The Intensive In-Home Services Decision Tree:
A Framework for Decision-Making in Connecticut

Jeffrey J. Vanderploeg, Ph.D.
Judith C. Meyers, Ph.D.

Child Health and Development Institute of Connecticut, Inc.
Connecticut Center for Effective Practice

Connecticut Center for Effective Practice

Child Health and Development Institute of Connecticut, Inc.

The Intensive In-Home Services Decision Tree:

A Framework for Decision-Making in Connecticut

Jeffrey J. Vanderploeg, Ph.D.

Judith C. Meyers, Ph.D.

Child Health and Development Institute of Connecticut, Inc.

Connecticut Center for Effective Practice

October 9, 2009

This report was developed for the Connecticut Department of Children and Families (DCF) as a publication of the Connecticut Center for Effective Practice (CCEP), a statewide partnership project under the auspices of the Child Health and Development Institute of Connecticut.

ACKNOWLEDGEMENTS

The authors would like to thank the following organizations and individuals for their important contributions and support during the completion of this report.

Child Health and Development Institute of Connecticut,
Connecticut Center for Effective Practice
Robert Franks

Connecticut Department of Children and Families
Robert Plant
Frank Gregory
Anne MacIntyre-Lahner

Connecticut Judicial Branch, Court Support Services Division
Julie Revaz
Peter Kochol
Art Weiner
Kim Sokoloff
Cindy Theron

Value Options
Lori Szczygiel
Deb Gannon
Ann Phelan
Brenda Wilcox

Yale Child Study Center
Joseph Woolston
Jean Adnopoz

Connecticut Providers and Consultants
Michael Williams, Advanced Behavioral Health
Elisabeth Cannata, Wheeler Clinic
Jenn Melquist, Wheeler Clinic

National Consultants
Bill Bouska, Oregon Child and Adolescent Mental Health Services
Betty Walton, Indiana Family and Social Service Administration
Glenace Edwall, Minnesota Department of Human Services
John Lyons, Northwestern University

Introduction

Epidemiological and clinical evidence suggests a national crisis in children's mental health. For example, 21 percent of children have a diagnosable mental health disorder but only about one in five children who need mental health treatment will receive it [1, 2]. An important factor underlying lack of access to children's mental health treatment is the need for states to develop a comprehensive community-based mental health service continuum for children and adolescents. Traditionally, this has consisted primarily of inpatient hospitals, residential facilities and center-based outpatient services provided in community-based clinics or hospitals. Although these are important aspects of the service continuum, they do not meet the needs of all children and families.

Intensive in-home services are an additional component of the mental health service array designed to meet the needs of children with emotional and behavioral needs. Intensive in-home services are a category of community-based mental health treatments designed to increase access to treatment, reduce out-of-home placements, and improve outcomes for children and families. Such services aim to provide treatment in the homes of children who have serious emotional and behavioral disturbances using a child-centered and family-focused treatment approach. Rigorous evaluations demonstrate the effectiveness of these treatment models in promoting positive outcomes and reducing the likelihood of being placed in out-of-home settings such as inpatient hospitals, residential treatment facilities, or juvenile detention centers [3, 4].

Connecticut recently has adopted and implemented multiple in-home service models as important elements of their comprehensive service array. Primarily through the initiatives created and implemented following the adoption of

Connecticut Community Kid Care (KidCare), the presence of in-home services has increased in the state. KidCare was intended to create an increasingly community-based system of care that enabled children to remain in their homes and communities rather than be placed out-of-home and sometimes out-of-state; treatment arrangements that are not only costly, but often ineffective and unnecessarily disruptive for children and families. In-home services aim to create sustainable change in the home environment in a way that results in better outcomes for children and families. With the proliferation of in-home services, however, those who refer to such services in Connecticut--for example, clinicians, workers in the Department of Children and Families (DCF), judges, and probation officers--often have little guidance regarding how to distinguish one service from another and which would be most beneficial for a particular child and family. More information about how to select the most appropriate in-home model that will meet the needs of children with serious emotional and behavioral disorders would be helpful.

Purpose of Report

The current report examines critical issues that affect the way in which referrals are made to intensive in-home services in Connecticut. We begin by identifying and describing existing practices for referring children to in-home services, in Connecticut and nationally. To supplement current decision-making practices, we have developed the *Intensive In-Home Service Referral Decision Tree* - a tool that will assist in decision-making for those who refer children to in-home services. The intensive in-home services selected for inclusion in this report meet the following criteria:

- Currently implemented in Connecticut

- Funded and managed by DCF or the Judicial Branch's Court Support Services Division (CSSD)
- Provided in the home
- Consider the child rather than the parent as the target of the intervention.

In total, nine in-home services meet these criteria. The nine included services, along with their funding source, are presented in Table 1. These services also are described in more detail in Appendix A.

Table 1. State-Funded Intensive In-Home Services

Treatment Model	**State Agency Funding Source**
Brief Strategic Family Therapy (BSFT)	CSSD
Family Substance Abuse Treatment Services (FSATS)	DCF
Family Support Teams (FST)	DCF
Functional Family Therapy (FFT)	DCF [a]
Intensive In-Home Child & Adolescent Psychiatric Services (IICAPS)	DCF CSSD
Multidimensional Family Therapy (MDFT)	DCF [b]
Multisystemic Therapy (MST)	DCF CSSD
Multisystemic Therapy-Building Stronger Families (MST-BSF)	DCF
Multisystemic Therapy-Problem Sexual Behaviors (MST-PSB)	DCF

[a] Treatment slots made available to CSSD clients
[b] Treatment slots purchased for CSSD clients

Sources of Information

Literature review, key informant interviews, and expert consultation were used to gather the information for this report. The literature review focused on

describing the nine intensive in-home services, reviewing empirical studies of their outcomes, examining the implementation of intensive in-home services in the community, and reviewing the field of clinical and organizational decision-making. In addition, study investigators held meetings and key informant interviews with stakeholders in the children's mental health system including administrative staff from DCF, CSSD, the Connecticut Behavioral Health Partnership (CT BHP), family members, and selected provider agencies (Yale Child Study Center and Wheeler Clinic). Investigators also consulted with Gary Blau, Chief of the Child, Adolescent, and Family Branch of the Center for Mental Health Services, a division of the Substance Abuse and Mental Health Services Administration (SAMHSA), to determine whether other states had conducted systematic investigations of this issue. This led to phone interviews with key state government officials and consultants from Indiana, Illinois, and Oregon who were in charge of managing and/or evaluating home- and community-based behavioral health services.

Contextual Background of Referral Decision-Making and Intensive In-Home Services in Connecticut

Adoption and Implementation of Intensive In-Home Services in Connecticut

National and state initiatives are increasingly promoting the adoption and implementation of in-home services as an essential component of a comprehensive system of care for children's mental health [5, 6, 7, 8]. As a result, legislators, policy makers, researchers, providers, and parents view intensive in-home services as an important component of the service array in treating children and adolescents with mental health needs.

Connecticut has invested in the development of a community-based network of mental health services, including intensive in-home services that can help reduce reliance on the most intensive, costly, and restrictive treatment settings. In June 1999, the Connecticut General Assembly requested that the Department of Social Services (DSS) conduct an evaluation of the mental health service array in Connecticut. A subsequent report described various service system gaps and barriers that affected treatment access and utilization for children and families in Connecticut. The report concluded that Connecticut's most pressing needs included increased access to community-based and alternative treatments, care coordination, the presence of an integrated funding mechanism, and family involvement in all aspects of service delivery.

A plan known as *Connecticut Community KidCare (KidCare)* was developed to address these service gaps and needs. One element in the development of a community-based mental health care system has been the adoption and implementation of intensive in-home treatment models for children with complex emotional and behavioral problems. As a result, many in-home services now are

offered in Connecticut. Yet there remains a need to educate the community, providers, families, and people who refer to in-home services about key distinctions among intensive in-home service models and to advance strategies that will maximize the “fit” between the needs of the child and family and the in-home service to which they are referred.

The Intensive In-Home Service Referral Decision Tree

By understanding the basic characteristics of each in-home service, those who refer to intensive in-home services will be able to assess the fit between the service model and the characteristics and needs of children and families. Elements of the nine intensive in-home services are summarized below in Table 2 and described in more detail in Appendix A.

Table 2. Overview of Intensive In-Home Services in Connecticut

Treatment Model	Funding Agency	Target Population	Presenting Problems	Target Age	Treatment Focus	Treatment Intensity and Duration
Brief Strategic Family Therapy (BSFT)	Court Support Services Division (CSSD)	May or may not be DCF-involved.	Substance abuse, conduct problems, delinquency.	8 to 18 years old	Targets maladaptive family interactions using structural and strategic family therapy techniques. Incorporates ecological influences.	Weekly sessions for 60-90 minutes each session. 12-15 total sessions over 3 months.
Family Substance Abuse Treatment Services (FSATS)	DCF	Children in detention with evidence of parental substance abuse.	Substance abuse, behavior problems, delinquency. Also, parental substance abuse and family systems issues.	11 to 17.5 years old	Targets parental substance abuse as a key contributing factor to observed child behavior problems or juvenile justice involvement.	Up to 12 months.
Family Support Teams (FST)	DCF	DCF-involved children only, including Voluntary Services. Children returning from out-of-home care or at risk for placement.	Children with psychiatric, emotional, or behavioral difficulties, and their families.	3 to 19 years old	Uses a multidisciplinary team approach, including a child's psychiatrist, nurse, clinician, case manager, and others (e.g., teacher, recreational therapist). Offers 24-hour crisis response.	9 to 15 months or longer depending on case complexity and need.
Functional Family Therapy (FFT)	DCF (treatment slots shared with CSSD)	May or may not be DCF-involved.	Violence, aggression, delinquency, substance use.	11 to 18 years old	Multisystemic approach with reliance on family therapy. Treatment organized around three phases (engagement and motivation, behavior change, generalization).	8 to 12 sessions provided over 3 months, or up to 30 hours direct contact for more complex cases.
Intensive In-Home Child and Adolescent	DCF CSSD	May or may not be DCF-involved. Children returning	Primarily psychiatric symptoms including psychotic symptoms,	3 to 18 years old	Coordinated child-centered and family focused treatment that addresses	Direct clinical treatment for at least 5 hours a

Psychiatric Services (IICAPS)		from or at-risk of out-of-home placement due to psychiatric symptoms.	bipolar, and mood disorders. Also treats a wide range of behavior problems secondary to psychiatric symptoms.		causal and maintaining factors related to parenting, family, school, and community. 24-hour crisis response.	week for approximately 4 to 6 months.
Multidimensional Family Therapy (MDFT)	DCF (treatment slots purchased by CSSD)	May or may not be DCF-involved.	Behavior problems, conduct problems, substance abuse. Also, parenting and family systems issues.	11 to 17 years old	Multisystemic ecological framework. Relatively stronger emphasis on family therapy than parent training. Treatment progresses in three sequential phases.	Average of 2-3 sessions per week, 1-2 hours per session, for a duration of 4-6 months.
Multisystemic Therapy (MST)	DCF CSSD	May or may not be DCF-involved.	Behavior problems, conduct problems, substance abuse. Also, parenting and family systems issues.	11 to 17 years old	Multisystemic ecological framework. Relatively stronger emphasis on parent training than family therapy.	Average of 2-3 sessions per week, 1-2 hours per session, for duration of 4-6 months.
Multisystemic Therapy-Building Stronger Families (MST-BSF)	DCF	Child must be involved with DCF Child Protective Services (CPS).	Delinquent behaviors and/or substance abuse problems.	11 to 18 years old	Multisystemic ecological framework is used to address child maltreatment and parental substance abuse as the causal and maintaining factors in child behavior problems.	Average of 2-3 sessions per week, 1-2 hours per session, for duration of 9 to 12 months.
Multisystemic Therapy-Problem Sexual Behavior (MST-PSB)	DCF	Child must be involved with CPS or DCF Parole.	Sexual acting out behavior.	11 to 18 years old	Multisystemic ecological framework to address issues such as substance abuse, peer influences, and parenting behavior.	Average of 2-3 sessions per week, 1-2 hours per session, for a duration of 5 to 7 months.

Note. Adapted from *Intensive In-Home Service Models* created by Connecticut DCF (R. Plant).

Our interviews and focus groups with stakeholders in Connecticut's children's mental health system revealed several key factors that are related to making referrals to in-home services. The key factors summarized below emerged as important decision-points used to construct the *Intensive In-Home Services Decision Tree*.

1. Primary presenting problems. Perhaps the most important feature that determines referral decision-making is the *primary* presenting problem of referred youth (e.g., psychiatric, behavioral, and/or substance abuse). Key informants told us that many children and adolescents referred for intensive in-home services have more than one psychiatric diagnosis and multiple presenting problems targeted for intervention. We discovered that in most cases it was the primary presenting problem that drove the referral decision-making process. For example, for a child with symptoms of psychosis that also has behavior problems, those who refer to services must consider which presenting problem is of primary concern. In this case, many providers prioritize stabilization of psychotic symptoms before addressing behavior problems, and thus, a referral to IICAPS or FST often is considered first.

2. The target population for whom the service is designed. As seen in Table 2, some intensive in-home programs were developed specifically for certain populations of youth. For example, the FSATS program was developed for youth who are currently in detention and are about to be returned to a caregiver with a substance abuse problem. Similarly, the MST-PSB program was designed only for youth who are involved with DCF and who have demonstrated sexually acting

out behavior. Such characteristics of the target population are a critical consideration that drives referral decision-making in Connecticut.

3. Intensity of service needs. Even when two or more programs serve very similar target populations, such as MDFT and FFT, the models call for different levels of intensity with respect to the number of sessions per week and the total duration of the intervention. These characteristics are important factors to consider when matching the degree of treatment need for youth and their families with the intensity of service delivery specified in each program model.

4. Level of family functioning. Although intensive in-home services inherently call for family involvement in treatment, models differ based on the degree to which the family's level of functioning is viewed as a causal or maintaining factor for the youth's emotional or behavioral problems. For example, BSFT and FFT tend to place a heavier emphasis on the role of family systems issues as they relate to youth's disruptive and 'acting out' behaviors. As such, family systems issues and traditional family therapy are emphasized as a primary intervention component through the course of treatment. This requires those who refer to in-home services to assess the family's overall level of functioning, their willingness and ability to participate in treatment, and the extent of family strengths to make an appropriate referral decision.

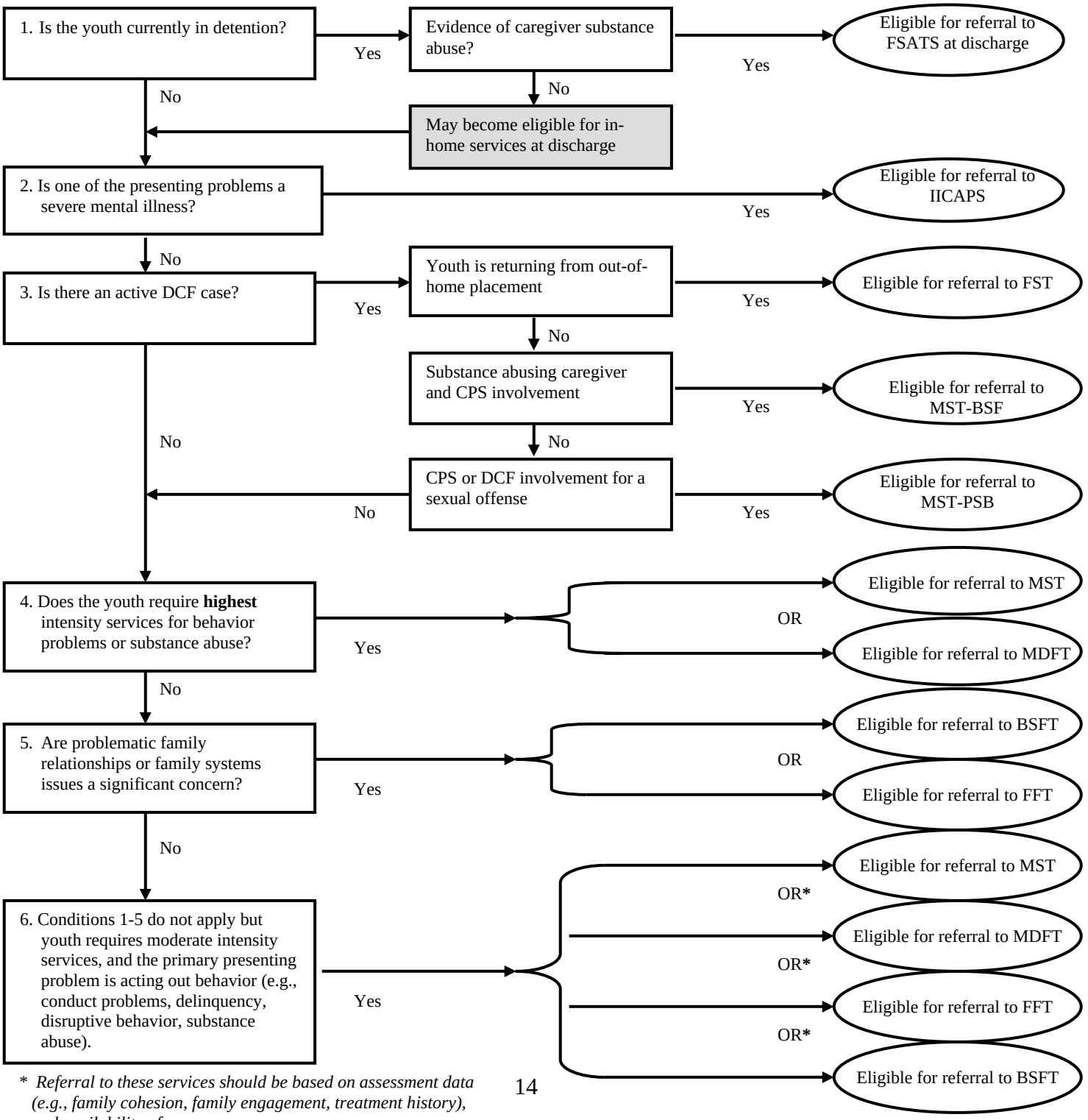
The *Intensive In-Home Services Decision Tree* is presented in Figure 1. The decision tree takes into account the factors described above, and can be used by those who refer to intensive in-home services to facilitate decision-making to specific in-home interventions. Basic eligibility criteria for participation in intensive

in-home services are listed at the top of the tree. Each box must be checked as present before proceeding with the rest of the decision tree. The remainder of the tree proceeds in the format of a “flow chart” with key characteristics of the in-home services functioning as decision-points in the tree. It is important to note that the *Intensive In-Home Services Decision Tree* is meant to supplement, and not replace, existing methods of referral decision-making to intensive in-home services.

THE INTENSIVE IN-HOME SERVICES DECISION TREE

Requirements for intensive in-home services:

- ☐ children and youth age 11 to 17 (or age 3 to 17 for the IICAPS and FST programs);
- ☐ who require intensive services for serious emotional and behavioral problems;
- ☐ have been recently discharged from or are at-risk for out-of-home placement (e.g., inpatient hospitalization, residential treatment), OR whose level of treatment needs exceed what is available in lower levels of care (e.g., outpatient therapy);
- ☐ due to its emphasis on family-oriented services, youth must have at least one stable caregiver (parent or other) who is willing to actively participate in treatment.



* *Referral to these services should be based on assessment data (e.g., family cohesion, family engagement, treatment history), and availability of resources.*

Additional Factors that Affect In-Home Referral Decision-Making

The decision tree offers relatively strict guidelines that often are helpful in decision-making. The decision tree uses rule out criteria that allows those who refer to these services to determine eligibility and appropriateness for specific services. For example, when a particular in-home service requires DCF involvement for eligibility, those who refer can readily answer this question and determine whether that in-home service is appropriate. A number of additional factors, however, can be equally important to referral decision-making but difficult to incorporate into a decision-tree format. Often such factors can be characterized as involving a degree of clinical judgment. Although guidelines can be offered to assist decision makers, the role of clinical judgment and careful consideration of contextual and systemic issues remain an important component of decision-making. The key factors are described below.

1. Variations in geographic availability. Many of the intensive in-home treatment models are not uniformly available across Connecticut and thus are not easily accessible for some families. As a result, referrers to in-home services must consider whether a clinically appropriate in-home service is available to a particular family given where they live and their proximity to the team that implements the in-home service. During our investigation, we learned that in many cases a child and family are a very good fit for a particular in-home service, but the nearest provider of that treatment is too far away to make delivery of that treatment feasible.

2. Treatment history. Several serious disorders common in adolescence, including substance abuse disorders and complex presentations of post traumatic stress disorder, may require multiple episodes of treatment before

significant gains are observed. Accordingly, those who refer to in-home services often face a situation where a child already has received a course of treatment in a particular home-based intervention. Under these circumstances, they need to consider the effectiveness of the first course of treatment, the nature of the child or adolescent's condition, and whether this increases or decreases the likelihood of treatment effectiveness with a second course of treatment. Alternatively, many key informants questioned the appropriateness of providing one intensive in-home service, followed by a second or even a third intervention, until the desired outcomes are achieved. Based on our interviews with key informants and providers in the state, these decisions often are made based on reviewing the case history and exercising sound clinical judgment with the input of a multidisciplinary treatment team. This often takes into account factors unique to the child or family’s circumstances that might increase the likelihood of treatment effectiveness the second time around.

3. Family preference. A central tenet of systems of care philosophy, culturally competent service delivery, and in-home services is that services are to be child-centered and family-focused. Thus, families have a significant voice in selecting the treatment they receive. A child or family’s connection to a particular treatment agency or clinician and the services they provide can be a determining factor in the type of in-home service that ultimately is received. Families who have an established relationship with an agency or a particular clinician often will rely on the providers and treatment settings that are known to them and are trusted. If the agency or clinician that is known to the family offers one particular in-home service, our key informants believed that a family often will prefer that service,

whether or not it is the most clinically appropriate option. Incorporation of family preference is an important consideration in selecting an in-home treatment.

4. Waitlists. Our findings suggest that the nine in-home services vary in the average length of their waitlists. For example, the IICAPS program was recently converted from a grant funded service to a fee-for-service reimbursement structure, and since then has experienced a level of demand that exceeds their current capacity, thus contributing to longer than average wait lists. Often a child is in need of immediate access to in-home services because of high risk for inpatient or residential placement. Many providers believed that it was appropriate in such cases to provide an in-home service that was readily accessible, rather than waiting for an opening in an in-home service that might be a better fit but has a long waitlist.

5. Juvenile justice involvement. Related to the above, children with court or probation involvement often are court-ordered to receive immediate placement in an in-home service to address their mental health needs and to avoid residential placement or incarceration. In such cases, referrers such as probation officers or DCF staff are in the difficult position of being compelled to comply quickly with court orders by arranging an immediately available in-home treatment placement. A premium is placed on what is currently available, not necessarily on what is clinically indicated.

6. Types of therapeutic modalities available in connection with each in-home treatment model. Several people with whom we spoke discussed matching a particular in-home service to specific demographic or clinical characteristics of the child or family based on their assumption about the components of that model. For example, situations were described in which clinicians felt strongly

that teenage girls with disruptive or mood disorders were in need of individual treatment and that MDFT offered a stronger individual treatment option than MST. On the other hand, MST was believed by many to offer a stronger parent-training component than other in-home services. Finally, some community-based agencies were believed to have better access to psychiatric services and medication management regardless of the in-home models they implemented, which influenced the likelihood of referring to these agencies. In each of these examples, the perceived availability of a specific therapeutic modality (i.e., individual therapy, parent training, medication management) had a significant influence on decision-making. Most acknowledged, however, that these assumptions often were not grounded in empirical data or systematic comparisons of the implementation of in-home services.

7. Matching child and family characteristics to clinician characteristics. Our findings suggest that referrers often believe children and families respond better to treatment when there is a good 'fit' between child, family, and clinician characteristics. Race/ethnicity and language were mentioned as critical factors to consider when determining how well a child and family fit with a clinician. Spanish-speaking clinicians, regardless of the in-home service in which they work, tend to be matched to Spanish-speaking families. In addition, referrers often prefer, when possible, to match children of a particular racial or ethnic group with a clinician of the same racial or ethnic group. Such factors can have an effect on decision-making.

Recommendations for Connecticut

1. Train all individuals that make referrals to intensive in-home services and care specialists within the CT BHP, in the use of this decision-making framework.

Prior research on the adoption and implementation of new approaches to service delivery makes it clear that simply distributing guidelines that describe intended changes in practice is ineffective. It is necessary that systematic training occur, along with adequate follow-up and 'booster' training sessions, to ensure that changes in practice are maintained with fidelity over a sustained period of time. Potential targets for training in the use of this decision-making framework include: DCF staff, teachers and school officials, probation officers, care coordinators, outpatient clinicians, the reviewers who authorize care in these models at the CT BHP, and all others that are likely to refer youth to intensive in-home services.

2. Ensure consistent standards for collecting, reporting, and tracking data for the purposes of quality improvement and evaluation of intensive in-home services.

Although our analysis revealed rich information from multiple stakeholders regarding the current state of decision-making as it applies to referrals to intensive in-home services, we discovered that important factors driving decision-making often are not guided by data. The Program and Services Data Collection and Reporting System (PSDCRS), a web-based data entry system that is being implemented for DCF-funded community-based services, will allow providers and stakeholders to obtain real-time data for youth involved in behavioral health services. The PSDCRS will allow stakeholders to longitudinally track information

on child and family socio-demographics, episodic care, clinical characteristics, and outcomes data (e.g., Ohio Scales) at the statewide, program, provider, or project level. Currently, the developers of PSDCRS are working collaboratively with all stakeholders to tailor the system to Connecticut's specific needs. Stakeholders in intensive in-home services should take a central role in identifying how PSDCRS can be used to answer specific questions about in-home service utilization and outcomes. For example, the PSDCRS can be used to support generation of reports that monitor and track demographic characteristics of children and families, referral sources, and outcomes. Specific research or quality improvement questions can be developed to determine whether certain demographic and/or clinical characteristics are linked to successful outcomes in intensive in-home treatments. In particular, it may be appropriate to use discriminant function analyses (or another comparable statistical technique) to determine how combinations of client, family, and situational factors predict outcomes of various intensive in-home services.

3. Expand intensive in-home services to enhance statewide capacity and eliminate geographic disparities.

Connecticut's state agencies, through funding from the state legislature, should be recognized for their investment of time, money, and resources to develop, adopt, and implement a number of intensive in-home services. Our investigation, however, consistently revealed that stakeholders in Connecticut's children's mental health system perceived geographic disparities for some in-home services. State agencies should continue to examine each in-home service to determine the degree of penetration to all regions of the state. If it is determined that intensive in-home services do in fact lead to reductions in out-of-

home placements and improved child and family functioning, all children in the state with complex emotional and behavioral health needs that are appropriate for this level of care should have equal access to these services.

4. Community-based collaboratives should promote and support the consistent use of multidisciplinary teams to make treatment referral decisions using the Wraparound process to drive care coordination.

Our findings suggest that many sites use multidisciplinary treatment teams composed of clinicians, psychiatrists, and family members to determine the most appropriate in-home service to meet a child's needs. To the extent possible, this practice should continue to be encouraged across all provider sites as it is likely to reduce the potential bias associated with single-clinician judgment. A diverse team of providers can bring multiple perspectives to bear on clinical decision-making, and increase the likelihood of an appropriate referral. Use of the *Intensive In-Home Services Decision-Making Tree*, along with the accompanying discussion of relevant individual, clinical, and systemic factors, is recommended for use in the multidisciplinary team context. However, we recognize that for children that are DCF-committed or involved with the juvenile justice system (i.e., court-ordered to receive services), the consistent use of a multidisciplinary team for referral decision-making will be difficult to achieve. The Wraparound approach to care coordination has the potential to enhance collaboration and system integration and ensure appropriate decision-making and shared treatment planning.

5. Conduct systematic research using the Intensive In-Home Services Decision Tree to determine the 'value-added' in the children's mental health system.

The *Intensive In-Home Services Decision Tree* introduced in this report is believed to capture important elements of decision-making in Connecticut's children's mental health system. Further research is required to determine the validity of the decision tree guidelines and to ensure its utility for treatment decision-making.

6. Explore the appropriateness of adopting intensive in-home services for a variety of difficulties, including the possible adaptation of existing models to meet the needs of more children and families.

Our findings confirmed that many of Connecticut's intensive in-home models target children with disruptive behaviors, delinquency, and/or substance abuse. IICAPS and FST were more broadly defined and tended to include in their target population children with psychotic and mood disorders. Multisystemic Therapy – Problem Sexual Behavior intervenes with children who are court-involved because of a sexual offense. Other models target children with disruptive behavior disorders, delinquency, and substance abuse. In the case of MST-PSB and MST-BSF, Connecticut, in collaboration with the model developers, has adapted the original MST model to meet the needs of specific populations of children and youth. Similar approaches should be explored for other groups of children that are in need of appropriate in-home services, for example, children and adolescents with depression, anxiety, and other mood disorders. In such efforts, it is important to recognize that making adaptations to established models may compromise fidelity. Specific attention should be given to measuring the outcomes of model adaptations in order to establish empirically the effectiveness of the model for individuals or groups outside the originally defined target population.

Appendix A: Narrative Summary of Intensive In-Home Service Models

Brief Strategic Family Therapy. Brief Strategic Family Therapy (BSFT) was developed at The Center for Family Studies at The University of Miami, and targets children and adolescent (8 to 17.5 years old) with a range of behavior problems, including substance abuse, conduct problems, and delinquency [9]. The BSFT model is based on the premise that the family is the primary context in which children learn to think, feel, and behave [10]. According to this view, drug abuse and other problem behaviors are caused and maintained by problems in family interactions and relationships. Thus, the focus of BSFT treatment is to improve a youth's behavior problems by targeting maladaptive family interaction patterns, primarily using structural and strategic family therapy techniques [11, 12]. Over time, BSFT has modified its intervention approach to target ecological influences on family functioning [13], primarily, relations between the family unit and other societal influences (e.g., mental health and juvenile justice systems, community and neighborhood, culture). BSFT intervention sessions typically occur weekly, lasting 60-90 minutes each session, for 12 to 15 sessions over the course of approximately three months. A longer duration of treatment is provided to youth with more severe clinical problems.

Family Substance Abuse Treatment Service. Family Support Abuse Treatment Services (FSATS) was developed in Connecticut and is funded by DCF. The program is available to youth 11 to 17 years old with serious emotional and behavioral problems that are currently in detention (i.e., Emily J targeted class members), are about to be returned to their primary caregivers, and for whom there is evidence of parental substance abuse. DCF involvement is not required, but does not disqualify youth from treatment. FSATS focuses on

treating youth substance abuse, family systems issues, and interactions with extra-familial systems. FSATS treatment proceeds in two phases. Phase One of the FSATS model delivers Multidimensional Family Therapy (MDFT) to youth to treat substance abuse and associated mental health and behavioral problems. Phase Two of FSATS focuses on decreasing treatment intensity while simultaneously increasing the focus on relapse prevention and sustaining treatment gains. Phase One of the FSATS model (corresponding with MDFT) conducts sessions 2 to 3 times a week, 1 to 2 hours per session, with various combinations of family members, and lasts 4 to 6 months. Phase Two of treatment decreases the intensity of service delivery to approximately one to two 1-hour sessions per week for 5 to 8 months. The total treatment duration is 9 to 12 months.

Family Support Teams. Family Support Teams (FSTs) are an intensive in-home service model that was developed and currently is implemented only in Connecticut. FSTs provide an integrated array of services to children and youth 3 to 19 years old with psychiatric, emotional, or behavioral difficulties, and their families. Services are provided in a family's home and community. Due to its broad treatment focus, FSTs utilize a multidisciplinary team treatment approach, involving psychiatrists, advanced practice registered nurses, Master's level clinicians, and Bachelor's level case managers, as well as other professionals from other service sectors who collaborate with FSTs as-needed (e.g., education, vocational training, recreational therapy, occupational therapy). FSTs work with cases for anywhere from 9 to 15 months or longer, based on case complexity and need. They also provide 24-hour emergency crisis coverage to enrolled families. Services currently are targeted only to DCF-involved children, including

those enrolled in DCF Voluntary Services. Additionally, children and youth are eligible for FSTs if they are returning from out-of-home care, at imminent risk of entering out-of-home care, or are entering Treatment Foster Care.

Functional Family Therapy. Functional Family Therapy (FFT) was originally developed in the late 1960's at the University of Utah's Psychology Department Family Clinic. FFT is a family-based prevention and intervention program for youth with a wide range of behavior problems including violence/aggression, delinquency, substance use, and other externalizing behavior problems [4]. Since its inception, FFT has provided treatment to youth between the ages of 11 and 18 years old who have complex behavior problems. The focus of treatment is on the family and FFT clinicians use a multisystemic approach to treating youth with behavior problems. Since the late 1990's, FFT has organized its treatment approach around three phases, each with its own goals, assessment strategies, and intervention techniques. The three phases include engagement and motivation, behavior change, and generalization. The intervention calls for 8 to 12 sessions provided over three months for youth with moderately severe clinical problems or up to a total of 30 hours of direct services for clients with more severe treatment needs.

Intensive In-Home Child and Adolescent Psychiatric Services. Intensive In-Home Child and Adolescent Psychiatric Services (IICAPS) is a curriculum-driven, home-based, family-focused treatment for children and youth 3 to 18 years old with severe emotional disturbance who are at-risk of out-of-home placement or are returning from out-of-home placements due to psychiatric problems. Faculty and researchers at the Yale Child Study Center developed the IICAPS program in the 1990s. IICAPS focuses on reducing the child's psychiatric symptoms

through coordinated care that integrates issues related to parenting, family, school, community, and the service systems (including other mental health providers) with which a child interacts. Two-person teams composed of a licensed or license-eligible clinician and a Bachelor's level mental health counselor provide IICAPS services. A multidisciplinary team provides additional supervision and oversight of cases. Teams are expected to provide at least five hours of direct services each week to children and families and IICAPS can be provided concurrently with other treatment services. DCF involvement is not required for IICAPS, though it does not exclude one from eligibility for the service. IICAPS services typically are delivered for an average of six months, with continuation of treatment available for more severe cases.

Multidimensional Family Therapy. Multidimensional Family Therapy (MDFT) was developed at the Center for Treatment Research on Adolescent Drug Abuse at the University of Miami School of Medicine [14]. MDFT is a comprehensive and family-based intervention for children and adolescents between the ages of 11 and 17 presenting with substance abuse, conduct disorder, delinquency, and other problem behaviors. MDFT is organized around a multisystemic framework that recognizes individual, family, peer, school, and community factors that promote and maintain problem behaviors. MDFT targets the adolescent, the parent, the family, and extra-familial influences. Treatment is organized around three phases. Stage One includes a comprehensive assessment of strengths and deficits. Stage Two is the working phase of treatment in which interventions are applied to make lasting changes to the multiple ecological domains of influence. Stage Three focuses on solidifying changes made in treatment and ensuring that the changes are sustainable once the formal intervention is

complete. On average, 2-3 sessions are held each week, for 1 to 2 hours per session, with various combinations of family members. Treatment length is typically 4 to 6 months.

Multisystemic Therapy. Multisystemic Therapy (MST) is an intensive family- and home-based treatment for children and adolescents who have serious emotional or behavioral disturbances, and are at-risk for placement outside of the home [15]. MST provides services to children and adolescents 11 to 17 years old whose symptoms include substance abuse, violence, delinquency, or behavior problems. The MST treatment approach is based on an ecological understanding of the causes and maintaining factors in child and adolescent mental health and addiction problems [13]. This approach views a child's development and functioning as embedded in a network of interconnected systems, encompassing the child, family, peer group, school, neighborhood, and community/culture. Research demonstrates that MST is particularly effective in reducing recidivism (e.g., re-arrest) rates for children with prior juvenile justice involvement [16]. In addition, MST has been found effective in reducing problem behaviors and family functioning [17, 18]. Research using randomized designs has demonstrated that MST participants have better outcomes over time as compared to children that received individual counseling or treatment-as-usual [16, 19].

Multisystemic Therapy-Building Stronger Families. Multisystemic Therapy – Building Stronger Families (MST-BSF) is an adaptation of the original MST model that was developed in and for Connecticut, for youth who are 11 to 18 years old, are involved with DCF Child Protective Services system, and who exhibit delinquent behaviors and/or substance abuse problems. The treatment

focus of MST-BSF is on child maltreatment and parental substance abuse behaviors, and the duration of treatment is typically 9 to 12 months.

Multisystemic Therapy-Problem Sexual Behavior. Multisystemic Therapy-Problem Sexual Behavior (MST-PSB) is an adaptation of the original MST model that was developed in and for Connecticut to serve children and youth who exhibit problem sexual behavior and are involved with DCF Parole or Child Protective Services. Participants in MST-PSB must be 11 to 18 years old. The treatment focus is on adolescent problem sexual behavior, and can also include intervention for youth substance abuse, peer influences, and parenting behaviors.

References

1. Shaffer, D., Fisher, P., Dulcan, M.K., Davies, M., Piacentini, J., Schwab-Stone, M.E., et al. (1996). The NIMH Diagnostic Interview Schedule for Children Version 2.3 (DISC-2.3): Description, acceptability, prevalence rates, and performance in the MECA study. Methods for the Epidemiology of Child and Adolescent Mental Disorders Study. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 865-877.

2. Ringel, J.S. & Sturm, R. (2001). National estimates of mental health utilization and expenditures for children in 1998. *The Journal of Behavioral Health Services and Research, 28*, 319-333.

3. Henggeler, S.W., Rowland, M.D., Randall, J., Ward, D.M., Pickrel, S.G., Cunningham, P.B. et al. (1999). Home-based multisystemic therapy as an alternative to the hospitalization of youths in psychiatric crisis: Clinical outcomes. *Journal of the American Academy of Child & Adolescent Psychiatry, 38*, 1331-1339.

4. Sexton, T.L. & Alexander, J.F. (December, 2000). *Functional Family Therapy*. Juvenile Justice Bulletin. Washington, DC: Office of Juvenile Justice and Delinquency Prevention.

5. Bruns, E.J. & Hoagwood, K.E. (2008). State implementation of evidence-based practice for youths, part I: Responses to the state of the evidence. *Journal of the American Academy of Child and Adolescent Psychiatry, 47*, 369-373.

6. Chorpita, B.F., Yim. L.M., Donkervoet, J.C., Arensdorf, A., Amundsen, M.J., McGee, C., et al. (2002). Toward large-scale implementation of empirically supported treatments for children: A review and observations by the Hawaii Empirical Basis to Services Task Force. *Clinical Psychology Science and Practice, 9*, 165-190.

7. National Advisory Mental Health Council (1998). *Bridging science and service: A report by the National Advisory Mental Health Council's Clinical Treatment and Services Workgroup*. Bethesda, MD: National Institute of Mental Health.

8. U.S. Public Health Service (2000). Report of the Surgeon General's Conference on Children's Mental Health: A national action agenda. Washington, DC: U.S. Department of Health and Human Services.

9. Szapocznik, J., Hervis, O.E., & Schwartz, S. (2003). Brief strategic family therapy for adolescent drug abuse (NIH Publication No. 03-4751). NIDA Therapy Manuals for Drug Addiction. Rockville, MD: National Institute on Drug Abuse.

10. Robins, M.S. & Szapocznik, J. (April, 2000). *Brief Strategic Family Therapy*. Juvenile Justice Bulletin. Washington, DC: Office of Juvenile Justice and Delinquency Prevention.

11. Minuchin, S., (1974). *Families and Family Therapy*. Cambridge, MA: Harvard University Press.

12. Haley, J. (1976). *Problem-Solving Therapy*. San Francisco, CA: Jossey-Bass.

13. Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

14. Liddle, H.A. (1998). *Multidimensional Family Therapy Treatment Manual*. Center for Treatment Research on Adolescent Drug Abuse, University of Miami School of Medicine.

15. Henggeler, S.W., Mihalic, S.F., Rone, L., Thomas, C., & Timmons-Mitchell, J. (1998). *Multisystemic Therapy: Blueprints for Violence Prevention, Book Six*. Blueprints for Violence Prevention Series (D.S. Elliott, Ed.). Boulder, CO: Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado.

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

17. Henggeler, S.W., Rodick, J.D., Borduin, C.M., Hanson, C.L., Watson, S.M., & Urey, J.R. (1986). Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interactions. *Developmental Psychology, 22*, 132-141.

18. Henggeler, S.W., Melton, G.B., & Smith, L.A. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology, 60*, 953-961.

19. Henggeler, S.W., Melton, G.B., Smith, L.A., Schoenwald, S.K., & Hanley, J.H. (1993). Family preservation using multisystemic treatment: Long-term follow-up to a clinical trial with serious juvenile offenders. *Journal of Child and Family Studies, 2*, 283-293.