State of Indiana
Family and Social Services Administration
Division of Mental Health and Addiction

Business Case for Adoption and Implementation of the Child and Adolescent Needs and Strengths Assessment

The State of Indiana is implementing a quality management assessment tool for children and adolescents. The Child and Adolescent Needs and Strengths (CANS) (Lyons, 1999) is an assessment tool and quality management process that is used to **measure behavioral health care needs and the strengths of children and their families**. The CANS will be the basis for planning individualized services for children and adolescents and will document the level of care (services) needed by the child and family. Indiana will implement two inter-related web-based applications. One is a web-based training application that will provide the training and related materials, establish certification, and store credential information for all persons who will be using the CANS. The second application is a data base to collect and store the assessment data, calculate level of care algorithms, and create routine and ad hoc quality management reports for providers, managed care organizations, and state agencies serving children and their families (e.g. OMPP, DMHA, and Division of Child Services (DCS).

Why the Instrument is Needed

Multiple factors have been critical in making a decision to move from the current child/ adolescent assessment instrument used by DMHA. The most significant factors are:

1. Children and adolescents with serious emotional disturbance are commonly served by multiple systems including mental health, juvenile courts, public schools, and child protective services. Historically, these systems have developed separate jargon, missions, and services. This type of "silos" of services has resulted in communication barriers between the systems and fragmentation of services. An assessment instrument that can cross these barriers by creating a common assessment language while addressing the child and family status in a comprehensive manner was identified in Indiana as the first step toward improving service delivery for these youth and their families.

2. A major complaint of families and other stakeholders is that they have to answer the same questions over and over as they gain access to different organizations/agencies. Additionally, they feel confusion about what is best for the child and family when multiple professionals are involved and are not talking to each other. Demographic information and assessment data that can be access by any agency working with the child and family is expected to minimize the confusion and frustration of these families while also creating a bridge among the agencies.

3. Managed care programs (such as those being implemented by OMPP) typically need a process to define what the child/family needs – what services in what amount and at what level of intensity (Level of Care Determination). DMHA needs to know whether or not children/adolescents are receiving the services they actually need and where gaps exist in the mental health service delivery system. Department of Child Services needs to know what type of placement is in the best interest of the child for safety and permanency planning. Department of Correction needs to know what community integration services are required to reduce recidivism. The CANS will enable each of these agencies/ organizations to have these needs met.

4. Finally, National Outcome Measures are being required by each state that receives mental health block grant funding from the federal Department of Health and Human Services, Substance Abuse and Mental Health Administration. For children and adolescents, these outcome measures include school participation, attendance, performance, juvenile justice involvement, building social supports, living arrangements, and level of functioning. For most states, including Indiana, obtaining data regarding these aspects of the youth's life is very difficult. The CANS will provide the data needed to report on all these outcome measures.

Primary Objective for Adoption of CANS

The overall long range objective of this project is to use a common comprehensive assessment tool across child serving agencies for the purpose of improving the quality and cost effectiveness of behavioral health services for children and adolescents.

This objective will be achieved by implementation of the Indiana CANS that will inform individualized care plans and level of care decisions regarding behavioral health needs and strengths. The CANS will also provide a means for quality improvement through the aggregation of data into a centralized location for analysis. It is a tool developed to assist in the management and planning of services to children and adolescents and their families with the primary objectives of meeting the behavioral health needs of Indiana's youth through cost effective services.

Development and Implementation Activities

The CANS will eventually be used by multiple state agencies. Although the Department of Correction will begin using the instrument during SFY 2007, the automated process will be developed by FSSA/DMHA for use by DMHA contracted providers beginning July 1, 2007. During SFY 2007, three separate but interrelated development/ implementation activities will be the primary focus.

Web-Based Training

For the CANS to be an effective measurement of the status of the child and family, persons using the CANS must have appropriate competencies for collecting information about the child and family and each person using the instrument must obtain the same

results as all others who are using the instrument (inter-rater reliability). This can only be accomplished through the use of a standardized training protocol and controlling the use of the instrument. Therefore, all persons using the CANS will be required to complete the training and become certified for its use. Only persons with current certification will be allowed to provide CANS assessment information.

Since there is an unknown, but large, number of persons who will be using the CANS throughout Indiana, it will not be possible to provide face-to-face training in any cost effective manner. (However, a group of "super-users" from across the state will receive intensive face-to-face training and will be available to assist others who may need additional help in completing the web-based training and/or in implementation of the instrument.) In order to ensure that reliability is maintained, professionals will be required to re-certify on an annual basis. A web-based application that provides access to the standard training protocol and required training materials will be developed by Dr. John Lyons, Northwestern University. Dr. Lyons is the principle developer of the CANS instrument. His Buddin Praed Foundation holds the copyright to the instrument, which he allows to be used by properly trained individuals at no cost.

A contract has been entered into with Dr. John Lyons to customize this web-based training application, which will be available well in advance of the CANS Application implementation. An essential element of the web-based application will be the generation of a database of certified users which will become part of the data collection and reporting application.

The decision to contract with Dr. Lyons during SFY 2007 for the web-based training application was based on the necessity to get the application completed and implemented by the end of the second quarter of SFY 2007 (December 2006). The mid-term objective is to bring the training application into Indiana and to integrate the training application with the CANS application.

Further decisions will be required regarding whether to contract out this application or to bring it in-house.

CANS Application for Data Collection and Reporting

Five versions of the CANS have been developed for Indiana. Two versions are specific for children aged birth to 5, two are specific for youth aged 5 to 18, and one is for use in assessing a crisis situation. Where there are two versions for an age group, one is an initial assessment and one is a more comprehensive instrument. With the comprehensive versions, several additional modules have been developed to use when a need is identified in the basic instrument (for example, issues with substance use, developmental disability, trauma, etc.) Multiple versions and added modules result in a minimum data set and a maximum data set. The exact size of the data set for each child will be based on the individual needs of the child and family.

The CANS data will include both demographic, identifying information for the child and family and assessment data. The identifying information will allow matching of data from each system. Demographic information will allow each system to access previously collected data in order to reduce the amount of information required by each system from the family. The assessment data will allow each system to either use an assessment recently collected by another system, to view historical progress for the child/family, and to enter a new assessment based on changes in the child/family situation.

If the instrument were to be used only for DMHA providers, it could be incorporated into the current CSDS system as a replacement for the HAPI-C. However, the instrument will be used by multiple systems and, therefore, will require a separate application which can be accessed by these systems. The application will need to accept data through direct web-based entry or through routine and frequent batching of data.

Each system will need to either generate or receive reports based on the data in the CANS system. A common report will be the overall profile of the child and family using the profile developed for each version of the instrument. The level of care recommendation based on the profile will also be required reporting and may be a part of the profile report or a separate report. Quality management reports related to completion rates and reassessments will be needed by DMHA to monitor the implementation of the instrument. Other reports related to specific National Outcome Measures will be required.

The current vision for DMHA is that report generation from the CANS database will be very similar to the report generation from CSDS. This will include the capacity for ad hoc reporting and for Cognos reports (standard production reports and user defined reports). Report requirements will be defined by DMHA and the mental health and addiction providers.

Report specifications will be developed for each system using the database based on the specific needs of those systems.

Algorithms and Level of Care Determination

When completed, the CANS instrument provides numerous data points that rate the child's needs within the domains of behavior/emotions, risk behaviors, and functioning as well as the child's strengths. An assessment of the caregiver's needs and strengths is also obtained. Using these data points to make a determination of the level of care needed by the child and family in order to achieve positive outcomes from services requires a rigid process that analyzes the data and provides this decision support. Two major steps are required to develop this decision support methodology.

1. Levels of Care will be defined by a cross-systems workgroup. Members of this workgroup have been identified and the group has started meeting. Generally, levels

of care range from high intensity such as inpatient care to low intensity such as medication maintenance. The number of levels will be determined by the workgroup.

2. After the levels of care are defined, algorithms based on ratings of each item under each domain (see below) will be written. These algorithms will work with the data collection system to analyze the data and report the recommended level of care. Dr. Lyons will work with DMHA staff to define the rules for the algorithms.

The algorithms will allow the calculation level of care recommendations that can be used by the systems for decision support. During the first year of implementation, refinement of the algorithms is anticipated as mental health providers begin to compare the recommendations with actual treatment decisions. A long term objective of this process is to use recommended level of care compared to implemented level of care as a quality measure for the system.

Child and Adolescent Needs and Strengths

The following table is intended to provide an overview of the data that will be collected for each child. The assessment process rates each item on a four point scale. The data collected is the rating (score) for each item.

CHILD BEHAVIORAL/EMOTIONAL NEEDS

Psychosis
Impulse/Hyper
Depression
Anxiety
Oppositional
Conduct
Adj. to Trauma
Anger Control
Substance Use
Eating Disturbance

CHILD RISK BEHAVIORS

Suicide Risk
Self-Mutilation
Other Self Harm
Danger to Others
Sexual Aggression
Runaway
Delinquency
Fire Setting
Social Behavior
Bullying

LIFE DOMAIN FUNCTIONING

Family
Living Situation
School
Social Functioning
Recreation
Developmental
Communication
Judgment

LIFE DOMAIN FUNCTIONING

Vocational
Legal
Medical
Physical
Sleep
Relationship Permanence

CHILD STRENGTHS

ACCULTURATION

Family
Interpersonal
Optimism
Educational
Vocational
Talents/Interests
Spiritual/Religious
Community Life
Relationship Permanence
Youth Involvement
Natural Supports

Language
Identity
Ritual
Cultural Stress

CAREGIVER NEEDS & STRENGTHS

Physical
Mental Health
Substance Use
Developmental
Safety
Employment
Transportation

Supervision
Involvement
Knowledge
Organization
Social Resources
Accessibility to Care
Family Stress

A rating of 0 to 3 is given for each of the needs listed above.

0 Indicates no evidence or no reason to believe that the rated item requires any action.
1 Indicates a need for watchful waiting, monitoring or possibly preventive action.
2 Indicates a need for action. Some strategy is needed to address the problem/need.
3 Indicates a need for immediate or intensive action. This level indicates an immediate safety concern or a priority for intervention.

For strengths of the child or family, the following ratings are used:

0 Indicates a domain where strengths exist that can be used as a centerpiece for a strength-based plan
1 Indicates a domain where strengths exist but require some strength building efforts in order for them to serve as a focus of a strength-based plan.
2 Indicates a domain where strengths have been identified but that they require significant strength building efforts before they can be effectively utilized in as a focus of a strength-based plan.
3 Indicates a domain in which efforts are needed in order to identify potential strengths for strength building efforts