NEW MEXICO CYFD Children, Youth and Families Department

EVALUATION BRIEF

December 2014

New Mexico's Children, Youth & Families Department and the Center for Effective Interventions

New Mexico MST Outcomes Tracking Project

Results for Six New Mexico Providers

July 2005-June 2014

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EXECUTIVE SUMMARY

Serious juvenile offenders or youth at risk for further penetrating the justice system pose many challenges for society. In addition to threatening public safety, their behavior and its consequences place heavy burdens on legal, educational and child welfare systems and disrupt their families, schools and communities.

Multisystemic Therapy (MST) is one of the few interventions that has proven to be effective with this difficult population. This report summarizes and highlights data from an ongoing evaluation of MST services delivered by six New Mexico providers. It reports on demographic and outcome information for 4,016 youth who received and completed MST treatment in New Mexico from July 2005 through June 2014.

July 2005 – June 2014
4,016 completed MST
73 completed MST-PSB

In addition, for the first time, this report will include a section (see page 12) that addresses the admission characteristics and short-term outcomes for 73 New Mexico youth who completed Multisystemic Therapy for Youth with Problem Sexual Behaviors (MST-PSB), a clinical adaptation of standard Multisystemic Therapy (MST) that has been specifically designed and developed to treat youth (and their families) for problematic sexual behavior.

The evaluation showed striking outcomes for youth who completed standard MST treatment.

- From admission to discharge, these young people made positive changes in every outcome area studied, including:
  - legal, mental health and substance abuse problems,
  - out of home living situations, and
  - instrumental indicators of youth and family functioning.
- 1091 youth who completed MST treatment and for whom we had six- and twelve-month post discharge data from youths' caregivers, demonstrated maintenance of these gains twelve months after completing MST.
- At six and twelve months after discharge, youths' caregivers also reported youth were doing better in the five instrumental indicators related to youth and family functioning.
- Two years after completing MST, youth had a 65% likelihood of NOT receiving a new petition, i.e. NOT having new charges filed by the district attorney.

Furthermore, a Cost Analysis Showed…

Savings of almost $12 million in Medicaid-Covered Behavioral Health Claims for 1,819 Youth Two Years after Completing MST: An Average Savings of Almost $6,500 per Youth.[1]

The outcome evaluation showed a 60% reduction in Average Cost per Month (AC/M) of over $1 million in paid claims for Medicaid behavioral health claims during the twenty-four months after MST treatment compared to the twelve months before MST treatment.

- A cost analysis of Medicaid behavioral health claims data showed that standard MST treatment costs were offset by reductions in other behavioral health services over the 2 years after discharge (n = 1,819 youth).
- The rate of return, i.e., benefit-cost ratio, was 1.55. For every dollar spent on MST treatment, $1.55 was returned in reduced Medicaid behavioral health claims. Returns beyond the cost of treatment reflect savings.
- Average Medicaid charges per month decreased from $1,901,658 before MST treatment to $763,124 after discharge.
- The greatest savings resulted from a 60% reduction in charges for residential services, which accounted for 74% of pre-admission claims, and a 76% reduction in psychiatric inpatient services, which accounted for 12% of pre-admission claims.

[1] *Service Utilization that likely occurred in other systems, most importantly in Juvenile/Criminal Justice, were not available at this time. While we plan to include these in future reports, the current analyses do not reflect system-wide savings.*

INTRODUCTION

Multisystemic Therapy

Multisystemic Therapy (MST) is an intensive home-, family- and community-focused treatment for youth with serious antisocial behavior and their families. MST has been shown to reduce the youth's criminal offending, out of home placements and behavioral health problems and to improve family functioning. Developed by Dr. Scott Henggeler in the 1970's, MST teams are now located worldwide and serve 76% (25) of New Mexico's counties.

The New Mexico MST Outcomes Tracking Project (OTP)

In July 2001, New Mexico's Medicaid Behavioral Health system implemented a program to provide funding for MST treatment for New Mexico's mental health and Juvenile Justice involved youth. New Mexico's Children, Youth & Families Department (CYFD) also provided funding for the development and implementation of the program evaluation component for MST teams in New Mexico. Implementation began in late 2003. In March 2005, the New Mexico Outcomes Tracking Project (NM-OTP) combined efforts and resources with Colorado's Center for Effective Interventions (CEI), which had contracted with Focus Research & Evaluation to create and pilot a statewide outcomes database for youth who received MST treatment in Colorado. The MST Institute (MSTI) joined the collaboration early in the development phase.

The collaboration ultimately produced the Colorado/New Mexico (CO/NM) Enhanced MSTI Website. This site, which is available through the national MSTI website, allows clinicians easy access to data entry and routine reporting, and complies with appropriate rules and regulations that protect families' and agencies' privacy and confidentiality. The New Mexico MST Outcomes Tracking Project documents demographic and outcome data regarding youth and families who have received MST services from six provider agencies.

The Partners

The partners involved in the New Mexico MST Outcomes Tracking Project (NM-MST-OTP) are:

- **New Mexico's Children, Youth & Families Department (CYFD)**—provides co-leadership, coordination and funding for the program evaluation.
- **The Center for Effective Interventions (CEI)**—provides support, training, and consultation to MST teams in New Mexico and surrounding western states. CEI shares leadership of the program evaluation.
- **Focus Research & Evaluation**—an independent program evaluation consulting practice, based in Colorado, provides instrument design, ongoing collaboration with MSTI, support to MST providers for data collection, and annual statewide and agency-specific outcome reports.
- **MST Institute (MSTI)**—a non-profit organization that provides web-based database management information systems and quality assurance tools to programs implementing MST.

As of June 30, 2014, six organizations were operating 22 MST Teams* in their catchment areas. Of these, 3 teams are specialized MST-Problem Sexual Behavior (MST-PSB) Teams. The parent organization, number of teams and catchment areas are listed below:

This evaluation brief is a joint product of all these entities. Together, the partners developed the database and tracking system that provided the foundation for separately funded and reported MST evaluation efforts in New Mexico and Colorado.

Figure 1:
Penetration of MST in New Mexico
as of June 30, 2014

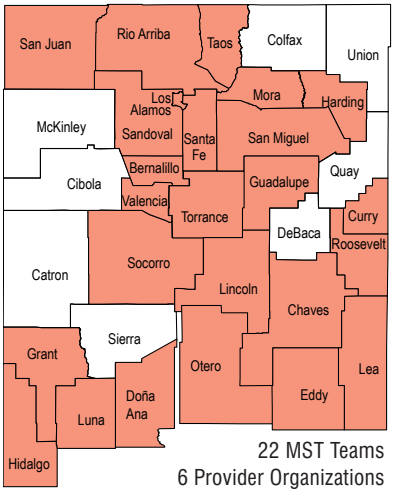


Table 1. New Mexico's MST Provider Organizations, Number of Teams and Catchment Areas

Provider Organizations	Teams	Catchment Areas
Guidance Center of Lea County	1 Standard MST	Hobbs
La Frontera New Mexico	2 Standard MST 1 MST-PSB	Las Cruces, Alamogordo, Mescalero, Ruidoso, Silver City, Deming, Lordsburg
Presbyterian Medical Services (PMS)	7 Standard MST	Santa Fe and NE New Mexico including Albuquerque, Rio Rancho and Los Lunas, Farmington
Southwest Family Guidance Center and Institute	4 Standard MST 2 MST-PSB	Albuquerque, Valencia County, Sandoval County, Santa Fe
Turquoise Health & Wellness	3 Standard MST	Roswell, Clovis, Portales, Carlsbad (inactive 6/30/14)
University of New Mexico (UNM)	2 Standard MST	Albuquerque

** Providers and teams change over time. This list includes the MST Providers and the number of teams represented by each in the database used for this report. Since this report includes youth who were admitted and discharged by June 30, 2014, two teams (one standard and one MST-PSB) that started later in FY 2014 are not represented in these analyses.*

Data Sources

Data are collected on all youth when they are admitted to and discharged from MST treatment. These data are entered into the MSTI online database by MST therapists and supervisors. An independent contractor, Advanced Behavioral Health, attempts to conduct telephone interviews with caregivers of youth who complete MST treatment at six- and twelve-months post discharge.

The 4,016 youth who were admitted and discharged between July 2005 and June 30, 2014 and who completed MST treatment were included in this year's analyses. Six- and twelve-month post-discharge follow-up data were collected for 1,293 (41%) of these youth; 1091 (27%) had data at four points in time, i.e., admission, discharge, and six and twelve months after discharge. This database is the primary source of data for this report.

Two additional data sources were used to conduct analyses that enhanced the evaluation's comprehensiveness and external validity.

- **Paid Claims Databases from New Mexico's Behavioral Health Managed Care Organizations (MCOs) for New Mexico's public mental health system**

  Data from the organizations that documented Medicaid claims covered under New Mexico's public mental health system over the years of the evaluation were used. Organizations' internal analysts used these databases to extract youths' use of a broad array of services and their associated costs.

- **CYFD Juvenile Justice FACTS Database**

  Maintained within CYFD's Juvenile Justice Services (JJS) Unit, this database includes information about New Mexico's juvenile offenders, including filings (i.e., petitions, referrals). A JJS analyst used this database to examine recidivism rates for the OTP's MST youth.

OUTCOMES TRACKING PROJECT (OTP) DATA:
Youth Who Completed Standard MST Treatment

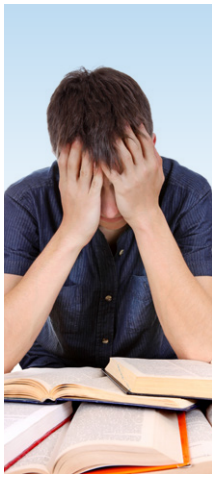
Starting Points…

Sociodemographic Characteristics at Admission

Of the 4,827 New Mexico youth who enrolled in MST treatment during the 9-year evaluation period, 4,016 (83.2%) completed MST treatment, with an average length of stay of 4.5 months. Notable characteristics of the youth who completed MST treatment include:

- 66% male
- Average age = 15.2 years old at admission
  - About 32% were age 14 or younger
  - 44% were age 15 or 16
  - 25% were age 17 or older
- 62% of the youth were Latino/Hispanic, 20% White/Non-Hispanic, 3% Black/African American, 3% American Indian/Alaska Native, 10% multi-racial
- Most (95%) were living at home at the time of admission
- Owing to the funding mechanism for MST Services in NM, most of the youth were Medicaid eligible during their enrollment in treatment. NM also has dollars available to provide treatment for some non-Medicaid eligible youth.

Problem Severity at Admission to MST



The 4,016 youth who enrolled in and completed MST treatment demonstrated serious problems in many areas of their lives.

During the three months before admission:

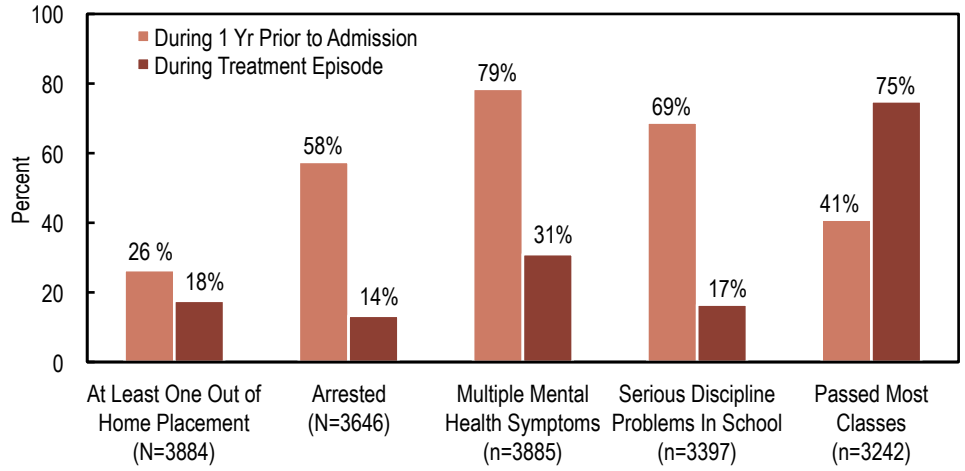
- Approximately 26% of the youth had lived out of home at least once, 20% of these in a criminal justice facility.

During the year before admission:

- 58% had not been passing most classes and 69% displayed multiple/chronic discipline problems in school.
- 58% had been arrested.
- 79% exhibited multiple mental health problems.
- 50% had co-occurring mental health and substance abuse problems.
- 35% had been prescribed psychiatric medications for behavioral health problems other than attention deficit disorder.
- Nearly 19% had evidenced suicide-related thoughts or behaviors.
- 22% had been in residential treatment or hospitalized for psychiatric reasons during the year before enrollment.

Outcomes at Discharge

Figure 2. Youth who Completed MST: Outcomes for Out of Home, Arrests, and School from Admission to Discharge

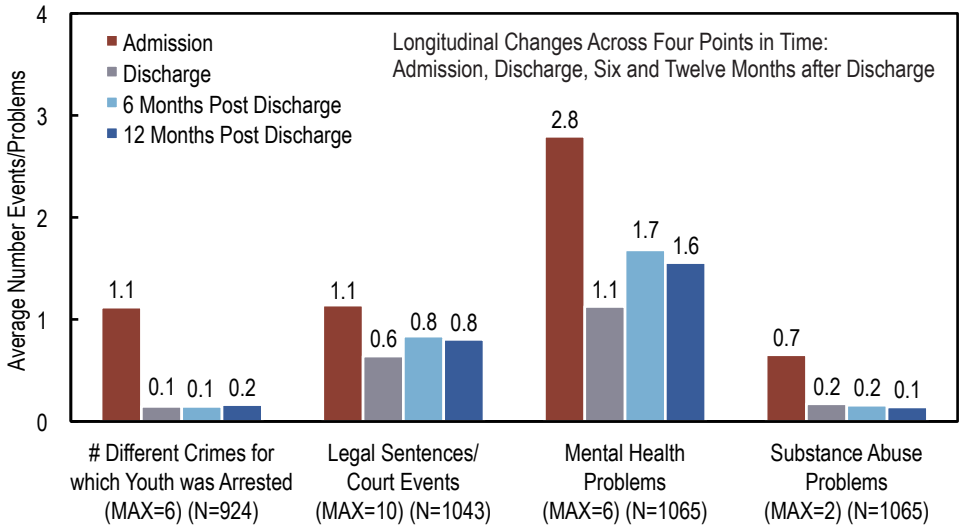


All analyses were paired and only included youth with valid data at admission and discharge; the number of youth varies because of missing data. All changes were statistically significant (p=.000 McNemar)

From admission to discharge, youth made positive changes in every outcome area studied, including the out-of-home placement, legal, mental health, and school domains.

Outcomes 6 and 12 Months after Discharge

Figure 3. Outcomes in 4 Domains: Youth Who Completed MST Treatment and with Admission, Discharge, and 6 and 12 Months Post-Discharge Data*



- The maximum number of events/problems varies across domains and is indicated by (MAX = X) above.
- Reductions between Admission and Discharge were significant for all measures.
- Reductions between Admission and 6 months and between Admission and 12 Months Post Discharge were statistically significant for all measures (p=.000).

** At admission, compared to youth who did not have twelve-month data, youth with data at twelve months were slightly more Hispanic and less American Indian; and slightly more likely to have better school status. There were no significant differences found for average age, other ethnic groups, gender, legal problems, out-of-home placement, or mental health or substance abuse problems.*

27% (1,091) of the youth who completed MST had admission and discharge data as reported by MST therapists and post-discharge data as reported by youths' caregivers.

Longitudinal analyses demonstrated maintenance of gains in legal, mental health and substance abuse domains twelve months after they completed the program.

CHANGE IN MEDICAID BEHAVIORAL SERVICE UTILIZATION AND ASSOCIATED EXPENSES

New Mexico has had several Medicaid behavioral health managed care organizations (MCOs) over the course of the Outcomes Tracking Project. In order to examine behavioral services utilization and cost comprehensively, we compiled data provided to us from the claims databases of legacy and current organizations for services provided to New Mexico's MST Medicaid recipients. The claims were examined for (1) the twelve-month period prior to enrollment in MST, (2) the MST treatment episode, and (3) the twenty-four-month period after discharge from MST, for 1,819 youth who completed MST and had been discharged for two years or more by June 30, 2014. Claims were organized into service categories specified in the Collaborative Critical Indicator #9 – Service Utilization Report (CI-09) reflecting types of intervention.

Table 2 displays the CI-09 Service Categories used and examples of services included in each category:

TABLE 2

CI-09 Service Category	Example Services
Inpatient Psychiatric Services	Inpatient hospitalization; Psychiatric Emergency Services; Observation Care
Intensive Outpatient*	Behavioral Management Services; Intensive Outpatient Substance Abuse Program
Residential	Residential Services (ARTC and RTC); Group Home; Therapeutic Foster Care; Transitional Living
Outpatient	Day Treatment; Group, Individual and Family Therapy; Medication Management, Respite Care
Recovery	Comprehensive Community Support Services
Value Added Services	Inpatient and Ambulatory Detoxification; Home-based Services, School-Based Health Center Services

*Intensive Outpatient includes MST in CI-09 but was not included for this analysis.

Strategies for Examining Changes in Service Use and Associated Savings

We examined the Medicaid claims data to determine:

- The average charges per month (for the entire sample and per youth) for each CI-09 Service Category in each time period; and
- Changes in average charges per month between time periods.
- The difference between any savings (i.e., reductions in average charges per month) and the total Medicaid charges for provision of MST.

OUTCOMES: *Significant reductions in average monthly Medicaid claims*

CHANGE IN AVERAGE CHARGES PER MONTH FOR PAID MEDICAID BEHAVIORAL HEALTH CLAIMS

Calculating Average Charges per Month (AC/M) for each time period allowed us to control for the different length of each period, i.e., twelve months pre-MST treatment, four and one-half months average length of MST treatment, and twenty-four months post-MST treatment.

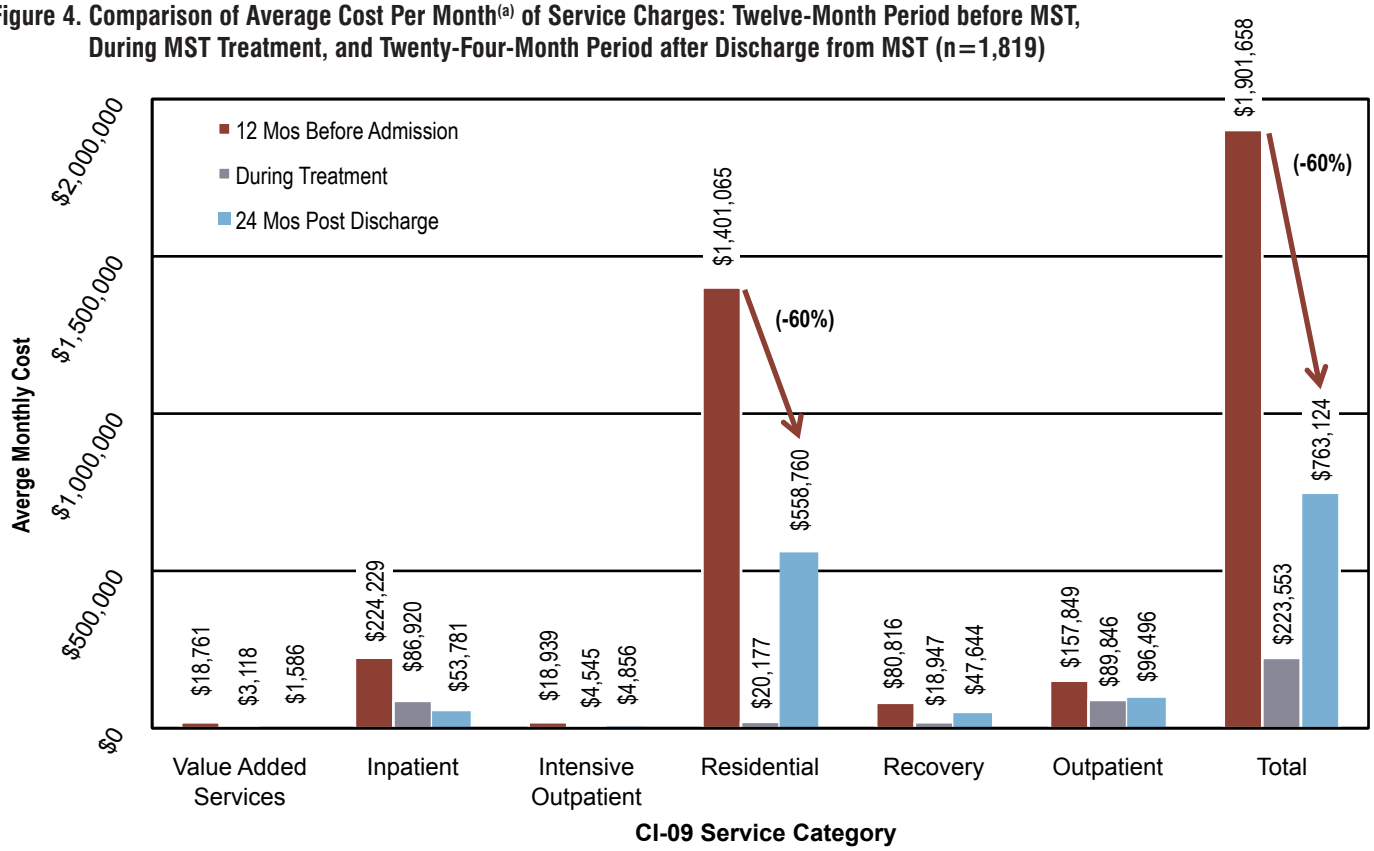
Figure 4 displays the Average Charges per Month of paid claims for services in each period by CI-09 Service Category, resulting in a 60% reduction in AC/M of over $1 million in paid claims from $1,901,658/month before treatment to $763,124/month after discharge from MST. Not shown are proportionate reductions in Monthly Average Charges per Youth (MAC/Y) that resulted in MAC/Y of $420 after treatment compared to $1,045 before treatment (% change of -62%).

With regard to the CI-09 Service Categories:

- Residential Services accounted for 74% of the pre-admission charges and showed a 60% reduction in AC/M.
- Inpatient and Outpatient Services represented 12% and 8% of the pre-admission charges, respectively, but showed 76% and 36% reductions in AC/M.
- Intensive Outpatient Services also showed a notable reduction of 74% in AC/M.
- Value Added Services showed the most dramatic reduction in AC/M, at 92%, but had the lowest expenditures overall, accounting for only 1% of pre-admission charges.

Figure 4 also shows striking reductions in all service categories while youth were in MST treatment, representing significant averted expenses that likely would have continued had youth not received intensive services.

Figure 4. Comparison of Average Cost Per Month[a] of Service Charges: Twelve-Month Period before MST, During MST Treatment, and Twenty-Four-Month Period after Discharge from MST (n=1,819)



[a] **Average charges per month** *are calculated by averaging the total charges accrued for each setting by the number of months in a given period. The total charges in each setting in a given period were divided by (a) 12 months for the pre-MST period, (b) 4.5 months (i.e., the average length of stay across sites) for the MST treatment period, and (c) 24 months for the post-MST period.*

Savings, Net Benefits and Recovered Medicaid Behavioral Health Costs

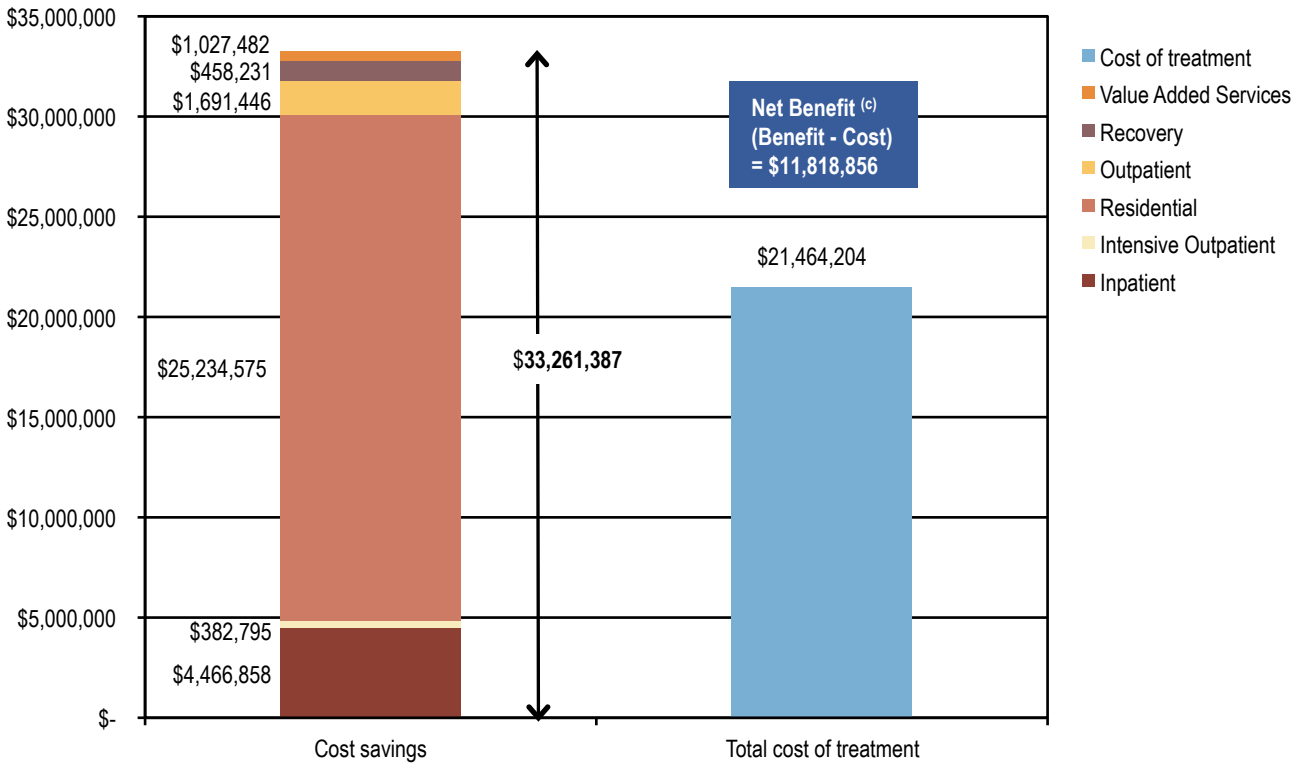
In order to determine whether overall savings were accrued by the end of the twenty four-month period following youths' discharge from MST, we first summed the savings from each of the service categories during and after treatment and then subtracted the cost of MST treatment (i.e., total Medicaid claims for MST).

Figure 5 shows that MST costs of over $21 million were exceeded by the cumulative savings in other areas (over $33 million) by almost $12 million, resulting in a **Benefit-cost Ratio of 1.55;** for every dollar that New Mexico spent on MST treatment, $1.55 was recovered in reduced behavioral health claims within two years after youth completed MST treatment.

This finding appears to be consistent with discussions suggesting that it can take a few years to recover MST treatment costs.[2] It is important to note that changes in utilization that likely occurred in other systems, most importantly in Juvenile/Criminal Justice, were not available at this time. While we plan to include these in future reports, the current analyses do not reflect system-wide savings.

[2] *Klietz, S.J., Borduin, C.M., and Schaffer, C.M. (2010). Cost-Benefit Analysis of Multisystemic Therapy with serious and violent juvenile offenders. Journal of Family Psychology, 24(5), 657–666.*

Figure 5. Estimated Total Benefits[(a)] and Treatment Cost[(b)] Twenty-Four Months after Discharge from MST (n=1,819)



(a) Total Benefits were calculated for each service area in three steps: (1) calculating the change in monthly charges for that service between (a) before admission and during treatment and (b) before admission and after discharge; (2) multiplying the monthly charges averted by the time period examined (i.e., 4.5 months for during treatment, 12 months for after discharge); (c) summing the benefits accrued during and after treatment.

(b) MST Treatment Cost was calculated using an average monthly cost of $2,622/per youth (Center for Effective Interventions) and an average length of stay of 4.5 months for the youth in this sample.

(c) Net Benefit = Total Benefits – MST Treatment Cost. All $ values are in 2014 dollars.

Changes in Five Instrumental (Key) Indicators of Youth and Family Functioning

At discharge, youth improved significantly on all measures compared to admission.

Caregivers described their youth, on average, as doing better on similar measures 6 & 12 months after discharge.

MST considers five measures of youth and family functioning to be "instrumental" or key indicators of whether positive changes will be maintained after the youth leaves treatment. These measures report the clinicians' judgments regarding parenting skills, family relationships, the families' use of networks and supports, youths' educational/vocational success, and youths' involvement with pro-social peers.

Table 3 displays the five instrumental domains and youths' average scores at admission and discharge.

TABLE 3. Youth & Family Functioning (Therapist Ratings) Admission to Discharge

Youth & Family Functioning (Therapist Ratings)	Parenting Skills (n=3,232)	Family Relationships (n=3,268)	Family use of/ Contact with Network (n=3,132)	Educational/ Vocational (n=3,199)	Prosocial Involvement (n=2,983)
Admission to	2.3	2.4	2.6	2.4	2.3
Discharge	4.1	4.1	4.3	4.0	4.0

1-5-point rating scale with higher numbers indicating better functioning
All changes demonstrated statistically significant improvement, p=.000 (paired test).

Caregivers are asked during six- and twelve-month post-discharge interviews how their youth are doing in each of the five instrumental indicators compared to the prior rating period: (1) Much Worse, (2) Worse, (3) About the Same, (4) Better, or (5) Much Better.

Table 4 displays data for the New Mexico youth and families as reported by caregivers six and twelve months after discharge. **Table 4** shows caregivers see improvement in all areas.

TABLE 4. Youth & Family Functioning (Mean Caregiver Ratings)* Discharge to 6 Months Post-Discharge; 6 Months Post-Discharge to 12 Months Post-Discharge

Youth & Family Functioning (Mean Caregiver Ratings)	Following Rules	Family Relationships	Family Use of/Contact with Network	Educational/ Vocational	Prosocial Involvement
How were youth doing: 6 months post discharge? (n=1,755)	↑	↑	↑	↑	↑
How were youth doing: 12 Months post discharge? (N=1,324)	↑	↑	↑	↑	↑

** Blue arrows indicate improved functioning from first to second point in time.*

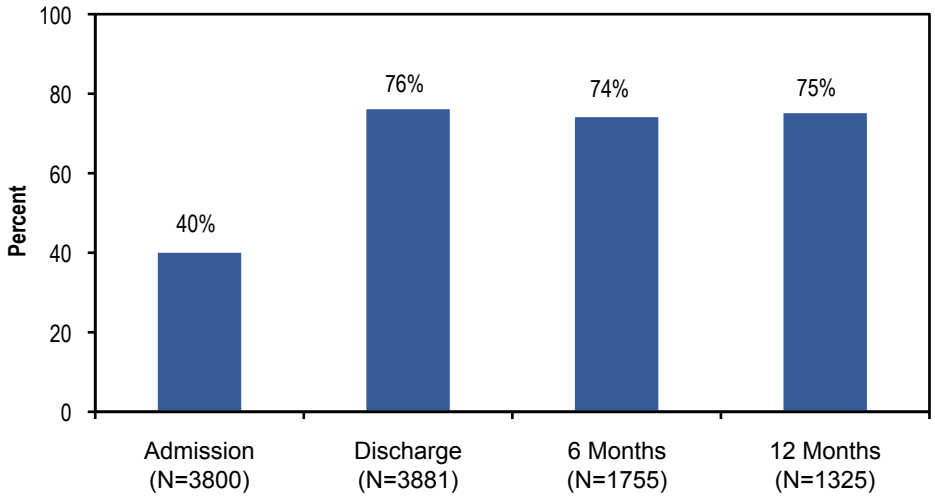
Tools Needed To Fulfill Adult Roles In Society

Common ways in which U.S. society judges whether individuals have the capacity to fulfill their expected roles as adults is whether they are enrolled in and passing classes, have completed their K-12 education, credentialed in a vocation that is likely to lead to employment, or working. These factors are particularly important for youth who have already been identified as high risk and referred for intensive treatment.

Figure 6 displays an effort to compile information that allows us to look at these activities and achievements of youth who have completed MST before their treatment, at discharge, and at six and twelve months after their discharge. The percent of youth who were identified as "Contributing Members of Society" at each data collection point is displayed. This analysis does not take economic conditions or a youth's age into account.

From admission to discharge, these New Mexico youth demonstrated significant increases in their fulfillment or potential fulfillment of adult roles. These gains were maintained through twelve months after they completed the program.

Figure 6. Youth who Completed MST: Changes in Educational and Vocational Domains[1]; Youth as Contributing Members of Society at Admission, Discharge, 6 and 12 Months after Discharge



[1] *Enrolled in school, GED, College Courses, Voc Training AND Passing Most Classes (or Completed); or working 20+/week – unpaired analysis includes all youth with data at each point in time.*

CYFD Juvenile Justice Statewide Database Shows Positive Outcomes for MST Youth

CYFD Juvenile Justice Services (JJS) Database: Recidivism

The Family Automated Client Tracking System (FACTS) is CYFD's case management system. Juvenile Justice Services uses this system to track youth and services they receive while under CYFD care. A JJS analyst researched client records from the FACTS database for New Mexico youth who completed MST from July 2005 through December 2013.

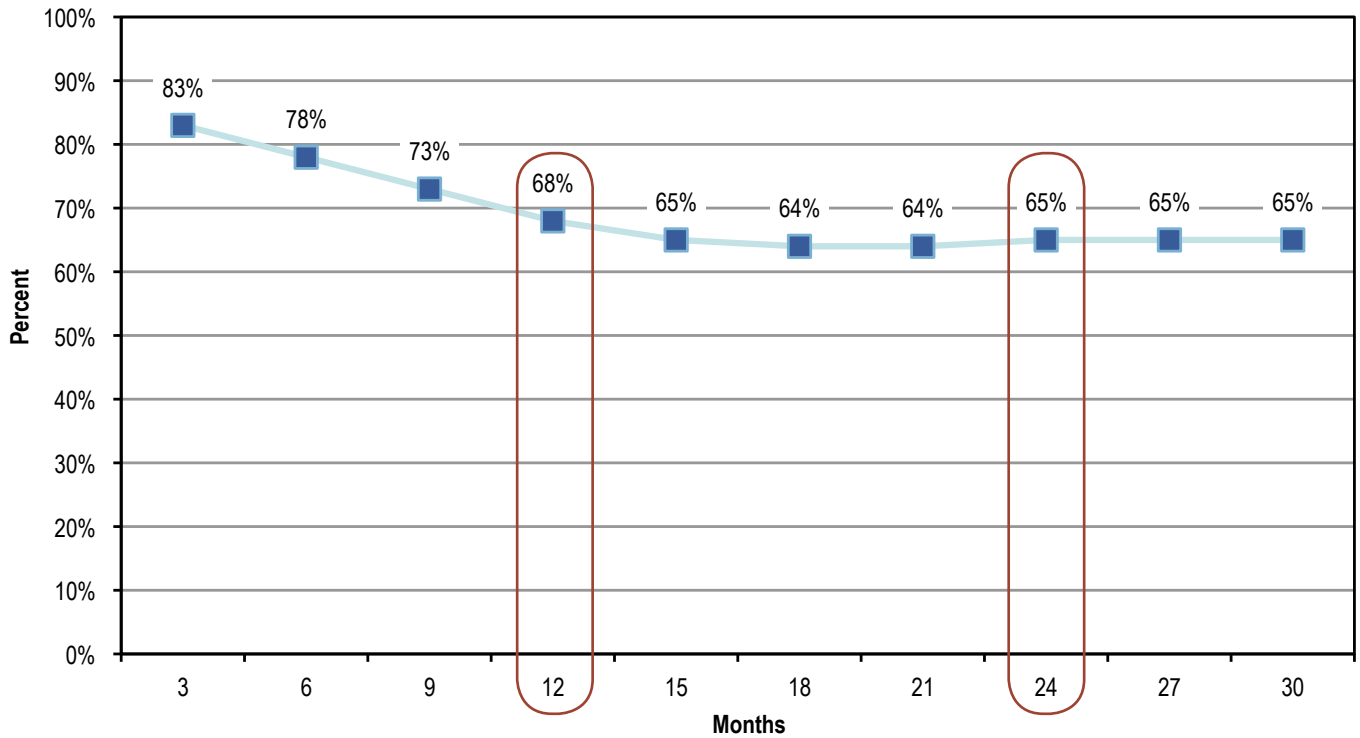
Figure 7 displays a survival analysis including 2,680 youth for whom matching records were found. The analysis controlled for youth's length of time since completion of MST and showed that youth who completed MST had a 68% likelihood of not having charges filed by the District Attorney[3] during the one year following discharge; at 24 months post-completion the probability of not having charges filed by the District Attorney was approximately 64%. These recidivism rates compare favorably with those reported in a controlled research study: 74% of youth had not recidivated in 4 years. We would expect any results of MST conducted in "the real world" to be less than this standard.[4]

[3] *In New Mexico, District Attorney filings are referred to as petitions; a petition requires greater evidentiary burden than a referral (allegation) and is filed by the District Attorney.*

[4] *Borduin, C.M., Mann, B.J., Cone, L.T., Henggeler, S.W., Fucci, B.R., Blaske, D.M., & Williams, R.A. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. Journal of Consulting and Clinical Psychology, 63, 569-578.*

One year after completing MST treatment, the probability of a youth NOT having charges filed was 68%, after two years, 64%.

Figure 7. MST Survival Analysis: 2005-2013
Likelihood of Youth NOT having Charges Filed by the District Attorney
12 and 24 Months after Completing MST Treatment (n=2,680)



Source: MST data provided by Anita Coen, matched with petitions from FACTS, CYFD

MST FOR YOUTH WITH PROBLEM SEXUAL BEHAVIOR (PSB)

Background and Introduction

Multisystemic Therapy for youth with problem sexual behaviors (MST-PSB) is a clinical adaptation of MST rooted in the same foundation of intensive family- and community-based treatment as standard MST. MST-PSB is designed to treat chronic and violent juvenile offenders who engage in criminal sexual behavior such as sexual assault, rape and molesting younger children. In order to qualify for the program, there also must have been a victim of the abuse other than the youth themselves.

The impetus to start MST-PSB in New Mexico grew from two factors: 1) Treatment options for adolescents with problem sexual behaviors were essentially limited to residential facilities and standard outpatient treatment. There were very few experienced treatment foster care placements or mid-level programs to serve these youth, resulting in there being only fairly high or fairly low level of care treatment options available; and 2) New Mexico's CYFD leadership was encouraged by the very positive impact MST was having on the youth served across the state. PSB was first implemented in New Mexico in January 2009 in two agencies that were already providing standard MST: Southwest Family Guidance Center & Institute in Albuquerque and Families and Youth, Inc. (FYI) in Las Cruces. FYI has discontinued its services and a third agency, La Frontera, now provides MST-PSB. Owing to the PSB program having a longer length of stay and higher intensity of service, historically PSB has been reimbursed at a slightly higher rate than standard MST. With the advent of Centennial Care, the increased rate has not been agreed to by the four Medicaid Managed Care Organizations.

This section of New Mexico's Annual MST Outcomes report presents highlights from an initial analysis of the admission and discharge data available for 73 youth who completed MST-PSB since 2009 (77.7% of those who enrolled). Although the number of youth in the database has grown, this is still a relatively small number. The number of youth with six- or twelve-month post-discharge data is substantially lower. Therefore this brief will focus on youths' sociodemographic characteristics and problem severity at admission and their outcomes in functioning at discharge. The purpose of this brief is to start a narrative on the progress of MST-PSB youth and not to compare their outcomes to youth who complete standard MST treatment. The reason for this will be become clear as we describe how the youth who use these different programs differ from one another.

Characteristics of Youth Compared to Standard MST Youth

The youth who completed MST-PSB had an average length of stay/treatment of 6.7 months, compared to 4.5 months for those who completed standard MST. Demographically, they were:

- More male; 93.2% compared to 66%
- Younger; an average age of 14.5 years at admission, compared to 15.2 years
- All living at home at the time of admission; (100%), compared to 94% of the standard MST youth

MST-PSB Youth Problem Severity at Admission

During the year before admission, MST-PSB youth were:

- Less likely to have NOT passed most classes at school, 23% compared to 58%
- Less likely to have exhibited multiple/chronic discipline problems in school; 41% compared to 69%
- Less likely to have substance abuse problems; 15%, compared to 49%
- Less likely to have had legal problems three months before admission; 50% compared to 64%
- Less likely to have been arrested; 48% compared to 58%
- Less likely to have evidenced suicide-related thoughts or behaviors; 7% compared to 19%

Of note is that both groups exhibited about the **same** reported rates of multiple mental health problems, co-occurring mental health and substance abuse problems, and being prescribed psychiatric medications for behavioral health problems other than attention deficit disorder.

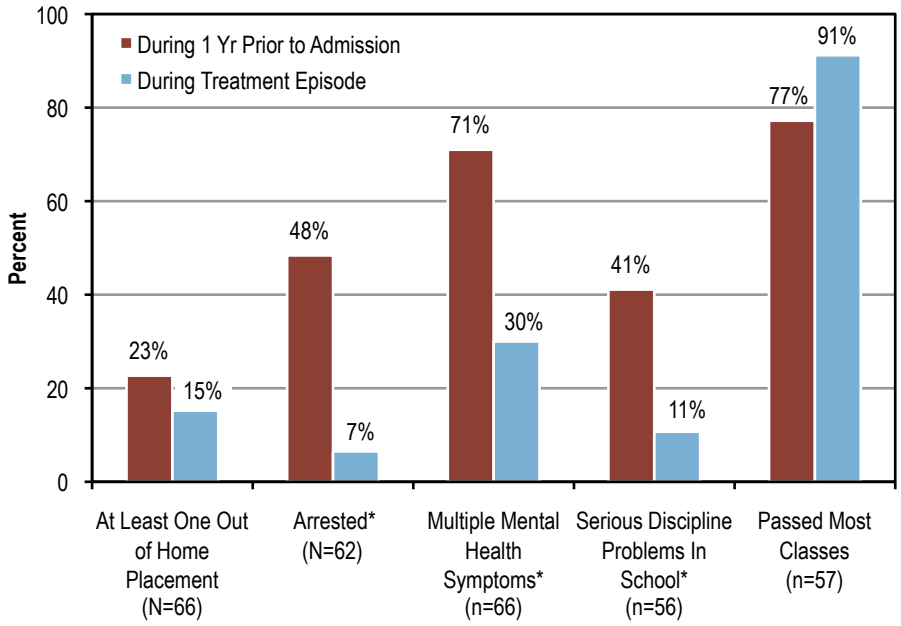
Recidivism

When a CYFD-JJS Analyst examined FACTS records, no subsequent petitions, i.e., filings by the district attorney were found for any of MST-PSB youth who completed treatment.

Short-Term Outcomes: From Admission to Discharge

From admission to discharge, MST-PSB youth made positive changes in every outcome area studied, including the out-of-home placement, legal, mental health, and school domains.

Figure 8. Youth who Completed MST-PSB: Outcomes for Out of Home, Arrests, and School from Admission to Discharge



All analyses were paired and only included youth with valid data at admission and discharge; the number of youth varies because of missing data.

- *Change from admission to discharge was statistically significant (p <=.05 McNemar)*

MST-PSB: Changes in Five Instrumental (Key) Indicators of Youth and Family Functioning

At discharge, youth improved significantly on all measures compared to admission.

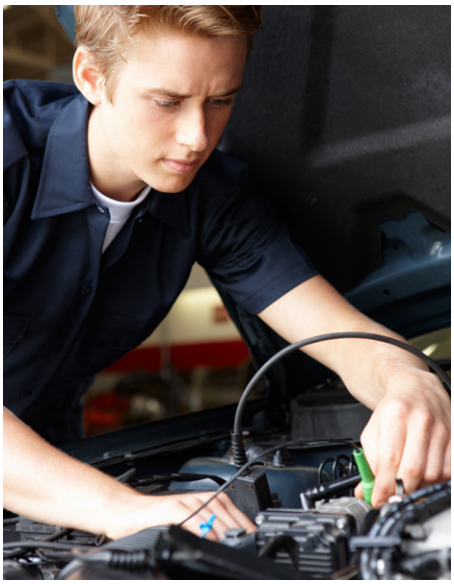
Table 5 displays the five instrumental domains and youths' average scores at admission and discharge.

TABLE 5: Youth & Family Functioning (Therapist Ratings) Admission to Discharge

Youth & Family Functioning (Therapist Ratings)	Parenting Skills (n=59)	Family Relationships (n=61)	Family use of/ Contact with Network (n=54)	Educational/ Vocational (n=54)	Prosocial Involvement (n=39)
Admission to Discharge	2.9 4.4	2.8 4.3	3.0 4.5	3.4 4.4	3.0 4.3

1-5-point rating scale with higher numbers indicating better functioning
All changes demonstrated statistically significant improvement, p=.000 (paired test).

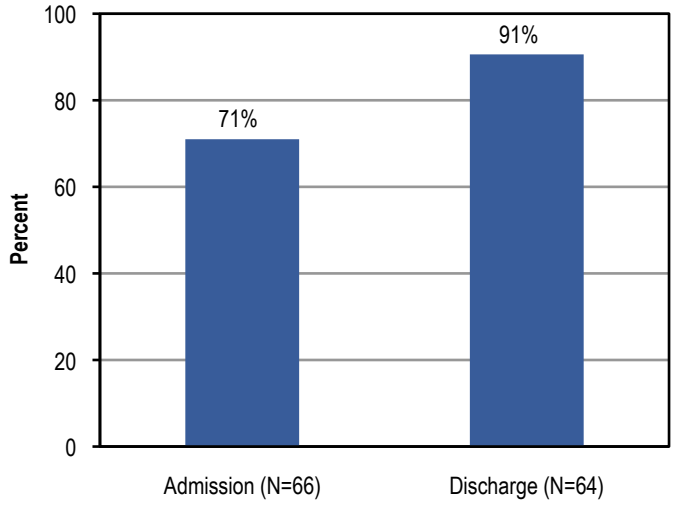
MST-PBS therapists rated youth and families, on average, as functioning better on all indicators.



Tools Needed To Fulfill Adult Roles in Society

From admission to discharge, these New Mexico youth demonstrated significant increases in their fulfillment or potential fulfillment of adult roles based on the index developed to measure this domain.

Figure 9. Youth who Completed MST-PSB: Changes in Educational and Vocational Domains[1]; Youth as Contributing Members of Society at Admission and Discharge



[1] *Enrolled in school, GED, College Courses, Voc Training AND Passing Most Classes (or Completed); or working 20+/week – unpaired analysis includes all youth with data at each point in time.*

SUMMARY AND CONCLUSIONS

This year's report included the sociodemographic, problem severity and outcomes for New Mexico's standard MST and MST-PSB programs. The results of this nine and one-half year evaluation were very positive.

- Although the youth demonstrated very high rates of severity at admission across multiple life domains, a set of repeated measures analyses conducted for youth who completed standard MST and for whom we had data at admission, discharge, and six and twelve months after discharge, showed statistically significant improvement from admission to discharge in all areas studied, including Arrests, Overall Legal and Mental Health and Substance Abuse problems, as well as in instrumental indicators of youth and family functioning. These gains were maintained for at least twelve months after youth were discharged from MST.
- The results of a cost analysis demonstrated significant savings of almost 12 million dollars as a result of reduced utilization of Medicaid-covered behavioral health services two years after youth completed standard MST services.
- Youth who completed standard MST were found to have a 68% likelihood of **not** recidivating (i.e., receipt of a petition) one year after completing MST treatment.

These findings demonstrate noteworthy successes across 23 counties representing New Mexico's geographic, ethnic, and economic diversity, and are consistent with other positive findings of outcomes of MST treatment with juvenile justice involved youth.

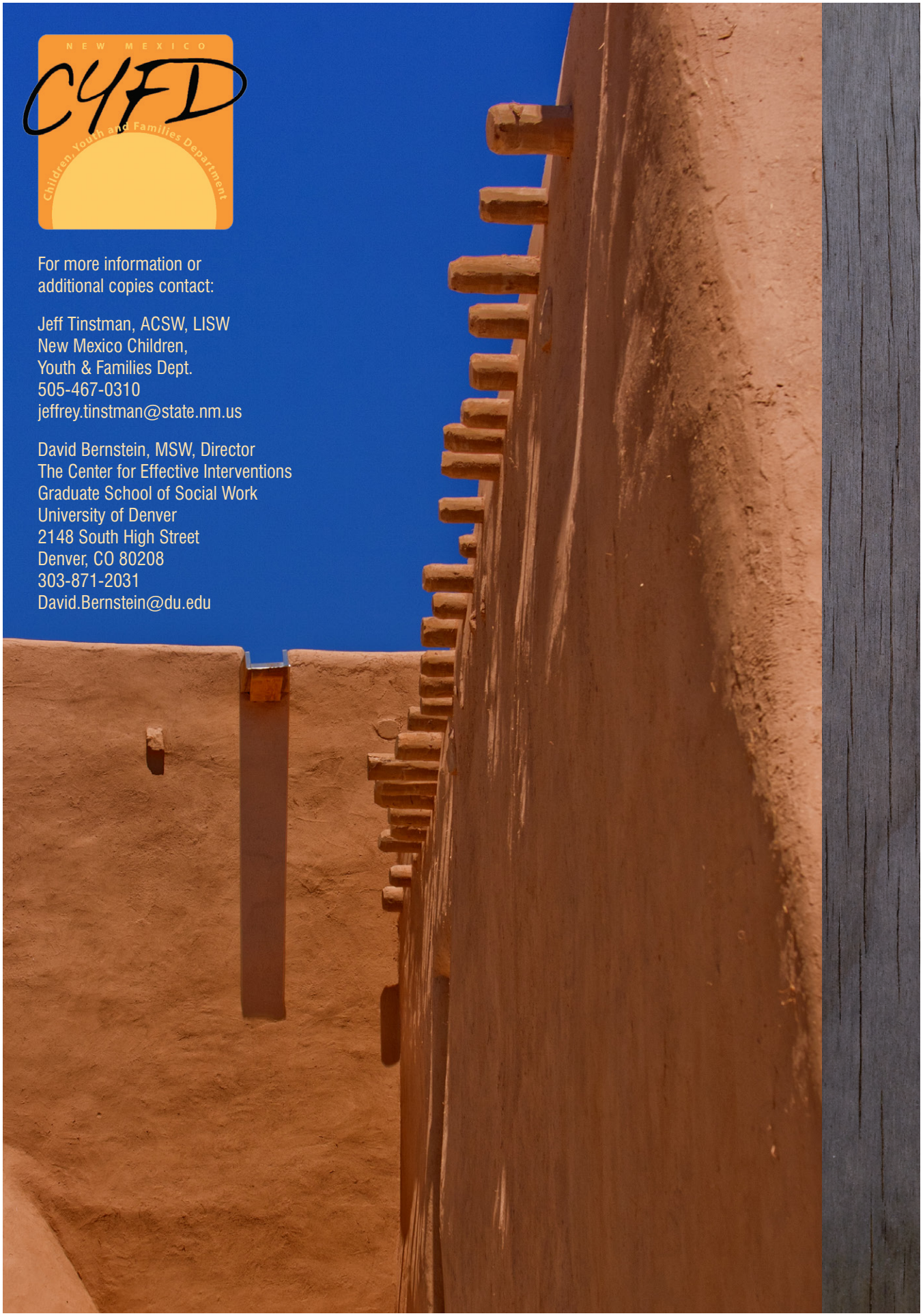
We also took a first look at 73 youth who completed MST-PSB (MST for youth with problem sexual behavior).

- These youth also have high rates of problem severity at admission, but at a lower level that the standard MST youth. They are also substantially more male.
- While we were limited in the number and types of analysis we could do, our initial examination of outcomes also showed improvement key areas, including out-of-home placement, legal, educational and vocational areas, youth and family functioning and potential to fulfil adult roles in society.
- Notably, **none** of the MST-PSB youth had received a new petition for a new crime during the two years following their completion of treatment.

NEXT STEPS

The partners will continue to work collaboratively to:

- Expand the use of New Mexico's internal and external databases to support and enhance the Outcome Tracking Project evaluation data;
- Develop new strategies to capture the use of services provided in other service sectors and, potentially, the economic benefits of MST services, including victim, police and prosecution cost savings.
- The next service area of focus will be expanded Juvenile Justice Services data, including types of crimes youth committed and sentencing;
- Along with the expansion of MST-PSB, we are exploring other adaptations of MST, e.g., MST for Child Abuse and Neglect, MST-Psychiatric;
- Continue to adapt the study to meet the needs of MST providers and their stakeholders; and
- Advocate for sustained and increased resources for MST in New Mexico.



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