



**COLORADO**  
Department of Human Services

The Honorable Dianne Primavera, Chair  
Public Health Care and Human Services  
Committee  
200 E. Colfax Avenue, Room 271  
Denver, CO 80203

November 14, 2014

Dear Representative Primavera:

Enclosed please find a legislative report to the House Public Health Care and Human Services Committee from the Department of Human Services on the costs and effectiveness of the substance use disorder programs and the annual accounting of forfeited property dollars.

- Section 27-80-110 C.R.S. (2013) requires the Department to submit an annual report by November 1. The report outlines the scope of substance abuse in Colorado and the effectiveness of substance use disorder treatment programs.
- Section 16-13-701 C.R.S. (2013) requires the Department to submit an annual report by November 1. The report outlines civil forfeiture revenues collected and allocated to substance use disorder treatment programs in various Judicial Districts.

If you require further information or have additional questions, please contact the Department's Legislative Liaison, Jennifer Corrigan, at [jennifer.corrigan@state.co.us](mailto:jennifer.corrigan@state.co.us) or 303-866-3019.

Sincerely,

Reggie Bicha  
Executive Director

Enclosure

Cc: Representative Dave Young, Vice Chair, Public Health Care and Human Services Committee  
Representative Beth McCann, Public Health Care and Human Services Committee  
Representative Sue Schafer, Public Health Care and Human Services Committee  
Representative Jonathan Singer, Public Health Care and Human Services Committee  
Representative Max Tyler, Public Health Care and Human Services Committee  
Representative Amy Stephens, Public Health Care and Human Services Committee  
Representative Kathleen Conti, Public Health Care and Human Services Committee  
Representative Janak Joshi, Public Health Care and Human Services Committee



Representative Lois Landgraf, Public Health Care and Human Services Committee Representative Justin  
Everett, Public Health Care and Human Services Committee  
Representative Jim Wilson, Public Health Care and Human Services Committee  
Elizabeth Burger, Public Health Care and Human Services Committee Staff  
Molly Otto, Colorado Joint Legislative Library  
Debbi MacLeod, Colorado State Publications Library  
Nikki Hatch, Deputy Executive Director of Operations  
Dee Martinez, Deputy Executive Director of Enterprise Partnerships  
Sarah Sills, Budget Director  
Lisa Clements, Ph.D., Director Office of Behavioral Health  
Dan Drayer, Communications Director





**COLORADO**  
Department of Human Services

The Honorable Irene Aguilar  
Senate Health and Human Services Committee  
200 E. Colfax Avenue, Room 271  
Denver, CO 80203

November 14, 2014

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Sincerely,

Reggie Bicha  
Executive Director

Enclosure

Cc:

Senator Linda Newell, Vice Chair, Health and Human Services Committee  
Senator Larry Crowder, Health and Human Services Committee  
Senator Owen Hill, Health and Human Services Committee  
Senator John Kefalas, Health and Human Services Committee  
Senator Kevin Lundberg, Health and Human Services Committee  
Senator Jeanne Nicholson, Health and Human Services Committee  
Dave De Novellis, Health and Human Services Committee Staff



Molly Otto, Colorado Joint Legislative Library  
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Lisa Clements, Ph.D., Director Office of Behavioral Health  
Dan Drayer, Communications Director





**COLORADO**

**Office of Behavioral Health**

Department of Human Services

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# **The Costs and Effectiveness of Substance Use Disorder Programs Report (C.R.S. 27-80-110)**

## **Annual Accounting of Forfeited Property Dollars Report (C.R.S. 16-13-701)**

**Report to the General Assembly  
House and Senate Health and Human Services  
Committees**

**November 1, 2014**

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## INTRODUCTION

The Colorado Department of Human Services Office of Behavioral Health respectfully submits this Fiscal Year (FY) 2013-2014 report entitled, "The Costs and Effectiveness of Substance Use Disorder Programs in the State of Colorado," to the Colorado House Public Health Care and Human Services Committee and Senate Health and Human Services Committee in compliance with:

### A) Colorado Revised Statute 27-80-110 (2014)

"27-80-110. Reports. The unit shall submit a report not later than November 1 of each year to the health and human services committees of the senate and house of representatives, or any successor committees, 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."

### B) Colorado Revised Statute 16-13-701 (4) (2014)

"16-13-701. Reporting of forfeited property. (4) The unit in the department of human services that administers behavioral health programs and services, including those related to mental health and substance abuse, 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 unit in the department of human services that administers behavioral health programs and services, shall provide this information in its annual report pursuant to section 27-80-110, C.R.S."

## EXECUTIVE SUMMARY

Accessible and effective community-based substance use disorder treatment helps reduce society's financial burden from problems associated with drug and alcohol use. As the U.S. and Colorado economies face escalating health care costs, we must ensure needed substance use disorder treatment and recovery programs are available to help reduce health and societal costs. The benefits of substance use disorder treatment far outweigh the costs. Even beyond the significant physical and psychological costs to the person with a substance use disorder and his/her family, substance use disorder treatment can save money by diminishing the financial consequences imposed on employers and taxpayers. Substance use disorder treatment has been shown to reduce associated health and social costs by far more than the cost of the treatment itself. Substance use disorder treatment is also much less expensive than its alternatives, such as incarcerating addicted persons. For example, the average cost for 1 full year of substance use disorder treatment is approximately \$1,698 per patient, whereas 1 full year of imprisonment costs approximately \$30,374 per person.

The following report provides a brief overview of the clients served, the actual cost of serving these clients and the outcomes related to services for individuals served through the behavioral health system for substance use disorder treatment services.

- The majority of individuals received substance use disorder treatment for less than 35 days.
- Sixty-four percent of individuals receiving treatment services had moderate to high progress towards treatment goals by discharge. This progress was evident in a variety of trends in family, socialization, employment/education, and medical health outcomes. Throughout each outcome category, there was a trend of decreased frequency of moderate and severe problems at discharge.
- There was also a significant decrease in primary drug use from admission to discharge.
- The average annual cost for providing substance use disorder treatment per client was \$1,698.
- In Fiscal Year 2013-14, \$391,320.63 in forfeited property revenues was expended on treatment and detoxification services.

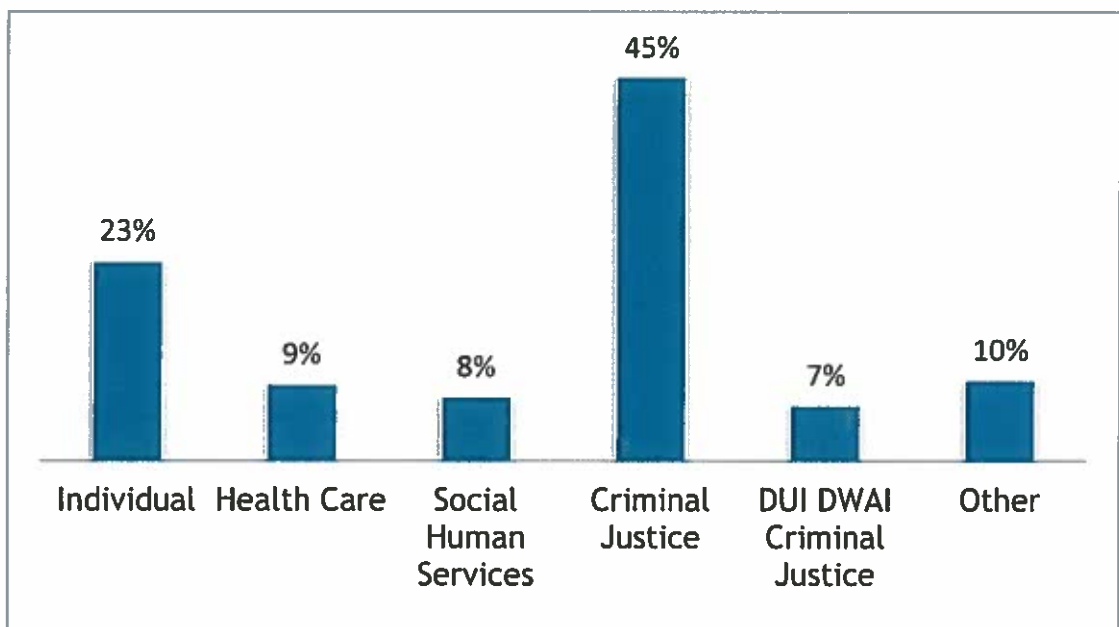
## A BRIEF OVERVIEW OF PERSONS SERVED IN TREATMENT, DETOXIFICATION AND DRIVING UNDER THE INFLUENCE (DUI) SERVICES AND PROGRAMS

While certain sections of this report are based on the number of Drug/Alcohol Coordinated Data System (DACODS) discharges for FY 2013-2014 (n=113,623)<sup>1</sup>, the following demographic data are based on the number of unique clients in each service category.

### Treatment Clients

Of 29,387 discharges from substance use disorder treatment in FY 2013-2014, 24,901 were unique clients. Forty-five percent of treatment clients were referred for treatment by the criminal justice system (excluding referrals related to driving under the influence (DUI); Figure 1). Approximately 32% worked full-time, and 75% achieved a high school education or higher. Thirty-four percent of the individuals discharged from substance use disorder treatment had 16, 504 dependent children.

Figure 1. Percent Client per Transfer/Referral Source [FY 2013-2014]<sup>2</sup>



Clients were more likely to be adult men (67%) between 25 years and 44 years of age with a median age of 31 years. The most predominantly reported race categories were Caucasian/White (88%), African American/Black (8%), and American Indian/Alaska Native (3%). Twenty percent claimed Hispanic/Mexican ethnicity.<sup>3</sup> On average, clients had been using their primary drug for approximately 16 years, and 63% reported starting their primary drug before the age of 18 years. Of the substance use disorder treatment discharges, 36% had a co-occurring mental health and substance use disorder at admission (Figure 2).

### Detoxification (Detox) Services

There were 53,735 discharges from detoxification services (excluding treatment and DUI services), 26,671 of which were unique clients. The median age for detox was 34 years and the primary age range was 25-44 years old. Eighty-six percent of those discharged were Caucasian. Nearly all

<sup>1</sup> All reported numbers are rounded to the nearest whole number.

<sup>2</sup> Referral Source is a reported field in the DACODS system defined as "The person or agency referring the client to the alcohol or substance abuse treatment program" (DACODS , p 56).

<sup>3</sup> Ethnicity is a newly added field to the DACODS system and is used to capture the specific Hispanic ethnicity the client identifies with regardless of race (e.g. Hispanic/ Mexican- of Mexican origin; Hispanic/Puerto Rican- of Puerto Rican origin).



individuals (88%) were in detox for alcohol abuse, and 58% started using before the age of 18. Detox clients had been using their primary substance for an average of 15 years. Seventy-three percent of persons served in detox were men. Eighty-three percent have a 12<sup>th</sup> grade education or higher and 37% work full-time. Twenty-two percent had 11,853 dependent children (Figure 2).

**Driving Under the Influence (DUI) Services**

There were 24,725 discharges from DUI services (excluding other treatment and detox services), of which 22,984 were unique clients. The population of individuals who received DUI services primarily consisted of Caucasian (91%) men (74%) between the ages of 25 and 44. The median age was 31 years. Twenty-eight percent of individuals endorsed some Hispanic ethnicity regardless of race. Ninety-three percent received a DUI for being under the influence of alcohol. The majority of these individuals started using their primary substance before the age of 18 years (57%) and had been using for an average of 17 years. This group was more likely to have a 12<sup>th</sup> grade education or higher (85%), and work full-time (67%) compared to treatment and detox group. Thirty-five percent of DUI clients were responsible for 14,402 children (Figure 2).

Figure 2: Snapshot of Individuals Served by Service Type [FY 2013-2014]<sup>4</sup>

Type of Service	Age Category	Top Race/Ethnicity Categories	Top 3 Primary Drug
Treatment	25-44 years Median Age=31	Caucasian (65%) Hispanic/Latino (24%) African American (8%) American Indian/Alaska Native (3%)	Alcohol (43%) Marijuana (20%) Methamphetamine (15%)
	Age Category	Top Race/Ethnicity Categories	Reason for Detox
Detox	25-44 years Median Age=34	Caucasian (65%) Hispanic/Latino (24%) African American (8%) American Indian/Alaska Native (4%)	Alcohol (88%)
	Age Category	Top Race/Ethnicity Categories	Reason for Detox
DUI	25-44 years Median Age=31	Caucasian (67%) Hispanic/Latino (27%) African American (5%) American Indian/Alaska Native (1%)	Alcohol (93%)
	Age Category	Top Race/Ethnicity Categories	Reason for Detox

**SUBSTANCE USE DISORDER PREVENTION AND TREATMENT RESOURCES IN FY 2013-2014**

As a part of the legislative directive related to cost and effectiveness of alcohol and drug abuse programs, this report includes FY 2013-2014 figures outlining the personnel, operating and service costs related to substance use disorder prevention, intervention, treatment, and recovery services

<sup>4</sup> Race and ethnicity categories are not mutually exclusive; therefore, the reported percentages will not total to 100%.

in Colorado contracted by the Department of Human Services. These figures only include those administrative and contract dollars that are administered by the Department of Human Services, and do not include resources administered by other state and local agencies.

Figure 3 illustrates the funding sources received by the Department to provide substance use disorder prevention, intervention, treatment and recovery services in Colorado.

Figure 3. Substance Use Disorder Prevention and Treatment Revenue by Source [FY 2013-2014]<sup>5 6 7</sup>

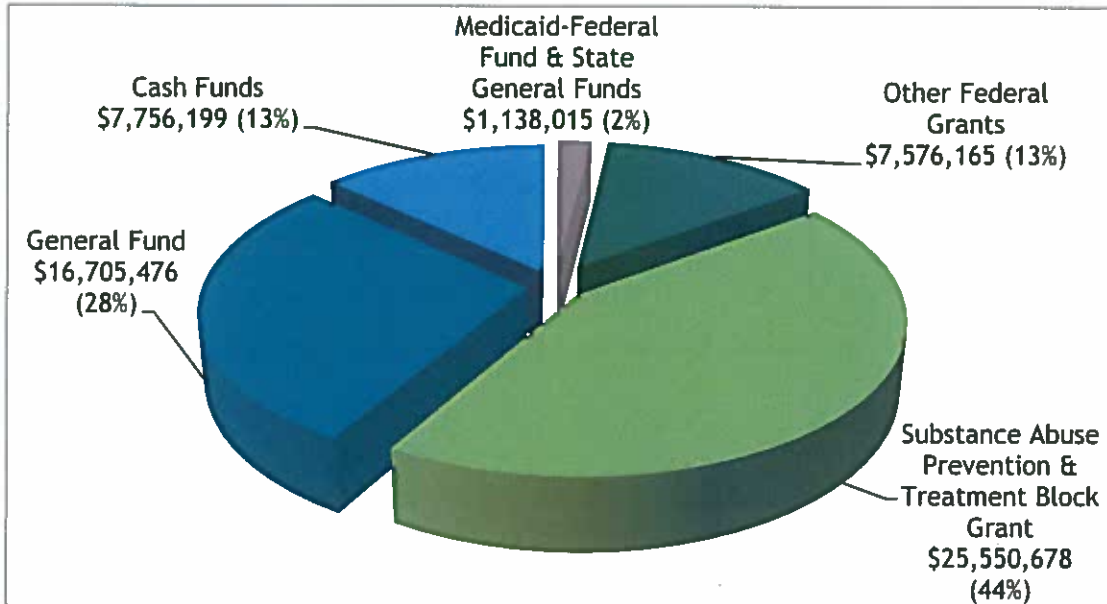
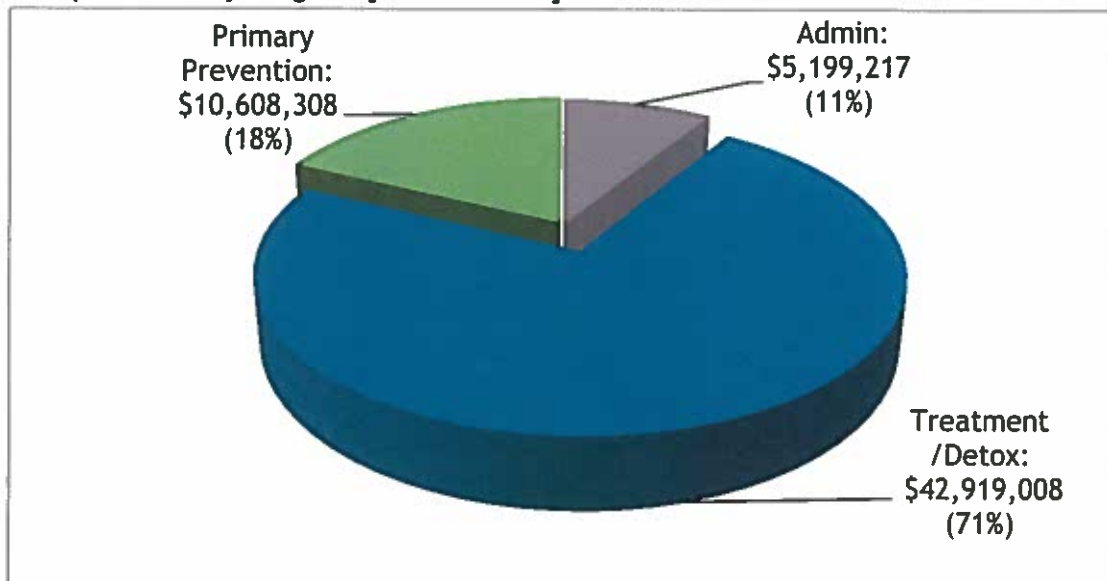


Figure 4 illustrates the FY 2013-2014 expenditures for client care - primary prevention, treatment and detoxification, and administration.

Figure 4. Expenditure by Program [FY 2013-2014]<sup>8</sup>



<sup>5</sup> Actual expenditure dollar amount rather than Long Bill appropriated amount

<sup>6</sup> Total Amount=\$58,726,533

<sup>7</sup> Cash Funds include: Persistent Drunk Driver Cash Fund, Tobacco Use Prevention Fund, Law Enforcement Assistance Fund, Tobacco Litigation Settlement Cash Fund, Rural Alcohol and Substance Abuse Cash Fund, Correctional Treatment Cash Fund, Controlled Substances Program Fund, and Addiction Counselor Training Fund.

<sup>8</sup> Total Amount=\$58,726,533

Figures 5 and 6 demonstrate:

- The Department of Human Services expenditure history - substance use disorder treatment, Fiscal Years 2010 through 2014.
- History of the Department of Human Services State General Fund dollars

Figure 5. Department of Human Services Substance Use Disorder Treatment and Detox Funding History Total Expenditures [FY 2010-2014]

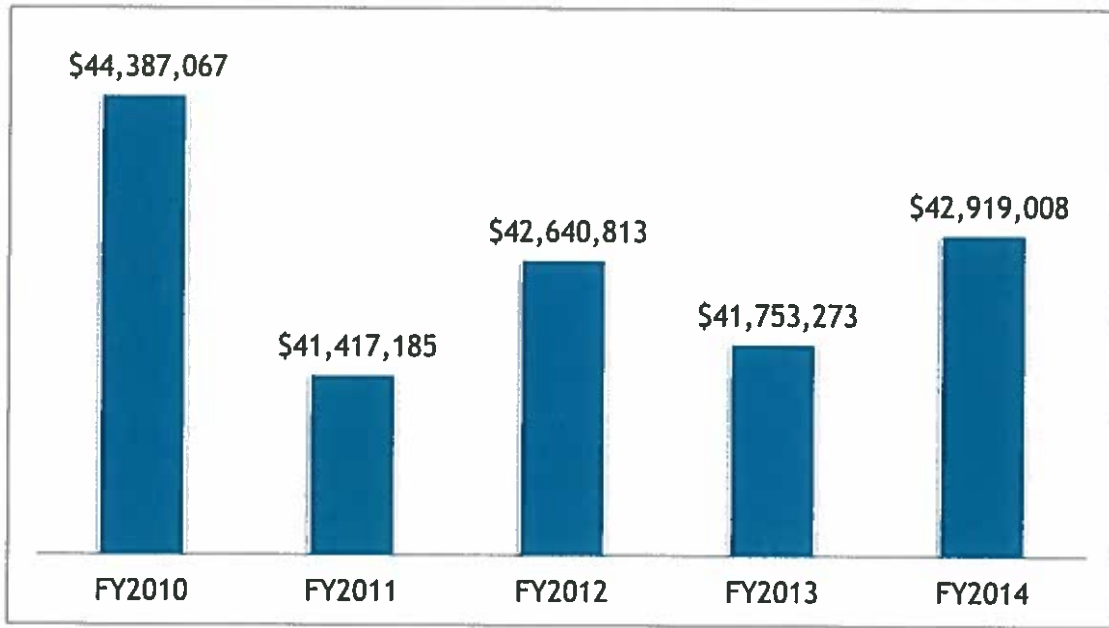
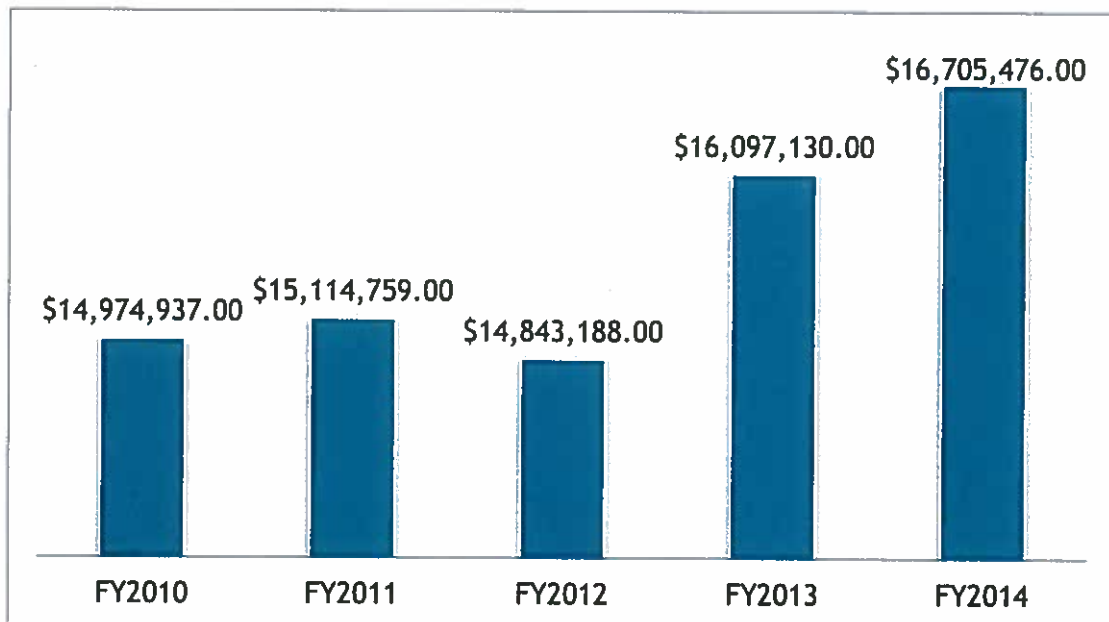


Figure 6. Department of Human Services Substance Use Disorder Programs' State General Fund Expenditure History [FY 2010-2014]



## SUBSTANCE USE DISORDER PREVENTION AND TREATMENT SERVICE COSTS

Service cost related to substance use disorder prevention, intervention, treatment and recovery services in Colorado are displayed below in Table 1.

Table 1. Average Annual Cost Per Client for Treatment Services Funded by the Department of Human Services during FY 2013-2014.

State Fiscal Year	Office Funded Average Cost/Client	Office with Other Payer Source Funded Average Cost/Client
2014	\$881	\$1,698
2013	\$812	\$1,645
2012	\$667	\$1,460
2011	\$775	\$1,729
2010	\$936	\$1,732
2009	\$893	\$1,661
2008	\$809	\$1,543
2007	\$774	\$1,509

## THE BENEFITS AND OUTCOMES OF SUBSTANCE USE DISORDER TREATMENT SERVICES

### Treatment Outcomes for FY 2013-2014

Based on Drug/Alcohol Coordinated Data System (DACODS), client discharges from treatment modalities (e.g., residential, intensive outpatient, outpatient treatment modalities) were used to calculate change from admission to discharge. Detoxification (detox) was an excluded treatment modality because its primary goal is to provide a safe, short-term environment in which the client may be detoxified and then referred to treatment. Driving Under the Influence (DUI) programs were excluded as a treatment modality because DUI focuses on reducing the practice of driving while intoxicated, rather than reducing substance use behavior exclusively. Based on these exclusions, the total number of discharges was 24,901.

In addition, clinicians assessed the severity of the clients' issues or problems at both admission and discharge, using terms defined in the DACODS User Manual. The following issues were analyzed for this report: family, socialization, education/employment-based concerns, and medical. In order to calculate the outcomes (change over time), clients must have been enrolled in treatment with more than one data point; therefore, differential assessments that did not lead treatment enrollment were excluded from the analysis (n=24,580).

### Reason for Discharge

The DACODS system collects two measures capturing the outcome of treatment discharge status and reason for discharge. Discharge status captures treatment completion while discharge reason further examines why some individuals did not complete treatment. Fifty-three percent of individuals completed treatment (Figure 11). Of those who did not complete treatment, 65% cited the client decision<sup>9</sup> for reason of discharge (Figure 12). The next most cited reason was incarceration (32%).

<sup>9</sup> Client decision is defined as "client left treatment or service against professional advice; he/she dropped out or walked away from treatment. AWOL/Absconded" (DACODS, 106).

Figure 7. Discharge Status (% of individuals)<sup>10</sup>

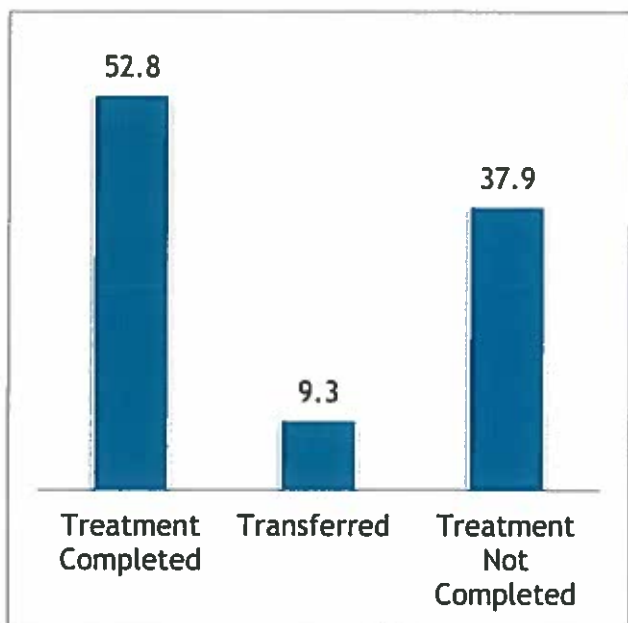
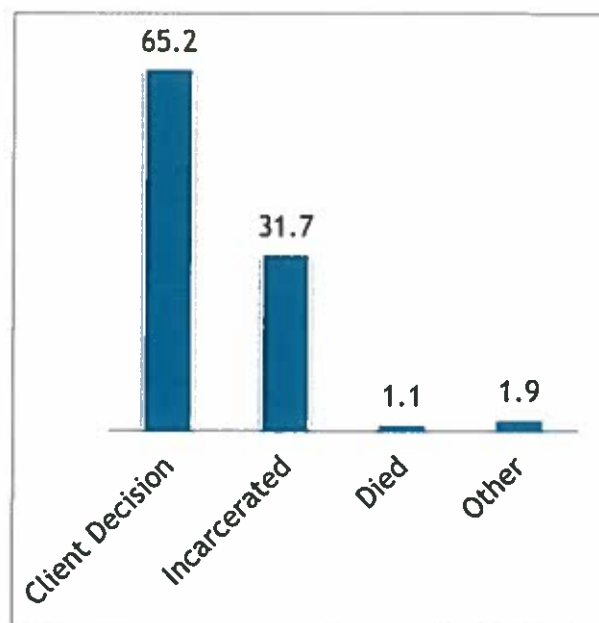


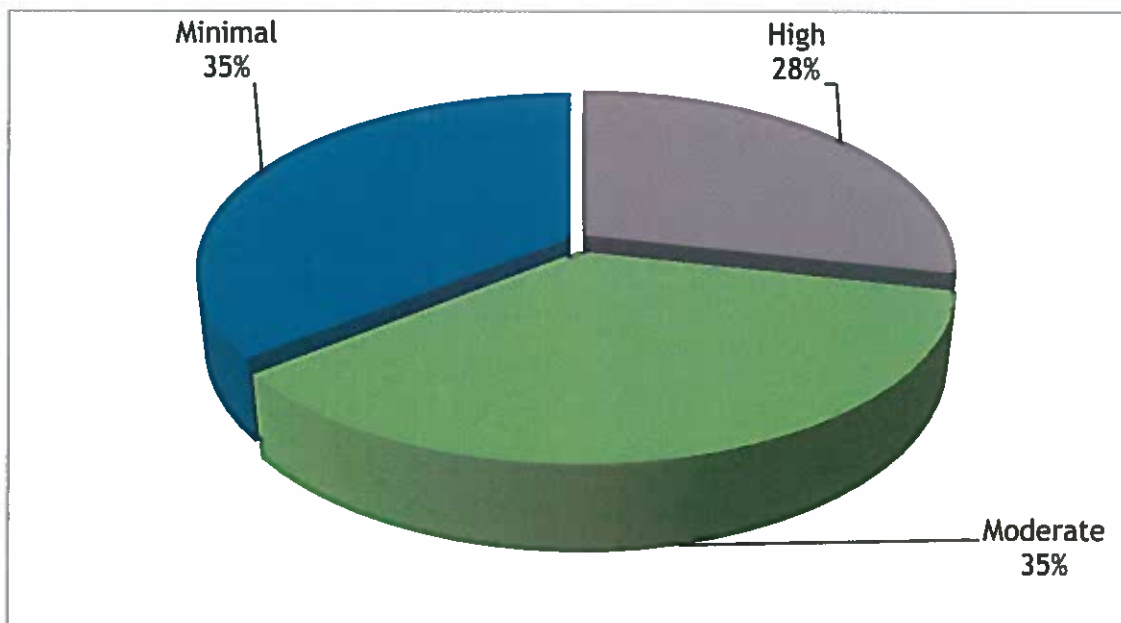
Figure 8. Reason for Discharge (% of individuals)<sup>11</sup>



**Progress Towards Treatment Goals**

During the treatment process, addiction counselors collaborate 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 FY 2013-2014, 63% of all treatment clients had made moderate to high progress toward their goals (Figure 9).

Figure 9. Progress Towards Treatment Goals [FY 2013-2014]



<sup>10</sup> Transferred is defined as “transferred or referred to another substance abuse treatment program for completion of their course of treatment or service” (DACODS, 105).

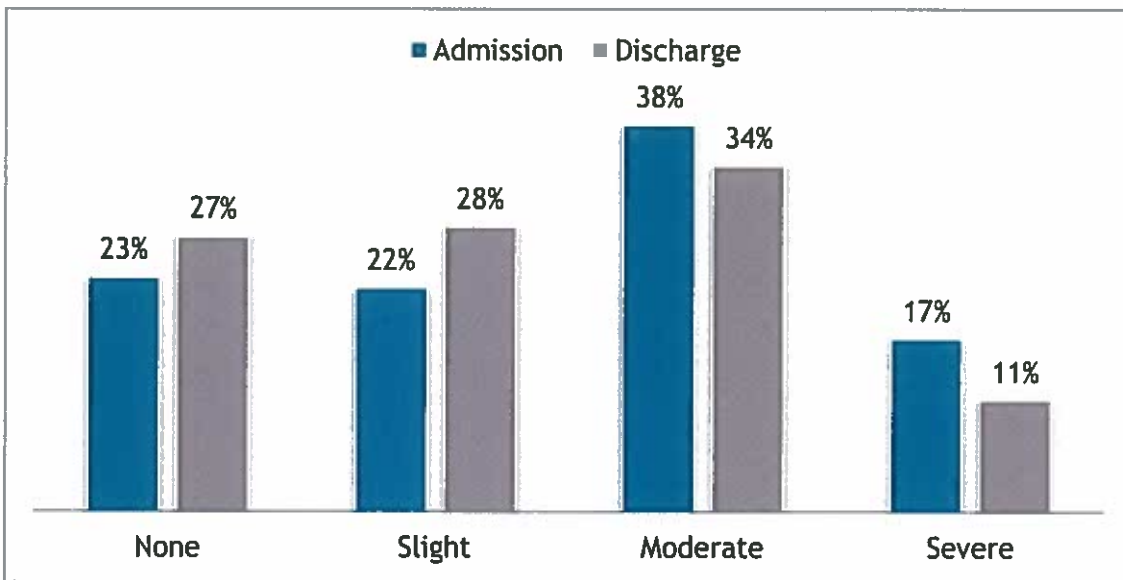
<sup>11</sup> Client decision is defined as “client left treatment or service against professional advice; he/she dropped out or walked away from treatment. AWOL/Absconded” (DACODS, 106).

The following information provides an outcome overview on the success of an individual receiving substance use disorder treatment. The goal is to decrease the magnitude of the client's issue or problem for each measure from admission to discharge. An expected secondary outcome trend of this goal is to see an increase in "None/Slight" issues from admission to discharge. This secondary outcome shows the clients who were previously reporting "Moderate/Severe" issues now reporting "None/Slight" issues after treatment.

**Family Issues/Problems**

Family Issues/Problems is defined as the degree of family issues and problems the client is currently experiencing. The percentage of clients with moderate and severe family issues decreased at discharge (Figure 10).

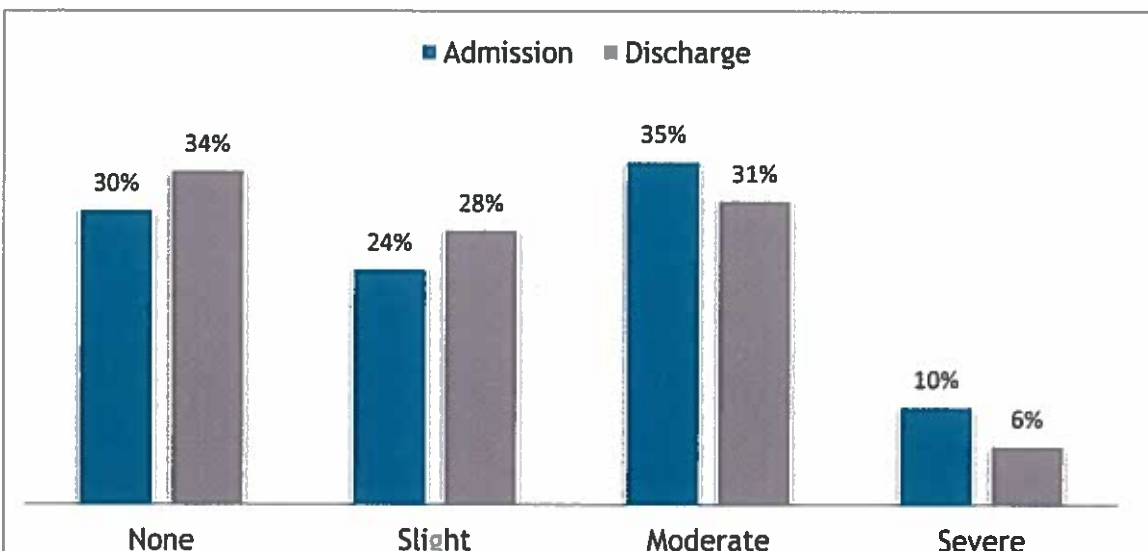
Figure 10. Family Issues/Problems from Admission to Discharge [FY 2013-2014]



**Socialization Issues**

Socialization is defined as having the ability and social skills to form relationships with others. The percentage of clients with moderate and severe problems at admission decreased at discharge (Figure 11).

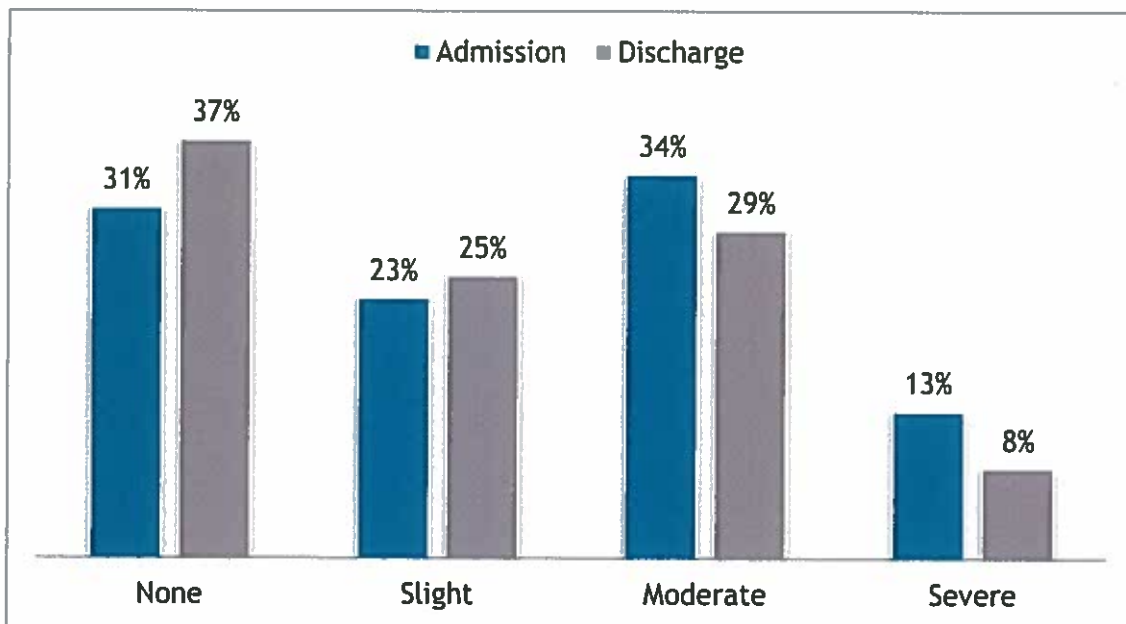
Figure 11. Socialization Issues from Admission to Discharge [FY 2013-2014]



Education/Employment Issues

The number of clients with moderate or severe education or employment issues at admission decreased at discharge (Figure 12).

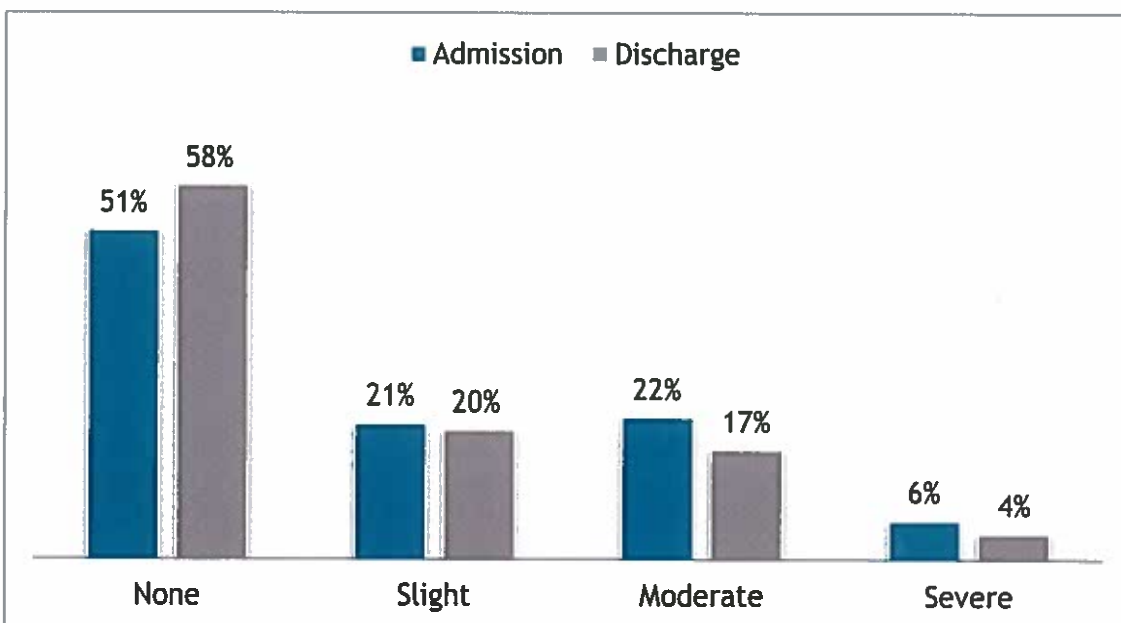
Figure 12. Education/Employment Issues from Admission to Discharge [FY 2013-2014]



Medical/Physical Issues

The proportion of clients with no medical/physical problems at discharge increased from admission to discharge. The proportion of clients with moderate and severe problems slightly decreased at discharge (See Figure 13).

Figure 13. Medical/Physical Issues/Problems from Admission to Discharge [FY 2013-2014]



**Other Outcomes**

For clients receiving treatment services, there was a statistically significant decrease in the average primary drug use from admission to discharge<sup>12</sup> (Figure 14). In addition to primary drug use, the average number of arrests (not DUI related) also negatively trended from admission to discharge (Figure 17). The average frequency of hospitalization visits and ER visits trended positively from admission to discharge for those clients in treatment services (Figure 15; Figure 16). This trend could reflect the beginning of the integration of medical and behavioral health services necessary to treat substance use disorders.

Figure 14. Average frequency of Primary Drug Use in past 30 days from Admission to Discharge [FY 2013-2014]

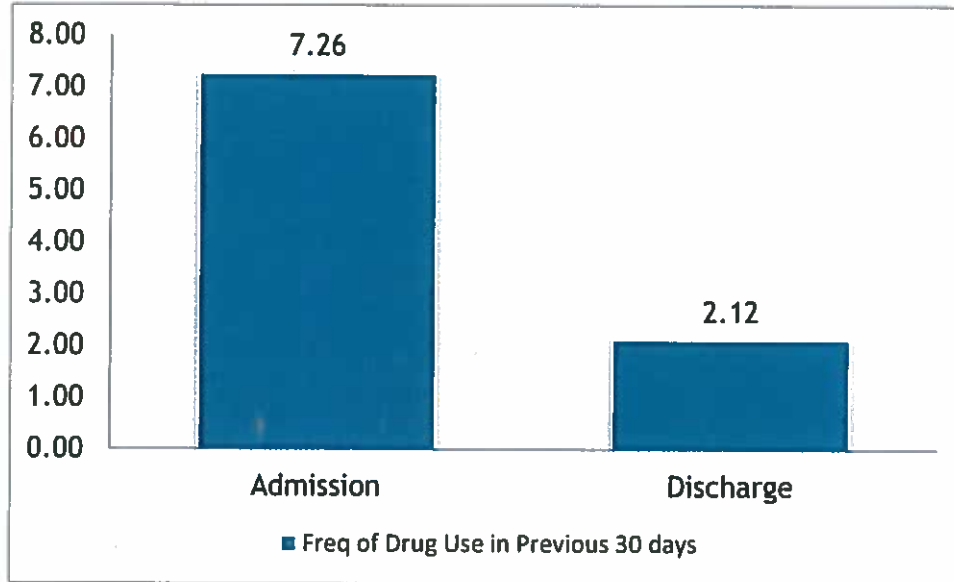


Figure 15. Mean Hospitalizations from Admission to Discharge [FY 2013-2014]

Average Hospitalizations over the past 6 months	Admission	Discharge
Mean (Standard Deviation)	2.2 (13.2)	3.69 (18.2)

Figure 16. Mean ER Visits from Admission to Discharge [FY 2013-2014]

Average ER visits over the past 6 months	Admission	Discharge
Mean (Standard Deviation)	1.9 (12.9)	3.5 (18.2)

Figure 17. Mean Arrests from Admission to Discharge [FY 2013-2014]

Average Arrests over the past 30 days	Admission	Discharge
Mean (Standard Deviation)	.08 (.64)	.05 (.29)

<sup>12</sup> t(9.98)=80.72, p<.000



Summary

In summary, the majority of individuals received substance use disorder treatment for less than 35 days, with 29% receiving treatment for less than 30 days.

Sixty-four percent of individuals receiving treatment services had moderate to high progress towards treatment goals by discharge. This progress was evident in a variety of trends in family, socialization, employment/education, and medical health outcomes. Throughout each outcome category, there was a trend of decreased frequency of moderate and severe problems at discharge. The data reflects that those individuals who had severe symptoms with treatment reported less severe symptoms at discharge. These trends have small effect sizes, and readers should keep this in mind when interpreting the results.

There was also a statistically significant decrease in primary drug use from admission to discharge.

**TRACKING CIVIL FORFEITURE FOR FY 2013-2014**

As required by C.R.S. 16-13-311 (3)(a) (VII) (B) and 16-13-701 (4), the designated Managed Service Organizations (MSOs) allocate monies to substance use disorder 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, Office of Behavioral Health and the MSOs. The following table details the reporting of civil forfeiture funds for SFY 20113-2014 by three Colorado MSOs, as required by statute. One of the four MSOs, Boulder County Public Health Department, did not receive any funds from civil forfeiture. Please refer to Table 3 for more detailed information.

Table 3. Civil Forfeiture, FY 2013-2014

MSO Provider / Description	Signal	West Slope	AspenPointe	Total All	Prior FY 2012-2013
Beginning Balance	\$55,358	\$16,421	\$192,585	\$264,364	\$359,504
Distribution	\$271,369	\$0	\$119,952	\$391,321	\$353,931
Revenue Received	\$291,737	\$256	\$23,203	\$315,196	\$257,408
Ending Balance	\$75,727	\$16,677	\$95,836	\$188,239	\$262,982

Summary

Signal expended \$271,369 of forfeiture funds during the year. Of this expenditure, \$236,091 was spent on treatment and detox services, and \$35,278 was used for administrative cost (13% of total funds distributed).

West Slope Casa had no reported disbursements from forfeiture funds for services during the year.

AspenPointe reported disbursing \$119,952 of forfeiture funds for provider treatment costs.

For Fiscal Year 2013-14, \$315,196 in forfeiture revenues was collected and a total of \$391,321 was expended on treatment and detoxification services (including administrative charges). The revenue received represents a 22.45 % increase from the previous year.