UNIVERSITY of MARYLAND SCHOOL OF SOCIAL WORK

MST MARYLAND • QUARTERLY REPORT

THE INSTITUTE FOR INNOVATION & IMPLEMENTATION

UTILIZATION, FIDELITY, AND OUTCOMES

FY 2013, SECOND QUARTER

Who was referred to MST?

A total of 62 youth[1] were referred to MST during the second quarter of FY13, of whom 15 were waitlisted or temporarily pending admission at the end of the quarter. Of the remaining 47 youth, 38 (81%) started and 9 (19%) did not start MST.

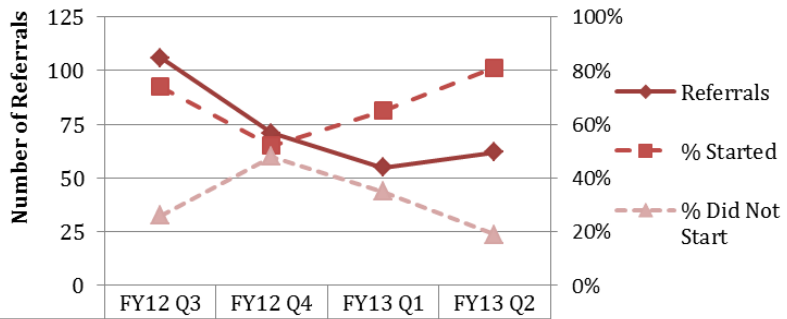
Table 1. Demographic Characteristics of Youth, FY13 Q2*

		Referred	Did Not Start MST	Started MST
Total Youth		**62**	**9**	**38**
Gender	Male	47 (76%)	6 (67%)	28 (74%)
	Female	15 (24%)	3 (33%)	10 (26%)
Race/ Eth.	African American/Black	51 (82%)	9 (100%)	28 (74%)
	Caucasian/White	5 (8%)	0 (0%)	4 (10%)
	Hispanic/Latino	3 (5%)	0 (0%)	3 (8%)
	Other	3 (5%)	0 (0%)	3 (8%)
Age	Average (Stand. Dev.)	15.0 (1.5)	14.6 (1.9)	15.2 (1.4)

What were the reasons that referrals were not accepted?

Of the nine youth who did not start MST, the most frequent reasons were that the youth or caregiver did not consent (33%, n=3), followed by the youth not being of age (22%, n=2) and the youth having other primary concerns related to suicidal, homicidal, or psychotic behaviors (22%, n=2).

Figure 1. Number of MST Referrals, Percent Started Services, and Percent Did Not Start Services Over the Last Four Quarters*



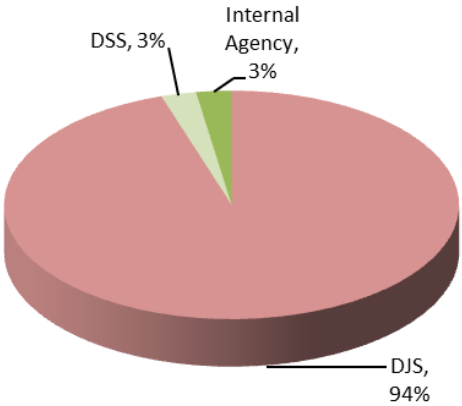
	FY12 Q3	FY12 Q4	FY13 Q1	FY13 Q2
Referrals	106	71	55	62
% Started	74%	52%	65%	81%
% Did Not Start	26%	48%	35%	19%

**Started/Did Not Start %'s are only out of referrals that were not pending/waitlisted.*

Who referred and funded youth entering MST?

A majority of youth admitted this quarter were referred by DJS (94%, n=36), followed by DSS (3%, n=1) and another referral source (3%, n=1).

Figure 2. Referral Sources of Youth Served, FY13 Q2



Similarly, most admitted youth were funded by DJS (94%, n=36). Other funding sources included DSS (3%, n=1) and CCIF (3%, n=1).

How were funded MST slots utilized?

On average, 85% of funded MST slots were utilized during this quarter.

Table 2. Average Slot Utilization, FY13 Q2

Funding Source	Funded Slots	Average Utilization
DJS	50	82%
CCIF	5	93%
DSS	5	88%

How well did therapists deliver MST?

The Therapist Adherence Measure – Revised (TAM-R) evaluates the therapist's adherence to the MST model as reported by the primary caregiver.[2] For youth served within this quarter, the average therapist adherence score was .82. All 5 therapist teams were above the target therapist adherence score of .61 (scores ranged from .75-.90). Of the 88% of families who completed at least one TAM-R interview, 87% had a therapist with an average adherence score at or above the target.

Figure 3a. MST Average Adherence Score (TAM-R)

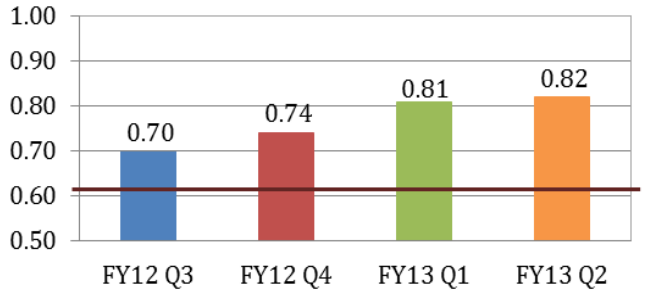


Figure 3b. Percentage of Families Served with At Least One TAM-R

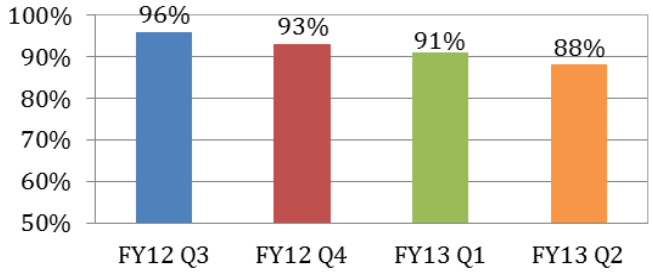
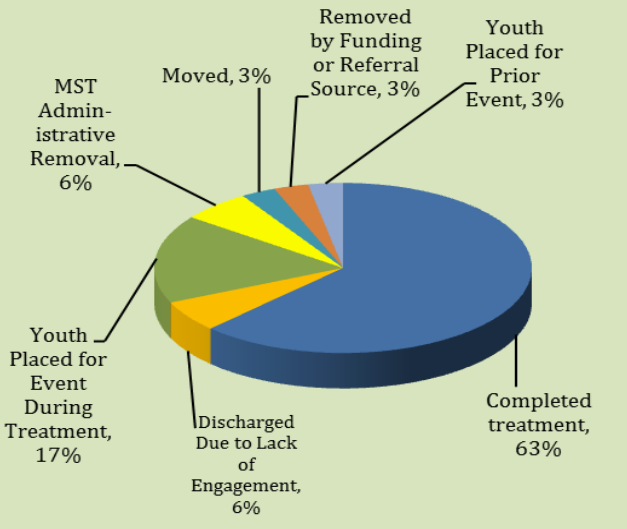


Figure 4. Discharges by Type, FY13 Q2



Did discharged youth complete MST?

Of the 35 youth who were discharged from MST, 30 (86%) had the opportunity for the full course of treatment.[3] The top reasons for all discharges were:

- 22 (63%) youth completed treatment;
- 6 (17%) youth were placed;
- 2 (6%) youth were not engaged; and
- 2 (6%) youth were administratively removed.

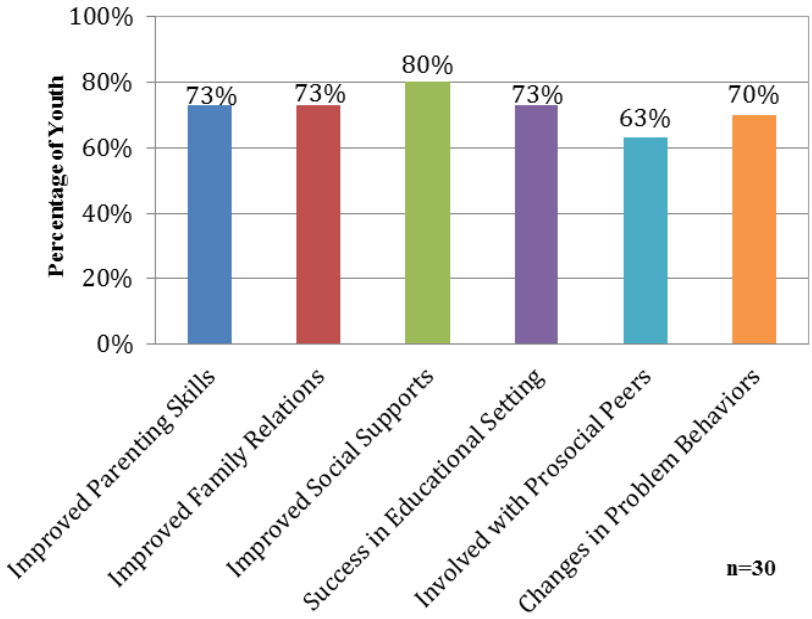
Compared with last quarter, a lesser proportion of youth discharged this quarter completed treatment (83% vs. 63%), and more were placed for an event during treatment (2% vs. 17%).

How long did it take to administer MST?

The average duration of MST treatment (i.e., the number of days between the start date and discharge date) was 128 days (*sd*=39.4) for all youth who discharged with the opportunity for the full course of treatment, and 143 days (*sd*=24.0) for youth who completed treatment. These treatment lengths were longer to those of the previous quarter, and youth who completed treatment were just outside the MST national target range of 100-140 days.

What were the outcomes for youth with an opportunity for the full course of MST treatment?

Figure 5. Instrumental Outcomes at Discharge for Youth who had the Opportunity for Full Course of Treatment



Instrumental outcomes

Instrumental outcomes include six items that identify whether or not a youth has achieved skills that are "instrumental" to positive outcomes during treatment. For each of these outcomes, the majority of youth who had the opportunity for full course of treatment indicated improvement this quarter. However, compared to the previous quarter, the rates of improvement were lower for all outcomes except for social supports. Family relations dropped 7%, while parenting skills, involvement with prosocial peers, and problem behaviors each dropped by 10% or more; success in educational setting dropped 20% from the last quarter.

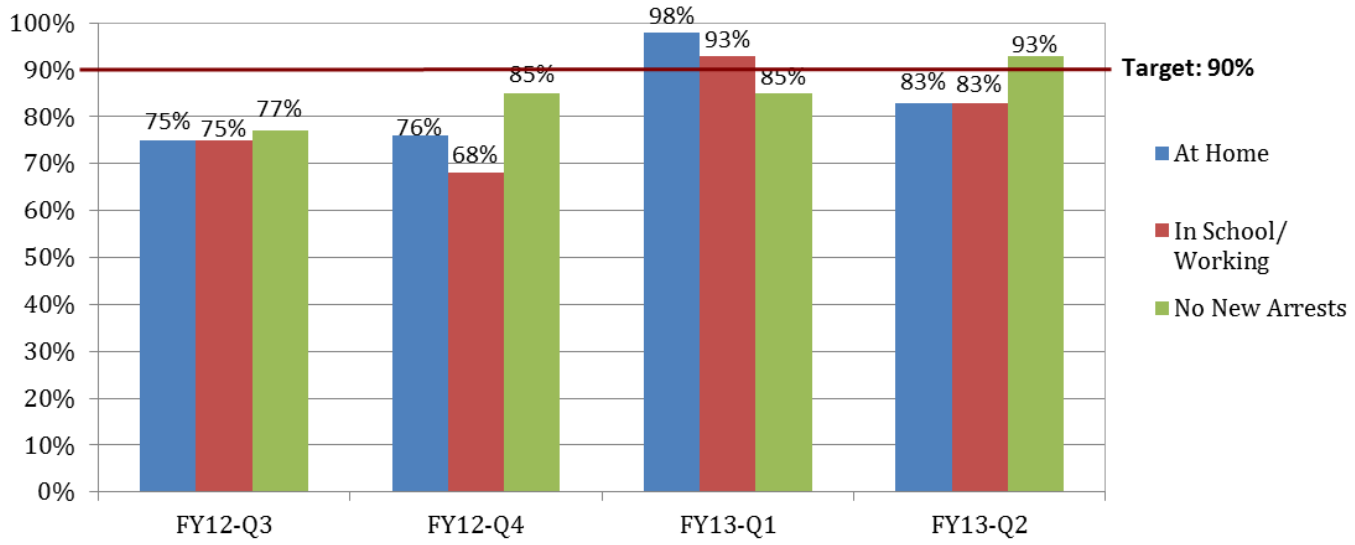
Ultimate outcomes

The ultimate outcomes* for youth who had the opportunity for the full course of treatment in FY13 Q2 (n = 30) were as follows:

- 25 (83%) youth were living at home;
- 25 (83%) youth were in school and/or working; and
- 28 (93%) youth had no new arrests during MST treatment.

**Please see Appendix 1 for definitions of outcome variables.*

Figure 6. Ultimate Outcomes at Discharge for Youth who had the Opportunity for Full Course of Treatment



What is the story behind the numbers?

With assistance from providers and other key stakeholders, The Institute has identified areas of particular strength and areas that require additional attention in order to improve MST services for youth and families in Maryland. The following are areas of strengths and areas in need of attention.

Strengths:

1. The average statewide adherence has trended upward over the past 4 quarters with an average score of .82 this quarter.
2. The average utilization of funded MST slots rose from 78% to 85% this quarter.
3. The number of referrals increased for the first time in over a year.
4. The number of youth with no new arrests at time of discharge rose from the previous quarter and surpassed the target of 90%.
5. The percentage of youth starting treatment (81%) continued to climb for the second straight quarter after being at only 50% at the end of Fiscal Year 12.

Issues/Drivers: Areas needing attention:

1. The number of youth who completed treatment dropped by 20% from last quarter. This has been due, in part, to the high rate of placements (17%) this quarter.
2. While a majority of youth who had the opportunity for full course of treatment exhibited improvement of each instrumental outcome, the percentage of youth who exhibited improvement dropped in all six instrumental outcomes as compared to last quarter, with exception to social supports (which remained the same).
3. Among discharged youth, the percentage who were living at home and in school or working decreased from last quarter and fell below the target of 90%.
4. The percentage of families who have completed at least one TAM has continued to drop (88%) over the past 4 quarters. The target for having at least one TAM is 100%.

[1]MST provides services for the entire family unit, but for the sake of brevity this report only references "youth."
[2] All fidelity reporting for youth served within the quarter includes TAM-R forms completed during their entire course of treatment, and not just those collected during the quarter. The fidelity data for youth served in the previous three quarters have also been calculated to include all TAM-R forms completed while they were in treatment.
[3] Youth who discharged with the opportunity for the full course of treatment include those who completed treatment, were discharged due to lack of engagement, or were placed for an event during treatment.

Appendix 1 – MST Item Definitions

Discharge Data Elements:

- Completed treatment: This item indicates that the youth and family completed treatment (therapist and family mutually agreed to end treatment). Family progress on goals is evaluated with the other discharge sections.
- Lack of engagement: The youth and family did not have a full course of treatment due to inability to get agreement from the family to do MST (e.g., repeated missed appointments).
- Placement: The youth engaged in behavior during treatment that resulted in a placement that prevented further MST involvement.
- Placement, prior event: Behavior resulting in placement occurred prior to MST involvement with the family.
- MST Program administrative removal/withdrawal: Decision based on MST Program policies and guidelines (e.g., youth did not meet eligibility criteria).
- Funding/referral source administrative removal/withdrawal: Decision based on funding/referral source policies (e.g., youth incorrectly referred due to errors at referral agency, funding limited to a set period of time).
- Moved out of service area: Youth not eligible for services due to move outside service area.

Therapist Adherence

The *Therapist Adherence Measure – Revised (TAM-R)* evaluates the therapist's adherence to the MST model as reported by the primary caregiver. The adherence score will range from 0 to 1, with a score of 1 representing the highest level of adherence. **The threshold score is .61.** This threshold has empirically been shown to be predictive of outcomes. Families with an average adherence score above the threshold, in general, are more likely to have positive outcomes than those where the score is below the threshold. The TAM-R data demonstrates model fidelity at three levels:

- Number of TAM-R interviews completed for each youth
- Overall adherence scores for each therapist (from completed TAM-R interviews)
- Number of youth who are being served by therapists who are providing services at or above proficiency (threshold).

Ultimate Outcomes

These items provide basic information about how the youth is functioning *at the time of discharge*.

- Youth is living at home: Home is defined as a private residence that is approved by the youth's guardian. This could include a parent's home, the home of an approved relative or friend of the family, or in their own apartment. Foster homes or other types of placement would not be included in the definition of "home."
- Youth is attending school: Youth is attending frequently enough to meet expectations placed on youth by school system or court. If the discharge occurs during the summer when school is not in session, it is recommended that the response, "yes," be selected if the youth was attending school at the end of the last school year, or is working.
- Youth has not been arrested: Arrested means charged for a new criminal behavior (i.e., not a violation of probation).

Appendix 2 – MST Provider Level Data

Table 1 - MST Case Operation and Outcomes for Youth Admitted to MST Funded by DJS

MST Quarterly Report: Report Period: 10/1/2012 – 12/31/2012

Providers: Community Counseling and Mentoring Services (CCMS), Community Solutions, Inc. (CSI) & Way Station, Inc. (WSI)

	CSI	CCMS		NAFI				WSI	
	Baltimore County	Metro Region		Baltimore City	Central Region			Western Region	
		Prince George's	Montgomery		Carroll	Harford	Howard	Frederick	Washington
Total referrals	18	21	3					5	3
Total youth served	27	26	7					6	7
Total cases discharged	15	10	2					2	4
Total cases with opportunity for full treatment	12	8	2					2	4
Length of stay (Mean & Range in days)	124 (35-167)	156 (138-182)	111 (99-122)					114 (101-127)	86 (21-124)
ULTIMATE OUTCOMES (For youth with opportunity for full course of treatment)									
# (%) youth living at home	11 (92%)	8 (100%)	1 (50%)					1 (50%)	3 (75%)
# (%) youth in school/work	11 (92%)	8 (100%)	1 (50%)					1 (50%)	3 (75%)
# (%) youth with no new arrests	12 (100%)	8 (100%)	1 (50%)					1 (50%)	4 (100%)
DISCHARGE REASONS									
Completed treatment	9	8	1					1	2
Lack of engagement	2	0	0					0	0
Youth placed for an event during treatment	1	0	1					1	2
Youth placed for an event prior to treatment	0	1	0					0	0
Removed by funding/referral source	1	0	0					0	0
Removed by administration	1	1	0					0	0
Moved	1	0	0					0	0
ADHERENCE DATA									
Overall average adherence score	.83	.91	.77					.72	.74
# (%)of families completing at least 1 TAM-R	21 (78%)	23 (88%)	7 (100%)					6 (100%)	7 (100%)
# (%) youth reporting adherence > .61	18 (86%)	22 (96%)	7 (100%)					5 (83%)	5 (71%)

Appendix 2 – MST Provider Level Data

Table 2 - MST Case Operation and Outcomes for Youth Admitted to MST Funded by CCIF

MST Quarterly Report: Report Period: 10/1/2012 – 12/31/2012

Providers: Community Counseling and Mentoring Services (CCMS), Community Solutions, Inc. (CSI) & Way Station, Inc. (WSI)

	CSI	CCMS		NAFI				WSI	
	Baltimore County	Metro Region		Baltimore City	Central Region			Western Region	
		Prince George's	Montgomery		Carroll	Harford	Howard	Frederick	Washington
Total referrals		10							
Total youth served		7							
Total cases discharged		2							
Total cases with opportunity for full treatment		2							
Length of stay (Mean & Range in days)		151 (149-153)							
ULTIMATE OUTCOMES (For youth with opportunity for full course of treatment)									
# (%) youth living at home		1 (50%)							
# (%) youth in school/work		1 (50%)							
# (%) youth with no new arrests		2 (100%)							
DISCHARGE REASONS									
Completed treatment		1							
Lack of engagement		0							
Youth placed for an event during treatment		1							
Youth placed for an event prior to treatment		0							
Removed by funding/referral source		0							
Removed by administration		0							
Moved		0							
ADHERENCE DATA									
Overall average adherence score		.94							
# (%)of families completing at least 1 TAM-R		7 (100%)							
# (%) youth reporting adherence > .61		7 (100%)							

Appendix 2 – MST Provider Level Data

Table 3 - MST Case Operation and Outcomes for Youth Admitted to MST Funded by DSS

MST Quarterly Report: Report Period: 10/1/2012 – 12/31/2012

Providers: Community Counseling and Mentoring Services (CCMS), Community Solutions, Inc. (CSI) & Way Station, Inc. (WSI)

	CSI	CCMS		NAFI				WSI	
	Baltimore County	Metro Region		Baltimore City	Central Region			Western Region	
		Prince George's	Montgomery		Carroll	Harford	Howard	Frederick	Washington
Total referrals	2								
Total youth served	5								
Total cases discharged	0								
Total cases with opportunity for full treatment	N/A								
Length of stay (Mean & Range in days)	N/A								
ULTIMATE OUTCOMES (For youth with opportunity for full course of treatment)									
# (%) youth living at home	N/A								
# (%) youth in school/work	N/A								
# (%) youth with no new arrests	N/A								
DISCHARGE REASONS									
Completed treatment	N/A								
Lack of engagement	N/A								
Youth placed for an event during treatment	N/A								
Youth placed for an event prior to treatment	N/A								
Removed by funding/referral source	N/A								
Removed by administration	N/A								
Moved	N/A								
ADHERENCE DATA									
Overall average adherence score	.58								
# (%)of families completing at least 1 TAM-R	5 (100%)								
# (%) youth reporting adherence > .61	2 (40%)								

Appendix 2 – MST Provider Level Data

Table 1 - MST Case Operation and Outcomes for All Youth Admitted to MST: 2nd Quarter, FY13

	Previous Period 1/1/12-3/31/12	Previous Period 4/1/12-6/30/12	Previous Period 7/1/12-9/30/12	Current Period 10/1/12-12/31/12
Total cases discharged	76	71	46	35
Total cases with opportunity for full course treatment	69	59	40	30
Ultimate Outcomes Review*				
Percent of youth living at home (Target: 90%)	75%	76%	98%	83%
Percent of youth in school/working (Target: 90%)	75%	68%	93%	83%
Percent of youth with no new arrests (Target: 90%)	77%	85%	85%	93%
Case Closure Data*				
Average length of stay in days for youth receiving MST (Target: 120)	115	116	125	128
Percent of youth completing treatment (Target: 85%)	71%	68%	95%	73%
Percent of youth discharged due to lack of engagement (Target: <5%)	6%	10%	3%	7%
Percent of youth placed (Target: <10%)	23%	22%	3%	20%
Adherence Data				
Overall average adherence score (Target: .61)	.70	.74	.81	.82
Percent of youth with average adherence above threshold (Target: 80%)	70%	77%	83%	88%
Percent of youth with at least one TAM-R interview (Target: 100%)	96%	93%	91%	87%
Operations Data				
Average FTE for active therapists (Target: 3 to 4)	2.93	2.50	4.00	2.40
Average number of open cases per therapist (Target: 4 to 6)	4.05	4.17	3.80	4.16

***Among youth who discharged with the opportunity for full course of treatment (i.e., those who *Completed treatment*, *Discharged due to lack of engagement*, or *Placed for an event during treatment*)**

Appendix 3 – MST Admission Process

Table 1 - MST Admission Processes Summary: 2nd Quarter, FY13

Providers: Community Counseling and Mentoring Services (CCMS), Community Solutions, Inc. (CSI) & Way Station, Inc. (WSI)

PROVIDER/ JURISDICTION	PENDING DECISION: Length of time (in weekdays) between date of referral and date of initial eligibility decision		PENDING ADMISSION: Length of time (in weekdays) between date of initial eligibility decision and date youth started service		GLOBAL ADMISSION LENGTH: Length of time (in weekdays) between date of referral and date youth started service	
	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE
DJS-funded youth						
CCMS						
Montgomery County (n=3)	6	1-14	8	5-12	**14**	**7-21**
Prince George's County (n=14)	5	0-17	6	2-18	**12**	**3-21**
CSI						
Baltimore County (n=12)	1	0-3	6	2-11	**7**	**2-12**
WSI						
Frederick County (n=4)	2	0-7	2	0-4	**4**	**2-7**
Washington County (n=4)	2	0-6	9	0-19	**12**	**3-25**
CCIF-funded youth						
CCMS						
Prince George's County (n=3)	3	2-5	7	3-9	**10**	**5-14**
DSS-funded youth						
CSI						
Baltimore County (n=2)	1	0-1	10	6-13	**10**	**7-13**

Factors impacting the duration of…

- ***Pending Decision*** **include the referring agency, the transfer process between the referral agency and the provider agency, the provider/therapist, and the family**
- ***Pending Admission*** **include the provider/therapist and family availability**

Appendix 4 – Utilization

Table 1 – Utilization of Funded MST Slots: 2nd Quarter, FY13

Providers: Community Counseling and Mentoring Services (CCMS), Community Solutions, Inc. (CSI) & Way Station, Inc. (WSI)

PROVIDER/ JURISDICTION	NUMBER OF YOUTH SERVED	AVERAGE DAILY POPULATION	NUMBER OF SLOTS FUNDED	AVERAGE UTILIZATION RATE
DJS-funded youth				
CCMS				
Montgomery County	7	4.9	5	**98%**
Prince George's County	26	14.0	15	**93%**
CSI				
Baltimore County	27	13.7	20	**69%**
WSI				
Frederick County	6	4.1	5	**82%**
Washington County	7	4.0	5	**81%**
CCIF-funded youth				
CCMS				
Prince George's County	7	4.7	5	**93%**
DSS-funded youth				
CSI				
Baltimore County	5	4.4	5	**88%**