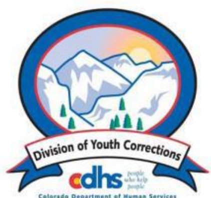
Evaluation of the Continuum of Care Program

Annual Report: Fiscal Year 2012 – 2013



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By: The Center for Research Strategies

Evaluation of the Continuum of Care Program
Annual Report: Fiscal Year 2012 - 2013

Submitted to:
The Colorado Department of Human Services Office of Children, Youth and Families
The Division of Youth Corrections

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List of Acronyms

CCAR	Colorado Client Assessment Record
CofC	Continuum of Care
DCP	Discrete Case Plan
DYC	Division of Youth Corrections
FY	Fiscal Year
MDT	Multi-Disciplinary Team
TRAILS	Automated data system used by DYC

Executive Summary

In FY 2004 – 05, the Colorado General Assembly granted the Division of Youth Corrections (DYC) the budgetary authority to spend up to 10% of the General Fund appropriation for the Purchase of Contract Placements to provide treatment, transition, and wrap-around services to youth in DYC residential and non-residential settings. ***For the fourth year in a row, DYC was unable to take advantage of this budgetary flexibility opportunity.*** There were no funds shifted from Contract Placements to Parole Program and Transition Services. Consequently, this year's report will focus on DYC's continued efforts to reduce reliance on secure commitment placements and increase evidence-based care to Colorado's youth, in accordance with empirically supported juvenile justice best practices.

DYC's Continuum of Care Program Implements Best Practice Recommendations

DYC's progressive transformation of the juvenile justice system in Colorado utilizes five key strategies to achieve success: *Providing the Right Services at the Right Time* delivered by *Quality Staff* using *Proven Practices* in *Safe Environments* while embracing *Restorative Community Justice Principles*. The most recent recommendation for juvenile justice systems highlighted the need to align services along a **continuum of care** and to match services to youth risk and need which mirrors DYC's strategy of "providing the right services at the right time."

DYC has an established assessment process that is utilized at intake, parole, and discharge from parole and at other points along the continuum of care as needed. A comprehensive picture of youth needs and risks is obtained through assessments in five key disciplines: criminogenic risk, mental health, alcohol and drug use/abuse, medical and dental, and education. Knowledge obtained through these assessments provides the foundation for providing the right services at the right time and can influence decisions about the appropriate duration and level of restriction, the type and intensity of therapeutic interventions and the level of supervision required to maintain public safety.

COMMITTED YOUTH NEEDS ARE INCREASING IN COMPLEXITY AND SEVERITY

Assessment data from seven successive cohorts of newly committed youth were examined to determine whether the population of commitment youth was stable over time or exhibited changes with ramifications for services and funding. Data examined presented a consistent picture of increasing severity and complexity of need and or risk in newly committed cohorts of youth.

- Youth criminogenic protective factors, which decrease the likelihood of reoffending, continue to show a decline from preliminary cohorts, in the areas of: Attitudes and Behaviors, Current Relationships and Aggression.
- Youth criminogenic risk factors, which increase the likelihood of reoffending, increased across cohorts in four areas: Attitudes and Behaviors, Substance Abuse, Family Living Arrangements, and School.
- The percent of newly committed youth requiring formal, professional mental health intervention seems to be plateauing with a very slight increase from 58.2% in FY 2011 – 12 to 58.5% in FY 12-13 and is still much higher than the 43.0% documented for FY 2006 – 07.
- The percent of newly committed youth requiring treatment for substance abuse increased from 59.5% in FY 2006 – 07 to 72.8% in FY 2012 – 13. When youth requiring intervention are included, 91.8% of newly committed youth in FY 2012 – 13 required substance abuse services.

YOUTH CRIMINOGENIC RISK AND PROTECTIVE FACTORS EXHIBIT POSITIVE CHANGE AS THEY PROGRESS THROUGH THE CONTINUUM OF CARE

Criminogenic assessment data for youth newly discharged from parole during FY 2012 – 13 were examined to determine whether risk and protective factors that influence the likelihood of reoffending changed from intake to parole and from intake to discharge from parole. Increases in protective factors and decreases in risk factors achieved by the time of

parole and maintained through discharge would provide evidence that services provided by DYC were associated with a reduced risk in youth reoffending.

- The youth newly discharged from parole who had three valid CJRA assessments aligning with intake, parole board referral, and parole discharge contributed data for the analysis.
- Both risk and protective factors improved over time for youth newly discharged from DYC.
    - From intake to parole, youth protective factors increased in six areas: School, Current Relationships, Family Living Arrangements, Attitudes and Behaviors, Aggression, and Skills.
    - From intake to parole, youth risk factors decreased in seven areas: School, Current Relationships, Family Living Arrangements, Substance Abuse, Attitudes and behaviors, Aggression, and Skills.
    - Improvements were largely maintained through discharge from DYC for all risk and protective factors with the exception of school protective factors.
    - Some loss of improvements between parole and discharge from DYC are anticipated as youth leave the structured and predictable setting of residential commitment and return to their community, which provides opportunities for engaging in illegal or anti-social behavior and likely offers diminished scaffolding for pro-social behavior.

INABILITY TO FLEXIBLY SHIFT FUNDS IMPACTS SERVICE FUNDING DECISIONS

Decades of research now consistently show that evidence-based treatment options are associated with positive youth outcomes and lifetime savings to social systems, while supervision alone is associated with worsening youth outcomes and lifetime costs to youth

and social systems (Drake, 2007[1]). DYC must successfully balance the utilization of less expensive services such as supervision with more expensive treatment services to effectively protect public safety while building youth skills and competencies that will enable them to become responsible, productive citizens of Colorado.

- This year, new categories of service were introduced to better track and demonstrate how transition and parole program services funding was spent during FY 2012 – 13.

- A larger amount of transition and treatment dollars were spent on youth with mental health needs than youth with no mental health or substance abuse needs, youth with just substance abuse needs, or youth with co-occurring mental health and substance abuse needs.

    - A closer analyses of the youth with mental health needs indicate that they have more mental health symptoms that are more severe than youth in the other three groups.

    - It is hypothesized that the transition and treatment dollars spent on these youth are being augmented by services that DYC facilitates but are paid for by another funding source such as Medicaid or private insurance.

CONCLUSIONS AND RECOMMENDATIONS

This report adds another cohort of youth to the six years of data presented last year. Again, it appears that youth entering the commitment system have intense and complex needs. In fact, more than 90% of newly committed youth required substance abuse and/or mental health treatment, with over 50% of newly committed youth in FY 2012 – 13 requiring treatment for both.

Many of last year's recommendations have been implemented by DYC including:

[1] Drake, E. (2007). Evidence-based juvenile offender programs: Program description, quality assurance, and cost. Washington Institute for Public Policy. Document No. 07-06-1201 Accessed at www.wsipp.wa.gov, September15, 2011

- An evaluation of the fidelity to MI Communication practices by DYC staff and contract personnel has been completed and the findings have impacted MI training for new staff as well as booster trainings for existing staff.
- A multi-method evaluation of MDT implementation and fidelity is currently under way with a full report expected by the end of FY2013 – 14.

Additional recommendations include:

- Enhance assessment at later time points in the commitment episode, including at the time of parole and discharge so that change can be demonstrated.

- A more thorough analyses of the services delivered to youth with Substance Abuse Needs, Mental Health Needs and those with Co-Occurring Needs is needed. It is critical to the understanding of youth outcomes that the services received by these youth be described and quantified regardless of whether they are paid for by DYC or facilitated by DYC and then paid for by another funding source.

Introduction

Since its inception in FY 2005 – 06, the Continuum of Care has evolved from a budgetary demonstration initiative to a holistic approach to system improvement across the Division of Youth Corrections (DYC). The Continuum of Care is an integrated approach to providing a complete range of programs and services that meet the changing needs of youth and families at every phase, from commitment to the point of discharge from parole. Upon commitment, youth undergo a thorough assessment process in which their needs are evaluated. Findings from the assessment process are utilized by a Multi-Disciplinary Team (MDT) of professionals to develop a discrete case plan (DCP) that guides the process of matching individualized treatment to each youth's unique pattern of criminogenic risk and needs. Transition planning for the youth's re-entry into the community is a component of the DCP from very early in a youth's commitment. As the youth and family progress through the Continuum of Care, re-assessment occurs and the DCP is revised accordingly to meet the changing needs of the youth and family. This cycle of assessment, case planning and treatment is repeated periodically until discharge from parole. The DCP is guided by a set of principles and purposes, including reducing risk and recidivism, tying length of services to assessed need and progress, family involvement, restorative community justice, and accountability.

In FY 2004 – 05, the Colorado General Assembly granted DYC the budgetary authority to spend up to 10% of the General Fund appropriation for the Purchase of Contract Placements to provide treatment, transition, and wrap-around services to youth in DYC residential and non-residential settings. Since that year, the General Assembly has continued to allow DYC some flexibility to use a percentage (from 5% to 20% depending on the Fiscal Year) of Contract Placement funds to enhance Parole Program Services. This funding flexibility reflects DYC's request to move away from a more traditional "stove pipe" funding and service structure to a more dynamic structure consistent with the process by which a youth progresses through the commitment continuum.

While DYC is no longer required to provide an update to the legislature on the Continuum of Care initiative, it is agreed that a limited status report is beneficial for both DYC and the

legislature. Previously, DYC was required to report on the impact of budgetary flexibility, including three components: (1) the amount of funds transferred, (2) the type of services purchased with transferred funds, and (3) the number of youth served with such expenditures.

For the fourth year in a row, DYC was unable to take advantage of this budgetary flexibility opportunity. During FY 2012 – 13, there were (1) no funds shifted from Contract Placements to Parole Program Services. Consequently, there were (2) no services purchased with flex funding and (3) no youth impacted by budgetary flexibility in FY 2012 – 13. This year's report will focus on DYC's continued efforts to reduce reliance on secure commitment placements and increase evidence-based care to Colorado's youth, in accordance with empirically supported juvenile justice best practices.

CRIMINOGENIC RISK

This Continuum of Care evaluation report is comprised of the following elements:

- An examination of the youth served by the Continuum of Care during FY 2012 – 13 and critical changes in the Continuum of Care youth since FY 2006 – 07,
- A description of the new categorization of parole program service dollars, and
- An analyses of how mental health substance abuse, and co-occurring needs impact service spending.

Understanding Youth within the Continuum of Care

Juvenile justice studies typically find that 50 to 70% of committed youth meet criteria for at least one mental health disorder. In a three-state study, 79% of youth with mental health symptoms met the criteria for at least two disorders, and 60% of these youth with mental illness also met criteria for a substance use disorder. These findings indicate a high level of co-occurring disorders in this population[2]. Research also finds that the prevalence of mental illness and substance use disorders increases as youth move further along the juvenile justice continuum. Educational complications are frequently present as well. The National Re-entry Resource Center reported findings from one study that identified 48% of youth as performing below grade level. They also reported that many delinquent youth are developmentally behind their peers and are more likely to have diagnosed learning disabilities. It is estimated that 30 to 70% of youth involved in the juvenile justice system have learning disabilities[3].

It is clear from the literature that in addition to anti-social and criminal behavior as well as difficult family and peer influences, the juvenile justice youth population presents with a complex profile of severe and often co-occurring mental health, substance abuse, educational, and developmental challenges. Juvenile justice systems must be prepared to address a complex array of youth risk factors and alarming absence of protective factors.

Colorado's committed youth present with similar profiles to those described in the literature. The percent of newly committed youth who required **no** mental health treatment AND required **no** substance abuse treatment or intervention declined from 7.6% in FY 2006 - 07 to 3.3 percent in FY 2012 – 13 (See Figure 1).

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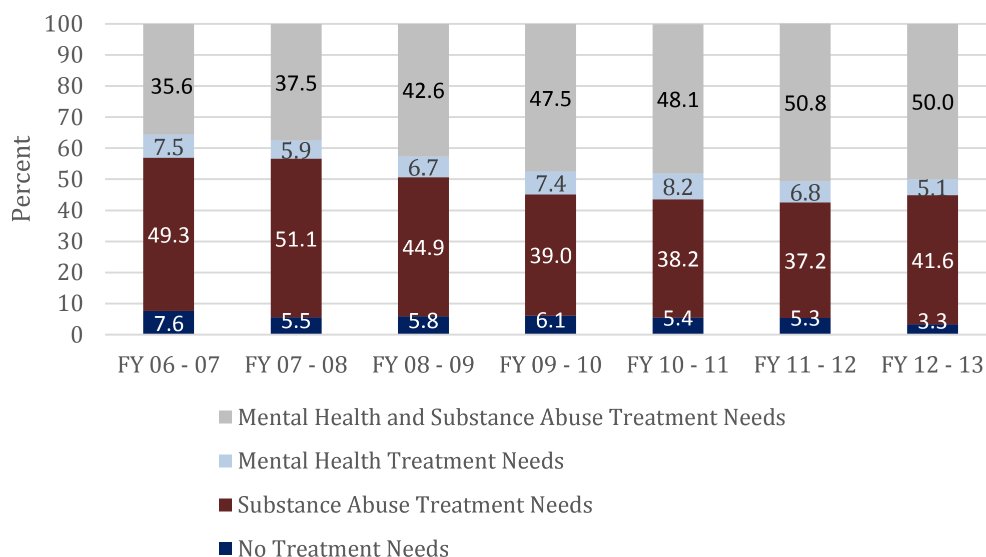
[2] Shufelt, J. & Cocozza, J. (2006). *Youth with Mental Health Disorders in the Juvenile Justice System: Results from a Multi-State Prevalence Study*. Delmar, NY: National Center for Mental Health and Juvenile Justice. Accessed online at http://ncmhjj.com/pdfs/publications/PrevalenceRPB.pdf on October 12, 2011.

[3] Altschuler, D. & Kane, L. Frequently Asked Questions: Juvenile Justice. National Reentry Resource Center's Committee on Juvenile Justice. Accessed online at http://www.nationalreentryresourcecenter.org/faqs/juvenile#Q3 October 12, 2011.

Figure 1. Percent of Newly Committed Youth in Need of Mental Health or Substance Abuse Treatment by Fiscal Year[4]



During the same time period, the percent of youth with co-occurring substance abuse and mental health treatment needs increased dramatically from 35.6% to 50.0%. In addition to those with co-occurring needs, an additional 46.7% of newly committed youth needed either substance abuse treatment/intervention OR mental health treatment in fiscal year 2012 - 13. ***In other words, more than 95% of newly committed youth required substance abuse and/or mental health treatment, with half of the newly committed youth in FY 2012 – 13 requiring treatment for both.***

Historical Change in the Severity and Complexity of Youth Needs

A useful method for determining whether the severity and complexity of youth needs has changed over time is to examine the needs of cohorts at the time of entry into the Continuum of Care across successive fiscal years. In the current analysis, we defined cohorts of youth according to the FY in which they were committed utilizing data from FY 2006 – 07 through FY 2012 – 13[5]. Initial criminogenic risk, substance abuse treatment needs, and mental health treatment needs were examined across successive cohorts to

[4] Valid percent reported. Number of cases with missing data was 2 in FY 06 – 07, 2 in FY 10-11, 1 in FY 11 - 12 and 1 in FY 12 – 13. Cases with information about substance abuse treatment needs or mental health treatment needs, but not both were included in the analysis.

[5] Across the six years included in the analyses, a total of 140 youth were committed during more than one FY. Consequently these youth are included in multiple cohorts.

determine whether characteristics of the commitment population changed over time. ***An examination of the initial criminogenic risk, mental health treatment needs, and substance abuse across cohorts produced a consistent pattern of increasingly severe and complex needs over the seven year time span.***

CRIMINOGENIC RISK

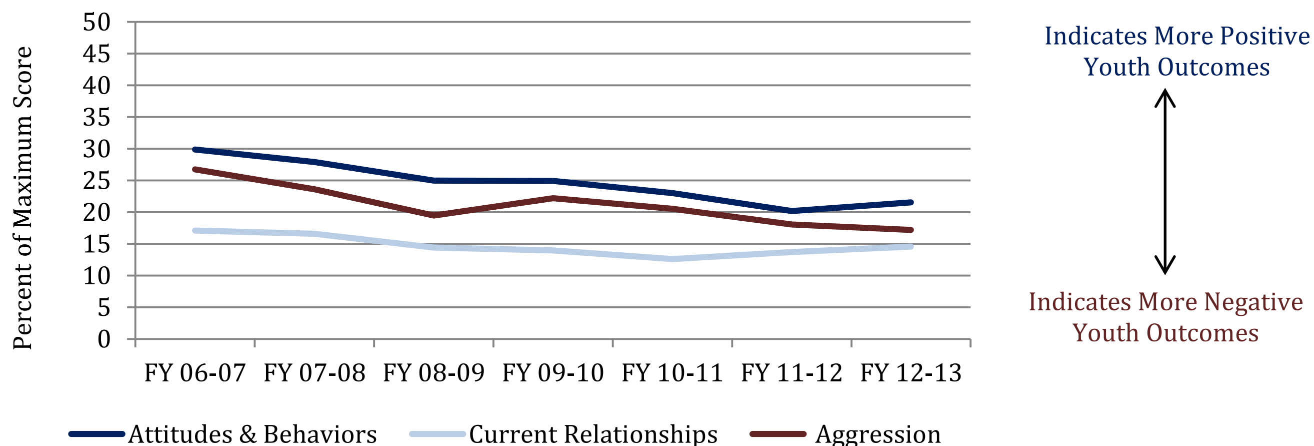
Delinquency is defined by both negative and positive behavioral influences. The influences most strongly linked to delinquency are categorized into risk and protective factors.

> *"**Risk factors** are conditions or variables associated with a lower likelihood of positive outcomes and a higher likelihood of negative or socially undesirable outcomes. **Protective factors** have the reverse effect: they enhance the likelihood of positive outcomes and lessen the likelihood of negative consequences from exposure to risk."*
> *-Jessor, Turbin, and Costa, 1998*[6]

Figures 2 and 3 display CJRA criminogenic protective and risk factors plotted as a percentage of the maximum possible score. Each protective and risk factor has a different number of items and therefore a different range of possible scores. Converting raw scores into a percentage of the maximum possible score enables the reader to easily compare scores across domains.

[6] Jessor, Turbin and Costa. (1998) Risk and protection in successful outcomes among disadvantaged adolescents. Accessed online at http://www.who.int/hiv/pub/me/en/me_prev_ch4.pdf on October 13, 2011

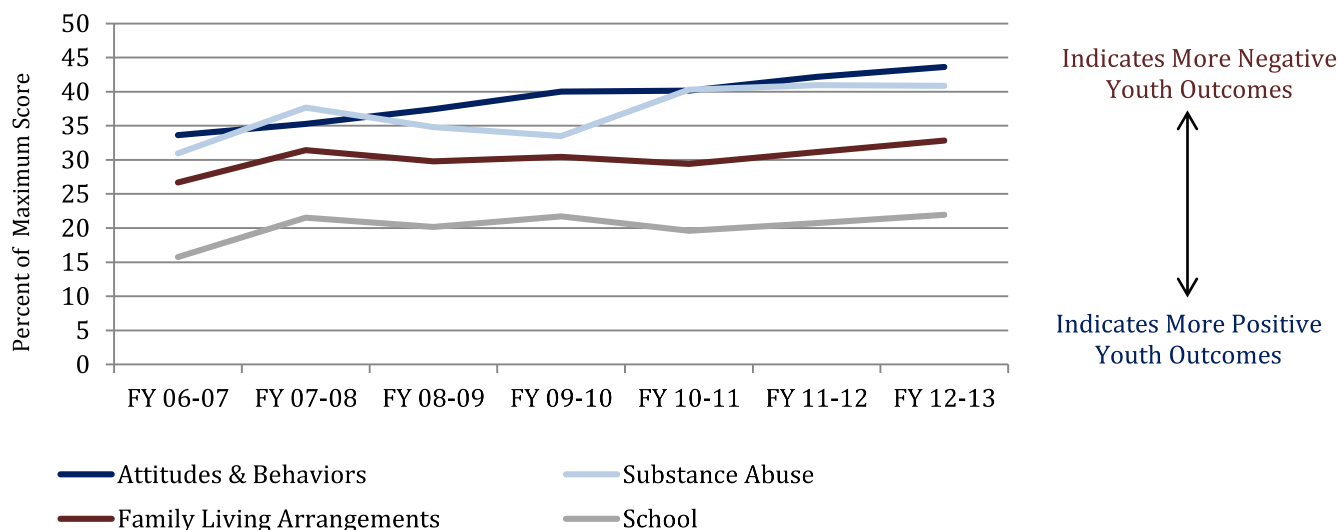
Figure 2. Mean Initial CJRA Protective Scores across Cohorts



Across successive cohorts, there was a gradual decline in three protective factors: Attitudes & Behaviors, Current Relationships, and Aggression. Protective factors, when present, reduce the likelihood of reoffending. Consequently, a decline in protective factors indicates that on average, successive cohorts possessed fewer self, family, and peer factors that would reduce the likelihood of reoffending. Scores for Attitudes & Behaviors, Current Relationships and Aggression declined since FY 2006 – 07. This trend indicates youth are entering commitment with a higher likelihood of reoffending.

While protective factors declined over time, risk factors across four domains increased: Attitudes & Behaviors, Substance Abuse, Family Living Arrangements, and School (see Figure 3 which also displays CJRA scores as a percentage of total possible score). Risk factors, when present, increase the likelihood of youth reoffending. Thus, the increase in risk factors across successive cohorts indicates that the likelihood of reoffending has increased over the seven cohorts examined. The largest observed changes in risk were for the substance abuse and attitudes and behaviors domains, both of which increased FY 2006 – 07 and FY 2012 – 13. Overall, risk and protective factors show a concerning trend of a youth population with increasing criminogenic treatment needs.

Figure 3. Mean Initial CJRA Risk Scores across Cohorts



NEED FOR PROFESSIONAL MENTAL HEALTH INTERVENTION

Initial mental health assessment data were also examined across successive cohorts. Mental health assessment data were available from two assessment tools: the CJRA and the CCAR. The CCAR data was included to depict mental health symptoms in this report for the following reasons: 1) the CJRA current mental health domain includes a limited number of mental health items that relate specifically to risk of reoffending, but 2) the CJRA mental health domain does not indicate whether mental health treatment services are required[7]. In contrast to the CJRA, the CCAR was designed to measure mental health functioning independent of an individual's criminogenic risk and is used across the state of Colorado. Further, the overall symptom severity score is clinically derived. Overall symptom severity scores of 5 or higher indicate "*Symptoms are present which require formal, professional mental health intervention.*"

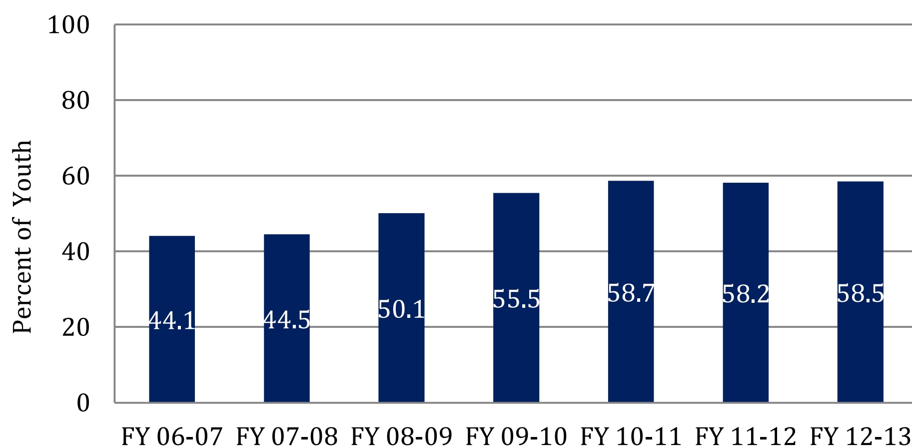
Figure 4 depicts the percent of newly committed youth whose initial CCAR score on the overall symptom severity domain was a five or higher. For the past five fiscal years, at least *half* of the newly committed population had mental health needs that required professional

[7] Current mental health domain scores have a maximum value of 4 for risk factors and 3 for protective factors. This small range of possible values limits its utility for discriminating between youth with high and low mental health needs. Further, the distributions of scores are skewed making them undesirable for analysis.

intervention. It is important to note that while the mental health needs exhibited by the youth may not directly affect their risk for reoffending, treatment of those needs requires considerable DYC fiscal and personnel resources.

The percent of youth who had mental health intervention needs at the time of their initial commitment assessment increased across five successive cohorts between FY 2006 – 07 and FY 2010 – 11, before plateauing in FY 2011 – 12. This trend should be monitored over future cohorts to determine whether newly committed cohorts include consistent numbers of youth with mental health intervention needs.

Figure 4. Percent of Youth in Need of Mental Health Intervention across Seven Cohorts[8]

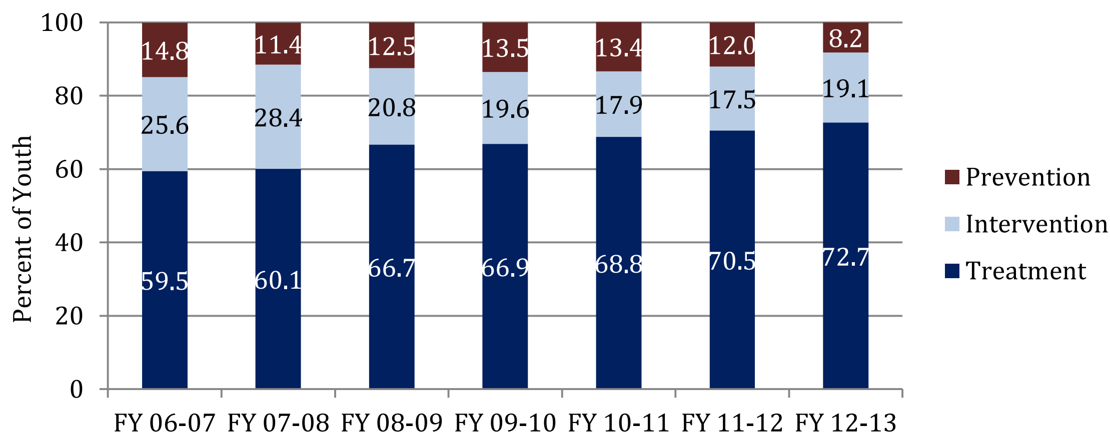


NEED FOR SUBSTANCE ABUSE TREATMENT

While mental health needs are significant, treatment needs are even higher for substance abuse. Figure 5 below depicts the substance abuse treatment needs of newly committed youth. All youth are categorized as needing "Treatment", "Intervention", or "Prevention" services. Over the past seven years, the majority of newly committed youth required treatment services for substance abuse. During FY 2012 – 13, 72.7% of newly committed youth had Treatment level needs. Less than 15 percent of youth committed each year required only prevention services, and this decreased to less than 10% in FY 2012 – 13. Thus, *most* newly committed youth require services to treat substance abuse.

[8] Valid percent reported. Number of cases with missing data ranged from a low of 7 in FY 2011 -12 to a high of 28 in FY 2012 – 13.

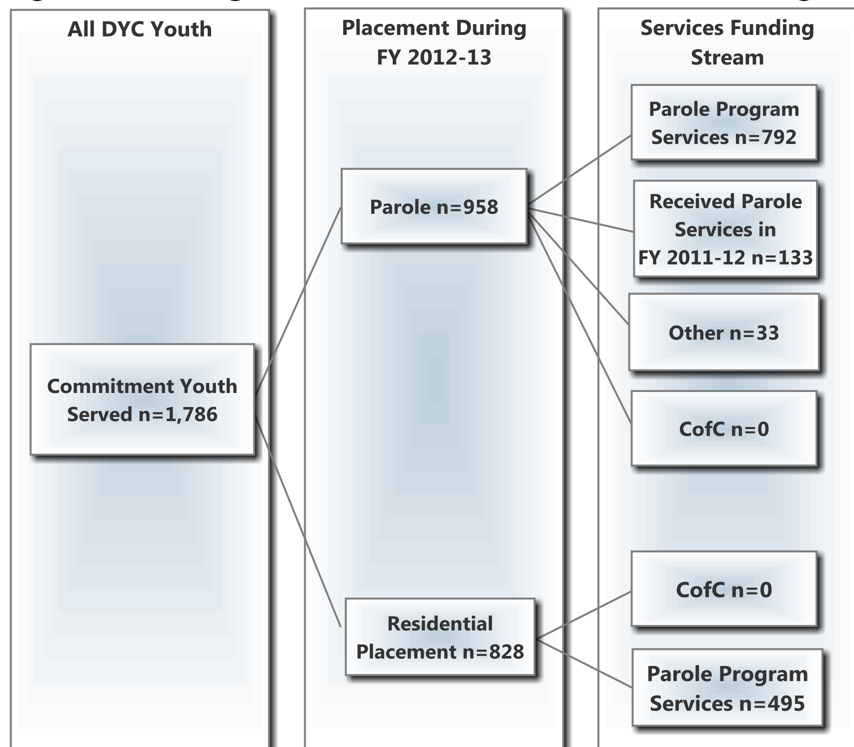
Figure 5. Percent of Youth in Need of Substance Abuse Treatment by Cohort



Continuum of Care Youth Served during FY 2012– 13

During FY 2012 – 13, DYC served 1,786 unique youth in commitment (see Figure 6). More than half of these youth (n=958) spent some portion of the fiscal year on parole. The remaining 828 youth spent the entire fiscal year in residential placement. It is important to note that while a youth is committed, all placements including those in the community are considered residential placements. Of the youth that spent time on parole 82.7% (n = 792) received transition and parole services paid for by the parole programs services line item in the budget. Of the 166 youth on parole who did not receive services in this fiscal year, 133 received services during the prior FY. The remaining 33 youth, like all committed youth, received services provided by their DYC client manager/parole officer, or services funded through outside, community sources. Client manager salaries are funded through a different budget line item and are not included in parole program services.

Figure 6. Funding for Parole and Transition Services during FY 2012 - 13



In addition to youth on parole, more than half (n =495) of youth who spent the entire year in residential placements also received transition services. Evidence-based models of re-entry identify transitional services in a residential setting as key to successful community re-integration. Transition services that begin while the youth is still in a residential setting could include: identifying the appropriate community-based programs and supports for individually varying needs, establishing payment plans, and taking the steps needed to register the youth for enrollment in these programs; or could also include treatment services designed to follow the youth into, or better prepare the youth for the community.

YOUTH DEMOGRAPHICS

The following two figures (7 and 8) depict the demographic distributions of the entire commitment population as well as youth newly committed this year. Tables 1 and 2 follow the same format and display offense and age information. They are presented this way to illustrate that while newly committed youth have increased in their clinical severity there is very little difference between those youth committed this year and those already in commitment on demographic variables or offense variables.

Figure 7. Ethnicity of Committed Youth

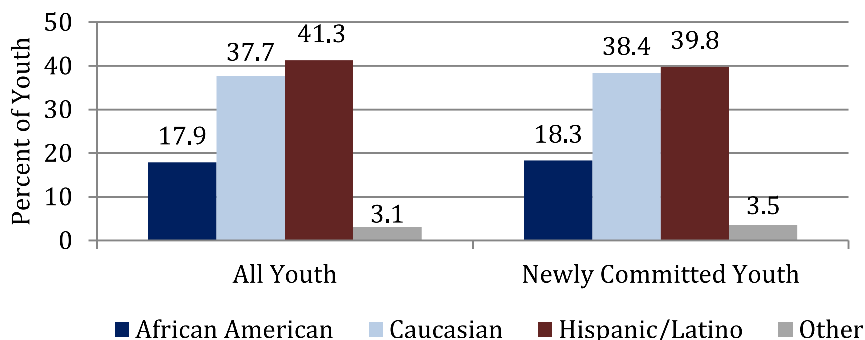


Figure 8. Gender of Committed Youth

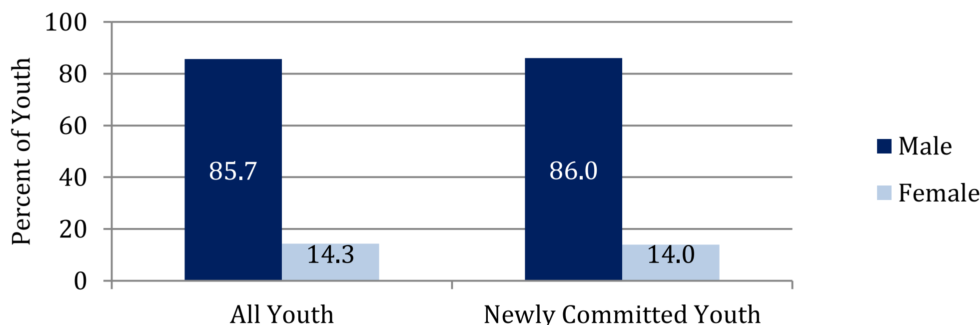


Table 1. Original Commitment and Offense Types

Variable	All Youth	Newly Committed Youth
	n = 1,786	n = 487
Original Commitment Type	**Percent**	**Percent**
Non-Mandatory	67.7	69.0
Mandatory	19.3	18.9
Repeat	9.7	10.3
Violent	1.0	0.8
Aggravated	2.4	1.0
Missing	0.0	0.0
Original Commitment Charge	**Percent**	**Percent**
Felony	58.9	56.3
Misdemeanor	35.7	43.7
Petty	0.1	0.0
Missing	5.3	0.0

*For the 18 youth with two commitments, the most recent commitment record was utilized for computations.

Table 2. Mean Age at Commitment

	All Youth	Newly Committed Youth
	n = 1,786	n = 487
Age at Commitment	**16.7**	**16.8**

EFFECTS OF TREATMENT ON YOUTH DISCHARGED IN FY 2012 – 13

The previous section described the trend that the population of youth admitted to commitment is presenting at initial assessment with greater needs each year. ***While this clinical presentation is alarming, an analysis of the change in raw CJRA scores from initial commitment to parole and discharge reveals a positive outcome picture.*** To assess change in criminogenic risk, only youth who were discharged in FY 2012 – 13 and had three CJRA assessments (at initial commitment, at the time of their parole hearing, and at discharge) were included. Change scores for the CJRA domains were calculated between the CJRA conducted at initial assessment and those done at parole and discharge using raw domain scores. *Increase*s in dynamic *protective* factors and *decreases* in dynamic *risk* factors would both be indications of positive youth change.

The most dramatic gains are seen between youths' initial assessment and the CJRA administered just prior to their parole hearing. When reassessed at discharge the magnitude of the change from initial assessment is slightly less. It is not surprising that when youth leave the structured and predictable setting of residential placement and return to their community some portion of the gains achieved is not maintained. The discharge CJRA scores still show a reduction in the nearly all risk factors and an increase in protective factors from those measured at admission. Figure 9 depicts the gains in protective factors.

Figure 9. Change in Mean CJRA Dynamic Protective Factors from Intake to Parole and from Intake to Discharge

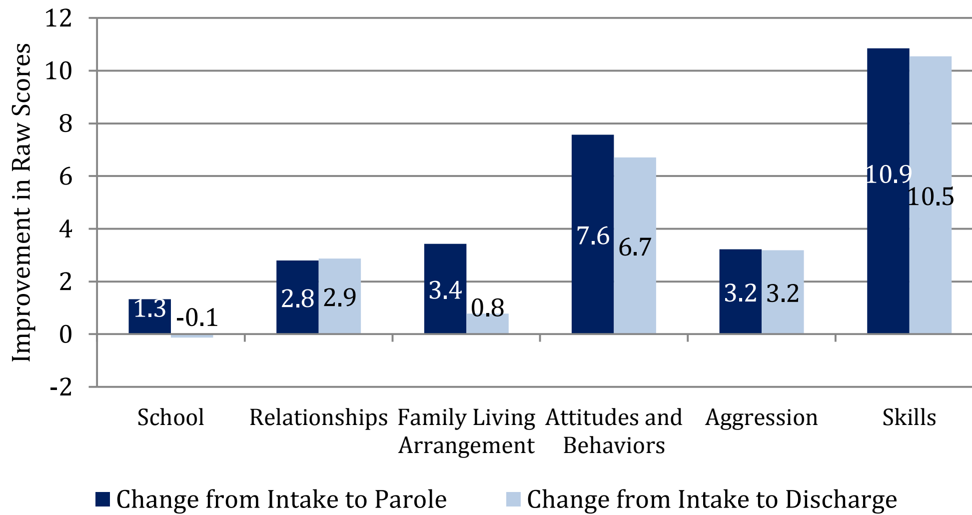
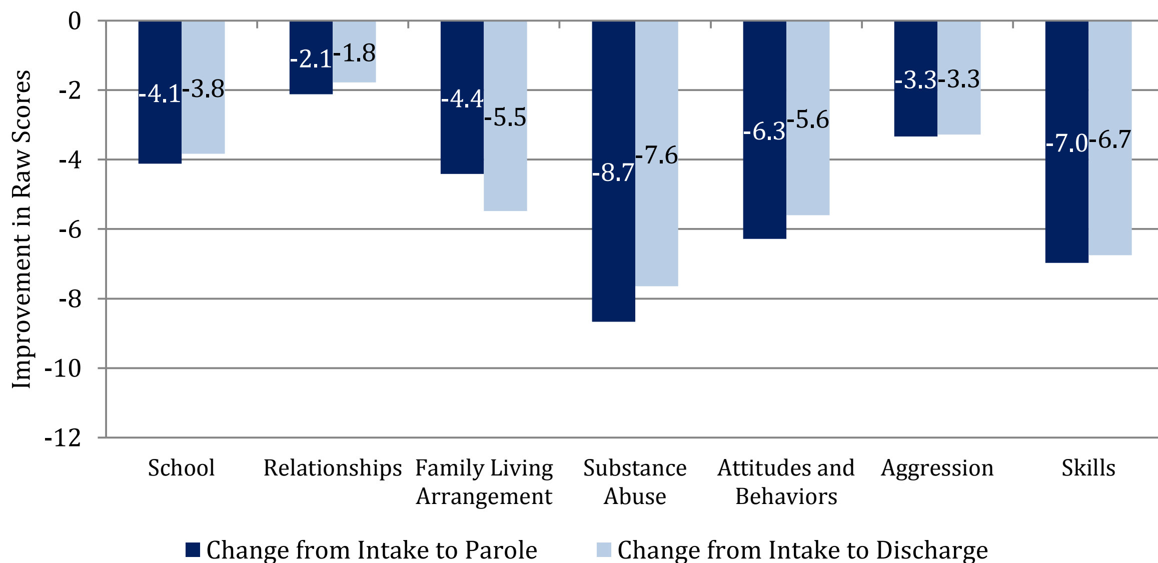


Figure 10 depicts the reduction of risk that occurred as youth progressed through the Continuum of Care. The bars are oriented in a downward direction, illustrating the decrease in risk factors.

Figure 10. Change in Mean CJRA Dynamic Risk Factors from Intake to Parole and from Intake to Discharge



Balancing Security and Treatment Needs

Decades of research now consistently show that evidence-based <u>treatment</u> options are associated with positive youth outcomes and lifetime savings to social systems, while <u>supervision alone</u> is associated with worsening youth outcomes and lifetime costs to youth and social systems (Drake, 2007[9]). Through changing economic environments, DYC must successfully balance the utilization of less expensive supervision with more expensive treatment to effectively protect public safety while building youth skills and competencies that will enable youth to become responsible, productive citizens of Colorado.

In FY 2012 – 13, new parole program expenditure categories were introduced to better describe the types of services being offered by DYC to youth in residential placement or on parole. DYC expenditures[10] on individual youth now fit into one of five major categories: assessment, restorative services, support, surveillance, or transition. Below is the description of the new categories.

Assessment refers to specific, in-depth evaluations of youth treatment needs, including mental health and substance abuse evaluations as well as offense specific evaluations for sex offenders, psychiatric and medical evaluations.

Restorative Services enhance offender accountability through assuming responsibility, repairing the harm, and victim awareness.

Surveillance is designed to temporarily constrain/monitor youth behavior. Residential placement is the most extreme form of supervision, and is designed to protect the public from perceived immediate threats to both persons and property. As youth move through the commitment continuum, the level of supervision required typically decreases from a secure facility with 24 hour supervision at initial commitment to parole in the community.

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[9] Drake, E. (2007). Evidence-based juvenile offender programs: Program description, quality assurance, and cost. Washington Institute for Public Policy. Document No. 07-06-1201 Accessed at www.wsipp.wa.gov, September15, 2011

[10] It is important to note that the varying ability to utilize the funding flexibility has *not* affected the provision of treatment services within DYC's residential commitment facilities but *has* affected the provision of treatment within parole and transitional services.

In the community, surveillance might consist of tracking and day reporting with a parole officer, electronic monitoring, and substance use testing as needed.

Transition services are a new category of expenditure. Transition services consist of services designed to positively change youths' current and future behavior with the goal of youth becoming productive and responsible citizens. Case management services, youth and family advocacy, education and job skills training all fall under this category. In addition, services that were previously considered direct support, such as cultural and communication support, general living expenses, medical expenses, professional services, and pro-social engagement activities are now included under transition services.

Treatment includes treatment plans and services that are tailored to the individual strengths and needs of each youth but include a broad array of treatments including individual and family therapy, mental health treatment, offense specific treatment and substance abuse treatment. The cost of treatment varies depending upon type, duration and intensity.

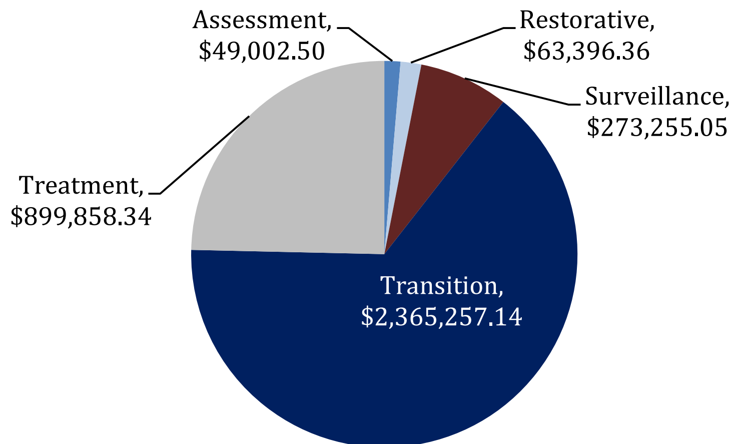
These new categories include the *same* services as historically offered to DYC youth. Please see Table 3 to see how the services have been re-categorized.

Table 3. FY 2012 - 13 Service Categories Compared to FY 2011 - 12 Categories

FY 2012-13	Subcategory	FY 2011-12
Assessment	Neuropsychological Evaluations	Assessment
	Psychological Evaluations	Assessment
	Sex Offense Specific Evaluations	Assessment
	Substance Abuse Evaluations	Assessment
Restorative	Restorative Justice	Treatment
Surveillance	Electronic Home Monitoring	Surveillance
	Substance Use Screening/Monitoring	Surveillance
	Tracking & Day Reporting Services	Surveillance
	Transportation	Surveillance
Transition	Advocacy and Case Management	Treatment
	Community Transition	Treatment
	Cultural & Communication Support	Support
	Education	Support
	General Living Expenses	Support
	Job/Skills Training	Support
	Job/Skills Training	Treatment
	Medical	Support
	Professional Services	Support
	Prosocial Engagement	Support
	Transportation	Support
Treatment	Day Treatment	Treatment
	Evidence Based Behavior Training	Treatment
	Experiential Treatment	Treatment
	Family Services	Treatment
	FFT and MST	Treatment
	Group Therapy	Treatment
	Independent Living Treatment	Treatment
	Individual Therapy	Treatment
	Offense Specific Treatment	Treatment
	Substance Abuse Treatment	Treatment

In previous years, treatment services have incurred the greatest costs. Using the new service categories, it is now transition services that encompass almost two-thirds of parole and transition dollars. It is important to note that this reflects the adjustment of case management, advocacy and community transition from treatment to transition services.

Figure 11. Expenditures by General Categories of Direct Service Dollars



Parole program spending can be further broken out by subcategories. Figure 12 displays the breakdown of spending within transition services. Bundled services make it difficult to determine which particular transition services are provided to individual youth, as most dollars are reported as case management and community transition.

Figure 12. Expenditures by Subcategory: Transition

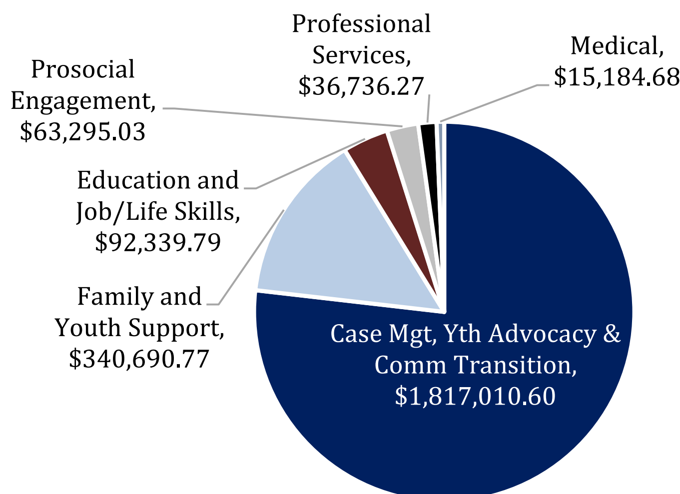
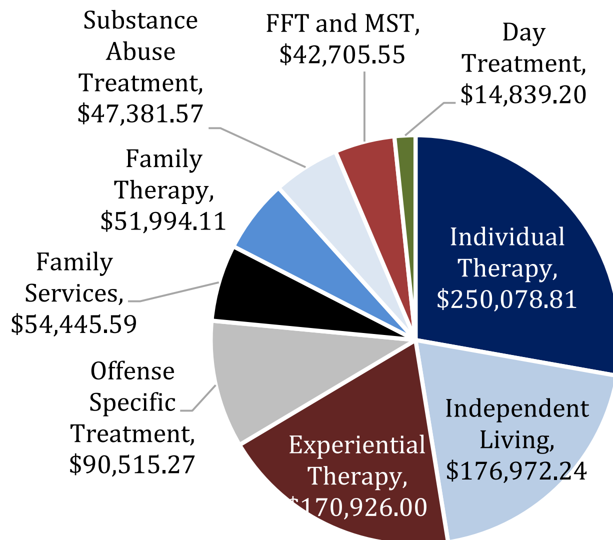


Figure 13 displays expenditures for treatment services. More than two-thirds of treatment spending is allocated to therapeutic interventions, such as individual therapy. Independent living and family-services make up a quarter of all treatment dollars; further investigation of these service categories is recommended to determine if these are truly treatment services or would be best categorized as transition spending.

Figure 13. Expenditures by Subcategories: Treatment



Figures 14 and 15 show spending for the subcategories of surveillance and assessment. Spending within these categories varies by geographic region. See Appendix A for more information about how the different regions in Colorado allocate these funds.

Figure 14. Expenditures by Subcategories: Surveillance

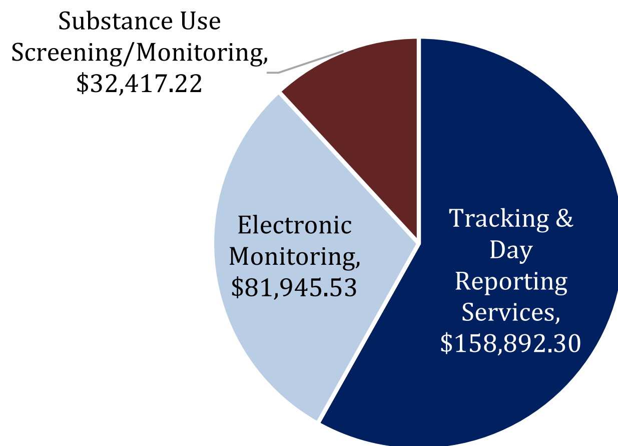
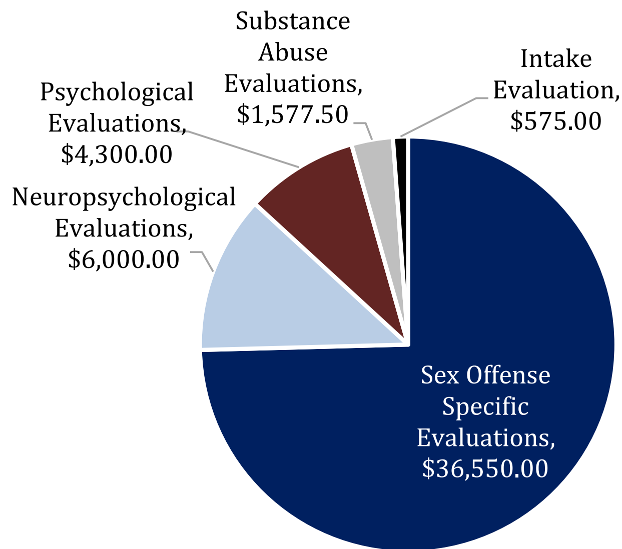


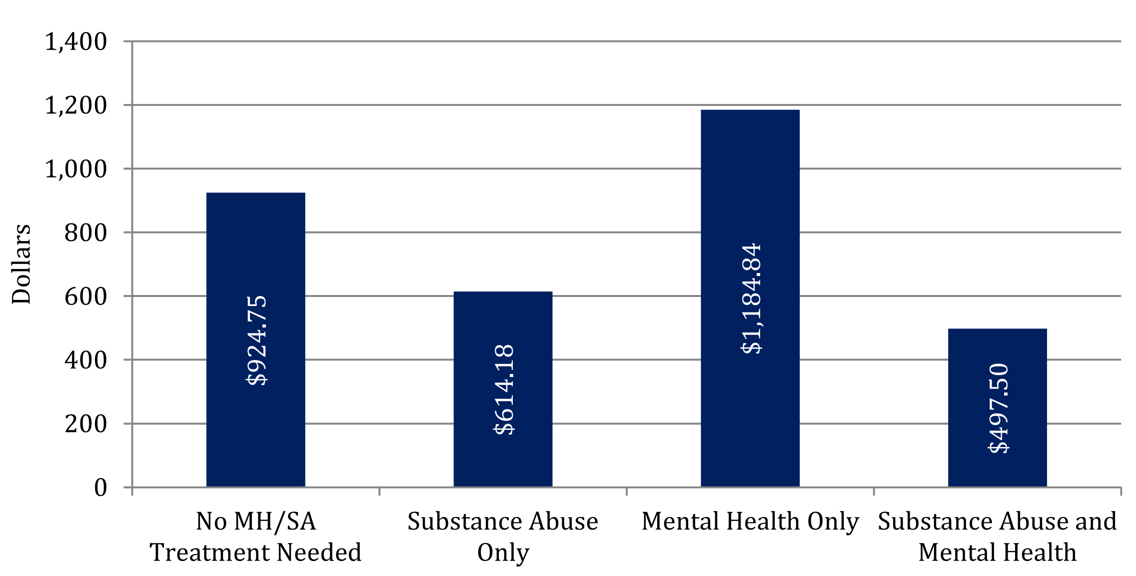
Figure 15. Expenditures by Subcategories: Assessment



Even given these tough economic circumstances, DYC has implemented policies to match treatment to the needs of the youth. One would expect that treatment expenditures would be higher for youth with mental health treatment needs and substance abuse treatment/intervention needs than for those youth without mental health treatment needs or substance abuse treatment/intervention needs.

Figure 16 compares the average amount spent per youth in FY 2011 – 12 and FY 2012 – 13 for youth with mental health and/or substance abuse treatment needs versus those who have neither of those treatment needs.

Figure 16. Mean Cost per Youth by Mental Health and Substance Abuse Treatment Needs



The higher spending on the group that only presents with mental health treatment needs relative to the group with both mental health and substance abuse treatment needs is somewhat counterintuitive. However, further exploration of the data revealed that the group with mental health treatment needs only exhibited greater symptom severity than the group with mental health and substance abuse needs. For example, 39.7% of youth in the mental health need only group had a CCAR overall symptom severity score of 7 or higher while only 31.8% of youth in the other group scored this high. Youth who score in this range are experiencing mental health symptoms in multiple domains and are likely to be profoundly affected by their mental health challenges.

Greater symptom severity was observed for the mental health need only group in several relevant domains (see Table 4). Youth in the mental health needs only group had a notably higher percent of youth with scores of five or higher on the Attention, Cognitive Issues, Mania, and Suicide/Danger to Others domain. In contrast, youth with mental health and substance abuse needs had a higher percent of youth who scored five or higher on the Anxiety, Alcohol Use and Drug Use domains.

Table 4. Percent of Youth with a Score of 5 or Higher on CCAR Domains

CCAR Domain	Mental Health Needs Only	Mental Health and Substance Abuse Needs
Mental Health Domains		
Anxiety	31.1	35.4
Attention	47.0	34.9
Cognitive Issues	22.7	15.3
Depression	53.8	51.4
Mania	14.4	7.8
Psychosis	3.8	3.3
Suicide/Danger to Self	8.3	3.9
Substance Use Domains		
Alcohol Use	0.8	30.4
Drug Use	0.8	60.0
Other Problem Domains		
Family Issues	82.0	84.0
Interpersonal Issues	79.4	72.3

The recovery domains on the CCAR rate attributes that are likely to contribute to better functioning. Again, scores of five or higher are of concern for a given youth. Table 5 indicates that more youth in the mental health only group have lack both hope and social support. High numbers of youth in both the Mental Health Only and the Mental Health and Substance Abuse Needs group are not participating in positive activities prior to commitment.

Table 5. Percent of Youth with a Score of 5 or Higher on CCAR Recovery Domains

CCAR Domain	Mental Health Needs Only	Mental Health and Substance Abuse Needs
Recovery Domains		
Activity Involvement	74.6	81.6
Hope	55.8	51.0
Social Support	45.2	32.6

When comparing the two Substance Abuse groups (with and without mental health issues) those with mental health issues are more likely to be using both alcohol and drugs as rated on the CCAR (see Table 6).

Table 6. Percent of Youth with a Score of 5 or Higher on CCAR Domains

CCAR Domain	Substance Abuse Needs Only	Mental Health and Substance Abuse Needs
CCAR Substance Use Domains		
Alcohol Use	21.8	30.4
Drug Use	45.5	60.0

Given the presentation of greater severity of the mental health only group it might actually be expected that magnitude of spending differences be larger than that which was observed. One possible explanation for all three groups in need of treatment not having greater transition and treatment expenditures is that through the transition process youth are being appropriately linked to services paid for by other funding sources such as Medicaid or private insurance.

Summary & Recommendations

This report adds another cohort of youth to the six years of data presented last year. Again, it appears that youth entering the commitment system have intense and complex needs. In fact, more than 95% of newly committed youth required substance abuse and/or mental health treatment, with over 50% of newly committed youth in FY 2012 – 13 requiring treatment for both. Criminogenic protective factors continue to decline while risk factors increase for each subsequent cohort of youth.

DYC has made a concerted effort to prioritize parole and transition services spending on treatment and transition services. These services are evidence based and likely contribute to improved youth outcomes and the reduced recidivism that DYC has observed over the past several years. DYC has also executed several of the recommendations from last year's Continuum of Care Report including evaluating the implementation and fidelity of several other evidence based practices.

While describing the youth population served in the continuum of care is an important component, evaluating the practices of serving these youth will lead to a more complete understanding of the program. DYC has recently implemented a number of best practices for communicating with youth, determining their treatment needs, and helping to access needed services. These practices are at different levels of integration in the DYC system so it will be important to assess not only the implementation process but also the fidelity of adherence.

DYC has begun to evaluate the implementation and fidelity of evidence based practices. For example, Motivational Interviewing (MI) is a communication approach which promotes mutual respect between youth and staff and encourages youth-driven behavior change. Nearly all DYC staff have been trained in this method of communication. To be used effectively staff must understand the basic principles and apply them consistently in all communication with youth. The fidelity with which DYC and contract staff implement MI principles was evaluated and the results indicated consistently high levels of adherence

throughout the DYC system. Lessons learned from this fidelity assessment have been used to enhance MI training for new staff and booster trainings for existing staff.

Another evidence based practice implemented by DYC is the utilization of Multi-Disciplinary Teams (MDT) to create Discrete Case Plans (DCP) for youth treatment and placement decisions. MDTs represent not only a shift in practice but also a philosophical change. A multi-method evaluation of MDT implementation and fidelity is currently under way with a full report expected by the end of FY2013 – 14.

Recommendations

One recommendation remains from last year's report and is still relevant to the program is to increase the level of assessment at both the time of parole and at discharge from DYC. Currently, the CJRA is the only assessment routinely administered at these time points. While this instrument provides a picture of the youths' likelihood to recidivate it does not give an indication as to whether other risk factors have been addressed while the youth was in residential commitment. Evaluation of educational, psychosocial, substance use, and mental health status could prove quite valuable at these later time points.

This year's data clearly points to the fact that there are differences in the services required and delivered to youth with varying clinical presentations. It is recommended that a closer look be taken at the youth with Substance Abuse Needs, Mental Health Needs and those with Co-Occurring Needs. It is critical to the understanding of youth outcomes that the services received by these youth be described and quantified regardless of whether they are paid for by DYC or facilitated by DYC and then paid for by another funding source.

Appendix A: Spending by Region

Table A1. Spending by Region

Category	Central Region	Percent of Spending	Northeastern Region	Percent of Spending	Southern Region	Percent of Spending	Western Region	Percent of Spending	Statewide	Percent of Spending
Assessment Services	**$16,322.50**	**1.1%**	**$14,430.00**	**1.5%**	**$9,305.00**	**1.3%**	**$8,945.00**	**2.3%**	**$49,002.50**	**1.3%**
Intake Evaluation	*$475.00*	*0.0%*	*$0.00*	*0.0%*	*$100.00*	*0.0%*	*$0.00*	*0.0%*	*$575.00*	*0.0%*
Neuropsychological Evaluations	*$3,250.00*	*0.2%*	*$1,250.00*	*0.1%*	*$1,500.00*	*0.2%*	*$0.00*	*0.0%*	*$6,000.00*	*0.2%*
Psychological Evaluations	*$350.00*	*0.0%*	*$2,455.00*	*0.3%*	*$0.00*	*0.0%*	*$1,495.00*	*0.4%*	*$4,300.00*	*0.1%*
Sex Offense Specific Evaluations	*$10,975.00*	*0.8%*	*$10,725.00*	*1.1%*	*$7,600.00*	*1.0%*	*$7,250.00*	*1.8%*	*$36,550.00*	*1.0%*
Substance Abuse Evaluations	*$1,272.50*	*0.1%*	*$0.00*	*0.0%*	*$105.00*	*0.0%*	*$200.00*	*0.1%*	*$1,577.50*	*0.0%*
Restorative Services	**$5,518.00**	**0.4%**	**$0.00**	**0.0%**	**$2,798.29**	**0.4%**	**$55,080.07**	**13.9%**	**$63,396.36**	**1.7%**
Restorative Community Justice	*$5,518.00*	*0.4%*	*$0.00*	*0.0%*	*$2,798.29*	*0.4%*	*$55,080.07*	*13.9%*	*$63,396.36*	*1.7%*
Surveillance Services	**$147,276.76**	**10.1%**	**$58,218.34**	**6.0%**	**$51,678.50**	**7.1%**	**$16,081.45**	**4.1%**	**$273,255.05**	**7.5%**
Electronic Monitoring	*$32,382.50*	*2.2%*	*$24,962.10*	*2.6%*	*$20,809.00*	*2.9%*	*$3,791.93*	*1.0%*	*$81,945.53*	*2.2%*
Substance Use Screening/Monitoring	*$1,045.11*	*0.1%*	*$6,506.59*	*0.7%*	*$18,467.00*	*2.5%*	*$6,398.52*	*1.6%*	*$32,417.22*	*0.9%*
Tracking & Day Reporting Service	*$113,849.15*	*7.8%*	*$26,749.65*	*2.8%*	*$12,402.50*	*1.7%*	*$5,891.00*	*1.5%*	*$158,892.30*	*4.4%*
Transition Services	**$941,867.64**	**64.6%**	**$702,309.43**	**72.6%**	**$417,110.87**	**57.4%**	**$202,486.20**	**51.0%**	**$2,365,257.14**	**64.8%**
Case Mgt, Yth Advocacy & Comm Transition	*$721,096.29*	*49.4%*	*$597,896.17*	*61.8%*	*$260,963.77*	*35.9%*	*$135,571.37*	*34.2%*	*$1,817,010.60*	*49.8%*
Education and Job/Life Skills	*$36,750.48*	*2.5%*	*$7,833.54*	*0.8%*	*$39,927.02*	*5.5%*	*$7,828.75*	*2.0%*	*$92,339.79*	*2.5%*
Family and Youth Support	*$172,116.52*	*11.8%*	*$72,376.18*	*7.5%*	*$45,977.21*	*6.3%*	*$50,220.86*	*12.7%*	*$340,690.77*	*9.3%*
Medical	*$3,135.00*	*0.2%*	*$1,756.61*	*0.2%*	*$9,508.99*	*1.3%*	*$784.08*	*0.2%*	*$15,184.68*	*0.4%*
Professional Service	*$4,263.00*	*0.3%*	*$21,175.93*	*2.2%*	*$8,913.30*	*1.2%*	*$2,384.04*	*0.6%*	*$36,736.27*	*1.0%*
Prosocial Engagement	*$4,506.35*	*0.3%*	*$1,271.00*	*0.1%*	*$51,820.58*	*7.1%*	*$5,697.10*	*1.4%*	*$63,295.03*	*1.7%*

Table A1. Spending by Region (continued)

Category	Central Region	Percent of Spending	Northeastern Region	Percent of Spending	Southern Region	Percent of Spending	Western Region	Percent of Spending	Statewide	Percent of Spending
Treatment Services	**$347,641.85**	**23.8%**	**$192,621.26**	**19.9%**	**$245,415.64**	**33.8%**	**$114,179.59**	**28.8%**	**$899,858.34**	**24.6%**
Day Treatment	*$0.00*	*0.0%*	*$11,655.00*	*1.2%*	*$3,184.20*	*0.4%*	*$0.00*	*0.0%*	*$14,839.20*	*0.4%*
Experiential Therapy	*$91,753.50*	*6.3%*	*$45,060.00*	*4.7%*	*$24,092.50*	*3.3%*	*$10,020.00*	*2.5%*	*$170,926.00*	*4.7%*
Family Services	*$1,360.00*	*0.1%*	*$11,289.00*	*1.2%*	*$1,800.00*	*0.2%*	*$39,996.59*	*10.1%*	*$54,445.59*	*1.5%*
Family Therapy	*$20,874.86*	*1.4%*	*$12,890.00*	*1.3%*	*$13,958.75*	*1.9%*	*$4,270.50*	*1.1%*	*$51,994.11*	*1.4%*
FFT and MST	*$17,098.35*	*1.2%*	*$11,952.00*	*1.2%*	*$13,655.20*	*1.9%*	*$0.00*	*0.0%*	*$42,705.55*	*1.2%*
Independent Living	*$21,991.00*	*1.5%*	*$8,706.00*	*0.9%*	*$138,237.74*	*19.0%*	*$8,037.50*	*2.0%*	*$176,972.24*	*4.8%*
Individual Therapy	*$129,770.11*	*8.9%*	*$53,996.45*	*5.6%*	*$23,147.25*	*3.2%*	*$43,165.00*	*10.9%*	*$250,078.81*	*6.9%*
Offense Specific Treatment	*$42,579.46*	*2.9%*	*$31,390.81*	*3.2%*	*$10,330.00*	*1.4%*	*$6,215.00*	*1.6%*	*$90,515.27*	*2.5%*
Substance Abuse Treatment	*$22,214.57*	*1.5%*	*$5,682.00*	*0.6%*	*$17,010.00*	*2.3%*	*$2,475.00*	*0.6%*	*$47,381.57*	*1.3%*
TOTAL*	**$1,458,626.75**	**100.0%**	**$967,579.03**	**100.0%**	**$726,308.30**	**100.0%**	**$396,772.31**	**100.0%**	**$3,650,769.39**	**100.0%**