# EPISCENTER GUIDE TO EVIDENCE-BASED PROGRAM PLANNING & DELIVERY
## Section 7: Multisystemic Therapy

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The Guide includes 7 sections: Defining Evidence-based Prevention; Selecting an Evidence-based Program; Implementing an Evidence-based Program; Technical Assistance; Data Collection and Reporting Requirements; Sustainability; and Program Specifics. Please visit http://www.episcenter.psu.edu/ebp/guide to access other sections of the Guide, as well as a Glossary and Appendices.
The EPISCenrer is a project of the Prevention Research Center, College of Health and Human Development, Penn State University, and is funded by the Pennsylvania Commission on Crime and Delinquency and the Pennsylvania Department of Public Welfare as a component of the Resource Center for Evidence-Based Prevention and Intervention Programs and Practices. The EPISCenrer can be contacted at 814-863-2568 or EPISCenrer@psu.edu.
SECTION SEVEN: MULTISYSTEMIC THERAPY

DETAILED DESCRIPTION OF MULTISYSTEMIC THERAPY

Program Summary: Multisystemic Therapy (MST) is an evidence-based program developed to treat delinquent youth by intervening in the various systems in which the youth is embedded (i.e., family, school, peer, community) to change factors that contribute to or maintain problem behaviors. MST is a practical and goal-oriented treatment that draws from social-ecological and family systems theories of behavior. In MST, a single therapist delivers services to 4 – 6 families. For the purposes of supervision, consultation, training, and monitoring, clinical staff are organized into teams of 2 – 4 therapists led by an MST Supervisor. The therapist meets with the youth or family at least weekly throughout most of the treatment and often multiple times per week, depending on need. Services occur in the family’s home or community at times that are convenient for the family. Staff members are expected to work on weekends and evenings, for the convenience of their clients, and therapists and/or their supervisors are on-call for families 24/7. On average, a youth receives MST for 3 to 5 months, and typically no longer than 6 months.

MST components include:

- Assessment
- Ongoing treatment planning
- Family therapy
- Parent counseling (related to empowering caregivers to parent effectively and addressing issues that pose barriers to treatment goals)
- Consultation to and collaboration with other systems such as school, juvenile probation, children and youth, and job supervisors
- Referral for psychological assessment, psychiatric evaluation, and medication management if needed
- Individual therapy may occur, but is not the primary mode of treatment since MST emphasizes working with the youth’s ecology

MST emphasizes a collaborative approach and empowering caregivers to make necessary changes to the youth’s environment. Treatment is always guided by the 9 Principles of MST.

Specific treatment techniques draw from therapies with the most empirical support, such as cognitive, cognitive behavioral, behavioral, and strategic and structural family therapy. Interventions are developed based on an assessment of the “fit” for a specific behavior (specifically, what factors are driving the behavior, which are always individualized). Interventions always target specific, well-defined problems, focus on present conditions, and are action oriented. Families are often given “assignments” that require daily or weekly efforts, capitalize on strengths, build skills, and encourage responsible behavior by the youth and family. By empowering caregivers to address their families’ needs, MST interventions promote generalization and maintenance of positive changes. The help of natural supports such as extended family or school is often enlisted. Therapists are fully responsible for engaging the
family and other key participants in the youth’s environment (e.g., teachers, school administrators, community members, workers from agencies with mandated involvement).

A general overview of the MST treatment model is also available on the MST Services web-site.

**Target Population:**

MST Services, in its MST Preferred Service Description/Medicaid/Funding Standard, suggests the following admission criteria for MST programs:

- Ages of 12-17
- Youth is a chronic or violent juvenile offender
- Child is at risk for out-of-home placement or is transitioning back from an out-of-home setting
- Externalizing behavior symptomatology... [Common diagnoses among MST-referred youth include Conduct Disorder, Oppositional Defiant Disorder, Attention-Deficit/Hyperactivity Disorder, and Disruptive Behavior Disorder NOS, although the specific diagnosis is less important than the presence of significant acting out behaviors. Youth may have other mild to moderate comorbid psychiatric disorder(s).]
- Ongoing multiple system involvement due to high risk behaviors and/or risk of failure in mainstream school settings due to behavioral problems
- Less intensive treatment has been ineffective or is inappropriate

Youth accepted into MST are often involved in the juvenile justice or child welfare system due to their behaviors, have past or current criminal charges, and have previous treatment failures. A parent or caregiver must be willing to participate in the youth’s treatment.

Youth that are typically not appropriate for the service include those who:

- have an autism spectrum disorder
- present with a primary internalizing disorders and minimal acting out behaviors
- exhibit substance abuse in the absence of other delinquent or antisocial behavior
- are referred primarily due to sexual offending or due to sexual offending in the absence of other acting out behavior
- are referred primarily due to suicidal, homicidal, or psychotic behaviors
- are living independently or for whom a primary caregiver cannot be identified despite extensive efforts to do so

MST is designed to address “willful” behaviors; youth whose acting out is driven by serious mental illness (such as schizophrenia or a manic episode) are generally not appropriate for the service.

The target population above applies to “traditional” MST, designed to treat chronic juvenile offenders. Adaptations of the original model, such as MST for Problematic Sexual Behavior (MST-PSB), have different admission criteria. For example, an MST-PSB team may accept youth for whom sexual offending is the primary concern. (Note: While the majority of MST programs in Pennsylvania are for the juvenile justice population, there are a small number of providers with MST-PSB teams.)
Geographical Considerations: MST has developed specific guidelines for determining the appropriate coverage area for one MST team. (A team is comprised of a supervisor and 2 – 4 therapists, each with his/her own caseload.) Following these guidelines for an appropriate coverage area is essential to ensuring that staff can attend to families when crises arise and the team can meet regularly for group supervision, training, and support.

The guidelines from MST Services include the following: “(1) Referrals for families should be restricted to a geographical area no larger than what would be normally considered to constitute 90 minutes travel time under normal daytime or evening conditions. (2) That each therapist should travel no more than 90 minutes (each way) to visit any family on their caseload under normal daytime or evening conditions. (3) That within any MST team, therapists should not be based more than 90 minutes from each other’s ‘work location.’”

Supervision, Consultation & Program Monitoring: Intensive supervision, ongoing consultation from an MST Expert, and regular monitoring of model fidelity are hallmarks of an MST program. MST teams, comprised of 2-4 therapists and a supervisor, meet for approximately 2 hours each week to participate in group supervision. In addition, the team receives one hour each week of consultation from an MST Expert – a master’s or doctoral-level clinician experienced in MST, who is employed by MST Services or an MST Network Partner Organization licensed by MST Services. A number of processes, described in the subsection “Ensuring Model Adherence,” are used to ensure the team adheres to the MST model.

Adaptations of MST: MST was originally designed to treat chronic juvenile offenders. Research is underway to examine the effectiveness of adaptations of MST for other treatment populations. The adaptations are in various stages of research and not all are available yet for widespread dissemination. MST Services has developed a summary of the adaptations that are being developed and the adaptation process used by MST Services.

The vast majority of MST programs in Pennsylvania are “traditional” MST programs for serious juvenile offenders. There is also one team in Pennsylvania delivering MST for Problematic Sexual Behaviors (MST-PSB).

Program Web-site: http://www.mstservices.com

Program Contact: Melanie Duncan, MST Services General Office (843) 856-8226 or Melanie.Duncan@mstservices.com
MST was developed by Scott Henggeler, Ph.D., in the late 1970s to address the treatment needs of youth with antisocial behavior. In 1992, the Family Services Research Center was established at the Medical University of South Carolina. The mission of FSRC is “develop, validate, and study the dissemination of clinically and cost effective social-ecological interventions for youths, adults, and families experiencing mental health, substance abuse, and other serious health problems.” At the Center, Dr. Henggeler, Dr. Sonja Shoenwald, and their associates have continued to develop and study the MST model. In 1996, MST Services and the MST Institute were established in response to requests from community providers wishing to be trained in the MST model.

MST Services is a university-affiliated organization tasked with implementing MST in communities while ensuring that fidelity to the MST model is maintained. The MST Institute supports this work by providing a mechanism for MST teams to monitor their fidelity as well as program outcomes, through an on-line database that is used to collect a wide range of team-specific data. MST Services provides implementation assistance, consultation, training, and supervision to MST teams throughout the world. As the number of MST teams has increased, MST Services has created a system of Network Partners – organizations that are sanctioned and licensed by MST Services to provide direct support to MST teams on their behalf. Network Partnerships are closely monitored by MST Services. Pennsylvania currently has two Network Partners (click here for list).

More information about MST Services is available on their web-site.

NATIONAL AND GLOBAL RECOGNITIONS

Over the past 30 years, MST has gained recognition as an evidence-based program, meaning that the program meets specific standards for research demonstrating its effectiveness. Below is a list of organizations that have recognized MST:

- **Blueprints Project of the Center for the Study and Prevention of Violence, University of Colorado**: MST is one of only 11 programs to achieve the highest possible rating of “Model” program.
- **Coalition for Evidence-Based Policy**: MST is identified as a highly promising program for crime/violence prevention.
- **National Alliance for the Mentally Ill (NAMI)**: MST is recognized by NAMI as an evidence-based treatment.
- **National Institute on Drug Abuse (NIDA)**: MST is identified by NIDA as an effective treatment approach for adolescents who abuse substances.
- **Office of Juvenile Justice and Delinquency Prevention (OJJDP)**: MST received a rating of Exemplary, the highest rating possible, from OJJDP in its Model Programs Guide.
- **Substance Abuse and Mental Health Services Administration (SAMHSA)**: MST for Juvenile Offenders (MST), MST for Youth With Problem Sexual Behavior (MST-PSB), and MST With Psychiatric Supports (MST-Psychiatric) all received perfect Readiness for Dissemination ratings in SAMHSA’s National Registry of Evidence-based Programs and Practices. According to MST
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Services, in 2000 MST received an Exemplary Substance Abuse Prevention Program Award from SAMHSA’s Center for Substance Abuse Prevention (CSAP).

- **U.S. Surgeon General:** MST is one of only five programs identified as a Model Program for Violence Prevention in the *U.S. Surgeon General’s Report on Youth Violence*.
- **Washington State Institute for Public Policy (WSIPP):** MST is one of several evidence-based programs funded by the Washington State Legislature for use in the state’s juvenile courts and evaluation by WSIPP.

**LOGIC MODEL & THEORETICAL RATIONALE**

Explanation of a Logic Model:
A logic model is a way to visually represent the underlying rationale for the behavioral changes associated with an evidence-based program. A logic model explains how and why the program is effective.

A logic model shows how specific program components or activities influence risk and protective factors and the skills, knowledge, attitudes, intentions, and behaviors of the program participants, both immediately following the program (short-term or proximal outcomes) and in later years (long-term or distal outcomes). The logic model for a program is based on an established theory of how specific risk and protective factors are related to youth development. Typically, a program’s components are designed to increase certain protective factors and decrease certain risk factors that have been shown through research to predict future development.

In most programs, one can expect to see changes in specific risk and protective factors and in participant’s skills, knowledge, attitudes and intentions prior to changes in their actual behaviors. Knowing this helps one to have realistic expectations about when and what changes can be expected in the youth or families that are participating in a program and helps guide evaluation of the program’s impact.

**MST Logic Model:**
Research has shown that antisocial behavior is caused by a combination of individual, peer, family, school, and community factors. The MST treatment model is based on causal modeling studies (i.e., studies that identify the factors that predict antisocial behavior) and social-ecological models (models that look at complex interplay among different factors in the environment and how they influence behavior).

The MST Logic Model developed by the EPISCenter in collaboration with MST Services can be found online at [http://www.episcenter.psu.edu/ebp/multisystemic](http://www.episcenter.psu.edu/ebp/multisystemic)

**Theoretical Rationale of MST:**
The MST model is built upon social-ecological and family systems theories. MST views the youth as embedded within a number of interrelated systems (e.g., community, neighborhood, school, peers, family, and individual), each of which has an influence on the youth through both protective and risk
factors. By identifying the factors that “drive” a problem behavior and intervening to modify those factors, change will occur.

MST places a high value on research to guide the development of the model as well as the choice of interventions used in each case. When addressing a problem behavior, therapists use interventions that have documented research support whenever possible, such as cognitive-behavioral, behavioral, behavioral parent training, and strategic and structural family therapy approaches. In addition, the MST process includes on-going monitoring of the client response to interventions and modification of the intervention, if it is not effective.

**PENNSYLVANIA MST PROVIDERS** 15, 16

There are currently 14 mental health or social service agencies providing MST in Pennsylvania, serving 55 counties. In Pennsylvania, there are 50 MST teams, including 5 teams providing MST for Problem Sexual Behavior. The number of MST teams per provider ranging from 1 to 10. An interactive map displaying the location of active MST teams in Pennsylvania is available at [http://episcenter.psu.edu/emacs](http://episcenter.psu.edu/emacs).

A listing of all MST providers and their teams, as well as their MST-licensure status, can be found on-line at [http://www.mstservices.com/index.php/teams/licensed-teams](http://www.mstservices.com/index.php/teams/licensed-teams).


There are over 500 MST teams around the world. While most of the teams are in the United States, there are also teams in Australia, Canada, Denmark, Iceland, Ireland, The Netherlands, New Zealand, Norway, Sweden, Switzerland, and the U.K.

Close to 10% of the world’s MST teams are located in Pennsylvania.

**TARGETED RISK AND PROTECTIVE FACTORS** 17

Research has consistently found that association with delinquent peers, family relations, and school difficulties are related to delinquent behavior. MST recognizes the influence of these factors and prioritizes them in the process of intervention. Because association with deviant peers is one of the strongest predictors of antisocial behavior, and family functioning impacts association with deviant peers and impacts antisocial behavior directly, MST interventions often focus on working with the family to improve family functioning and decrease the youth’s association with negative peers.

At the same time, MST has the ability to address a comprehensive range of risk and protective factors that are predictive of antisocial behaviors. For each case, assessment involves identifying which factors
are most salient, so that the specific risk and protective factors addressed by MST can be individualized for each case. MST often focuses on the following risk and protective factors:

**Risk Factors:**
- **Peer Level:** Association with antisocial peers; peer rejection; poor peer relationships
- **Family Level:** Low family warmth; high family conflict; harsh, inconsistent, or lax discipline; lack of supervision; low social support for the family
- **School Level:** Low school-family bonding; academic problems; behavior problems at school
- **Community Level:** High mobility; low community support; high disorganization
- **Individual Level:** Antisocial attitudes; hostile attribution bias; impulsivity; negative affect

**Protective Factors:**
- **Peer Level:** Association with prosocial peers; involvement in prosocial activities
- **Family Level:** Attachment to parents; supportive family environment; marital harmony; natural support network
- **School Level:** Commitment to schooling
- **Community Level:** On-going involvement in community activities; strong natural support network
- **Individual Level:** Conventional attitudes; problem-solving skills

**GOALS & DEMONSTRATED OUTCOMES**

MST focuses on achieving three “ultimate outcomes” – keeping a youth in the home, successful engagement in school or work, and avoiding new arrests.

The effectiveness of MST has been evaluated in 18 published outcome studies, including 16 randomized control trials and two studies with quasi-experimental designs. While the majority of the studies have focused on the effectiveness of MST for delinquent youth (8 studies), others have applied MST to adolescent sex offenders, youth with serious emotional disturbance, youth who abuse or are dependent on substances, maltreating families, and inner-city youth with chronic and poorly controlled Type 1 diabetes. (In some cases, these studies have used adaptations of MST for special populations.) Research has compared MST to a variety of other services, including diversion services, parent training, individual counseling, probation services, “services-as-usual” in the community, and “usual” child welfare services. Several studies have examined outcomes one year or more post-treatment, including one study that evaluated the impact of MST 14 years post-treatment. A brief overview and a download of a comprehensive summary of research findings are available at the MST Services web-site.

When compared to other treatment and social service approaches, youth receiving MST have generally had more favorable outcomes than youth in comparison groups. Research has shown that many of the positive outcomes are maintained over several years. For example:

*Juvenile offenders and delinquent youth who received MST showed*
- Less criminal activity and 25-75% decreases in long-term rates of rearrest
- 47-64% decreases in long-term rates of days of incarceration
- Decreased behavior problems and internalizing symptoms
- Increased social competence
- Improvement in self-reported family relations and observed family interactions
- Reduced substance use and decreases in long-term rates of drug-related arrest

More recently, MST has developed an adaptation specifically for youth with problematic sexual behavior, MST-PSB. In 2009, two randomized clinical trials comparing MST-PSB to “treatment as usual” were published.

Compared to juvenile sex offenders who received treatment-as-usual (TAU), those who received MST-PSB showed
- Greater reductions in sexual behavior problems, delinquent behavior, substance use, and self-reported externalizing symptoms at 12-months post-referral
- Lower rates of out-of-home placement at 12-months post-referral
- Lower rates of recidivism for sexual offenses at 8-year follow-up (8% for MST-PSB vs. 46% for TAU)
- Lower rates of recidivism for nonsexual offenses at 8-year follow-up (29% for MST-PSB vs. 58% for TAU)
- 70% fewer arrests overall and 80% fewer days in detention facilities at 8-year follow-up

The complete research articles are available on the MST-PSB web-site at http://www.mstpsb.com/Pages/aboutus.aspx.

Numerous studies have shown that therapist adherence to the MST model is strongly associated with positive outcomes.

RETURN ON INVESTMENT AND COST-BENEFIT INFORMATION

An Explanation of Return on Investment Calculations:
A cost-effective prevention program is doubly appealing from a societal standpoint, as such a program can successfully prevent or reduce delinquency and problem behaviors in youth and it results in a future reduction in the financial burden of interventions to taxpayers. For example, a program that diverts a youth from a criminal path will spare society the justice system expenses associated with processing offenses, such as police, court, and prison costs. In such a case, the necessary resources for the prevention program are worth the investment as they prevent other future expenses. In addition, cost-effective prevention programs have now been shown to also provide a return-on-investment or fiscal benefits above and beyond the program costs for taxpayers.

In 2004, the Washington State Institute for Public Policy conducted cost-benefit analyses for a variety of prevention programs by calculating the economic benefits derived from specific prevention programs and subtracting the costs incurred to implement the programs. The scientifically rigorous review and analysis provided credible evidence that well implemented prevention efforts can result in a significant return on investment.
To conduct cost-benefit analyses, monetary values are assigned to observed changes that are attributed to prevention programs in the following key outcomes:

- Crime (such as costs to process an arrest, prosecutor costs, victim costs, detention and supervision costs, prison operation expenses)
- Education (graduation rates, test scores, post-high school education, special education rates, grade repetition)
- Employment rates and earning potential
- Substance use (abuse of alcohol, tobacco, and illicit drugs)
- Public assistance (including welfare receipt or social services such as foster care)
- Teen birth rates
- Child abuse and neglect
- Health and mental health service needs

To view a chart of the economic benefits of prevention programs and for more information on return on investment research, please see the Return on Investment subsection in Section Three of this Guide.

The potential economic benefits of a successful prevention or intervention program can be readily demonstrated to policymakers and the public in general. Programs that both reduce problems identified by local communities while also reducing costs to society are especially important as state and local governments become more accountable for both costs and outcomes. Given typical budget constraints, policymakers seek to fund crime prevention programs that will at least “pay for themselves” while delivering necessary services to their community. It is important for prevention programs to communicate the return-on-investment figures derived by economic experts and their locally assessed impacts.

**MST Return on Investment Calculations:**

In the 2004 Washington State Institute for Public Policy report, *Benefits and Costs of Prevention and Early Intervention Programs for Youth*, it was determined that there was a return of at least $2.64 for every dollar spent on MST and a cost benefit of at least $9,316 per youth. In Pennsylvania, the Penn State Prevention Research Center released a 2008 report demonstrating that, for 12 sites implementing MST in Pennsylvania, there was a statewide return on investment for of over $30 million, which reflected a savings in future crime costs. The estimated average economic benefit was $2.5 million per community.

The table below summarizes the cost benefit derived for Multisystemic Therapy (MST) by the Washington State Institute for Public Policy (WSIPP) and the Penn State Prevention Research Center (PRC):
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<th>BENEFITS</th>
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<th>BENEFITS PER DOLLAR OF COST</th>
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<td><strong>WSIPP Report</strong> (2003 dollars)</td>
<td>$14,996</td>
<td>$5,681</td>
<td>$2.64</td>
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<td><strong>PRC Report</strong> (2007 dollars)</td>
<td>$23,117</td>
<td>$6,402</td>
<td>$3.61</td>
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**TRAINING AND CLINICAL SUPPORT** 24, 25, 26

**MST-Specific Training & Support:**
Clinical supervisors and therapists are required to participate in a 5-day initial training as well as quarterly booster trainings specific to the MST model. Initial trainings are offered by MST Services and Network Partner agencies at a variety of locations, including locations in Pennsylvania, throughout the year. These trainings are required for the clinical staff (i.e., therapists, supervisors), but administrators and stakeholders may also benefit from attending the first day of training which focuses on program rationale, procedures, etc. Therapists receive at least one day each quarter of booster training, while supervisors receive an additional half-day each quarter. Booster trainings are held for teams, agencies, or groups of agencies. Topics for booster trainings are chosen based on their unique training needs of a team, as identified by the team and its MST consultant. All trainings must be delivered by MST Experts who are licensed by MST Services.

In addition to these formal trainings, on-going training occurs through frequent clinical supervision and consultation:
- Each MST team meets face-to-face for 2 hours/week for group supervision.
- Each team receives one hour/week of phone consultation from its assigned MST consultant.
- The team supervisor receives monthly phone consultation from the MST consultant.

Training, supervision, and consultation are designed to promote maximum adherence to the MST model and allow opportunities to discuss and problem-solve challenging cases. Several studies have found that therapist adherence to the model is essential to maximizing positive outcomes (See the comprehensive overview of outcome studies at the MST Services web-site for a review of relevant research.)
MST Services and Network Partners also provide organizational support to help sites address barriers that may affect the clinical integrity or compromise the outcomes of a program.

Other Training:
MST programs are under the umbrella of Medical-Assistance-funded mental health services in Pennsylvania and should follow best practices for treatment providers. In addition to the MST-specific trainings described above, staff should receive training in areas such as HIPAA, documentation, client-therapist boundaries, CPR/First Aid, mandated reporting requirements, crisis management, psychotropic medications and side effects, and so forth.

PROGRAM COSTS

The costs associated with an MST program vary depending on a number of agency-specific factors. For example, program size, staff salaries, the amount of travel associated with the region covered by the program, and the arrangements made for MST training, all affect the budget and consequently the cost per case served. MST Services and Network Partner organizations have costs estimators available that can guide interested programs in determining their expenses. In the United States, the cost per youth generally ranges from $6000 to $9500.

Staff salaries can vary widely. MST Services advocates for providing competitive salaries that will serve to attract and retain well-qualified clinicians. Research has shown that low salaries are associated with more turn-over in staff. Staff turn-over, of course, can result in increased program expenses associated with recruiting, hiring, and training new staff, and may also affect program morale, reputation, and service quality. MST Services provides guidelines that may be useful for determining a competitive salary for your community.

The costs outlined below are intended to give a general idea of the expenses of implementing an MST program and are based on cost estimators included in the appendices of the Multisystemic Therapy Organizational Manual as well as information provided by an experienced MST Director (G. Soltys, personal communication, August 12, 2010).

- **Start-Up Costs**: This includes consultation and program development fees paid to MST Services or a Network Partner Organization, as well as reimbursement to MST Services or a Network Partner for travel costs associated with consultation and program development services.
- **MST-Specific Fees**: These fees can be divided into two categories. 1) Providers pay annual licensing fees to MST Services for their agency and for each MST team. 2) Program Implementation Support costs are paid annually to MST Services or a Network Partner. This pays for a variety of support services including weekly phone consultation and monthly supervisor consultation from an MST Expert, quarterly booster trainings for staff, periodic program reviews to ensure model fidelity, and data collection through the MST Institute web-site. Providers must also reimburse travel costs incurred by the MST Expert in the course of providing program support services, including travel for quarterly booster trainings.
- **Training Costs**: There are separate fees for the 5-day orientation training, which may be paid for an entire team (such as when a new team is being established) or per therapist (such as when

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replacement staff are hired to an existing team). Providers should also factor in training-related
travel costs.

- **Staffing:** Staff costs include salaries and benefits. Staff should include a Clinical Supervisor,
  Therapists, a Program Manager, and support staff

- **Operational Expenses:** This includes but is not limited to office space, cell phone plans for clinical
  staff and supervisors, internet fees, and staff travel expenses (e.g., mileage).

- **Equipment & Furnishings:** MST programs need an office to serve as “home base” where staff can
  meet for supervision and meetings, documentation can be completed, files can be stored, and
  so on. An example of equipment and furnishings for one team may include a meeting table with
  chairs; a desk and office chair for the clinical supervisor; work space for therapists (tables and
  chairs); a computer work station equipped with a PC, printer, and scanner; laptops for
  therapists; fax machine; office phone; copier; bookcase; storage cabinet; and large filing cabinet.

- **Office Supplies:** This includes items such as writing instruments, paper, file folders, staples, tape,
  staplers, a hole punch, and so forth.

- **Flexible Spending Fund:** While not required, MST Services recommends that programs have
  available a flexible spending fund that can be used to help families meet needs that are
  interfering with treatment.

### STAFFING REQUIREMENTS

**Overview:**

MST is delivered by individual therapists who are organized into MST teams. Each team consists of at
least two and no more than four therapists and a clinical supervisor. It is important that therapists are
full-time employees assigned solely to the MST program. Therapists should not have non-MST
responsibilities in the agency or work other part-time jobs outside of the agency. (See Fidelity
Recommendations below.) The MST Clinical Supervisor can supervise one or two teams and is assigned
to the MST program a minimum of 50% time per MST team (i.e., a half-time supervisor can supervise
one team, while a full-time supervisor can supervise two teams). Although using one MST Clinical
Supervisor to cover two MST teams in close geographical proximity is cost-effective, teams often need
more than half-time supervisory support and programs may benefit from assigning each team its own
full-time supervisor to ensure that teams have sufficient support and resources.

Each program should also identify someone to fill the role of MST Program Manager. This person may be
full-time or part-time. Depending on the size and characteristics of the program, the role of Program
Manager may be filled by an MST Supervisor, an administrator who has other duties within the agency,
or an individual hired solely to serve as Program Manager. The Program Manager is responsible for
“managing the overall performance of the MST program that may include staffing issues, referral agency
relationships, systems issues, interagency collaboration issues, etc.” (Multisystemic Therapy

Other positions to consider include a case manager, a person responsible for data collection and data
entry, and/or office support staff. Programs may spend a considerable amount of time helping youth
become M.A. eligible, obtaining authorizations for care, and entering required data (e.g., therapist and
supervisor adherence measures) into the MST Institute web-site. Funding entities such as OCYF require
that programs collect data and submit quarterly performance measures to the state. Programs may also
want to collect information about client outcomes at designated intervals after discharge, in order to evaluate the long-term impact of the MST. It is not only more cost-effective to identify specific staff to assist with these tasks rather than place the responsibility on clinical staff, but it also allows clinical staff to focus their time and energy on providing care to clients and their families.

**Caseloads:**
Each therapist, who must be full-time to the MST program, carries a caseload of 4 to 6 clients. *Exceeding 6 clients violates required program practices, which reduces model adherence and compromises treatment outcomes.* A supervisor can also carry a small caseload of 2 clients, so long as the supervisor is assigned only one team and has sufficient time to fulfill his/her supervisory responsibilities. On average, an MST therapist serves 15 youth per year. A team serves 30 to 60 youth annually.

**Staff Qualifications:**
A critical part of the hiring process for MST is assessing the “fit” of a candidate with the MST model. Ideal candidates are willing to work non-traditional hours, open to constructive feedback, motivated, flexible, have common sense and strong interpersonal skills, and are committed to adhering to the MST principles and model. Hiring staff who do not fit well with the MST model has a detrimental effect on the program in a number of ways. MST Services has created Therapist and Supervisor Recruitment Toolkits to guide the hiring process and the identification of the strongest candidates for these positions. These Toolkits are available to new and existing MST providers as part of the *MST Organizational Manual*.

MST Supervisors should be doctoral-level clinicians or *highly experienced* masters-level clinicians. Supervisors should have training in behavioral, cognitive behavioral, and pragmatic family therapies such as structural or strategic family therapy, and parent-child behavior management.

MST Therapists should be masters-level clinicians, but may also be highly-skilled bachelor-level staff. If bachelor-level staff are hired, they should make up no more than 1/3 of the therapist positions on an MST team. MST Services further suggests that bachelor-level hires have 5+ years of previous, appropriate clinical experience in child welfare or mental health services. Ideally, therapists will come to the team with training in behavioral, cognitive behavioral, and pragmatic family therapies.

Providers should be aware that, if they bill Medical Assistance (M.A.) for MST services, all staff must meet the minimum qualifications stated in their OMHSAS-approved service description. Service descriptions may include additional parameters regarding acceptable fields of study (e.g., social work, psychology, counseling), years of experience, and so on. Before hiring a candidate that deviates from the qualifications established in the service description, a provider should contact the *OMHSAS Bureau of Children’s Behavioral Health Services*. In addition, if hiring staff *before* submitting and obtaining service description approval from OMHSAS, providers should be aware that M.A. will not pay for services delivered by staff who does not meet certain minimum qualifications. Therefore, it is beneficial for providers to have a conversation with OMHSAS about expected staff qualifications for M.A. funded programs before hiring staff.
Staff Activities:
MST Therapists spend their time engaged in a number of clinical activities. The motto of MST is “whatever it takes,” and this applies to staff activities as well. MST does not prescribe a certain number of hours for each activity, but instead emphasizes that staff time should be spent in a manner that “gets the job done,” providing effective treatment and positive outcomes. This is one of the reasons that MST Services advocates strongly for weekly or case rates, rather than fee-for-service billing.

Therapists spend their time engaged in:

- Direct care or face-to-face contact with youth, family and other systems involved with the family (e.g., probation, child welfare, school, employer, etc.)
- Phone contacts with the family and other systems
- Traveling to and from appointments
- Clinical documentation, which includes an extensive Weekly MST Summary that must be completed for every client to guide clinical planning, documentation required for M.A. billing, and in some cases documentation requested by the referral source
- Supervision and consultation (this occurs for a minimum of 3 hours/week)
- MST-specific training, as well as agency trainings

The specific time spent on each responsibility varies depending on intensity of client need during a given week, therapist need for additional supervision, geography, etc.

Therapists spend at least 4 days/year in MST booster trainings, while Supervisors spend at least 6 days/year in MST booster trainings. All MST staff should spend additional time in agency-specific trainings (e.g., HIPAA, cultural competency, etc.).

FIDELITY RECOMMENDATIONS
Based on extensive research, MST Services has clearly identified 18 required program practices, 8 recommended program practices, and 15 potential indicators of threats to program adherence and successful implementation. Adherence to these practices is critical to ensure that the MST model is implemented with fidelity and to maximize positive outcomes for youth and the community.

A complete list of the required and recommended practices can be found in Appendix J. Some highlights of required practices include:

- having salaried, full-time therapists devoted solely to the MST program and able to work flexible schedules
- operating in teams of 2-4 therapists
- maintaining appropriate caseloads of 4-6 clients
- delivering short-term treatment, while ensuring discharge is based on outcomes rather than length of treatment
- serving only youth that fit within the MST target population
- avoiding referrals to other services while the youth is involved with MST and limiting aftercare referrals to those that are clearly needed (i.e., involvement in other treatment services, such as family therapy, group therapy, or drug and alcohol counseling at the same time as MST violates the MST model)
team participates in weekly supervision and consultation
having a 24/7 on-call system

It is essential that the provider agency and local stakeholders are willing to support the program’s adherence to required and recommended program practices, and do not make requests of the program that encourage drift away from the MST model.

In addition to these program practices, the MST Clinical Supervisor and Therapists follow a number of clinical guidelines and processes that make up the MST treatment model. These include following the 9 MST Principles, using intervention strategies that are supported by research, and using the MST Analytic Process to ensure that interventions are matched to the “drivers” of target behaviors and that the effectiveness of interventions is monitored.

IMPLEMENTATION PLANNING

The reader is directed to Section 2 of this manual for information about selecting an evidence-based program and a detailed implementation checklist. The information below is intended to supplement Section Two of this manual by providing information specific to MST.

Overview:
MST Services or a licensed MST Network Partner organization provides support throughout the implementation planning process. MST Services has developed a Program Development Method™ (PDM) to ensure that MST is a good fit for the targeted population, community, and agency, and that the program can be sustained long-term. The PDM™ includes six stages:

- Stage A: Initial information collection (no charge)
- Stage B: MST Needs Assessment (no charge)
- Stage C: MST Critical Issues session (program development fees apply)
- Stage D: Site Readiness Review meeting (program development fees apply)
- Stage E: Staff recruitment & orientation training (program development fees apply)
- Stage F: Ongoing implementation support (annual support fees)

Network Partner organizations may not use the PDM™ specifically, but will follow a similar process and use many of the same materials for implementation planning with an interested provider.

In Pennsylvania, there are also unique steps that providers must take in order to access funding and these steps may affect the timeframe for implementation as described in the next subsection. Providers hoping to access Special Grant funds from OCYF should be aware that counties must request these funds in August prior to the next fiscal year. For example, funds for 2011/2012 must be requested in August 2010. In order to access Medical Assistance dollars, providers must submit a service description to the OMHSAS Children’s Bureau and must work with their local BH-MCO which may need to plan several months ahead in order for funding to be available.

Time Frame for Start-Up:
The length of the planning and implementation process depends on a number of factors, including how long it takes a provider or community to complete “assignments” at each stage of the PDM™. The start
date of a program may depend on when funding becomes available, as noted in the previous subsection. The process may also be affected by agency factors such as whether the agency has office space readily available for the program or whether the program serves a rural area where qualified staff are more difficult to find.

Once a provider makes the decision to implement MST (end of Stage B), and if funding is readily available, it typically takes 3 – 6 months to complete the rest of the planning process and be ready to accept clients. The majority of this time is spent recruiting staff and scheduling the orientation training (Stage E). Hiring staff who are a good “fit” for the model has a significant impact on a program – it improves model adherence and service quality, can enhance program reputation, and reduces staff turnover which cost a program both time and money. Therefore, programs are strongly encouraged to hire staff carefully and selectively. Rushing through the hiring process, while it may result in an earlier start date for services, can be harmful in the long run.

**Benchmarks for MST Start-Up and Implementation:**
The benchmarks below integrate the stages of the PDM with steps that are specific to the Pennsylvania system. Readers are also encouraged to review Section 2 of this manual, which includes steps for selecting an evidence-based program and detailed site readiness and implementation checklists.

- Contact MST Services for information about MST and the program development process (Stage A of the PDM™).
- Conduct a needs assessment and evaluate program feasibility (Stage B of the PDM™). In Pennsylvania, Stage B should include:
  - Discussions with the county MH/MR to secure its support.
  - Discussions with county child welfare and juvenile probation offices regarding need.
  - Discussions with the local Behavioral Health Managed Care Organization (BH-MCO) responsible for M.A. to determine if it will bring a new MST provider into its network and, if so, the process and time frame for doing so.
  - Determine if and when county funding will be available, and what type of funding it will be (i.e., Special Grant funds, ICSP grant).
  - Ensure that the community has a sufficient number of youth to refer to the MST program. Depending on the size of its team(s), a successful MST program needs to serve 30-60 youth per year, per team.
  - It may be useful to obtain a sample MST service description from the OMHSAS Bureau of Children's Behavioral Health Services.
- Decision is made whether to pursue MST. If so, continue on to next benchmarks.
- Specific program planning occurs, including the development of a program description, procedures, and policies (Stage C of the PDM™). If planning to obtain Medical Assistance funding, this stage should include:
  - Submit a service description to the OMHSAS Children's Bureau for review and approval. (See below for more information.)
  - Follow the BH-MCO process for becoming an enrolled MST provider.
  - Development of a Service Agreement with other programs (see below)
- Site Readiness Review Meeting is held on-site (Stage D of the PDM™).
- Recruit and hire clinical staff (Stage E of the PDM™).
Staff attends 5-day orientation training (Stage E of the PDM™).

Begin serving youth.

**Accessing Medical Assistance Dollars:**
As a general rule, MST providers need to access Medical Assistance (M.A.) funding in order to sustain their programs. Because county MH/MR support and the willingness of the local BH-MCO to bring the program into network are essential to accessing M.A. funding and sustaining a program, conversations with these two entities should occur early in the implementation process. If support exists, providers should begin the process of M.A. enrollment as early as possible. See the Funding section below for detailed information about obtaining M.A. funding.

Providers should be wary of proceeding with implementation without the support of their county MH/MR and BH-MCO, since in Pennsylvania failure to obtain M.A. funding is a serious threat to program sustainability.

A list of Health Choices contractors and OMHSAS liaisons by county is available at: [http://www.episcenter.psu.edu/resources/DPW](http://www.episcenter.psu.edu/resources/DPW)

**Accessing OCYF Special Grant Funding:**
County Children and Youth Agencies (CCYA) can request funding specifically for evidence-based treatment programs through the Special Grant Initiative from the Department of Public Welfare, Office of Children, Youth, & Families (OCYF). These grants can be used to pay for start-up costs and ongoing costs.

This funding must be requested by the county when it submits its Needs-Based Budget; therefore, the money must be requested almost a year in advance. (Budgets are submitted in August for the next fiscal year, to begin July 1 of the following year.) If the county and its identified MST provider intend to utilize Special Grant funds for the MST program, advance planning is needed. Providers considering implementing an MST model should have conversations with their CCYA as early as possible in the planning process to discuss the possibility of Special Grant funds to help support the program.

A benefit of using Special Grant funding is that it requires a 5% local match rather up to 50% local match required for child state welfare funds. The request for Special Grant funding represents a commitment by the county to the implementation of specific evidence-based programs.

**Service Agreements:**
During the implementation planning process, providers should also establish a Service Agreement with other agencies and services to facilitate smooth referrals of youth served by the MST program to different levels of care or supplementary services when necessary. For example, the Service Agreement should include inpatient psychiatric services, partial hospitalization programs, alternative education programs, outpatient therapy programs, residential drug and alcohol programs, psychiatrists, and so forth.
As stated by MST Services in its position statement memo, *Medicaid Funding for MST Programs*: Medicaid funding has emerged as an important part of the MST landscape and is playing a critical role in the financial sustainability of many MST programs across the United States. However, we caution stakeholders against viewing Medicaid funding as a ‘silver bullet’ solution to their funding troubles... (p. 1)

Sustaining an MST program requires the ability to braid together multiple streams of funding. The main sources of funding used are Medical Assistance and Special Grants awarded by OCYF to counties, although other sources of funding exist as well. Details about each type of funding, what it can be used for, and how the funding is accessed are described below.

**Medical Assistance:**
Medical Assistance dollars can be used to pay for *treatment related costs*. As of July 2010, a rate of $20.42 per quarter hour is billed in Fee-For-Service when specific treatment services are delivered. While certain treatment related activities such as travel and clinical documentation are not directly billable, staff time spent on these activities is included as an M.A. allowable cost in the budget used to establish the M.A. rate. Providers should contact the OMHSAS Bureau of Financial Management and Administration for information about allowable costs and what is included among billable services in Fee-for-Service.

The rates paid in HealthChoices vary and are established through individual negotiations between the provider and BH-MCO. During rate negotiations, detailed communication between the provider and BH-MCO is critical. The provider should have a clear understanding of the budget on which the rate is based (e.g., expected caseloads, allowable costs, etc.) and what services will be billable (which affects the anticipated units of service and in turn affects the rate). MST Services highly recommends a case rate or weekly rate, rather than an hourly rate, in order to prevent specific productivity requirements from negatively impacting model adherence. However, BH-MCOs vary in their willingness to consider an Alternative Payment Arrangement (APA) for MST.

Providers may also benefit from reading MST Services’ position statement memo, *Medicaid Funding for MST Programs*, which outlines strengths and weaknesses of using M.A. funding for MST. (Note that Pennsylvania does not fund MST under the Rehabilitation Services Option mentioned in the memo.)

In order to be eligible for M.A. funding, a provider agency must have:
- support of the program at the local level (specifically from the county MH/MR)
- a valid base mental health license (i.e., outpatient psychiatric clinic, partial hospitalization, or family-based) or a waiver of this requirement from the Secretary of Public Welfare
- a licensing agreement with MST Services
- a contract for training and support with either MST Services or a Licensed Network Partner organization
- team licensure from MST Services (it is acceptable to submit a service description to OMHSAS for review before the team license is granted)
• a service description approved by the OMHSAS Bureau of Children’s Behavioral Health Services

While M.A. enrollment is a detailed process, there are four general steps that must be taken. Steps 2-4 occur with both the state and the BH-MCO, representing two separate but necessary parallel processes:

1. **Collaboration**: The provider must work with county MH/MR, Health Choices coordinator, and the Behavioral Health Managed Care Organization (BH-MCO) responsible for M.A. in the county(s) to be served to garner support at the local level. Note that while support from C&Y or JPO is typically needed to sustain referrals to the program, support from MH/MR is essential to obtain M.A. funding. This is also a time to learn about the BH-MCO process for becoming an in-network MST provider and to become familiar with the expectations that the state has for M.A. providers.

2. **Service Description**: The provider must submit a service description to the OMHSAS Bureau of Children’s Behavioral Health Services for review and approval. The provider should contact the Children’s Bureau in advance to obtain a copy of the sample service description for MST; using the sample is not required, but will save a good deal of time. Each BH-MCO has its own process for reviewing program proposals.

3. **Rate-Setting**: Rates are established for the program, both in fee-for-service and HealthChoices. See the beginning of this section for more information about rate setting for MST.

4. **Enrollment**: MST providers must be enrolled as a Provider Type Specialty Code 340 (“program exception”). If the agency does not currently have this Specialty Code on its PROMISe file, an enrollment application must be submitted to OMHSAS for the code to be added. Each BH-MCO has its own process for finalizing enrollment of a program in its network.

**Frequently Asked Questions** about accessing M.A. and the expectations of OMHSAS are available at the EPISCenter web-site. Providers are strongly encouraged to read these FAQs, as well as the section below titled **Utilizing M.A. as a Funding Source**.

**OCYF Special Grants**:
In Fiscal Year 2008-2009, the Department of Public Welfare, Office of Children, Youth, & Families (OCYF) launched a Special Grants Initiative to support evidence-based programs and promising practices. As noted above, county Children and Youth offices can request Special Grant funding specifically for evidence-based treatment programs from the state OCYF. This request is made as part of the Needs Based Budget Plan submitted by the county to the state, but the Special Grant is separate from Needs Based Budget monies.

When Special Grant funds are used, OCYF expects that the MST provider will enroll quickly as a Medical Assistance provider so that M.A. dollars can be used to pay for treatment costs whenever possible. At the discretion of the individual county, Special Grant funds can be used for the following:

- Start-up costs, including initial fees paid to MST Services or a Network Partner organization
- On-going training costs (e.g., sending a new hire to the 5-day orientation training)
- When the referred youth is not eligible for M.A., the youth is M.A.-eligible but services have not yet been authorized, or the youth is M.A.-eligible but M.A. Fee for Service or the BH-MCO has determined that MST is not medically necessary.

A benefit for the county of using Special Grant funding is that it requires a 5% local match rather than up to 50% local match required for child welfare state funds.
In January 2011 OCYF, OMHSAS, PCCD, and JCJC issued a joint letter providing a brief overview of the process for obtaining Special Grants from OCYF, details about what should be included in contracts between the County Children & Youth Agency and evidence-based provider, and clarification regarding what costs Special Grants can cover. Interesting providers and communities should review this letter: http://www.episcenter.psu.edu/sites/default/files/Special%20Grants%20Letter%20Jan%202011.pdf

**HealthChoices/BH-MCO Funding:**
See the above subsection “Medical Assistance” for information about how BH-MCOs pay for MST services that are provided to specific youth. Providers should speak with their county and BH-MCO to determine if there are any administrative dollars available for costs besides direct service and, if so, what this money can be used for and how it might be accessed.

**Integrated Children's Service Plan (ICSP) Grants:**
Each year, all counties in Pennsylvania prepare an Integrated Children’s Service Plan (ICSP). The development of the ICSP is a collaborative process involving numerous county and local systems, and it occurs alongside planning for the county Needs Based Budget and Plan.

Counties who self-designate as Tier 1 (“Accelerated Integration Counties”) in their ICSP can request funding to support integrated prevention activities, such as the start-up or expansion of an MST program or other promising practice or evidence-based program. In FY 2010/2011, 47 counties identified as Tier 1.

Additional information about Integrated Children’s Service Plans is available at the Department of Public Welfare web-site. The web-site includes the Guidelines for FY 2011/2012 and a map of Tier 1 counties.

**PCCD Grants:**
In the past, the Pennsylvania Commission on Crime and Delinquency (PCCD) included MST among the evidence-based programs eligible for the evidence-based initiative grants to assist with program start-up or expansion. Beginning in 2010, MST and the other evidence-based treatment programs (i.e., Functional Family Therapy, Multidimensional Treatment Foster Care) are no longer eligible for PCCD evidence-based grant funding. However, providers may want to monitor the PCCD web-site for other PCCD grant announcements that may be relevant to their MST program.

**Other Grants:**
Additional source of grant funding can also prove useful to MST programs, providing a means of paying for costs that a program is having difficulty covering otherwise. Resources for identifying available grants is included can be found in Section Six of this manual, under Web Resources.
ININVOLVING YOUR COLLABORATIVE BOARD AND OTHER STAKEHOLDERS

Local Collaborative Boards:
Local collaborative boards can play an important role in program development and sustainability. A collaborative board can be defined as a board of diverse community partners who work together to organize, plan, and implement prevention strategies. Examples of collaborative boards include but are not limited to: Integrated Children’s Service Plans (ICSP); Communities That Care (CTC) Delinquency Prevention Policy Boards; Balanced and Restorative Justice Teams; State Health Improvement Coalitions; State Incentive Grant Planning Boards; Criminal Justice Advisory Boards; and Weed and Seed Assistance for Impact Delegation (AID) Teams or other collaborative boards, including those established to focus on implementing healthy community objectives. It has been demonstrated that those prevention programs planned and implemented through a collaborative board structure are more likely to be implemented with fidelity and more likely to be sustained. Consequently, providers benefit from identifying and working with their local collaborative board when planning an MST program and throughout implementation. It is especially important that MST providers work closely with their county MH/MR, child welfare, and juvenile probation agencies and the local BH-MCO, who will likely be represented on the collaborative board.

Providers should consider the following activities in relation to their collaborative board:

- Work closely with the collaborative board to ensure that MST is a good fit for addressing the community’s needs as identified through a careful assessment of local risk and protective factors.
- At start up, share information about MST, such as the research behind MST, local goals for the program, a brief overview of the model, and the logic model. While presentations help to build enthusiasm and provide an opportunity for discussion, board members will also appreciate handouts such as a fact sheet and logic model. In addition to resources available from MST Services, a number of materials can be found at http://www.episcenter.psu.edu/ebp/multisystemic
- Help board members to understand ways that they can contribute to the program’s local success, such as helping to identify funding sources and referring families.
- Identify potential program champions or community gatekeepers that can help to build relationships that may lead to program support or increased referrals of clients.
- Provide board members with frequent verbal reports on the program’s impact.
- At least annually provide a written summary of program outcomes. Plan an annual meeting / luncheon to review the program’s outcomes, highlight successes, and discuss needs for the upcoming year.

Other Stakeholders:
While many stakeholder agencies will be represented on local collaborative boards, many of the individuals who impact a program’s success may not be board members. For example, there are likely to be a number of probation officers, caseworkers, guidance counselors, and mental health professionals who make referrals to MST. Care managers and provider relations representatives from BH-MCOs interface frequently with MST programs. The success of an MST program also depends largely on good communication and strong relationships with its stakeholders. There are several reasons for this:

- County staff, which makes the majority of referrals to most MST programs in Pennsylvania, may not be familiar with evidence-based programs and the importance of maintaining fidelity to a
specific model. Education regarding the research-demonstrated outcomes, the importance of model adherence, and specific MST program practices helps to ensure that the community-at-large engages in practices that support fidelity (e.g., making appropriate referrals, not “stacking” other treatment services on top of MST).

- Ongoing communication “reminds” potential referral sources of the existence of the MST program.
- Strong, positive relationships (as well as demonstrated outcomes) result in more referrals to a program.
- Due in part to staff turnover within county agencies, relationship-building and education must be on-going processes.

Like collaborative board members, all stakeholders will appreciate information about the MST program and frequent updates about the program’s impact. Strategies include:

- Develop handouts for stakeholders emphasizing key points of the program as it relates to their systems. For example, caseworkers and probation officers will appreciate a one or two page handout that provides a brief overview of the service, highlights appropriate referrals, and includes the program’s contact information. To get referral sources started, attach a referral form to the handout.
- Offer periodic trainings for groups of stakeholders (e.g., judges, caseworkers, probation officers, care managers) to educate them regarding the clinical model. Working with the leadership at the relevant agency (e.g., JPO, C&Y, etc.) as you develop the training will help to tailor the material to the audience.
- Disseminate a periodic e-newsletter with highlights of the MST program. The e-newsletter can include news items related to program outcomes, successful cases, interviews with families who have completed the program or with satisfied referral sources, and therapist bios, for example, and can be sent regularly to stakeholders and other interested parties.
- Plan an annual meeting / luncheon to review the program’s outcomes, highlight successes, and discuss needs for the upcoming year. Invite your referral and funding sources, as well as collaborative board members.
- When working with a school district, develop relationships with and educate the spectrum of staff about the treatment principles. This includes but is not limited to staff from Special Education, Guidance, Administration, and Student Assistance Programs.
- It is also important to develop clear expectations about roles and responsibilities with your referral sources.

**General Guidelines for Working with Collaborative Boards and Other Stakeholders:**

- To the extent possible and where clinically appropriate, be responsive to stakeholders’ and referral sources’ requests for information. Provide information in a timely manner and, when information cannot be provided, explain why.
- Meet with stakeholders at times and locations that are convenient for them. Be as flexible as possible.
- Be open and honest about what MST is and what it is not. It is important to be clear about the target population.
- Remember that working with your collaborative board and other stakeholders is an on-going process that needs to continue throughout the life of your program.
ENSURING MODEL ADHERENCE

The MST model has a Continuous Quality Assurance System. This system includes a number of practices to monitor each team’s adherence to the MST model and ensure quality implementation.

Every six months, the team collaborates with its assigned MST Expert to complete a Program Implementation Review. This review includes an assessment of whether the team is adhering to the required and recommended program practices, and a plan for addressing any practices that are not being followed. The review also includes a look at program data, including TAM-R and SAM data (described in the paragraph below) and outcome data.

To ensure therapist adherence to the MST model, families regularly complete the Therapist Adherence Measure-Revised (TAM-R). The therapist participates in weekly supervision and consultation, and attends regular booster sessions. Supervisor adherence is monitored via the Supervisor Adherence Measure (SAM) completed by the therapists on his/her team and by monthly phone consultation with an MST Expert. Each therapist and supervisor has a professional development plan that addresses any challenges related to model adherence. The MST Expert reviews the teams TAM-R and SAM scores regularly, to assist with professional development plans and as part of the team’s semiannual review.

OUTCOME ASSESSMENT PROCESS AND REPORTING REQUIREMENTS

MST providers are often asked to report on program performance and outcomes to several sources – the MST Institute, county agencies, the BH-MCO(s), and the state. This section discusses sources of data collection for MST and reporting requirements at the state level.

Data Sources:
MST programs in Pennsylvania enter data into two systems. Programs should give thought to how they will meet reporting requirements and ensure data is entered in a timely and efficient manner. While some data must be entered directly by clinical staff, other data can be entered by support staff.

MST Enhanced Website: MST teams from around the world enter data into an international database created and maintained by the MST Institute. While the MST Institute database collects information pertinent to monitoring a team’s fidelity and key outcomes, it does not collect all of the information that is of interest to state and local stakeholders in Pennsylvania or that is needed to calculate the state performance measures.

INSPIRE: In Pennsylvania, all EBI programs that receive funding from the state are expected to utilize the INSPIRE system. INSPIRE, launched in April 2011, is a web-based data collection and reporting system developed by the EPISCenter as a service to the Commonwealth. Data from the MST Enhanced Website is integrated with INSPIRE, to eliminate dual data entry, and a limited amount of additional information is entered directly into INSPIRE.
INSPIRE facilitates greater consistency in data collection and analysis across provider sites and across EBIs, providing state policy makers and funding sources with more accurate and reliable data regarding program implementation and public health impact. More information about INSPIRE can be found in the FAQ and this sample INSPIRE report, which presents statewide MST data for July - December 2011.

**Reporting Requirements:**

**MST Model Requirements:** MST emphasizes accountability and has a well-developed system for evaluating the outcomes of its teams. The MST Institute has an on-line information system into which all MST teams enter data regarding cases. Providers can run reports that summarize data for a specific period of time. Data and outcomes gathered through the MST Enhanced Web-Site include:

- Number of youth served
- Percent of youth who successfully complete treatment, and reasons for non-completion or unsuccessful treatment
- Percent of youth who achieve each of the 6 Instrumental Outcomes (improvements in parenting skills, family relations, and network of support, success at school or work, involvement with prosocial peers or activities, and sustained changes)
- Percent of youth who achieve each of the 3 Ultimate Outcomes (remaining in the home, in school or working, and avoiding re-arrest)
- Average length of treatment
- Average scores on the Therapist and Supervisor Adherence Measures, as well as collection rates for each

The data collected in the Enhanced Web-Site is used for monitoring teams’ model fidelity and effectiveness, but many programs also find it useful for communicating with stakeholders.

**State Requirements:** As noted above, in Pennsylvania all EBI programs that receive funding from the state are expected to utilize the INSPIRE system. This allows the state to collect and report data on program outcomes and key performance measures. Providers enter data on an on-going basis and, at the end of each quarter, are expected to run and review a Quarterly Highlights Report which is then submitted to the EPISCenter.

The report generated by INSPIRE highlight the performance measures selected by the Resource Center for Evidence-Based Prevention and Intervention Programs and Practices. It includes information such as:

- Number of youth served, referral sources, and the percent of enrolled youth who were at immediate risk of a more restrictive placement.
- A specific provider’s implementation quality, including quantitative indicators of model adherence and fidelity.
- Average length of stay.
- Outcomes at discharge, such as the percent of youth living in the community, with no new criminal offenses, having negative drug screens, and showing improvements in school attendance and performance.
- Follow-up outcomes, collected 6-months post-discharge, including recidivism and placement data.

As of Fall 2012, several enhancements to the INSPIRE Highlights Report are currently underway. The report will soon include even richer and more detailed data.
Local Requirements: Each county and BH-MCO is able to specify its own requirements for providers to report program data, including outcomes. These requirements may be consistent with the data collected through the MST Institute’s Enhanced Web-Site or INSPIRE, but in some cases local entities have unique reporting requirements.

PROGRAM MONITORING

MST programs are monitored by a number of entities including their assigned MST Expert and the MST Institute, OMHSAS, and BH-MCOs.

MST Expert and the MST Institute:
Every MST team is assigned an MST Expert from MST Services or a Licensed Network Partner organization to support the team. Through the processes described above (see Ensuring Model Adherence), the MST Expert monitors each program’s adherence to model practices and therapist and supervisor fidelity to the MST treatment model.

Through the MST Institute’s Enhanced Web-Site, data is gathered pertaining to therapist and supervisor model adherence, adherence to MST program practices, client characteristics, length of treatment, case completion rates, and outcomes. (See Outcome Assessment Process and Reporting Requirements above.) This data is used by the program and its MST Expert to monitor the program.

While MST Services or the Network Partner will work closely with teams who drift from the MST model to help them get back on track, MST Services may revoke or move to “partial” licensure status the MST license of a team that persistently violates MST practices.

OMHSAS Monitoring:
The process and extent to which OMHSAS monitors each MST program depends in part on the provider’s licensure status. Providers with a waiver of the base mental health license are reviewed annually to ensure compliance with state regulations and policies. Providers with a base mental health license are subject to review at the discretion of OMHSAS. The site reviews are a joint effort between the OMHSAS Bureau of Children’s Behavioral Health Services and the OMHSAS Regional Field Offices. Additional information about this process is available in the FAQ Regarding M.A. under #17. OMHSAS also monitors program performance by reviewing data from the MST Institute web-site and may utilize the INSPIRE system once it is available.

BH-MCO Monitoring:
Each Behavioral Health Managed Care Organization (BH-MCO) has its own process for monitoring behavioral health programs and providing quality assurance for the services in its network. Providers should have a conversation with the funding BH-MCO about its process and the different types of reviews in which the provider can expect to participate. BH-MCO reviews may have a different focus than the OMHSAS review, which examines a program’s adherence to its approved Service Description and state requirements.
UTILIZING MEDICAL ASSISTANCE AS A FUNDING SOURCE

What to Know:
In Pennsylvania, MST programs are enrolled in Medical Assistance as a Behavioral Health Rehabilitation Service (BHRS), which falls under EPSDT (the child health component of Medicaid) in the Pennsylvania State Plan. MST is not on the Medical Assistance (M.A.) Fee Schedule of Programs; as a result, it is considered a “program exception” or an “outpatient wraparound mental health service not currently included in the M.A. fee schedule,” and must adhere to Medical Assistance Bulletin 1153-95-01. MST providers must also comply with other general requirements that apply to all M.A. programs.

The MST program must follow its OMHSAS-approved service description in all respects and obtain approval from the OMHSAS Children’s Bureau before implementing any changes to the service description.

The process for becoming an M.A.-enrolled program is described above (see the subsection Funding, above).

Youth Eligibility:
While the MST model has clear parameters for the population served by MST, youth whose services are paid for by M.A. must meet additional requirements:

- The youth must fit in the target population described in the provider’s OMHSAS-approved service description.
- The service must be deemed medically necessary by the payer (Fee-for-Service or the BH-MCO).
- The service must be prescribed by a licensed physician or licensed psychologist who has recently evaluated the youth.
- The service must be recommended by the youth’s Interagency Service Planning Team (ISPT), which must include not only the youth, family, and provider, but also a representative of the county MH system and BH-MCO, and representatives of all relevant child-serving systems for that youth, such as school, C&Y, and JPO. The prescribing physician or psychologist should attend whenever possible.
- The youth must have a treatment plan developed by the ISPT, with input from the youth and family.

Youth in Pennsylvania may be M.A.-eligible based on income, emotional or physical disability, or both. At times, a youth will be eligible for but is not yet enrolled with M.A. and it will take time for the youth to become enrolled. Even for youth already enrolled in M.A., it takes time to go through the authorization process. The time frame for eligibility and authorization vary depending on local dynamics and the BH-MCO process. In order for services to start immediately, providers often make arrangements for the county to pay for services until the youth becomes enrolled with M.A. and services are authorized.

Documentation of Services:
When billing services to Medical Assistance, providers must document treatment contacts in a manner that is consistent with state regulations. This means completing documentation that is above and
beyond what the MST model requires, since the model's requirements for documentation are designed to guide clinical care rather than to meet the requirements of funders or regulatory agencies. Providers should familiarize them with the documentation requirements of OMHSAS and their BH-MCO and ensure that the forms being used meet their requirements. The following are valuable resources for information about documentation requirements:

- Chapter 1101, General Provisions in the Medical Assistance Manual in the Department of Public Welfare regulations
- Medical Assistance Bulletin 29-02-03, “Documentation and Medical Record Keeping Requirements”
- PROMISe Provider Handbook and Billing Guide for Mental Health and Substance Abuse providers

Sample paperwork has been developed by OMHSAS in collaboration with MST Services, in an effort to help providers meet the requirements for M.A. billing with the most efficiency possible. This paperwork and a corresponding training module are available on-line.

Expanding or Making Changes to Services:
Once an MST program is M.A.-enrolled it is not common to make changes to the service design, since MST follows a specific treatment model. However, many providers find that they want to expand their program by adding another MST team and/or serving additional counties. Any changes, including expansions, must be reviewed and approved by the OMHSAS Children’s Bureau. See #11 of the Frequently Asked Questions About Medical Assistance for more information.

Other aspects of being an M.A. provider are addressed elsewhere in this Section (e.g., see the subsections above titled Funding and Monitoring). Providers are encouraged to read the Frequently Asked Questions About Medical Assistance available on the EPISCenter web-site.

ADDRESSING COMMON BARRIERS TO IMPLEMENTATION

Below are some common barriers encountered when implementing MST. Planning for these in advance can help providers and communities avoid implementation delays or disruptions.

Funding Issues:
The specific nature of funding challenges varies from county to county but may include difficulty obtaining timely authorization and reimbursement for services, difficulty working with the County Assistance Office to get youth MA eligible, confusion or lack of information about different funding streams, and county dynamics that impact the accessibility of county funding.

It is critical that providers are proactive and collaborative when working with their counties, which will assist with learning about and access available county funding. For example, providers should talk with their counties about including MST in a county application for Special Grant funds from OCYF well before the application is due, so that the provider knows whether the county will be requesting a Special Grant and can advocate for its program’s needs. Special Grant funds are typically requested in August for the
next fiscal year, meaning that programs and communities must plan for such funds up almost a year in advance.

While M.A. funding is necessary to sustain MST programs in Pennsylvania, there are challenges associated with M.A. funding. (See the Funding and Utilizing Medical Assistance as a Funding Source subsections above for guidance related to M.A. funding.) When providers encounter challenges with their BH-MCO, they should attempt to resolve the issues through direct communication with the BH-MCO. Persistent problems should be brought to the attention of the OMHSAS. The EPICcenter is also available to provide technical assistance.

To assist with getting youth onto M.A. and obtaining authorizations, providers should identify support staff within the agency or county staff who can help with the process. Providers should have a conversation with their counties to determine whether county funds will be available to pay for services provided to youth who are not yet M.A-enrolled or for whom services are not deemed “medically necessary” and therefore not covered by M.A.

Unit Billing:
The requirement to bill for units of service in M.A. Fee-for-Service and certain BH-MCOs is a concern for providers and one that is uniquely affected by the MST model which explicitly recommends a case rate or weekly rate. M.A. Fee-for-Service payments are limited to direct unit billing. The majority of BH-MCOs are willing to pay for MST using an Alternative Payment Arrangement (APA), such as a weekly rate, but there are exceptions. As described in the Funding subsection above, providers should have very detailed discussions with their BH-MCO during rate negotiations to clarify which activities are billable and ensure that the rate to which they agree will cover their allowable expenses.

Educating Referral Sources about the MST Model:
The importance of collaborating with stakeholders and referral sources to create buy-in and support for the model cannot be underestimated. Providers must continuously engage potential referral sources to maintain a steady flow of referrals and to educate referral sources about the MST model. As staff turnover within county agencies occurs, education must begin anew. Specific areas about which referral sources often need on-going information include:

1. Appropriate referrals and the necessity of serving only youth who fit the target population for MST. In some cases, often due to the success of the MST program, providers experience pressure to accept youth who are not appropriate for the model.
2. The value of an ecologically-centered model, as opposed to the child-centered model, and the benefits of referring to MST rather than other in-home programs with which many referral sources are familiar.
3. The fact that “stacking services” on top of MST, especially when those other services are not compatible with the MST model, reduces model fidelity and compromise outcomes.
4. Encouraging probation offices to allow youth to complete MST rather than be placed, if a probation violation occurs during the course of MST but the youth has been making progress within treatment. At a minimum, providers should try to develop a clear understanding with probation about the types of offenses or probation violations that will result in placement so that all agencies involved with the youth are working from the same page.
Providers spend considerable amounts of time and energy educating and working with referral sources around these issues. The subsection above titled Involving Your Collaborative Board and Other Stakeholders includes strategies for working with stakeholders, including referral sources.

**Familiarity with the Medical Assistance System and Its Requirements:**

If billing Medical Assistance, which virtually every MST provider in the Commonwealth will do, you must be familiar with the requirements of the Medical Assistance system. This includes regulations pertaining to documentation, interagency teams, client rights, Child Protective Services Law, and billing, among other topics. Providers must also comply at all times with their OMHSAS-approved service description.

OMHSAS and the EPISCenter are available to provide technical assistance to providers. A list of the policies and regulations that providers are expected to know and follow is included in the Frequently Asked Questions About Medical Assistance (see #15), although the list does not claim to be exhaustive. Providers can request from the OMHSAS Children’s Bureau a copy of the survey tool that is used during site visits and outlines many of the M.A. requirements that apply to MST programs. Sample paperwork has been developed by OMHSAS in collaboration with MST Services, in an effort to meet the requirements for M.A. billing with the most efficiency possible. This paperwork and a corresponding training module are available on-line.

**Administrative Demands:**

MST staff are often faced with a number of administrative demands, particularly documentation requirements, from the various systems with which MST works (e.g., OMHSAS, BH-MCOs, referral sources). Each BH-MCO has its own paperwork requirements and processes, which can be difficult for providers who work with more than one BH-MCO to manage. Providers report concern about the impact of administrative demands on therapists’ clinical work.

Providers can minimize these demands by ensuring that support staff are responsible for any non-clinical activities that do not require therapist involvement. Providers can have discussions with funding sources about whether they will accept the forms developed by OMHSAS (see Familiarity with the Medical Assistance System and Its Requirements above), which could help to streamline the documentation being used across different counties and BH-MCOs.

**Challenges Associated with Serving Rural Areas:**

Serving rural areas means that therapists often spend large amounts of time traveling between homes, which can affect therapists’ ability to meet families’ needs as well as increase travel costs. The MST model has geographical restrictions on the area a team can serve (described under the Detailed Description of the Program subsection) and it can be difficult for teams to generate enough referrals in very rural areas. MST Services suggests increased drive times can be counteracted by reducing caseloads, which of course increases the cost of the service. If serving a rural area, this is an important factor to discuss with your local collaborative board and funding sources.
OTHER RESOURCES FOR PROGRAM INFORMATION

- **www.mstservices.com** – The web-site for MST Services includes a wealth of information about the treatment model, implementation process, effectiveness of MST, cost-benefit for information, training, and the history of MST Services. The site also includes numerous resources, including but not limited to fact sheets and handouts and the MST newsletter “In The Loop.”

- **www.mstinstitute.org** – The web-site for the MST Institute includes information about the Institute’s purpose, the web-based data management services available from the Institute, the MST Quality Assurance program, and contact information.

- **http://www.mstpsb.com** – The web-site for MST Associates, the organization that supports the dissemination of the adaptation of MST for youth with problematic sexual behaviors. The site includes a brief description of the adaptation and research outcomes.

- **http://academicdepartments.musc.edu/psychiatry/research/fsrc/abt_fsrd.htm** - The home page for the Family Services Resource Center at the Medical University of South Carolina, where MST was developed, includes an overview of MST and a list of FSRC’s publications.
CITATIONS

*MST Services updated its web-site during the summer of 2010. As a result, a limited number of documents are no longer available on-line.*


