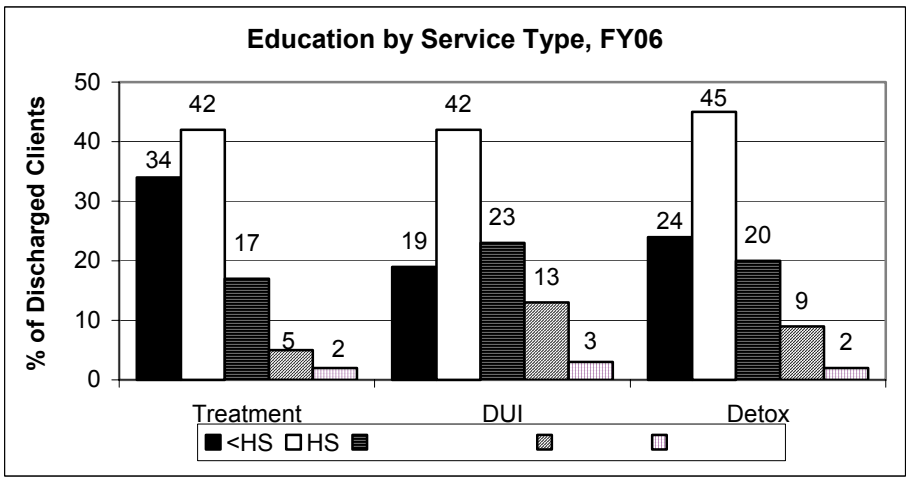
Graph 4: Marital Status by Service Type, FY06 (See page 14)



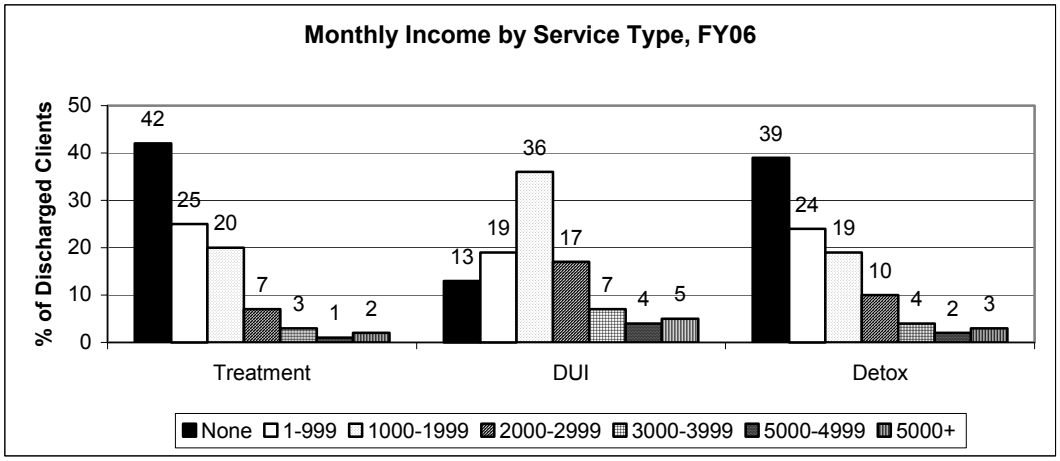
Graph 5: Dependent Children, FY06 (See page 14)



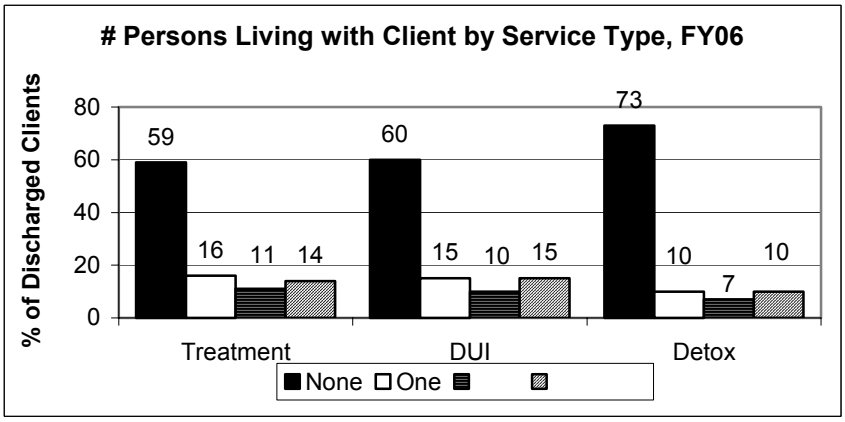
Graph 6: Educational Attainment by Service Type, FY06 (See page 14)



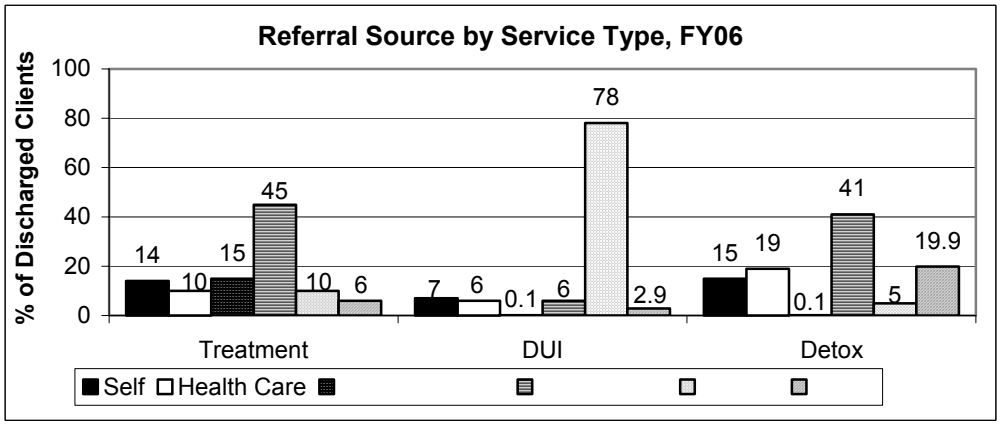
Graph 7: Monthly Income by Service Type, FY06 (See page 14)



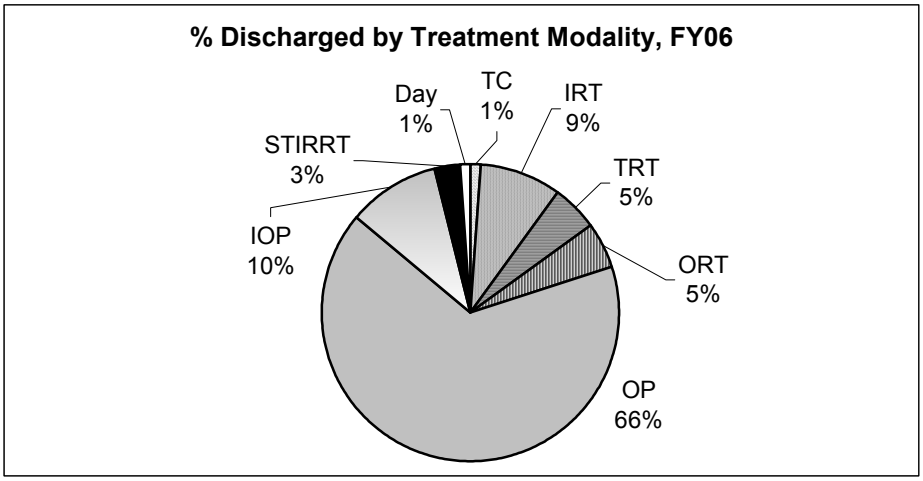
Graph 8: Number of Persons Living with Client by Service Type, FY06 (See page 14)



Graph 9: Transfer/Referral Source by Service Type, FY06 (See page 15)

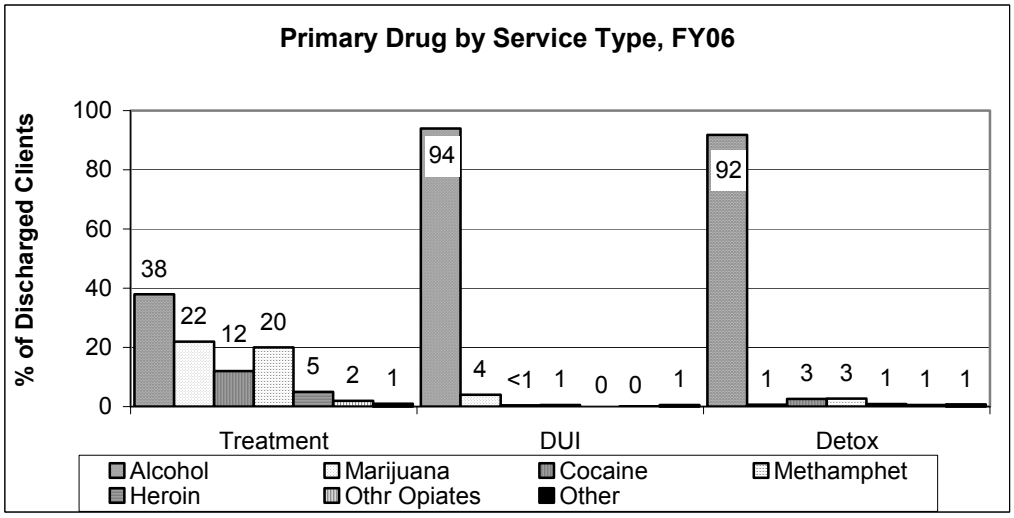


Graph 10: Percent of Discharged Clients by Treatment Modality, FY06 (See page 15)



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 11: Primary Drug by Service Type, FY06 (See page 15)



Appendix B: SERVICE UTILIZATION

Table 1: Numbers of Clients in and Discharges from Treatment Services for FY06 and the Percent Change from FY05 (See page 15)*

Service Type	# of Discharges, FY06	% Change* from FY05	# of Clients FY06	% Change* from FY05
Treatment**	20,264	- 1%	17,178	+24%
DUI	18,076	+21%	17,169	+35%
Detox	48,253	+ 3%	27,125	+37%
Total	86,593	+ 5%	61,472	+33%

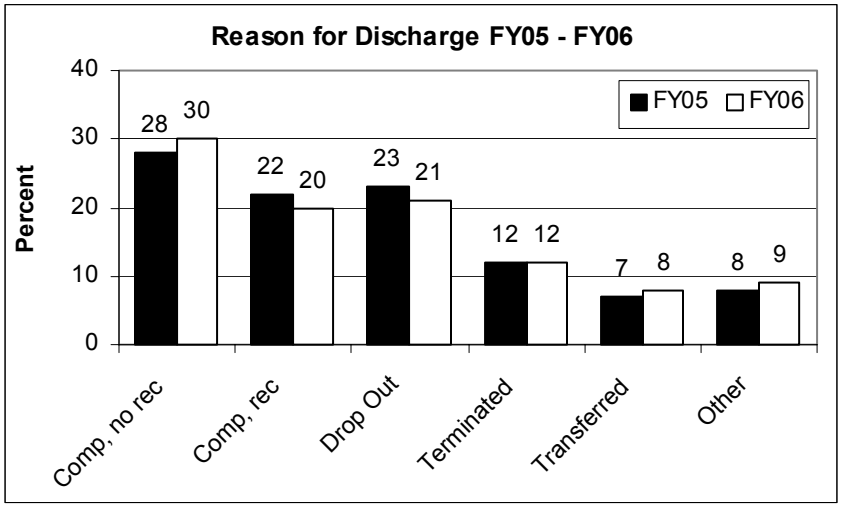
* A plus sign (+) = increase; a minus sign (-) = decrease; ** Includes "Differential Assessments Only"

Table 2: Length of Stay, Treatment and Detox FY06, Comparison with FY05 (in Days) and TEDS** (See page 15)

Modality	Average Colorado #Days, FY06	Change in Avg. # Days from FY05	Median* Colorado # Days, FY06	Change in Median # Days from FY05	Average TEDS** # Days 2003 (national)
Residential	64	+ 8	30	+ 1	70
Outpatient	130	+15	85	+13	NA
Traditional OP	135	+16	92	+13	102
Intensive OP	102	+10	52	+ 2	69
Opioid Replacement Therapy	259	+ 9	77	-17	155
STIRRT***	16	+2	13	Same	26
Day Treatment	74	-13	50	-20	-
Detox	1.6	+0.4	1	Same	13

* Median is defined as the midpoint in a distribution of scores, or the point above and below which exactly 50 percent of the measures fall. ** Treatment Episode Data Set (TEDS) for 2003 was national composite data from 26 states. ***STIRRT=Short-term Intensive Residential RemedialTreatment; 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" on either Progress Towards Treatment or Reason for Discharge DACODS fields; 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, such as when a client takes a year or more to complete the several weeks of DUI education/therapy, or the client is enrolled in Outpatient tx but only attends three hours per week.

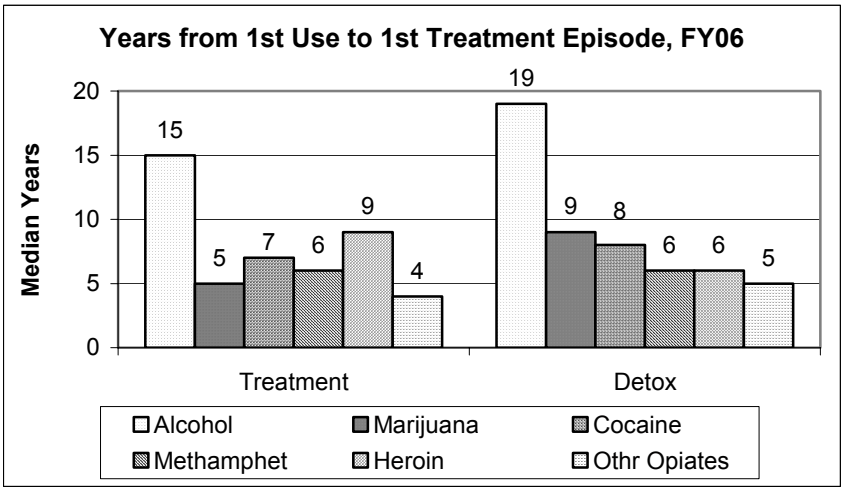
Graph 1: Reason for Discharge, FY06 Compared with FY05 (See page 16)



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 these calculations.

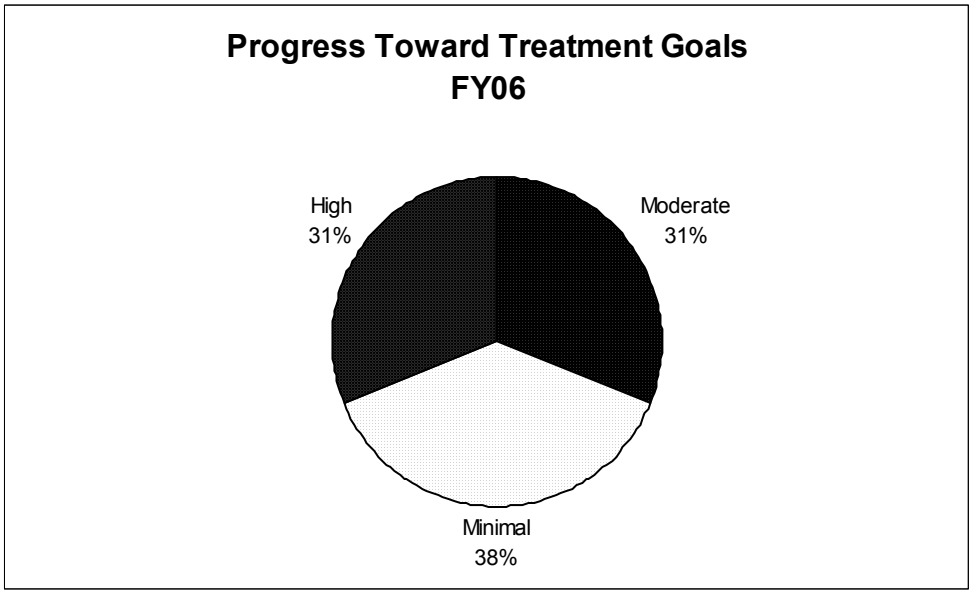
Appendix C: BARRIERS TO TREATMENT

Graph 1: Years from First Use to First Treatment Encounter, FY06 (See page 16)

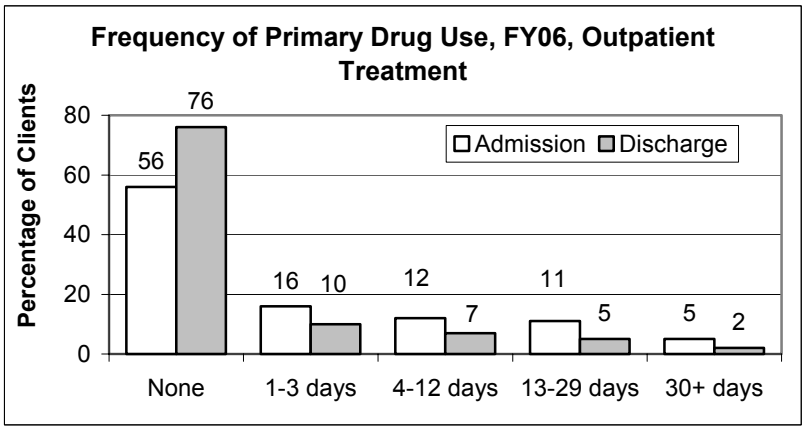


Appendix D: PREVENTION AND TREATMENT OUTCOMES

Graph 1: Progress Towards Treatment Goals, FY06 (See page 19)



Graph 2: Frequency of Primary Drug Use, FY06, for Outpatient Treatment (See page 19)

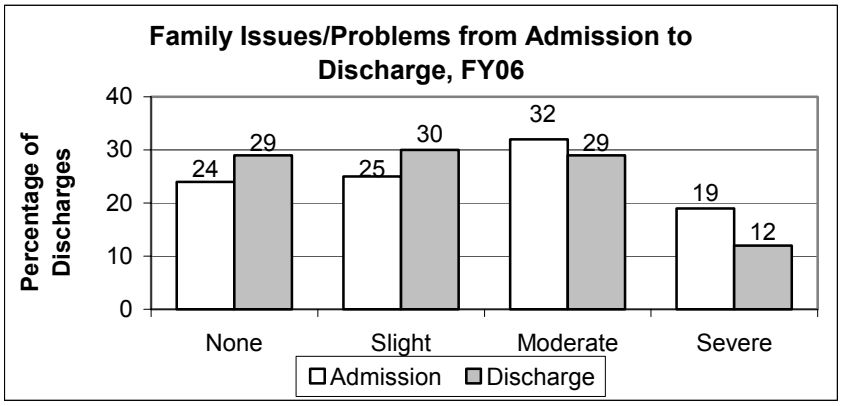


(The 56% of respondents who indicated they had no use of their primary drug within 30 days of admission were placed in treatment because their counselors, upon differential assessment at intake, determined these respondents do have current substance abuse problems requiring treatment.)

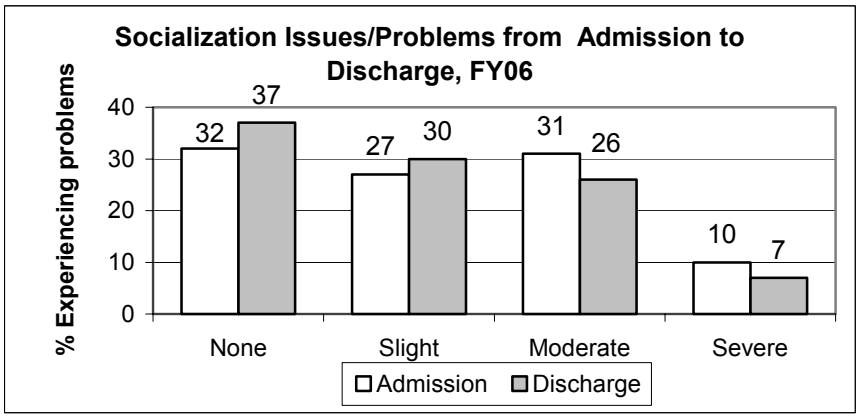
Table 1: A Comparison of Percentage Point Change in Frequency of Use of Primary Drug from Admission to Discharge between FY04, FY05 and FY06 (See page 20)

Frequency of Use	Percentage Point Change, FY04	Percentage Point Change, FY05	Percentage Point Change, FY06
No use	25% increase in abstinence	19% increase in abstinence	20% increase in abstinence
1-3 days in last 30 days	8% decrease in use	7% decrease in use	6% decrease in use
4-12 days in last 30 days	6% decrease in use	6% decrease in use	5% decrease in use
13-29 days in last 30 days	8% decrease in use	6% decrease in use	4% decrease in use
Daily	3% decrease in use	2% decrease in use	3% decrease in use

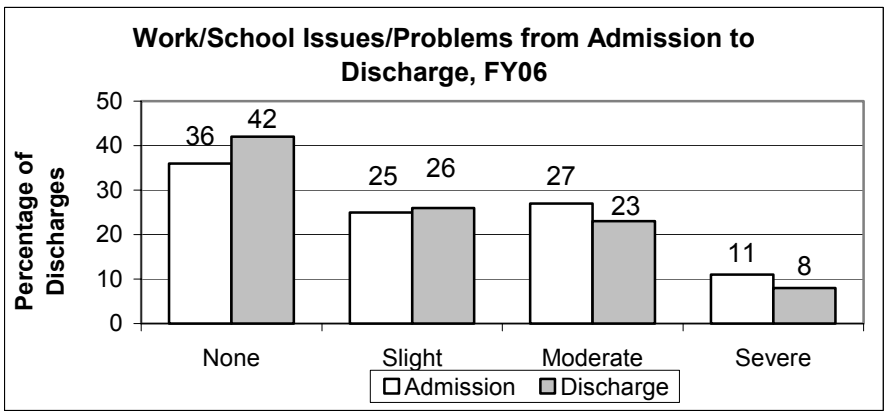
Graph 3: Family Issues/Problems from Admission to Discharge, FY06 (See page 20)



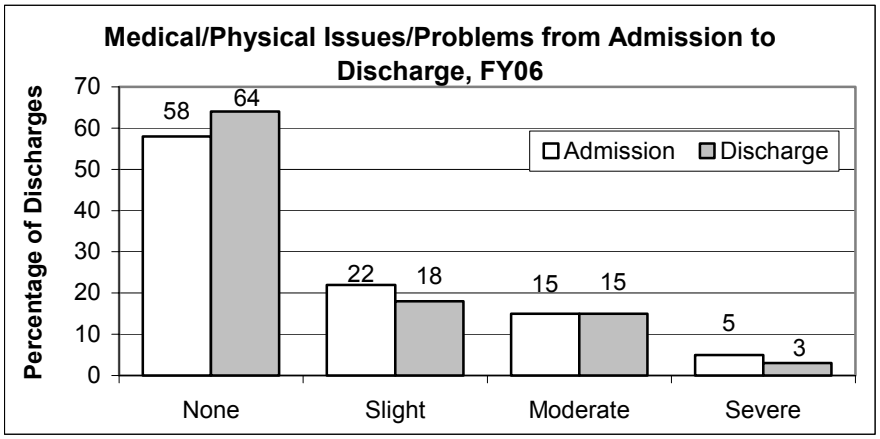
Graph 4: Socialization Issues/Problems from Admission to Discharge, FY06 (See page 20)



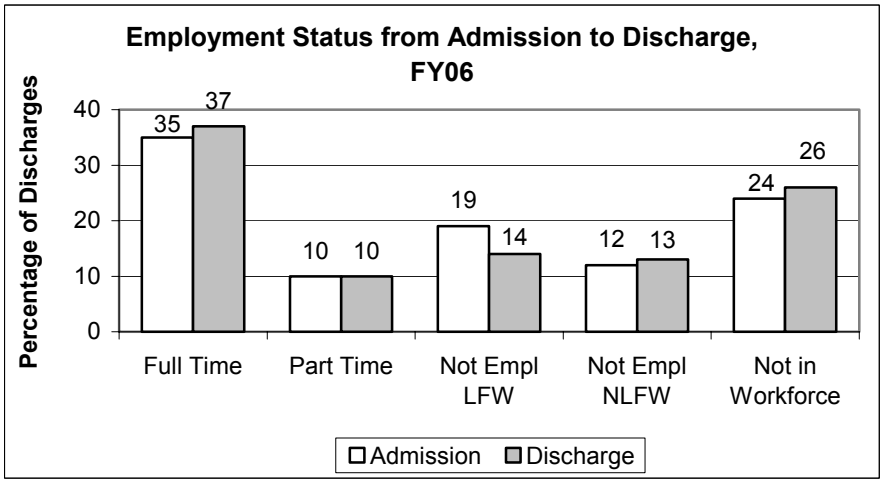
Graph 5: Work/School Issues/Problems from Admission to Discharge, FY06 (See page 20)



Graph 6: Medical/Physical Issues/Problems from Admission to Discharge, FY06 (See page 20)



Graph 7: Employment Status from Admission to Discharge, FY06 (See page 20)



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

Graph 8: Living Situation from Admission to Discharge, FY06 (See page 20)

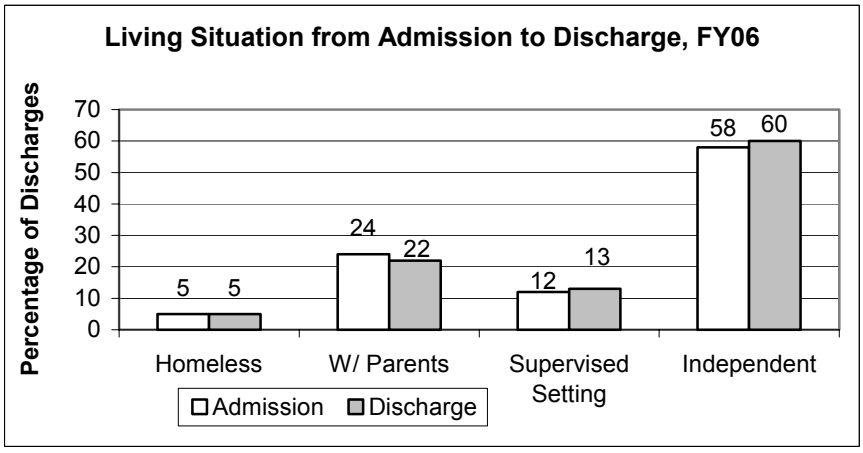


Table 2: Proportions of Clients at Admission and Discharge with Arrests, Emergency Room (ER) Visits or Hospital Admissions, FY06 (See page 20)

Outcome Measure	Admission (%)	Discharge (%)
DUI/DWAI Arrests during 24 months prior to admission and at discharge		
None	83	97
1-2	16	3
3+	0	0
Other Arrests 24 months prior to admission and at discharge		
None	55	86
1-2	35	11
3+	10	3
Medical ER visits during 6 months prior to admission and at discharge		
None	79	90
1-2	17	8
3+	4	2
Medical Hospital Admissions during 6 months prior to admission and at disch.		
None	89	94
1-2	9	5
3+	2	1
Psychiatric ER visits during 6 months prior to admission and at discharge		
None	95	97
1-2	4	2
3+	1	1
Psychiatric Hospital Admission 6 months prior to admission and at discharge		
None	95	97
1-2	4	2
3+	1	1

Appendix E: Factors Relating to Achievement of Treatment Goals

Demographics
Of 18,848 discharges from treatment, 31% were assessed as having high progress toward their treatment goals, 31% with moderate progress, and 38% with minimal progress. Compared to clients with minimal progress, clients assessed with high progress were more likely to have been in treatment for more than 90 days (57% vs. 27%), more likely to be married (24% vs. 20 and slightly more likely to have children (43% vs. 39%). High achievers were less likely than low achievers to be black (6 vs 9%).

Age
There were no real differences in age distributions based on progress toward treatment goals.

Primary Drug Type
High achievers were more likely than low achievers to report alcohol as their primary drug (44% vs. 33%) and less likely to report heroin as their primary substance (2% vs. 8%). 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
Clients who used their primary drug orally were the most likely to be high achievers (33%). Those who injected their drug had the lowest proportion of high achievers (22%). The drug type, however, may confound these findings. Alcohol is usually ingested orally. Heroin is frequently injected.

Geographic Area
The group of facilities in the southeast region of Colorado reported the highest proportion of clients with high achievement (42%), followed by facilities in the southwest (41%). The area with the lowest proportions of high-achieving clients was Denver (22%). The remaining regions had proportions of clients with high achievement ranging from 32% (northeast) to 36% (Colorado Springs and the northwest) and 34% for Boulder.

Appendix F: METHAMPHETAMINE IN COLORADO

METHAMPHETAMINE IN COLORADO, FY 06 – DEMOGRAPHICS, USE INDICATORS AND OUTCOMES

In recent years, methamphetamine (meth) abuse has become an increasingly serious problem. To explore the issue in Colorado, we examined clients who reported meth as their primary drug of use, and compared them to users of other substances. During FY06 there were 86,593 discharges from treatment, DUI and detoxification services combined. Of these, 6% (5,047) of all discharges identified meth as their primary drug of use. When breaking down service types into treatment, DUI and detox, 77% (3,910) of meth-related discharges occurred in treatment modalities. This analysis was restricted to discharges from treatment only (DUI and detox client data was excluded).

During FY06, there were 20,264 discharges from treatment. When examining treatment outcomes, we looked at all discharges, excluding 1,780 cases coded as "differential assessment only." This left 18,848 treatment discharges on which to examine outcomes, 3,726 (20%) of which were for meth using clients.

Since some clients had multiple treatment episodes and thus, multiple discharges, the analysis of demographic, treatment and substance use indicators was restricted to unique clients only (n=15,897). Of 15,897 unique clients discharged from treatment modalities during FY06, 3,193 (20%) reported meth to be their primary drug of use.

Table 1 below presents demographic distributions and table 2 presents information on treatment and substance use for meth and non-meth users. Tables 3 and 4 show information on treatment outcomes. Note that data presented in tables 1 and 2 are based on 15,897 unique clients, and the outcome data in tables 3 and 4 are based on 18,848 discharges.

As shown in Table 1, compared to clients who do not use meth, meth users were more likely to be female (47% vs. 31%), between the ages of 18 and 34 (64% vs. 45%), White (82% vs. 60%), separated or divorced (30% vs. 24%), and to have dependent children (48% vs. 39%). Meth users were less likely than those who do not use meth to be younger than 18 years (5% vs. 13%) or over 34 years (30% vs. 41%). They were also less likely to be Black (2% vs. 10%) or Hispanic (15% vs. 26%), or have any education beyond high school (17% vs. 30%).

Regarding employment and living situation, meth users were less likely to be working (42% vs. 48%) and living independently (52% vs. 59%). They were also less likely to have referred themselves into treatment (8% vs. 16%) and were more likely to be referred by social services (22% vs. 13%) or non-DUI criminal justice (56% vs. 42%).

Table 2 shows that meth-using clients were more likely to have had prior treatment episodes (64% vs. 58%), and be in more intensive treatment modalities, like intensive residential treatment (14% vs. 8%). Regarding drug use, meth users were more likely to be daily tobacco users (82% vs. 66%), use multiple substances (70% vs. 54%), and be assessed with drug dependency upon admission (68% vs. 51%). Despite these findings, meth users were less likely to report using their primary drug in the 30 days before admission (33% vs. 48%).

Table 1: Meth Users versus Non-Meth Users – Demographics

	Non-Meth Users						Meth Users					
	Males		**Females**		**Total**		**Males**		**Females**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Total	8,767	69	3,937	31	12,704	80	1,682	53	1,510	47	3,192	20
Pregnant Women	na	na	218	6	218	6	na	na	145	10	145	10
Age												
<18	1,160	13	495	13	1,655	13	59	3	92	6	151	5
18-24	1,846	21	744	19	2,590	20	399	24	421	28	820	26
25-34	2,200	25	989	25	3,189	25	631	37	598	40	1,229	38
35-44	1,997	23	1,057	27	3,054	24	442	26	328	22	770	24
45-54	1,225	14	516	13	1,741	14	139	8	69	5	208	6
55-64	289	3	127	3	416	3	11	1	2	0.1	13	0.4
65+	50	0.6	9	0.2	59	0.5	1	0.1	0	0	1	0
Race/Ethnicity												
White	5,169	59	2,464	63	7,633	60	1,374	82	1,213	80	2,587	82
Black	908	10	314	8	1,222	10	34	2	16	1	50	2
American Indian	222	3	129	3	351	3	46	1	23	1.5	46	1
Asian/PacifIslander	116	1	39	1	155	1	7	1	7	0.5	23	1
Hispanic	2,290	26	974	25	3,264	26	227	13	246	16	473	15
Other	62	1	17	0.4	79	1	8	0.5	5	0.3	13	0.4
Education												
<HS	2,977	34	1,311	33	4,288	34	525	31	534	35	1,059	33
HS Diploma	3,671	42	1,463	37	5,134	40	887	53	687	45	1,574	49
Some College	1,462	17	811	21	2,273	18	211	12	248	16	459	14
College Degree	488	6	262	7	750	6	45	3	34	2	79	2
Beyond College	169	2	90	2	259	2	14	1	7	0.5	21	1
Marital Status												
Never Married	4,785	55	1,780	45	6,565	52	877	52	681	45	1,558	49
Married	1,946	22	891	23	2,837	22	348	21	299	20	647	20
Widowed	91	1	97	2	188	1	14	1	26	2	40	1
Separated	485	5	340	9	825	6	130	8	177	12	307	10
Divorced	1,460	17	829	21	2,289	18	313	19	327	22	640	20
Has Children	3,050	35	1,900	48	4,950	39	682	40	846	56	1,528	48

Table 1: Meth Users versus Non-Meth Users – Demographics Continued

	Non-Meth Users						Meth Users					
	Males		Females		Total		Males		Females		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	8,767	69	3,937	31	12,704	80	1,682	53	1,510	47	3,192	20
Job Status												
Full Time	3,831	44	888	23	4,719	37	708	42	296	20	1,004	31
Part Time	886	10	455	12	1,341	11	147	9	205	14	352	11
Unemployed, Looking	1,408	16	811	21	2,219	17	346	21	420	28	766	24
Unemployed, Not Looking	586	7	623	16	1,209	9	132	8	284	19	416	13
Not in Work Force	2,056	23	971	28	3,011	26	349	20	305	19	654	21
Living Situation												
Homeless	372	4	183	5	555	4	74	4	86	6	160	5
Dependent, living w/ parents	2,335	27	870	22	3,205	25	380	23	381	25	761	24
Dependent, supervised setting	1,127	13	359	9	1,486	12	398	24	205	14	603	19
Living independently	4,933	56	2,525	64	7,458	59	830	49	838	55	1,668	52
Referral Source												
Self	1,262	14	729	18	1,991	16	141	8	121	8	262	8
SA Provider	612	7	371	9	983	8	99	6	104	7	203	6
Health Care Provider	256	3	176	4	432	3	22	1	30	2	52	2
School	136	2	73	2	209	2	8	1	4	0.3	12	0.4
Employer	99	80	25	1	124	1	10	1	2	0.1	12	0.4
Social Services	731	8	938	24	1,669	13	186	11	516	34	702	22
NonDUI CrimJustice	4,226	48	1,109	28	5,335	42	1,115	66	679	45	1,794	56
DUI Crim Justice	1,131	13	350	9	1,481	12	50	3	17	1	67	2
Involuntary Commit	45	0.5	29	1	1	74	10	1	2	0.1	12	0.4
Other Referral	269	3	137	3	406	3	41	2	35	2	76	2

Table 2: Meth Users versus Non-Meth Users - Treatment & Substance Use Indicators

	Non-Meth Users						Meth Users					
	Males		Females		Total		Males		Females		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	8,767	69	3,937	31	12,704	80	1,682	53	1,510	47	3,192	20
Modality												
Therapeutic Community	118	1	44	1	162	1	45	3	24	2	69	2
Intensive Residential	620	7	363	9	983	8	238	14	212	14	450	14
Transitional Residential	430	5	173	4	603	5	116	7	77	5	193	6
Opioid Replacement Therapy	465	5	273	7	738	6	1	0.1	1	0.1	2	0.1
Traditional Outpatient	5,969	68	2,605	66	8,574	67	979	58	920	61	1,899	59
STIRRT**	283	3	34	1	317	2	109	6	44	3	153	5
Intensive Outpatient	790	9	409	10	1,199	9	185	11	229	15	414	13
Day Treatment	91	1	35	1	126	1	9	0.5	3	0.2	3	0.2
Medical Inpatient Excl Detox	1	0	1	0	2	0	0	0	0	0	0	0

	Non-Meth Users						Meth Users					
	Males		Females		Total		Males		Females		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Had Prior Tx Episodes	5,088	58	2,266	58	7,354	58	1,101	66	936	62	2,037	64
Ment Health Issues	2,744	31	1,761	55	4,505	35	533	32	700	46	1,233	39
Poly-Drug Use	4,802	55	2,114	54	6,916	54	1,242	74	1,008	67	2,250	70
TobaccoUse	5,683	65	2,639	67	8,322	66	1,376	82	1,228	81	2,604	82
PrimaryDrug Use Freq												
None	4,684	53	1,978	50	6,662	52	1,161	69	971	64	2,132	67
1-4 days	1,616	18	729	18	2,345	18	242	14	240	16	482	15
5-9 days	523	6	230	6	753	6	80	5	72	5	152	5
10-19 days	754	9	315	8	1,069	8	104	6	110	7	214	7
20-29 days	589	7	315	8	904	7	63	4	86	6	149	5
30 days	600	7	368	9	968	8	32	2	31	2	63	2
Diagnostic Impression												
Unknown	148	2	41	1	189	1	15	1	11	1	26	1
Use	874	10	351	9	1,225	10	49	3	30	2	79	2
Abuse	3,452	39	1,409	36	4,861	38	471	28	458	30	929	29
Dependency	4,290	49	2,135	54	6,425	51	1,147	68	1,011	67	2,158	68

Outcomes-Clinical Impressions. Table 3 presents treatment outcomes determined by the SA counselor as well as client employment status and living situation. While meth-using clients were less likely to be discharged successfully with no further treatment recommendations (26% vs. 31%), they were more likely to be discharged successfully with recommendations for further treatment (23% vs. 19%). There were no differences between the two groups in proportions of dropouts or terminations, but meth-using clients were slightly more likely to have achieved minimal progress toward their treatment goals (41% vs. 38%), and less likely to have achieved moderate progress toward treatment goals (28% vs. 31%).

Upon admission, meth-using clients were more likely than non-meth users to have moderate to severe family issues (60% vs. 48%), socialization issues (49% vs. 39%), and work/school issues (44% vs. 37%). Both groups of clients improved at discharge, and showed similar degrees of change. However, since meth-using clients generally began treatment with more severe issues, they were still, at discharge, more likely to be assessed with those issues.

Table 3: Changes from Admission to Discharge – Clinical Impressions, Employment Status & Living Situation

	Non-Meth Users				Meth Users			
DACODS Data Item	Admission		Discharge		Admission		Discharge	
	#	%	#	%	#	%	#	%
Reason for discharge								
Tx completed, no further formal tx recommended	NA	NA	4,675	31	NA	NA	972	26
Tx completed, additional formal tx recommended	NA	NA	2,925	19	NA	NA	858	23
Left against professional advice	NA	NA	3,204	21	NA	NA	817	22
Terminated by facility	NA	NA	1,838	12	NA	NA	484	13

DACODS Data Item	Non-Meth Users				Meth Users			
	Admission		Discharge		Admission		Discharge	
	#	%	#	%	#	%	#	%
Transferred to another agency	NA	NA	1,243	8	NA	NA	244	6
Other	NA	NA	1,237	8	NA	NA	251	9
Progress towards tx goal								
High	NA	NA	4,704	31	NA	NA	1,170	31
Moderate	NA	NA	4,727	31	NA	NA	1,034	28
Minimal	NA	NA	5,691	38	NA	NA	1,522	41
Mental Health Issues	5,162	34	4,478	30	1,395	37	1,154	31
Family Issues/Problems								
None	3,865	26	4,597	30	614	16	883	24
Minimal	3,874	26	4,516	30	862	23	1,098	29
Moderate	4,741	31	4,301	28	1,305	35	1,108	30
Severe	2,642	17	1,708	11	945	25	637	17
Socialization Issues/Problems								
None	5,142	34	5,815	38	899	24	1,207	32
Minimal	4,073	27	4,499	30	1,011	27	1,156	31
Moderate	4,433	29	4,007	26	1,332	36	1,024	27
Severe	1,474	10	1,700	6	484	13	339	9
Work/School Issues/Problems								
None	5,678	37	6,533	43	1,104	30	1,465	39
Minimal	3,737	25	3,940	26	989	26	1,011	27
Moderate	4,007	26	3,516	23	1,164	31	918	25
Severe	1,700	11	1,133	7	469	13	332	9
Medical/Physical Issues/Problems								
None	8,683	57	9,464	63	2,224	60	2,518	68
Minimal	3,307	22	2,766	18	854	23	701	19
Moderate	2,393	16	2,358	16	524	14	396	11
Severe	739	5	534	3	124	3	111	3
Employment Status								
Full time	5,473	36	5,724	38	1,126	30	1,225	33
Part time	1,568	10	1,543	10	399	11	379	10
Unemployed, looking	2,665	18	1,963	13	922	25	674	18
Unemployed, not looking	1,712	11	1,833	12	538	14	661	18
Not in workforce	3,704	24	4,059	27	741	20	787	21
Living Situation								
Homeless	789	5	731	5	203	5	206	5
Dependent, living w/ parents	3,649	24	3,321	22	908	24	748	20
Dependent, supervised setting	1,693	11	1,757	12	670	18	679	18
Living independently	8,991	59	9,313	62	1,945	52	2,093	56

Outcomes-Behaviors. Table 4 shows that meth-using clients were less likely to have used their primary drug within 30 days of admission (36% vs. 51%) and used during their treatment (15% vs. 23%).This finding held up when restricting the analysis to outpatient discharges only. However, note that the non-meth group includes users whose primary substance is alcohol, which may be more likely to be used than illicit drugs.

Regarding arrests, meth-using clients were less likely to have DUI-related arrests at both admission (7% vs. 19%) and discharge (2% vs. 4%). Meth users were more likely to have non-DUI arrests at admission (56% vs. 42%), but both groups were similar at discharge. When restricted to outpatient discharges only, meth users were more likely to have non-DUI arrests at admission (54% vs. 42%), but only slightly more likely to have such arrests during treatment (16% vs. 15%).

Meth using clients were less likely than non-meth users to visit a medical ER at both the time of admission (16% vs. 22%) and discharge (8% vs. 11%). When examining outpatient discharges only, meth users were slightly less likely than non-meth users at admission to report prior visits to a medical ER (15% vs. 18%), but at discharge, both groups looked similar (8% vs. 9%). Also, fewer meth users were admitted to medical hospitals at admission (8% vs. 12%) and discharge (4% vs. 7%), but when restricting to outpatient treatment only, proportions were equal across both groups at admission (9%) and discharge (5%). Both groups were similar at admission and discharge in visits to psychiatric ERs and admissions to psychiatric hospitals.

Table 4: Changes from Admission to Discharge – Reported Behaviors

	All Treatment Modalities				Outpatient Only			
	Non-Meth Users		Meth Users		Non-Meth Users		Meth Users	
DACODS Data Item	Admit	Disch	Admit	Disch	Admit	Disch	Admit	Disch
	%	%	%	%	%	%	%	%
Frequency of Use, Primary Drug								
None	49	77	64	85	56	77	69	81
>= 1 day	51	23	36	15	44	23	31	19
DUI/DWAI Arrests								
None	81	96	93	98	80	96	94	98
1 or more	19	4	7	2	20	4	6	2
Other Arrests								
None	58	86	44	87	58	85	46	84
1 or more	42	14	56	13	42	15	54	16
Medical Emergency Room Visits								
None	78	89	84	92	82	91	85	92
1 or more	22	11	16	8	18	9	15	8
Medical Hospital Admissions								
None	88	93	92	96	91	95	91	95
1 or more	12	7	8	4	9	5	9	5
Psychiatric Emergency Room Visits								
None	95	97	96	98	96	98	97	98
1 or more	5	3	4	2	4	2	3	2
Psychiatric Hospital Admissions								
None	95	97	96	98	96	98	96	98
1 or more	5	3	4	2	4	2	4	2

Appendix G: CO-OCCURRING CLIENTS

Individuals with co-occurring psychiatric and substance use disorders represent a challenging population associated with poorer outcomes and higher costs in multiple domains. Prevalence of co-morbidity is sufficiently high so that it is an expectation, not an exception throughout the system of care.

Prevalence of Co-occurring Clients

During FY06 in Colorado, there were 18,848 discharges from treatment (DUI and detoxification services were excluded from this analysis). These 18,848 discharges were based on 15,897 unique clients. Thirty six percent (n=5,738) of these individuals met the criteria for co-occurring disorders. Criteria were based on the following DACODS responses. Clients had to have at least one of these to be considered co-occurring:

- a report or clinical assessment of a current mental health condition;
- a disability based on a psychiatric disorder;
- one or more visits to a psychiatric emergency department within six months before admission to substance abuse services; or
- one or more admissions to a psychiatric hospital within six months before admission.

Demographics and Service Utilization of Co-occurring Clients

Only slight variations in demographic patterns were noted between the co-occurring population of 5,738 and those clients without co-occurring disorders (n=10,159). Table 1 shows that clients with co-occurring disorders (COD) were composed of higher proportions of: females (43% vs. 29%); persons under 18 years of age (14% vs. 10%); Whites (70% vs. 61%); and persons with an educational level beyond high school (27% vs. 22%). Individuals with COD were less likely to be: married (20% vs. 23%); employed (39% vs. 51%); have dependent children (39% vs. 42%) or have been referred by the criminal justice system (36% vs. 50%).

Table 1: Demographics for Treatment Clients With and Without Co-Occurring Disorders

	Co-occurring Clients						Clients without Co-occurring Disorders*					
	Males		Females		Total		Males		Female		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Total												
	3,277	57	2,461	43	5,738	100	7,172	71	2,986	29	10,159	100
Pregnant Women												
	--	--	130	5	130	100	--	--	233	8	233	100
Age												
<18	531	16	276	11	807	14	688	10	311	10	999	10
18-24	643	20	474	19	1,117	19	1,602	22	691	23	2,293	23
25-34	825	25	723	29	1,548	27	2,006	28	864	29	2,870	28
35-44	740	23	615	25	1,355	24	1,699	24	770	26	2,469	24
45-54	408	12	304	12	712	12	956	13	281	9	1,237	12
55-64	118	4	65	3	183	3	182	2	64	2	246	2
65+	12	0.4	4	0.2	16	03	39	0.5	5	0.2	44	0.4
Race/Ethnicity												
White	2,236	68	1,764	72	4,000	70	4,307	60	1,913	64	6,220	61
Hispanic	640	19	484	20	1,124	20	1,877	26	736	25	2,613	26
Black	252	8	126	5	378	7	690	10	204	7	894	9
American Indian	93	3	59	2	152	3	152	2	93	3	245	2
Asian/PacifIslnder	27	1	15	1	42	1	105	1	31	1	136	1
Other	29	1	13	1	42	1	41	1	9	0	50	1
Marital Status												
Never Married	1,855	57	1,057	43	2,912	51	3,807	53	1,404	47	5,211	51
Married	631	19	495	20	1,126	20	1,663	23	695	23	2,358	23
Divorced	550	17	583	24	1,133	20	1,223	17	573	19	1,796	18
Separated	209	6	263	11	472	8	406	6	254	8	660	6
Widowed	32	1	63	3	95	2	73	1	60	2	133	1

Has Dependent Children												
	1,034	32	1,185	48	2,219	39	2,698	38	1,561	52	4,259	42
Educational Status												
<HS	1,179	36	821	33	2,000	35	2,323	32	1,024	34	3,347	33
HS Diploma	1,247	38	913	37	2,160	38	3,311	46	1,237	41	4,548	45
Some College	558	17	514	21	1,072	19	1,115	15	545	18	1,660	16
College Degree	219	7	165	7	384	7	314	4	131	4	445	4
Beyond College	74	2	48	2	122	2	109	1	49	2	158	2
Employment Status												
Full Time	1,189	36	427	17	1,616	28	3,350	47	757	25	4,107	40
Part Time	341	10	271	11	612	11	692	10	389	13	1,081	11
Unemployed, Looking	576	18	580	24	1,156	20	1,178	16	651	22	1,829	18
Unemployed, Not Looking	291	9	474	19	765	13	427	6	433	14	860	8
Not in Work Force	880	27	709	29	1,589	28	1,537	10	719	26	2,281	23
Referral Source												
Self	550	17	470	19	1,020	18	1,134	6	517	17	1,651	16
SA Provider	313	10	252	10	565	10	415	2	177	6	592	6
Health Care Provider	189	6	153	6	342	6	119	2	86	3	205	2
School/Employer	64	2	35	1	99	2	263	1	95	3	458	3
Social Services	408	12	672	27	1,080	19	556	7	799	26	1,355	13
Non-DUI CJ**	1,393	42	687	28	2,080	36	3,966	53	1002	33	4,968	47
DUI CJ	219	7	89	4	308	5	857	11	235	8	1092	10
Involuntary Commit	18	1	25	1	43	1	37	1	6	0	43	0
Other	123	4	78	3	201	3	187	3	94	3	281	3

* Both groups are mutually exclusive. ** Criminal Justice

COD clients were more likely to have been in intensive outpatient (15% vs. 8%) rather than traditional outpatient treatment (60% vs. 69%), had prior treatment episodes (64% vs. 57%); and used tobacco products daily (72% vs. 67%).

Table 2: Treatment Modality, Prior Treatment & Tobacco Use for Clients With & Without COD

	COD* Clients						Clients without COD					
	Males		Females		Total		Males		Female		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Treatment Modality												
Therapeutic Community	57	2	5	0	62	1	106	1	63	2	169	2
Intensive Residential	266	8	324	13	590	10	592	8	251	8	843	8
STIRRT*	78	2	27	1	105	2	314	4	314	2	365	4
Transitional Residential	186	6	152	6	338	6	360	5	98	3	458	4
Intensive Outpatient	466	14	375	15	841	15	509	7	263	9	772	8
Traditional Outpatient	2,031	62	1,438	58	3,469	60	4,917	69	2,087	70	7,004	69
Day Treatment	76	2	25	1	101	2	24	0.3	13	0.4	37	0.4
Opioid Replacement Therapy	116	3	114	5	230	4	350	5	160	5	510	5
Any Prior Treatment Episodes												
	2,063	64	1,565	64	3,628	64	4,126	58	1,637	55	5,763	57
Daily Tobacco Use												
	2,317	71	1,828	74	4,145	72	4,742	66	2,039	68	6,781	67

*STIRRT Short-term Intensive Remedial Residential Treatment

Outcomes for Treatment Clients With Co-occurring Disorders

This analysis was based on the number of treatment discharges, not the number of unique treatment clients. Outcomes for 6,902 discharges of COD clients from treatment were compared to outcomes of 11,946 clients without co-occurring disorders for FY06. Differential assessments, derived from DACODS codes for discharge modality, reason for discharge and progress towards goals, were excluded from this analysis.

Clients with COD were less likely to complete treatment with no further treatment recommended (23% vs. 34%) and less likely to have high progress toward their treatment goals (27% vs. 34%).

Upon admission, clients with COD were more likely to have moderate to severe family issues (64% vs. 43%), socialization issues (54% vs. 34%), work/school issues (51% vs. 32%), and medical physical issues (29% vs. 15%). They were more likely to have used their primary drug within 30 days of admission (52% vs. 45%) and during their treatment (25% vs. 19%). Since visits to psychiatric ERs and admissions to psychiatric hospitals were part of the COD definition, a higher frequency of these behaviors may be artifact of the definition. Within 30 days of admission, COD clients were more likely than clients without COD to have visited a medical ER (27% vs. 18%) and to have been admitted to a medical hospital (15% vs. 9%). Clients with COD were less likely to be employed (65% vs. 89%), but there was little difference noted upon admission between clients with and without COD in living situation and homeless status.

Treatment resulted in improved outcomes for both clients with and without COD at time of discharge. However, since those with co-occurring disorders generally began treatment with a higher level of severity, they were still, at discharge, more likely to be assessed with a higher level at discharge. Notable changes at discharge specific to clients with COD included: a reduction in family issues/problems (64% at admission; 54% at discharge); socialization issues/problems from 54% to 44%; and school/employment issues (from 51% to 41%). Medical/physical issues/problems, employment status and living situation showed slight improvements from admission to discharge. Almost ¼ of clients with and without co-occurring disorders left treatment against professional advice. Slightly fewer COD clients completed treatment with or without further treatment recommended (44% vs. 53%).

Table 3: Changes from Admission to Discharge – Clinical Impressions

	COD* Discharges (n=6.902)				Non-COD Discharges (n=11,946)			
DACODS Data Item	**Admission**		**Discharge**		**Admission**		**Discharge**	
	#	%	#	%	#	%	#	%
Reason for discharge								
Tx completed, no further formal tx recommended	--*	--	1,595	23	--	--	4,052	34
Tx completed, additional formal tx recommended	--	--	1,472	21	--	--	2,311	19
Left against professional advice	--	--	1,529	22	--	--	2,492	21
Terminated by facility	--	--	914	13	--	--	1,408	12
Transferred to another substance abuse tx agency	--	--	705	10	--	--	782	6
Other	--	--	687	10	--	--	901	8
Progress towards Treatment Goal								
Minimal	--	--	2,908	42	--	--	4,305	36
Moderate	--	--	2,156	31	--	--	3,605	30
High	--	--	1,838	27	--	--	4,036	34
Mental Health Issues								
	6,557	95	4,366	63	--**	--**	1,266	11
Family Issues/Problems								
None	909	13	1,136	16	3,570	30	4,344	36
Minimal	1,548	22	2,066	30	3,188	27	3,548	30
Moderate	2,702	39	2,528	37	3,344	28	2,881	24
Severe	1,743	25	1,172	17	1,844	15	1,173	10

Socialization Issues/Problems								
None	1,293	19	1,611	23	4,748	40	5,411	45
Minimal	1,895	27	2,287	33	3,189	27	3,368	28
Moderate	2,777	40	2,386	35	2,988	25	2,510	21
Severe	937	14	618	9	1,021	8	657	5
Work/School Issues/Problems								
None	1,762	25	2,120	31	5,020	42	5,878	49
Minimal	1,643	24	1,918	28	3,083	26	3,033	25
Moderate	2,456	36	2,138	31	2,715	23	2,296	19
Severe	1,041	15	726	10	1,128	9	739	6
Medical/Physical Issues/Problems								
None	3,195	46	3,687	53	7,712	65	8,295	69
Minimal	1,728	25	1,487	21	2,433	20	1,980	17
Moderate	1,516	22	1,410	20	1,401	12	1,344	11
Severe	463	7	318	5	400	3	327	3
Employment Status								
Full time	1,885	27	2,074	30	4,714	39	4,875	41
Part time	714	10	697	10	1,253	11	1,225	10
Unemployed, looking	1,382	20	1,007	15	2,205	19	1,630	14
Unemployed, not looking	1,045	15	1,056	15	1,205	10	1,438	12
Not in workforce	1,876	27	2,068	30	2,569	21	2,778	23
Living Situation								
Living independently	4,002	58	4,108	59	6,934	58	7,298	61
Homeless	432	6	393	6	560	5	544	5
Dependent, living w/ parents	1,693	24	1,536	22	2,864	24	2,533	26
Dependent, in supervised setting	775	11	865	12	1,588	13	1,571	13

* Discharge items only

**Incorporated into the definition of "co-occurring"

Table 4: Changes from Admission to Discharge - Behaviors

	Discharges, Co-occurring				Discharges, No Co-occurring			
	All Modalities		Outpatient Only		All Modalities		Outpatient Only	
DACODS Data Item	**Admission**	**Discharge**	**Admission**	**Discharge**	**Admission**	**Discharge**	**Admission**	**Discharge**
	%	%	%	%	%	%	%	%
Frequency of Use, Primary Drug								
None	48	75	54	73	55	81	61	80
1 or more days	52	25	46	27	45	19	29	20
DUI/DWAI Arrests								
None	85	96	84	96	83	97	82	96
1 or more	15	4	16	4	17	3	18	4
Other Arrests								
None	53	85	54	83	56	87	57	86
1 or more	47	15	46	17	44	13	43	14
Medical Emergency Room Visits								
None	73	87	78	89	82	91	85	93
1 or more	27	13	22	11	18	9	15	7
Medical Hospital Admissions								
None	85	92	88	93	91	95	93	96
1 or more	15	8	12	7	9	5	7	4
Psych Emergency Room Visits								
None	87	93	89	94	NA	99.6	NA	99.6
1 or more	13	7	11	6	NA	0.4	NA	0.4
Psych Hospital Admissions								
None	87	93	90	94	NA	99.7	NA	99.6
1 or more	13	13	10	6	NA	0.3	NA	0.4

The table below shows the degree of change from admission to discharge for clients with and without COD. COD clients showed greater change from admission to discharge than those without COD. Greater proportions of COD clients abstained from using their primary drug during treatment, and decreased the number of other arrests, medical ER visits and medical hospitalizations. Psychiatric ER and hospital visits were not examined here because, by definition, clients without COD had no such visits at baseline.

Table 5: Percent Change from Admission to Discharge, All Modalities, Clients With & Without COD

	Clients with COD	Clients without COD
Frequency of Primary Drug Use		
None	56	47
DUI/DWAI Arrests		
None	14	18
Other Arrests		
None	59	55
Medical ER Visits		
None	14	8
Medical Hospital Admissions		
None	3.7	0.8

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