



## Evaluation of Multisystemic Therapy (MST) in Connecticut:

Examining the adoption, implementation, and outcomes of a statewide evidence based practice initiative



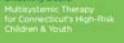
Unlocking Doors: Multisystemic Therapy for Connecticut's High-Risk Children & Youth

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## The Context for Statewide Implementation of MST: One State's Experience



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## What usually happens to high risk children and youth with "business as usual" services?





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### Usual Trajectory of High-Risk Children & Youth

- Children and youth with early involvement in the juvenile justice system (**early onset**), **generally commit more crimes and more serious crimes for a longer time.**
- Early onset children and youth exhibit a **pattern of escalating violence** through childhood and adolescence and often into adulthood.
- Many high risk children and youth with juvenile justice involvement **later become involved in the adult system (over 20%).**
- Serious violence is often part of **persistent lifestyle that includes other high risk behaviors such as substance abuse, use of weapons, risky sexual behavior and associating with negative peer groups.**
- Children and youth often present with a **negative trajectory of getting involved in more complex, chronic antisocial behaviors** that worsen over time.

\* From: *Youth Violence: A Report of the Surgeon General*



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## Implementation of Multisystemic Therapy

### WHY MST??

- High risk children and youth were being placed of home and accounting for most of state's resources
- Business as usual" was not working
- MST had a proven track record of working with need juvenile justice population
- MST is home-based and keeps children and youth their homes and communities
- Well-defined implementation, quality assurance delivery system for MST
- Champions in Connecticut were advocating for increased of evidence-based practices



MST is an in-home evidence-based practice developed for high-risk children and youth with substance and behavioral problems.

use

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## Multisystemic Therapy (MST)

- Well-researched and documented evidence based practice
  - Intensive family- and home-based treatment model developed by Scott Henggeler and colleagues at Medical University of South Carolina
- Principal Targets:
  - Chronic, violent, or substance abusing youthful offenders at high risk for out-of-home placement
- Primary goals of MST:
  - Reduce youth criminal activity
  - Reduce other types of antisocial behavior (e.g., drug abuse)
  - Reduce system costs by decreasing rates of incarceration and out-of-home placement

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## The Goal of MST is to:

**CHANGE the TRAJECTORY**  
of high risk children and youth  
and enable them to  
remain in their homes and communities.

\*Even minor changes in recidivism can result in highly significant improvements in long-term outcomes and cost saving for the system of care.

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## Multisystemic Therapy (MST)

### Program Overview:

**Intensive family- and community-based treatment** that addresses the multiple determinants of serious anti-social behavior in juvenile offenders.

The **multisystemic** approach views individuals as being nested within a complex network of interconnected systems that encompass **individual, family, and extrafamilial** (peer, school, neighborhood) factors.

Intervention may be necessary in any **one or a combination of these systems**.

### Program Targets:

MST targets **chronic, violent, or substance abusing** juvenile offenders at **high risk of out-of-home placement** and their families.

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## Multisystemic Perspective



MST works with the youth and family from an ecological perspective, intervening at multiple levels to address factors contributing to antisocial and related behaviors

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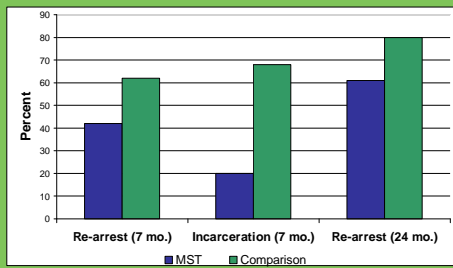
## Who is the Target Population?

- **Chronic, violent, or substance abusing** juvenile offenders at **high risk of out-of-home placement**
- Children and youth referred to MST are **typically not first-time or low-severity offenders**
- Children and youth referred to MST receive scores on the Juvenile Assessment Generic (JAG\*) used by CSSD in the **high to very-high risk range**

\*The JAG is a structured assessment interview completed by CSSD when children and youth enter the juvenile justice system

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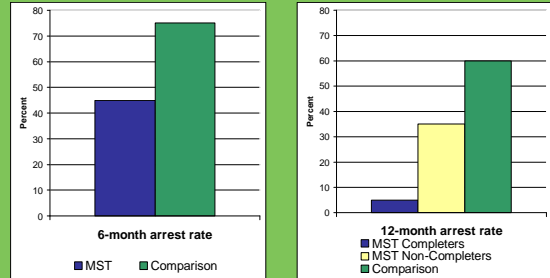
### Prior Research on MST Effects



Henggeler, Melton, & Smith (1992); Henggeler, Borduin, & Mann (1993)

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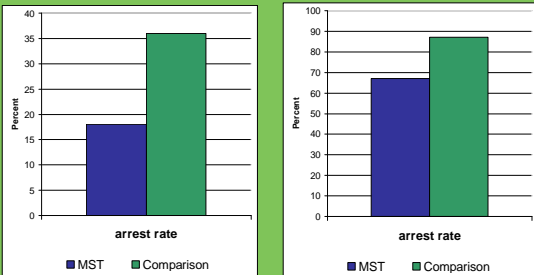
### Prior Research on MST Effects (Continued)



Henggeler et al. (1997)

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### Prior Research on MST Effects (Continued)



Miller (2001)

Timmons-Mitchell, et al (2006)

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## Connecticut's adoption of MST

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### Connecticut's History of MST Development

- > 1997 Legislative Program Review
- > 1999 DSS/DCF Memorandum of Understanding
- > 1999 Report on Financing/Delivering Children's Mental Health Services
- > 1999 DCF developed first Multisystemic Therapy team
- > 2000 Connecticut Community KidCare Legislation
- > 2000 Blue Ribbon Mental Health Commission Report
- > 2001 Development of the Connecticut Center for Effective Practice
- > 2002 Connecticut Policy and Economic Council (CPEC) Report
- > 2002-Present Statewide Implementation of MST and other EBPs



State of Connecticut  
Counties

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### Connecticut Policy and Economic Council (CPEC) Study (2002)

#### CPEC study of children and youth participating in juvenile justice programs

- Children and youth in Juvenile Justice programs recidivated (**misdemeanor and felony convictions only**) more in 1999 than in 1994, creating the impetus for CSSD service reform
- Recidivism rates in **1999** were **47%** for all children and youth in the JJ system, including **first-time and chronic offenders**
- A re-analysis of **more serious offenders** puts recidivism rates for this sample at about **56%**

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### CPEC Study (2002), cont'd.

The study resulted in 3 recommendations for programs for children and youth in the juvenile justice system:

- Increase **Family Involvement** and **After-Care**
- Increase **Substance Abuse & Mental Health Treatment** for Juvenile Offenders
- **Reduce Risk of Negative Peer Associations** by Using More Diversion Programs & Improving Placement by Risk Level

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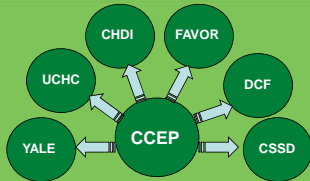
### CT's Community KidCare's Legislation

**New and Expanded Service Continuum:  
"Enhancing the Traditional Service Model"**

- Emergency Mobile Psychiatric Services
- Care Coordination
- Extended Day Treatment
- Crisis Stabilization Beds
- Therapeutic Mentors
- Short-term Residential Treatment
- Individualized Support Services
- **Intensive In-Home Services**

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### Connecticut Center for Effective Practice (CCEP)



**Vision**  
Created in 2001 to enhance Connecticut's capacity to improve the effectiveness of treatment provided to all children with serious and complex emotional, behavioral and addictive disorders

**Mission**  
Develop, train, disseminate, evaluate and expand effective models of practice

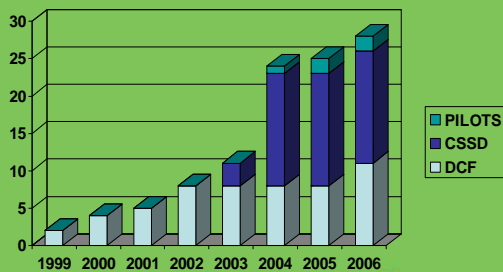
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### Implementation of MST in Connecticut

- More of a **"perfect storm"** than an integrated, planned process
- Started slowly by DCF with initial pilot programs
- **Rapid adoption by CSSD** following release of CPEC study

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### MST Growth in Connecticut



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### Current Capacity of MST in Connecticut


Current Number of MST programs in Connecticut:  
10 (DCF)  
15 (CSSD)

Current Number of MST Specialty Teams:  
3 (DCF)

Current Capacity for Children and Youth Served:  
350 (DCF)  
625 (CSSD)

**975 Total Capacity**

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### Description and Goals of the Evaluation

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### Three Primary Research Questions

- 1) What were the **primary outcomes** for children, youth, and families receiving MST in CT?
- 2) What **major factors contributed to the adoption and implementation** of MST in CT?
- 3) What was **learned about the implementation** of MST from the perspectives of various stakeholders?

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### Two Kinds of Research Methods

- **Quantitative Methods**  
Data collection and analytical procedures that quantify study outcomes into numerical results (data) that can be analyzed statistically
- **Qualitative Methods**  
The collection of process-oriented information and feedback from individual or group participants on topics that relate to the research questions

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### Overview of Study Components

Study Time Period: Jan. 2003 – Jun. 2006

**QUALITATIVE**  
Interviews & Focus Groups  
Key Stakeholders  
Agency Staff  
Probation Officers  
Judges  
Consultants  
Supervisors  
Therapists  
Families

Total # of Interviewees = 96

**QUANTITATIVE**  
Data Collected  
Youth demographics  
Therapist demographics\*  
MST ultimate outcomes (in school, living at home, not arrested)  
Therapist/supervisor fidelity (TAM & SAM Scores)  
Pre-treatment arrests  
Juvenile & adult recidivism

Total # of Child/Youth Cases = 1,850

CSDD—15 Providers, N=993  
DCF—9 Providers, N=857

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### Impact of Statewide Implementation of MST: Quantitative Findings

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### Primary Objective of the Quantitative Evaluation

- Provide a statewide summary of characteristics of youth served by the MST Program
- Assess family ratings of therapist fidelity to the MST treatment model
- Summarize MST outcomes:
  - therapist ratings of family and youth functioning at program discharge
  - official recidivism and placement outcomes across juvenile and adult court systems
- Identify youth and case factors associated with enhanced performance in these outcome areas.

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### Quantitative Methodology: Administrative Datasets

- MST Institute (MSTI)
- Behavioral Health Data System (BHDS)
- The Case Management and Information System (CMIS)
- Computerized Criminal History (CCH)



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### Data Sources for Quantitative Evaluation

Domain	Variables	Data Source
Youth Characteristics	Age, gender, race/ethnicity, primary language, youth residence, DCF involvement, JAG Score (CSSD only)	MSTI, BHDS
	Income, special education, referral source, DCF status, probation/parole, mental health diagnoses and OAE	BHDS - DCF only
Youth Offense History at Intake	Charge-level data on arrests and adjudicated offenses (pre MST period)	CMIS, CCH
Therapist Characteristics	Gender, race/ethnicity, length of employment (turnover)	MSTI - CSSD only
Program Fidelity	Therapist Adherence Measure (TAM), Supervisor Adherence Measure (SAM)	MSTI
Youth Outcomes at Discharge	MST Case Review (completion/non-completion), Instrumental Outcomes, and Ultimate Outcomes	MSTI
	Discharge planning, discharge referrals	BHDS
Youth Recidivism Outcomes	Charge-level data on arrests and adjudicated offenses (during MST and for up to 2 years post MST)	CMIS, CCH

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### MST Process Indicators

- Characteristics of Children/Youth Served by MST
  - Sociodemographic characteristics
  - Clinical and risk indicators
  - History of juvenile justice contact prior to MST
- Characteristics of Therapists and Providers
  - Sociodemographic characteristics
- Program Fidelity
  - Therapist adherence to MST principles
  - Supervisor adherence to MST principles

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### Three Types of MST Outcomes

- Instrumental Outcomes (Therapist Rated at Discharge)
  - Improved parenting and family functioning
  - Improved (and sustained) changes in youth functioning
- Ultimate Outcomes (Therapist Rated at Discharge)
  - Living at home
  - Attending school or vocational setting
  - No new arrest
- Recidivism Outcomes (Official Court Records)
  - Offenses (FWSN, Status/Violation, Misdemeanor, Felony)
  - Court Dispositions (Charge, Adjudication, Placement)

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### Understanding Recidivism as an Indicator

- Recidivism is **more than a "yes/no"** construct
- Local and national studies **define recidivism in many different ways**
- Important to examine the **level of offense** (big difference between violations and felonies)
- For our study we broke down recidivism into **four major categories**

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### Four Types of Offenses

- 1) **Family with Service Needs (FWSN)**, refers to charges involving a family with a child or youth who is truant, beyond control, engaged in indecent or immoral conduct, or similar behaviors
- 2) **Status offenses**, such as underage consumption of alcohol or tobacco or minor violations of probation
- 3) **Misdemeanors** that include more serious offenses that result in imprisonment of not more than 1 year
- 4) **Felonies** that include more serious offenses that result in imprisonment of more than 1 year

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### Comparison for MST Outcomes

Connecticut's MST outcomes can be compared to two major indicators:

- 1) Other national studies of MST outcomes with similar populations
- 2) Prior results of Connecticut's CPEC study of juvenile justice services (2002)



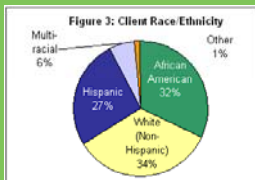
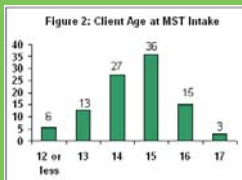
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### Charges vs. Convictions

- Both **charge** and **conviction** data were collected for this analysis
- Researchers across the country **vary in whether they examine charges or convictions** as the indicator for treatment outcomes
- Our comparison data came from the **CPEC study which ONLY examined convictions**

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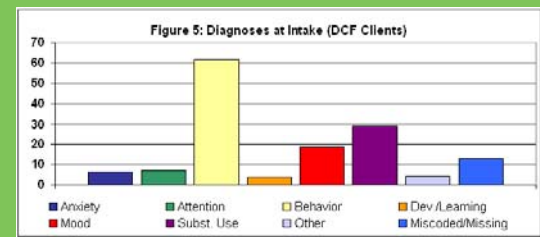
### Client Age & Race/Ethnicity



N = 1,850

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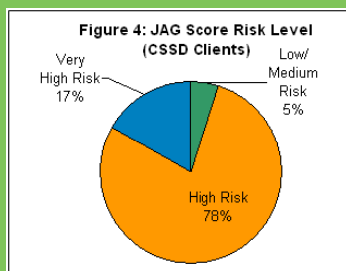
### Diagnosis at Intake (DCF Intake)



N = 812  
50% had diagnoses reflecting 2 or more distinct categories

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### JAG Score Categories at Intake (CSSD)



N = 651

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### 12-Month Pre-MST Client Offense History



N=1,850

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### Measuring Fidelity to the MST Model

#### Family-Rated Therapist Adherence Measure (TAM)\*

Variable	Overall
Number of Therapists	155
Number of Cases	1365
Avg Cases/Therapist	8.8
TAM Average*	4.23

\*The TAM item scores range from 1 to 5  
(not at all adherent to very much adherent)

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### MST Progress Review Outcomes

Case Progress Review (Table 3)	% of Cases
Completion	64.4%
Lack of engagement	5.5%
Placement during MST	17.0%
Placement, prior event	1.5%
MST administrative removal	4.0%
Funding/referral source administrative removal	5.4%
Moved	2.3%

N = 1,764

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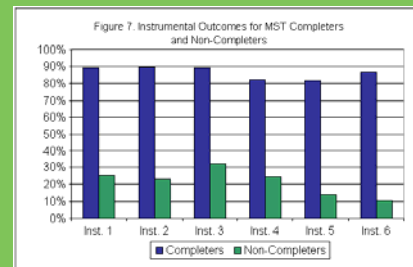
### Therapist-Rated MST Client Instrumental Outcomes

Instrumental Outcomes (Achieved) (Table 4)	% of Cases
Improved parenting skills	66.5%
Improved family relations	66.3%
Improved family social supports	68.9%
Youth Educational/Vocational success	61.6%
Youth prosocial activities	57.8%
Sustained positive changes	59.9%

N = 1,764

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### Therapist-Rated MST Client Instrumental Outcomes



N = 1,764

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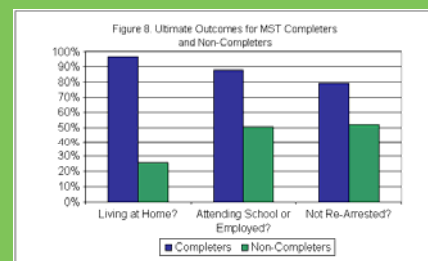
### Therapist-Rated MST Client Ultimate Outcomes

Ultimate Outcomes (Achieved) (Table 5)	% of Cases
Is the youth currently living at home?	74.1%
Is youth attending school, vocational training, or in a paying job?	76.8%
Youth has not been arrested since beginning MST for an offense during MST?	73.4%

N = 1,764

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### Therapist-Rated MST Client Ultimate Outcomes

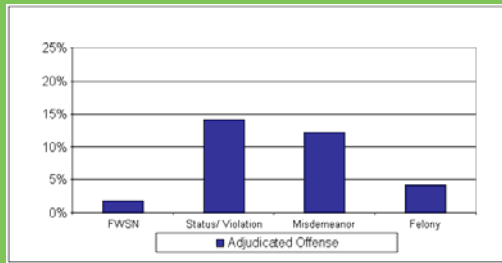


N = 1,764

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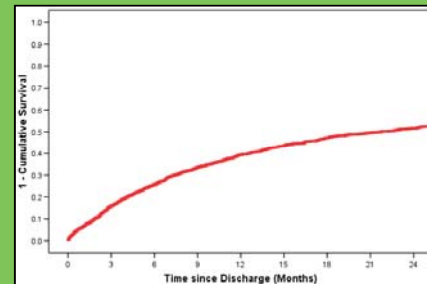
### Recidivism Rates: During-MST Convictions



N = 1,850

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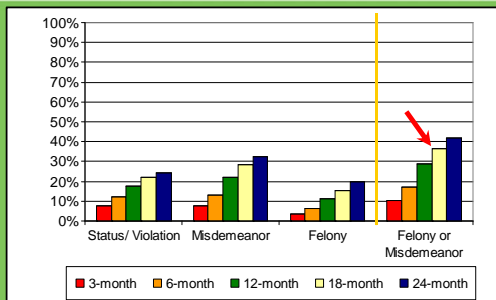
### Recidivism Rates: Post-MST Convictions



N = 1,850

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### Recidivism Rates: Post-MST Convictions



N = 1,850

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### Recidivism Comparison Table

Table 7	Felony or Misdemeanor			Any Offense			
	6	12	18	6	12	18	24
Months Post MST discharge							
Current Study Post-MST Conviction Rates	17%	29%	37%	26%	39%	48%	52%
Previous studies Post MST Conviction Rates							
CPEC total sample	22%	36%	46%				
CPEC serious offenders	26%	41%	56%				
Miller, 2001	18%						
Cunningham, 2002				28%	44%		64%

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### Summary of Quantitative Findings

- MST is serving the population of adolescents it was intended to serve within the state
  - Adolescents have complex mental health needs (DCF) and are rated at significant risk for recidivism (CSSD)
  - Youth have significant history of contact with juvenile court system during the previous year
  - Minority youth are over-represented based upon state statistics, but consistent with the racial/ethnic backgrounds of youth served by these state agencies

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### Summary of Quantitative Findings

- MST is being delivered with high fidelity to MST program principles
  - Family/caregiver ratings of Therapist Adherence Measure (TAM) were uniformly high across both state agencies
  - Similar ratings of supervisory adherence (not presented) indicated fidelity to the model was seen at multiple levels of implementation.

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### Summary of Quantitative Findings

- Youth outcomes show promising effects of MST across multiple domains
  - Completion rate was high, though non-completion due to lack of engagement or placement are of concern
  - Improvements in family and youth functioning thought to reduce risk for recidivism were high – particularly among program completers
- At program discharge a significant majority of youth were indicated as living at home, engaged in educational or vocational pursuits, and not re-arrested for misdemeanors or felonies

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### Summary of Quantitative Findings

- Official records of recidivism (juvenile and adult court systems) also show promising evidence of program effects
  - Approximately one quarter of youth are adjudicated for an offense committed while active in MST. The majority of these offenses are status offenses or violations of court orders (as opposed to more serious offenses).
  - Post-MST adjudicated offenses are also encouraging relative to prior studies of recidivism in CT and comparable to research on MST effects
- Severity of charges is reduced among recidivism events.
- Relatively low placements rate resulting from adjudicated offenses

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### Stakeholder Perspectives on the Statewide Implementation of MST: Qualitative Findings

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### Implementation Research

- Helps to understand resources necessary to implement a new intervention
- Important to understand systemic barriers and challenges to changing practice
- Understand importance of treatment fidelity, use of quality assurance and workforce development issues

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### Implementation Research: Fixsen, Naoom, Blasé, Friedman, & Wallace (2005)

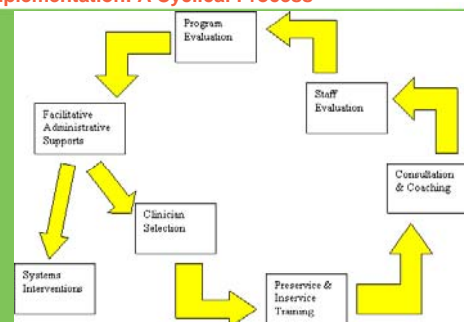
#### Stages of Implementation:

- 1) Exploration and Adoption
- 2) Program Installation
- 3) Initial Implementation
- 4) Full Operation
- 5) Innovation
- 6) Sustainability



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### Implementation: A Cyclical Process



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### Stakeholder-Based Evaluation

- **Definition:** The **inclusion** in the planning, design, implementation, analysis, or use of an evaluation of **individuals or groups who are involved** in the participation, receipt, implementation, delivery, or funding of a program or service that is being evaluated.
- **Advantages:**
  - Inclusive, participatory, empowering, moral imperative
  - Advances scientific knowledge (e.g., allows for integration of quantitative & qualitative knowledge; value of "situated knowing" in science)
- **Disadvantages**
  - May be time-consuming, expensive, and politically complex
  - May be used to co-opt key stakeholders, esp. marginalized groups
  - May over-value spurious findings

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### Focus Group and Key Informant Methodology

- 32 focus group and key informant interviews (involving 96 participants) were conducted with various stakeholders involved in the adoption and/or implementation of MST in CT since 1999
- Interviews required 1 ½ to 2 hours each and were conducted by CCEP staff. All interviews were recorded and transcribed.
- Participants included: state agency leadership and personnel, MST model developers, supervisors, therapists, probation officers, parole officers, agency providers, judges and court personnel, and family members. Only two youthful offenders were able to be included.
- Interviews followed a specific protocol that was loosely based on the stage model of program implementation developed by Fixsen and colleagues (2005) – adoption, installation, initial implementation, full operation, innovation, & sustainability
- Grounded theory was used to code participant responses which were then summarized into themes.

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### Participant Interviews (N=96)

#### Individual Interviews (N=17):

- State-agency leadership and policy makers instrumental in the adoption of MST (N=9)
- Juvenile court judges (N=5)
- MST system supervisors for MST contracted providers (N=3)

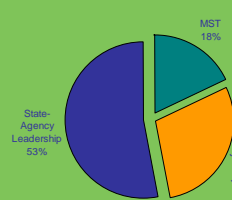
#### Focus Group Interviews (15 Groups; N=79):

- Judicial agency leadership and probation officers (P.O.'s) (4 Groups; N=21)
- MST administrators and supervisors (4 Groups; N=15)
- MST therapists (5 Groups; N=31)
- Families who received MST services during the study time period, January 2003 to June 2006 (2 Groups; N=12)

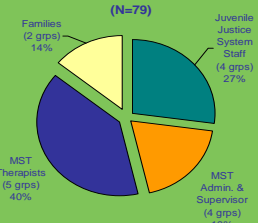
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### Participants in Interviews & Focus Groups

INDIVIDUAL INTERVIEWS (N=17)



FOCUS GROUP INTERVIEWS (N=79)



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### Interview Protocol

#### Protocol assessed several broad categories:

- 1) Connecticut's adoption of MST
- 2) The implementation process across state agencies and providers
- 3) Workforce development issues
- 4) Understanding program outcomes

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### Factors Influencing the Adoption of MST

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### Factors Influencing the Adoption of MST

- The widespread view among state agency leadership, providers, and legislators that **programs for youthful offenders were not effective**
- A **shift toward evidence-based practice** in the state, and **MST** (with its clear implementation plan of QA, training, and supervision protocols) **was viewed as a good initial EBP implementation pilot**

*"If we could use MST as an inroad to begin to change the culture of the state agencies... then it was a good opportunity."* – State Agency Leader

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### Factors Influencing the Adoption of MST

- CT Department of Children and Families (DCF): Advocacy for MST by key **"champions"**
- Judicial Branch of the Court Support Services Division (CSSD): Pressure from a **major statewide study of juvenile justice programs** (Connecticut Policy and Economic Council, or CPEC, 2002)

*"Probably without the political will and momentum that was created by the crisis of the CPEC study, any changes that we (CSSD) made would have been slower or more moderate. But that crisis allowed us the opportunity to really make some radical changes quickly. And (so)... we cancelled three program models and reinvested in Multi-Systemic Therapy."* – State Agency Leader

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## The implementation process

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### The Implementation Process

- **DCF** was the first to adopt MST and **established teams gradually** and incorporated a more diverse referral base
- **CSSD adopted MST very rapidly**, but after DCF teams had been established; it also referred youthful offenders based on risk cutoff scores



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### The Implementation Process

- A number of providers were **not ready to implement an evidence-based program**

*"I had the erroneous notion that because these are so explicated and prescribed models that it was like buying a can of soup off the shelf or something. I really thought that setting up the services was going to be as simple as creating a contract and executing it and it turned out that it's a lot more complicated than that."* – State Agency Leader



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### The Implementation Process

- In its initial implementation, **the efficacy of MST may have been oversold** by model developers and state agency staff. This created an unfair expectation of program success, **resulting in resistance to implementation** among some probation officers, judges, and providers.

*"[P.O.'s] were used to sort of the outreach and tracking program in CT, and once that got kind of phased out, or... shifted to MST... I don't really blame them for being skeptical... the way MST was sort of delivered in the beginning as the cure-all."* -- Provider

*"I think MST (was presented as)...an actual cure. When it's presented that way, and it's then forced upon people, and it's forced upon prosecutors and it's forced upon judges and P.O.'s are forced to do it, the program naturally loses its credibility. And there's a resentment that exists throughout the system."* -- Probation Officer

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### The Implementation Process

- Over time, providers realized that **youthful offenders referred to MST** and their parents had more mental health and substance abuse problems than anticipated

"We have been seeing a lot more (youth) over the past 6 months to a year that are very acute psychiatrically.. And I think that the therapists get often frustrated with that, because it's not the target population MST was designed to work with."  
-- Provider



- This challenged the original program model for MST that prohibits referrals to other services that potentially overlap with MST

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### Workforce development issues

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### Workforce Development Issues

- Turnover among MST therapists was a problem. Over the entire evaluation period, therapists' mean length of employment was 13 months; however, it ranged from a mean of 11 months within the first year of MST statewide implementation to 16 months after 7 years of implementation

"In our first year, we had therapists who turned over pretty quickly. Maybe they stayed for a year or less. And as everyone was learning at the same time, we got some therapists probably didn't practice with the best fidelity or even the best practice of clinical work."  
-- MST Therapist

"We don't pay the best, and the hours are 24/7. You're on call every third weekend or whatever, and, sometimes your day is 3 in the afternoon to 9 at night... (If parents are) working, you're not going to be doing family therapy at 10 in the morning. You've got to go when they're there." -- MST Supervisor

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### Workforce Development Issues

- To increase retention, MST leadership improved their selection of therapists and introduced various incentives.

"[Now the interview process involves] not sugar-coating anything. Because we've done that. [More recently]...we've actually taken the tactic sometimes to try to scare people away."  
--MST Therapist

- Agencies also began to give therapists **tangible resources** to make their job more manageable (e.g., laptops, use of agency cars, flexible hours) and to build more **social resources** (e.g., agency recognition, supportive supervisors, a cohesive and highly supportive MST team).

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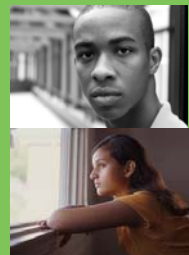
### Understanding program outcomes

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### Program Outcomes

Factors that stakeholders consistently identified as promoting positive program outcomes:

- Parent/family involvement and commitment
- Appropriateness of referrals
- Youth involvement in community activities
- Fidelity to the model



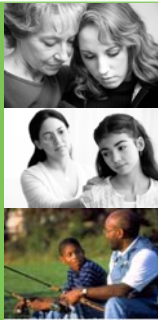
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## Understanding Program Outcomes

### Parent/Family Involvement and Commitment

"If you get a family where the parent is invested and they are willing, motivated, and ready to make changes, it's phenomenal. (MST is) the best treatment, I think, when you have a family like that... I think it's incredible." – **MST Therapist**

"Some of the factors that influence youth outcomes are caregiver availability, not just to treatment, but to the youth. They go hand in hand. Is there an adult at home, at least part of the time, to supervise?" – **MST Supervisor**



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## Lessons Learned and Recommendations from the Statewide Dissemination of an Evidence-Based Practice

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## Lessons Learned

- Improved data collection processes
- Equivalent outcomes from different implementation strategies
- Workforce development
- Importance of structured implementation and QA
- Success of MST related to combination of factors

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## Putting MST in context: Cost of Comparison

Based on recent **estimate of direct costs** for providing MST vs. Residential programs:

- **MST** costs approximately **\$9,000 per child** for an average of **4.2 months** of treatment
- **Residential** programming costs approximately **\$68,000 per child** for an average of **10 months** in treatment (not including educational costs)

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## Further Cost-Saving Estimates

### Washington State Institute for Public Policy (2001)

- MST saved taxpayers from **\$31,000-\$131,900** per child while also significantly reducing crime

### Connecticut Policy and Economic Council (2002)

- A **1% reduction** in misdemeanors and felonies would result in a savings of approximately **\$8,800,000** to taxpayers in terms of victims and judicial system costs
- A **7% reduction** would **pay for all** residential and post-adjudicatory services that children and youth receive in the state

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## Recommendations to state leaders and community representatives

- 1) The State of Connecticut should **continue to support in-home evidence-based practices**, such as MST.
- 2) Implementation of evidence-based practices and programs should **include sufficient capacity building** and "ramp up" amongst providers.
- 3) **Quality assurance and close monitoring** of the fidelity of evidence-based practices to the program models is key to both successful implementation and outcomes.
- 4) Ongoing **workforce development** is critical.
- 5) Other key workforce development issues include attention to provider policies and practices that help **retain staff and minimize high rates of turnover**.

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#### Recommendations, cont'd.

- 6) State agencies should work together to **streamline their data collection** systems and make sure that data are more readily accessible and usable.
- 7) **Ongoing external evaluation** of the outcomes of evidence-based practice is critical.
- 8) Outcome data should be **shared with stakeholders**.
- 9) Recidivism should be a **clearly defined outcome** at multiple levels.
- 10) **Family engagement** is critical to any program's success.
- 11) If additional resources are available, MST should also be considered for use with **"medium to lower risk" children and youth**.

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#### Recommendations, cont'd.

- 12) Participation in **prosocial activities** is an essential component of positive outcomes in MST services and other juvenile justice interventions.
- 13) **Linkages to other services** both during- and post-MST treatment should be considered and encouraged when appropriate.
- 14) MST **providers should seek out additional support** through system supervisors, agency leadership, or community representatives to ensure that MST treatment is not only parent-focused but also actively involves the child and other systems such as the school.
- 15) It is recommended that we **set realistic goals and expectations** for our programs and recognize that severe, chronic difficulties with children and youth who have had complex histories are difficult to treat and that incremental success should be supported and celebrated.

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#### Recommendations, cont'd.

- 16) Finally, the State of Connecticut should recognize that investments in programs and services with clear models, rigorous quality assurance, intensive supervision and systematic outcome data collection are **well worth the investment**.

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#### Take Home Messages

- 1) This study demonstrates that MST is **effectively reducing recidivism by 15-20% in high risk children and youth** in Connecticut
- 2) Children and youth who receive MST **stay in their homes and communities**
- 3) MST is **more cost-effective than out-of-home treatments** for children
- 4) Implementation of programs like MST **take considerable investment in building capacity, providing training and support and ongoing quality assurance and outcome evaluation**

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#### Discussant Remarks: Putting this study in context

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