

# Families & Communities Together

## An Evaluation of Delaware's Child Mental Health Grant Initiative: Compendium of Final Technical Reports

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Submitted to:

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Last, but certainly far from least, we would like to thank Mary Moor, F.A.C.T. Project Director, and Aileen Fink, F.A.C.T. Clinical Team Leader, for their support of and commitment to a meaningful evaluation of F.A.C.T.

## Acronym Glossary

ADHD	Attention Deficit Hyperactivity Disorder
CMH	Delaware Division of Child Mental Health Services
CSC	Clinical Service Coordinators
DDDS	Division of Developmental Disabilities Services
DFS	Division of Family Services
DOE	Department of Education
DSCYF	Department of Services for Children, Youth & Their Families
F.A.C.T.	Families and Communities Together
FACTS	Families and Child Tracking System
FOF	Delaware Federation of Families for Children's Mental Health
HSO	Human Systems and Outcomes
ICT	Interagency Collaborative Team
ICST	Individualized Child Service Teams
IEP	Individual Education Plan
MHA	Delaware Mental Health Association
MISC	Measuring Integrity in Systems of Care survey
SAMHSA	Substance Abuse and Mental Health Services Administration
SAMHSA/CMHS	Substance Abuse and Mental Health Services Administration/Center for Mental Health Services
SOCA	System of Care Assessment
YRS	Youth Rehabilitative Services

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# Introduction to the Compendium

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Delaware's Families & Communities Together (F.A.C.T.) project is a seven-year effort to establish a system of care for children with serious emotional disturbances and their families. Delaware is one of over 100 active or graduated sites that have received grants from the federal Substance Abuse and Mental Health Services Administration's Center for Mental Health Services (SAMHSA/CMHS) to establish such systems of care.

This compendium provides a compilation of reports of the various analyses of the evaluation data collected on the F.A.C.T. project through June 2005 (although cut-off dates vary for each study). The reports that follow cover the following areas:

- Background characteristics of families and children served by the project.
- Patterns of service use among F.A.C.T. children.
- Children's progress and outcomes.
- Legal involvement among F.A.C.T. children.
- Challenges facing F.A.C.T. families.
- Satisfaction with the project.
- Implementation of the system of care.
- Costs of providing services in F.A.C.T.

The introduction to this compendium provides a brief overview of the F.A.C.T. Project, a description of the evaluation methods used and data sources, and a discussion of issues related to the implementation of two parts of the overall evaluation effort.

A summary report provides a brief presentation of the key findings of the evaluation. That report also contains recommendations for the system of care.

## Overview of the F.A.C.T. Project

The goal of F.A.C.T. is to create a comprehensive, coordinated spectrum of behavioral and other services for children aged 3 to 18 years (with a focus on those aged 9 to 14 years) who are most at risk of being placed in residential care, which is restrictive, costly and usually some distance from their families and home communities, limiting family participation in treatment. The specific criteria for inclusion in F.A.C.T. are:

1. receiving special education services locally and/or through the State Interagency Collaborative Team (ICT)<sup>1</sup> *and*
2. having mental, emotional, and/or behavioral problems *and*
3. not functioning well in school, home, and/or community *and*
4. requiring the services of multiple child serving state agencies.

F.A.C.T. is a statewide effort currently designed to serve 15 children each in Sussex and Kent Counties and 35 children in New Castle County (65 total slots at any one time). In addition, there is a transition clinical services care coordinator position that serves children transitioning to the lowest level of service but who are not yet ready to leave the project, which allows for a total project capacity of 75 children. This position carries a higher caseload and also provides care management to children in ICT residential treatment programs to assist with transition back to the community.

F.A.C.T.'s objectives are to:

1. Successfully establish a "system of care" for the target population.
2. Enhance family involvement to establish a full family-professional partnership.
3. Enhance the service system by adding new, appropriate services to provide a complete array of community-based, family-focused, culturally-competent services in the least restrictive environment that is clinically appropriate.
4. Apply a validated clinical services management model, creating Individualized Child Service Teams (ICSTs) to work with each child and family locally to ensure individualized assessment, service planning, clinically appropriate services, and on-going care management.
5. Sustain the system of care for the target population after the grant ends by reducing utilization of deep-end (high intensity) and out-of-state services, creating less intensive/restrictive services in Delaware, utilizing care management practices, and optimizing federal cost recovery to support the service system.

F.A.C.T. is a partnership between Delaware's Division of Child Mental Health Services (CMH) in the Department of Services for Children, Youth, & Their Families (DSCYF) and the Department of Education (DOE). The project also collaborates with other state agencies, community partners and Delaware families. The other state agencies involved are DSCYF's Divisions of Youth Rehabilitation Services (YRS) and Family Services (DFS), and the Division of Developmental Disabilities Services (DDDS) of the Department of Health and Social Services. In addition, the project partners with the Delaware Federation of Families for Children's Mental Health, a family-run support and advocacy organization for families of children with mental health issues.

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<sup>1</sup> The Interagency Collaborative Team (ICT) is authorized in [14 Del. Code 31 Section 3124](#). The purpose of the ICT is to develop a collaborative interagency approach to service delivery for children and youth with disabilities who present needs that cannot be addressed through the existing resources of a single agency. In addition to planning for individual children, the ICT identifies impediments to collaborative service delivery and recommends strategies to remove them. The ICT consists of Directors of DSCYF's Divisions of Child Mental Health, Family Services, and Youth Rehabilitative Services; Directors of DHSS' Divisions of Developmental Disabilities Services and Substance Abuse and Mental Health; Director of the Office of the Budget, the Controller General, Director of DOE's Exceptional Children and Early Childhood Group, and DOE's Associate Secretary for Curriculum and Instructional Improvement. Representatives of the responsible school district, the parent/guardian and other relevant people are invited to participate when specific cases are being discussed.

## Evaluation Methods and Data Sources

The evaluation data summarized in this report come from a combination of interviews, surveys, and analyses of secondary data. The specific sources of data are:

- *F.A.C.T. national evaluation interviews.* The F.A.C.T. project participates in the national evaluation of the federal grant program. At the time of enrollment, families are invited to participate in the national evaluation study, which involves interviewing families shortly after entry into F.A.C.T. and every 6 months after that. The interviews consist of a battery of questions that gather detailed information from children (if eligible to participate) and their parents or caregivers on child and family outcomes. (See Appendix A for brief descriptions of the instruments used in the national evaluation interviews.) As of June 30, 2005 (the cutoff date for the analyses of data collected from this method), 45 families had participated in baseline interviews, 24 in the 6 month follow-up interviews, and 19 at the 12 month follow-ups. Examination of the characteristics of children enrolled in the national evaluation and of those never enrolled revealed that there are some important differences between these two groups that limit the generalizations that can be made from this national interview data (see discussion below). Therefore, the national interview data are not sufficient to support conclusions about the overall effectiveness of F.A.C.T., but are more appropriate for exploring effectiveness for children with characteristics like those in the national interviews.
- *National comparison data.* The federal Center for Mental Health Services contracts with ORC MACRO International to coordinate the overall national evaluation effort and compile national evaluation interview data from all grant sites. This report uses data from a subset of children participating in the Phase III Outcome Study who are most similar to children served by the F.A.C.T. Project. This sample was drawn so as to reflect the proportion of children with diagnoses related to developmental issues/mental retardation, involvement in special education, and finally age distribution. These criteria resulted in a sample of 588 children. This sample was chosen to allow more appropriate comparisons to be made, since the full MACRO sample is comprised of a very diverse group of children from a very diverse group of grant sites.
- *FACTS information system.* DSCYF's management information system, known as *FACTS* (Family and Child Tracking System), provides data on F.A.C.T. participants' demographic characteristics, service use, and involvement across DSCYF Divisions. *FACTS* data come from DSCYF staff and contracted providers.
- *F.A.C.T. records.* In addition to the data kept in the *FACTS* system, the F.A.C.T. Project keeps records on client characteristics, such as functioning and service use. In the latter part of 2004, 2 additional measures of children's progress were introduced (these are discussed in the 'Child Progress' report).
- *Measuring Integrity in Systems of Care (MISC) Survey.* A survey administered in July 2004 and May 2005 gauged the extent to which ICST meeting participants feel meetings and plans generated are consistent with system of care principles. Surveys were distributed by mail to F.A.C.T. caregivers and other ICST members. The response rate for the first administration was 43% for caregivers and 34% for other ICST members. Rates for the second administration were 29% and 46% respectively. More detail about response rates is provided in the report related to satisfaction with the project.

- *MACRO System of Care Assessment (SOCA) Site Visit Briefing.* At 18 month intervals, ORC MACRO, as part of its work related to the national evaluation of the SAMHSA/CMHS systems of care grant program, conducts site visits to examine whether individual grant programs have been implemented in accordance with system of care principles. The site visits also document how systems develop over time to meet the needs of children and families. These visits involve interviews with staff, various grant stakeholders, service providers, and families and reviews of case records. The SOCA reports were reviewed to measure progress related to these areas.
- *Data from Schools.* From September 2004 through June 2005, an attempt was made to collect data on attendance, grades, and disciplinary actions directly from schools (public and private) children were enrolled in. This effort resulted in varying data for slightly more than 30 children (the discussion below provides a detailed discussion of attempts to collect educational data and the issues encountered in doing so).
- *Stakeholder interviews and focus groups.* These include a focus group conducted with caregivers in February of 2004 and interviews conducted in the Spring of 2005 with almost 15 stakeholders from various state divisions/departments, providers, committees, and organizations.
- *Review of reports and departmental publications.* In the Spring of 2005, a review was conducted of a variety of printed materials related to the F.A.C.T. Project and DSCYF's system of care roll-out effort. These materials include internal newsletters, work plans, and consultant reports. More detail about sources is provided in the report related to implementation.

#### **Sample Size Explanation**

The number of children included in the different analyses presented in this report varies from topic to topic. In some cases, not all families shared information about the topic. For example, only 113 of the 139 families shared information about income. In other cases, records were incomplete. The national evaluation interviews only include those families who were willing to participate in the intense interview process every six months. Similarly, the Interagency Clinical Service Team survey is limited to those families and service providers who were willing to respond. The exact number of children included in each analysis is presented with the results.

### **Evaluation Issues: National Interviews and Education Data**

#### ***National Evaluation Interview Recruitment Issues***

The original goal of the F.A.C.T. Project was to recruit every family into the national evaluation Outcome Study interviews, given the relatively low number of children that would be enrolled in the project at any one time. As is standard in research and evaluation studies, potential participants had a choice about whether to participate, and such choice typically decreases the potential sample size of a study. In addition to the right of choice, a number of other issues



occurred during the lifespan of the national evaluation that diminished the number of Delaware families that participated.

*Eligibility Issues:* Of the 123 children enrolled in F.A.C.T. from the beginning of the project until January 31, 2005 (the cut-off date for enrollment in the Outcome Study), 89 (72%) met the eligibility criteria of the evaluation. Since the F.A.C.T. Project began serving families earlier than recommended under the national grant guidelines, there was a delay in evaluation start-up activities. During the evaluation start-up, the original evaluation team experienced great difficulty in securing the necessary Institutional Review Board approval to begin conducting national evaluation outcome interviews. As a result of both of these issues, the 28 families enrolled in the project prior to the evaluation receiving approval were not eligible to participate (per the nationally-determined evaluation requirements) because they had been receiving services from F.A.C.T. for too long.

During the course of the evaluation, six additional children were deemed ineligible to participate. One child was younger than the evaluation requirements allowed. The others were the siblings of children already in the evaluation and, per the requirements, could not also participate.

*Families Not Participating:* Of the 89 families eligible for the evaluation, 44 (49%) were never enrolled in the Outcome Study. Almost 60% of this group of families declined to participate during the recruitment process, despite the best efforts of the project's clinical staff to recruit them. Refusals occurred most often because families felt overwhelmed or were too busy. An additional 10 families (23%) initially agreed to participate but then either changed their minds or their circumstances changed, with the result that it was not possible to conduct the interviews during the required baseline time period. The remaining 8 families were lost to the evaluation as a result of a combination of issues, such as administrative oversight, problems that delayed recruitment, and loss of evaluation staff.

### ***Comparison of FACT National Evaluation Participants and Non-participants***

To explore the issue of comparability between those families participating in the national interviews and those who did not participate, a variety of variables were examined, including length of stay in the project, diagnosis at intake, discharge status, age, and custody status at intake. The sample sizes for the two groups were 45 enrolled in the national evaluation and 84 not enrolled.

These analyses revealed that there are differences between children enrolled in the national evaluation and those not enrolled that limit the ability of the national interview findings to be used to make an overall assessment of program effectiveness and impacts. Specifically there were statistically significant differences in age, length of stay in F.A.C.T., and who had legal custody of the child (Table 1).

**Table 1. Comparison of National Interview Participants and Non-Participants**

Variable	Sample		Level of Significance
	Participants	Non-Participants	
Length of stay	Mean = 440.0 days	Mean = 599.3 days	t = -2.296 p = .023
Age at Intake	Mean = 13.0 years	Mean = 11.7 years	t = 2.524 p = .013

Custody	Parent	90.9%	71.4%	$\chi^2 = 6.019$ $p = .014$
	State	9.1%	28.6%	
Custody	Parent	88.9%	72.6%	$\chi^2 = 4.246$ $p = .039$
	Relative	11.1%	27.4%	

As a result of these differences, caution needs to be exercised when reviewing the data from the national interviews. Statistically, children participating in the national interviews are different enough from other children enrolled in F.A.C.T. that the results may be at least somewhat different, for the better or for the worse, if those participating in the interviews had been more similar to those not participating on these variables.

### ***Educational Data Collection Issues***

Providing information on educational outcomes for children served by the F.A.C.T. Project was identified early in 2002 as an important goal by project leadership and by the Evaluation Advisory Committee (EAC). Unfortunately, the evaluation was not successful in reaching its goal of securing educational data from the schools for most children served by F.A.C.T. The purpose of this discussion is to outline the attempts that were made to collect the data and the issues faced in trying to do so.

A variety of high priority demands on evaluation resources, coupled with opinions from multiple sources that it would not be difficult to collect this information, resulted in a decision to postpone collection efforts until the next year. In late fall of 2003, planning began to collect information on the educational progress of children served by F.A.C.T. First, project hard-copy and electronic records were examined as a source of this data. Completeness and accuracy of the data in these sources were judged to be inadequate for the purposes of this effort and this approach was abandoned. Next, the Department of Education was explored as a potential source of data. A determination was made that this was not a viable source – limited information of interest was available and most of it was aggregate data not useful for looking at individual-level change. Collecting report cards from parents was also discussed as an option, but this approach was rejected by the EAC for several reasons, but primarily because of concerns about varying definitions of disciplinary actions between districts and varying comprehensiveness of report cards. The final approach agreed on was to collect the information directly from the schools via an educational data collection form.

In January 2004, preparations were made to send data requests to the schools. In the process of developing procedures, it was determined that the existing DCMHS interagency data sharing agreement consent form that caregivers sign when they join F.A.C.T., and which gives permission for various agencies and providers to share information with each other, was not sufficiently compliant with HIPAA to be used for this task. This determination required that the form be revised to be compliant with the federal HIPAA and FERPA information privacy and protection rules (in order to be acceptable to both the schools and DCMHS). This revision process lasted about 6 months and involved DOE and DCMHS working on language that was acceptable to both entities.

Since the revised interagency consent form was not completed until July of 2004, collection work could not start until Fall 2004 for two reasons. First, forms could not be sent until school contacts were identified and authorization secured from caregivers. Second, since many of the contacts would not be working during the summer, expert recommendations were made to delay the work until school began again in the fall. In early September 2004, a mailing was sent to school contacts identified by project staff for all children active in the project at that time and for whom completed authorization forms had been secured. Many of the initial authorization forms received were not completed correctly, resulting in delays in sending the corresponding data collection forms. Follow up calls were made to the school contacts.

Additional mailings were sent to other contacts discovered along the way through November 2004. This process netted data for only 18 children. The data forms received had considerable missing and incomplete information. DOE was again explored as a potential source, with the same determinations as earlier.

In late March 2005, additional options were explored, including the possibility of evaluation team visits to schools to collect the data directly. Resource restrictions limited viable options and agreement was reached to revise the existing process to frame it as a more formal data request from the project, request less information, add an initial calling process, and to add an additional level of problem-solving (involving clinical staff) for problematic cases. The second round of data collection began in early April and continued through the end of June. The process revision and a major commitment of resources resulted in a quicker return of forms but for only slightly more children (27). The same issues with missing and incomplete data discovered in round one were evident in the second round as well.

In mid-June, after an assessment of the process and a review of any other reasonable approaches that might be attempted to try to get the data, along with a review of other priority evaluation activities, a decision was made to end the process of collecting data from the schools. Since it was expected that this process would ultimately result in educational data for a relatively small proportion of children served by the project, a decision was made to collate data from round one, round two, the national interviews, and local evaluation activities to try to provide the most complete understanding of educational data possible under the circumstances. The results of these efforts are presented later in this compendium.

# Characteristics of Children and Families Enrolled in the Families and Communities Together (F.A.C.T.) Project

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This report focuses on the characteristics of children served by the Families and Communities Together (F.A.C.T.) Project through May 31<sup>st</sup> 2005. Characteristics examined include basic areas like age and gender proportions, and other areas like risk factors children and families may be experiencing and children's diagnoses. All information reported here focuses on the time children first enrolled in F.A.C.T. Data in this report were drawn from F.A.C.T. records, the FACTS information system, and national comparison data from MACRO for two groups of children: the entire Phase 3 cohort group and a subset of that cohort that most closely matches the children served by F.A.C.T. (data for this latter group was not available for all variables). As of May 31, 2005, 139 children had been served by the F.A.C.T. project. Five of these children re-entered the project some months after leaving the project, bringing the total number of cases to 144.

## ***Basic Information About Children and Families***

Table 1 describes children at their first enrollment in F.A.C.T. and provides comparable information for CMH as a whole and the national study samples of children involved in other grant projects. As the table shows, F.A.C.T. is serving a much higher proportion of boys than either of the national study samples or CMH overall. While the F.A.C.T. children are similar in age to the national study samples, they are a little older than the children typically served by CMH. Compared to the national samples, F.A.C.T. children are less likely to be living with their parents.

**Table 1. Gender, Age, Race/Ethnicity, and Custody Status: F.A.C.T., CMH, and National Sample**

	F.A.C.T.	CMH*	National Matched Sample	National Cohort Sample
<b>Sample size</b>	<b>139</b>	<b>2,217</b>	<b>581 - 588</b>	<b>3,443 - 3,680</b>
<i>Gender</i>				
Male	86%	62%	73%	64%
Female	14%	38%	27%	36%
<i>Average Age</i>	12.3 years	11 years	12.6 years	12.2 years
<i>Race/Ethnicity</i>				
Black or African American	45%	37%	33%	30%
Hispanic	4%	7%	11%	8%
White	51%	61%	61%	50%
<i>Custody Status at Intake</i>				
Parents	67%	n/a	79%	74%

Relative	17%	n/a	8%	14%
State custody	16%	8%	8%	12%

\* based on FY2005 CMH data (age is that as of first case opening)

Figure 1 provides more information on the age of the children at the time of their enrollment in F.A.C.T. The figure shows that F.A.C.T. serves children of all ages, while being successful in its goal of focusing on children 9-14 years old. Compared to CMH, F.A.C.T. serves a greater proportion of children aged 9-14 years (47% for CMH), and fewer children aged 5-8 years (14% for CMH) and above age 14 (37%, CMH).

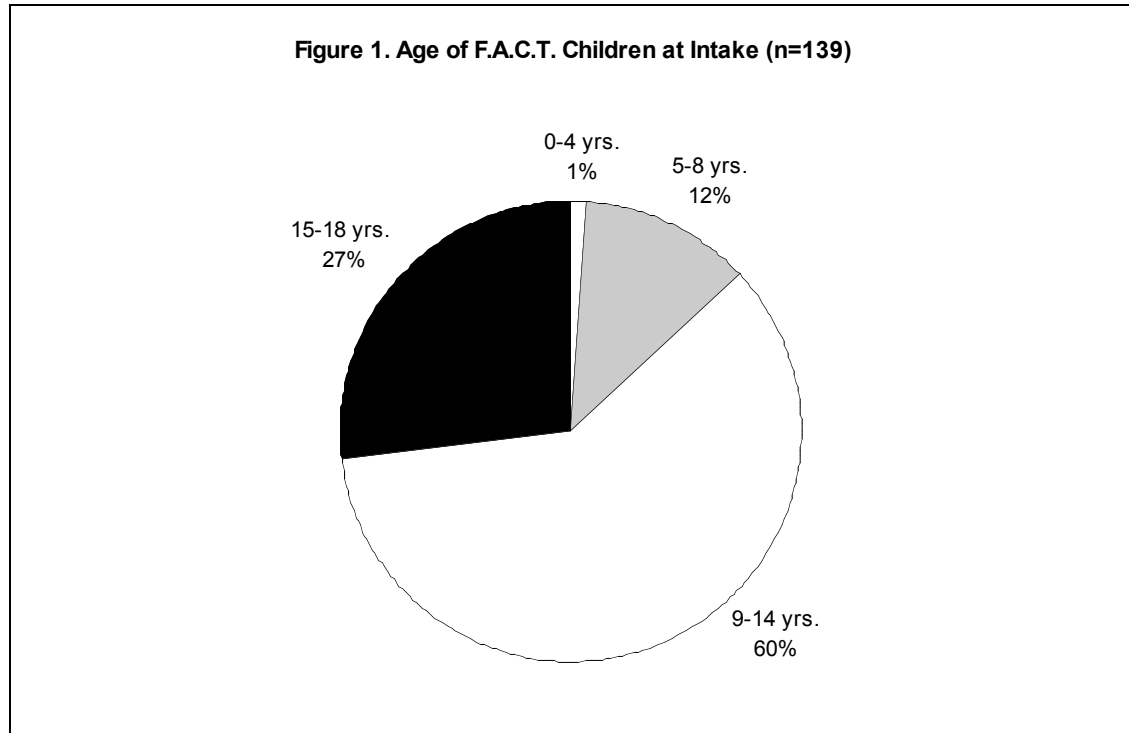


Table 2 describes the F.A.C.T. families by income. Close to half of the families make less than \$20,000.

**Table 2. Income Distribution, F.A.C.T. Families Compared to National Sample**

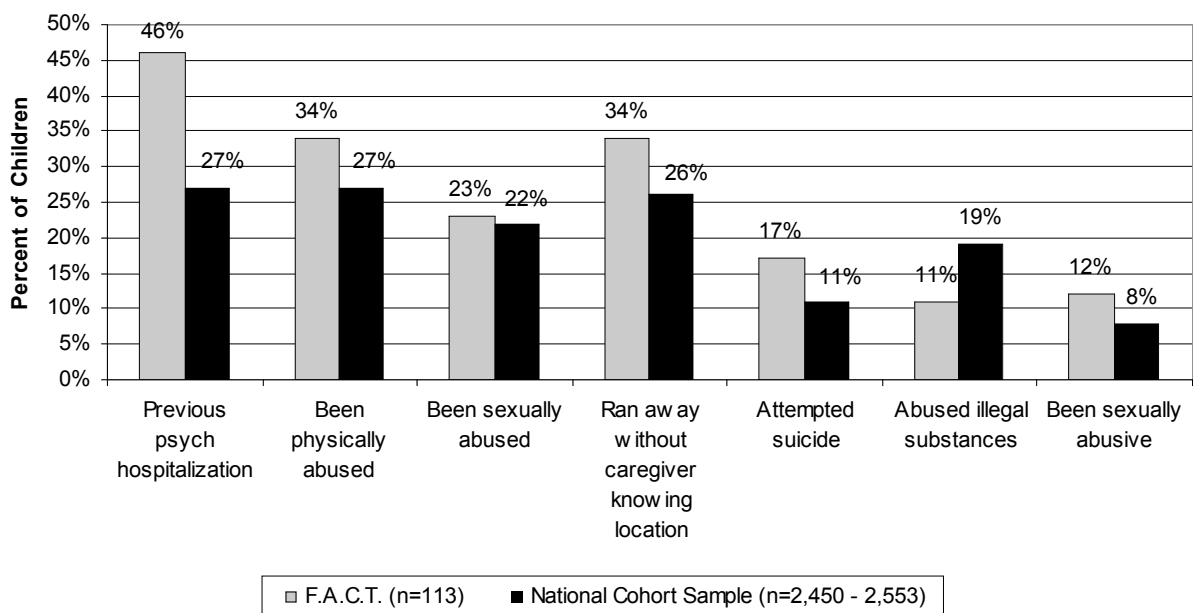
	F.A.C.T.	National Cohort Sample
<b>Sample size</b>	<b>113</b>	<b>2,009</b>
<i>Income</i>		
<b>&lt;\$10,000</b>	21%	30%
<b>\$10,000 to \$19,999</b>	22%	28%
<b>\$20,000 to \$34,999</b>	22%	26%

<b>\$35,000 to \$49,999</b>	5%	9%
<b>\$50,000 to \$74,999</b>	10%	6%
<b>\$75,000 and above</b>	7%	3%

### ***Child and Family History of Risk Factors***

Of the 113 F.A.C.T. children for whom risk factor information was available, close to one-half (46%) had a psychiatric hospitalization prior to entering the project. During this same time period, about one-third had run away without the caregiver knowing their whereabouts (34%), and/or been physically abused (34%). As shown in Figure 2, the F.A.C.T. children are more likely than the national cohort sample to have had some of these experiences that place children at risk for negative mental health and/or developmental outcomes. Relative to the national cohort sample, the smaller proportion of F.A.C.T. children with a history of substance abuse may reflect F.A.C.T.'s recruitment of children through the special education system instead of through a variety of systems (e.g., juvenile justice, child welfare), as is the case in many of the other grant sites, and may also be function of the high proportion of children who have a mental retardation or developmental disability-related diagnosis.

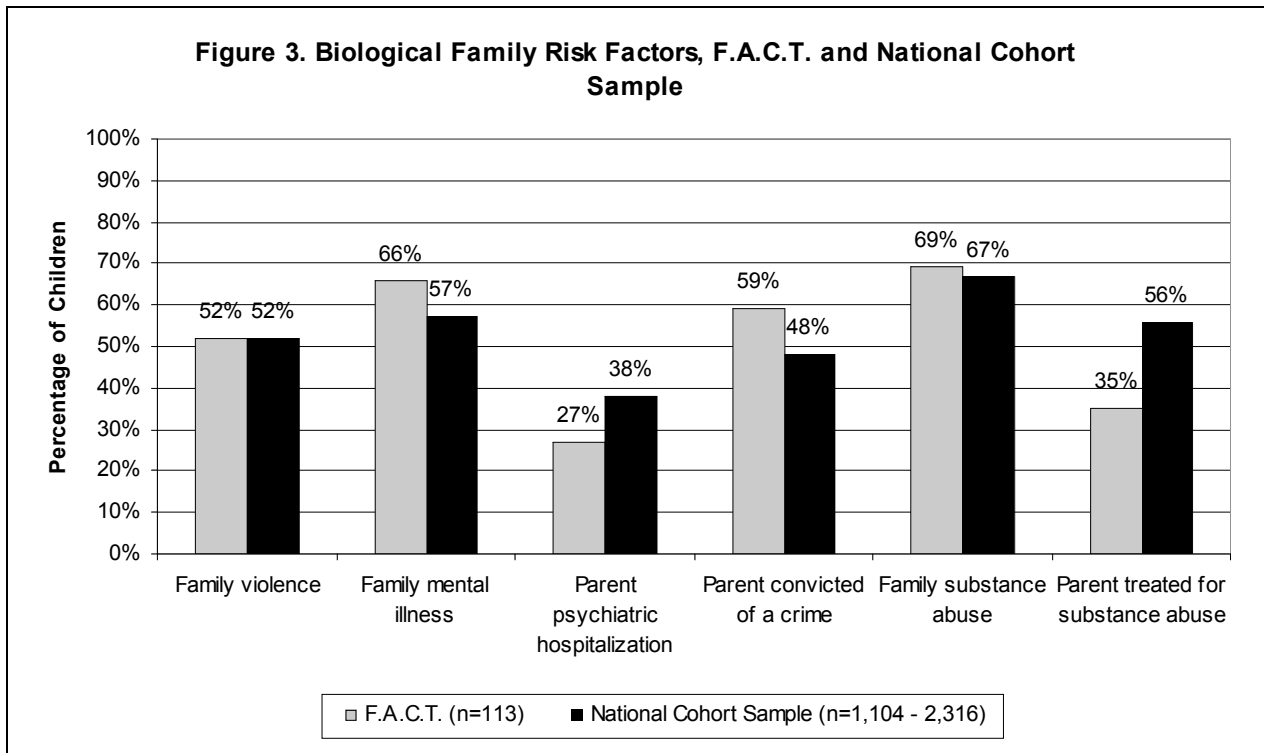
**Figure 2. Children's Risk Factors, F.A.C.T. and National Cohort Sample**



In addition to these psychosocial risk factors, 46% of the 113 children for whom information was available at time of enrollment had recurring and/or chronic health problems, such as asthma, allergies, or problems with bodily systems (e.g., circulatory, digestive), that can make effective intervention with psychosocial problems more complicated. 75% of the children with recurring or chronic health problems were taking medication to treat or manage symptoms of these problems.

Figure 3 presents a picture of risk factors reported to be present in 113 F.A.C.T. children's biological families (includes parents, siblings and other blood relatives). Most of the families

have had experiences that are generally considered to be risk factors for the development of a variety of problems among children or issues which can compromise protective factors. Compared to the larger national cohort sample, the biological families of F.A.C.T. children have higher levels of some of these risk factors.



On average children were experiencing an average of 4 child or family psychosocial risk factors (out of 11 possible risk factors). Almost 40% had experienced three or four factors, and more than 45% experienced more than four.

Many of the families in which F.A.C.T. children were living at the time of enrollment (54% of 113 for whom information was available) also had at least one other family member who was experiencing a chronic or recurring health problem. Considering the extent of the psychosocial risk factors, chronic or recurring health problems, and behavioral and emotional problems among the children and/or families served by F.A.C.T., many of these children and families are dealing with a complex set of stressors at time of entry into the project.

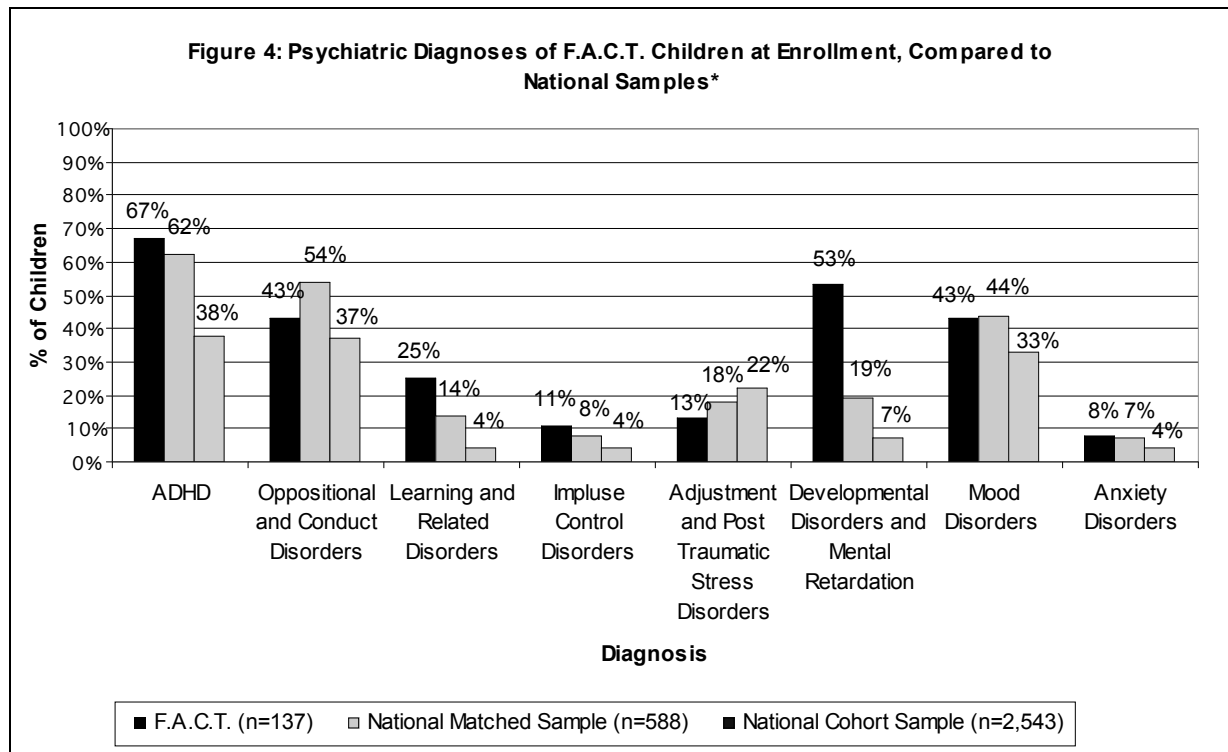
## Psychiatric Diagnoses

Of the 137 children for whom psychiatric diagnoses were available, most (90%) had more than one psychiatric diagnosis at the time of entry into F.A.C.T.<sup>1</sup> Two-thirds had been diagnosed with ADHD and more than 40% had been diagnosed with oppositional and/or conduct disorders or a mood disorder. As shown in Figure 4, compared to the national cohort sample, F.A.C.T. children were:

- Six times more likely to have a diagnosis of a learning and/or related disorder,
- Almost three times more likely to have a diagnosis of an impulse control disorder, and
- Almost eight times more likely to have a diagnosis of a developmental disorder or mental retardation.

Compared to the national matched sample, F.A.C.T. children were:

- Almost twice as likely to have a learning and/or related disorder,
- Almost three times as likely to have a diagnosis of a developmental disorder or mental retardation.



\*Percentages do not add up to 100 because most children have more than 1 diagnosis.

The higher proportions of learning and impulse control disorders among F.A.C.T. children shown in the above figure are probably a function of F.A.C.T.'s partnership with the education system. The higher proportion of developmental disorders and mental retardation reflects the project's emphasis on the children most at risk of being placed in residential treatment.

<sup>1</sup> DSM-IV Axis I, Axis II, and Axis III diagnoses were reviewed. Sources of these diagnoses, in order of preference, were neuropsychological evaluations, CAS evaluations, and first Service Admission Forms following F.A.C.T. enrollment.

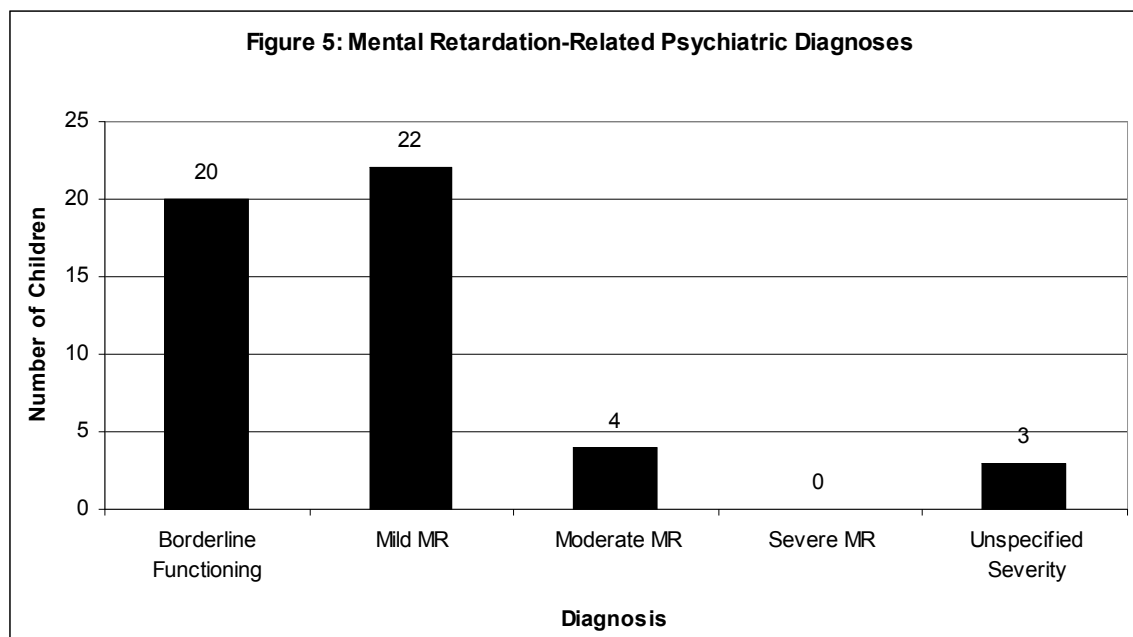


Additional review of the diagnosis information indicated that 83 children (61%) had at least one diagnosis on DSM-IV Axes I, II, or III indicating mental retardation or a developmental disability (including learning disorders), with 34 children (41% of those with DD/MR-related diagnosis) having more than one such diagnosis. The most common diagnoses were those related to mental retardation. (Table 3 and Figure 5 provide more detail.)

**Table 3. Developmental Disability and Mental Retardation Diagnoses (n=137)**

Diagnosis	# of Children	% of Children*
None	55	40%
Borderline Functioning/Mental Retardation	49	36%
Learning Disorder	34	25%
Pervasive Developmental Disorder/Aspergers Syndrome	21	15%
Epilepsy/Seizures	11	8%
Cognitive Disorder/Brain Disturbance	4	3%
Autism	2	1 %
Tourettes Syndrome	2	1%
Developmental Coordination Disorder	2	1%

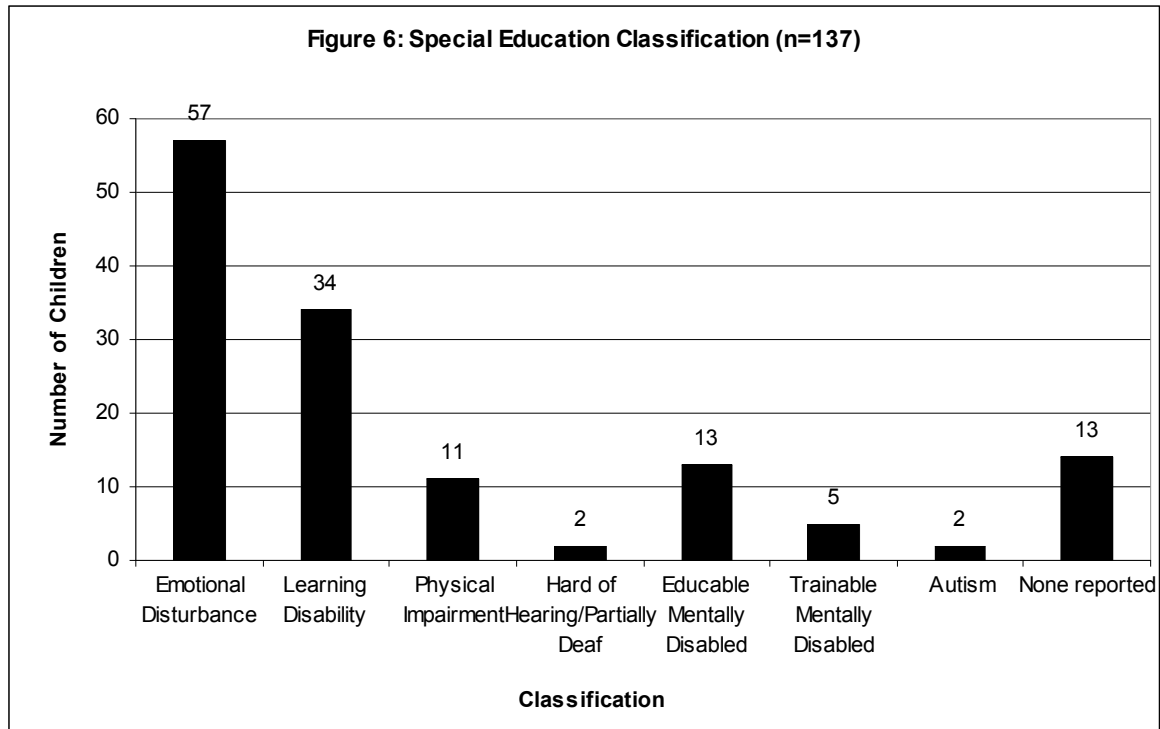
\* Totals and percentages do not add up to 100 since some children had more than one diagnosis related to a developmental disability or mental retardation.



Information was also available for 112 children regarding the use of medication to treat behavioral and emotional problems. Around the time of enrollment in F.A.C.T., 87% of children were taking at least one medication. Most of the children taking medication were on more than one (81%), with 26% taking 4 or more of these medications. The average number of medications being taken to treat emotional and/or behavioral problems was 2.6, with the total number ranging from one to seven.

## Children's Involvement in Special Education

As a partnership between CMH and DOE, F.A.C.T. specifically targets children who are receiving special education services. Figure 6 shows the special education classifications for the 137 children served by F.A.C.T. as of May 2005 for whom special education classifications were available.<sup>2</sup>



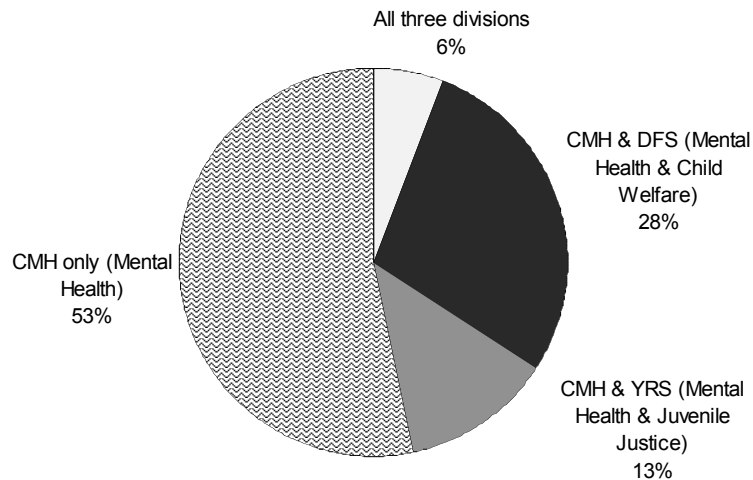
Thirty-six F.A.C.T. caregivers involved in the national evaluation at baseline reported the reasons their children had an Individualized Education Plan (IEP). Although an IEP gives a single special education classification at a time, the caregivers reported multiple reasons. The most common reasons the caregivers gave for their child's IEP when they enrolled in F.A.C.T. were behavioral and/or emotional problems (83%), learning disabilities (72%), and developmental disabilities and/or mental retardation (33%). Speech impairments, physical disabilities, and vision or hearing impairments comprised the rest of the reasons for having an IEP. More than two thirds (69%) of the caregivers gave more than one reason that their child had an IEP.

<sup>2</sup> Documents reviewed to determine classification, in order of preference, were IEPs, other educational record documents, and information about educational classification from the *FACTS* database. IEPs were not on file at F.A.C.T. for all children, necessitating a review of these secondary sources in many cases.

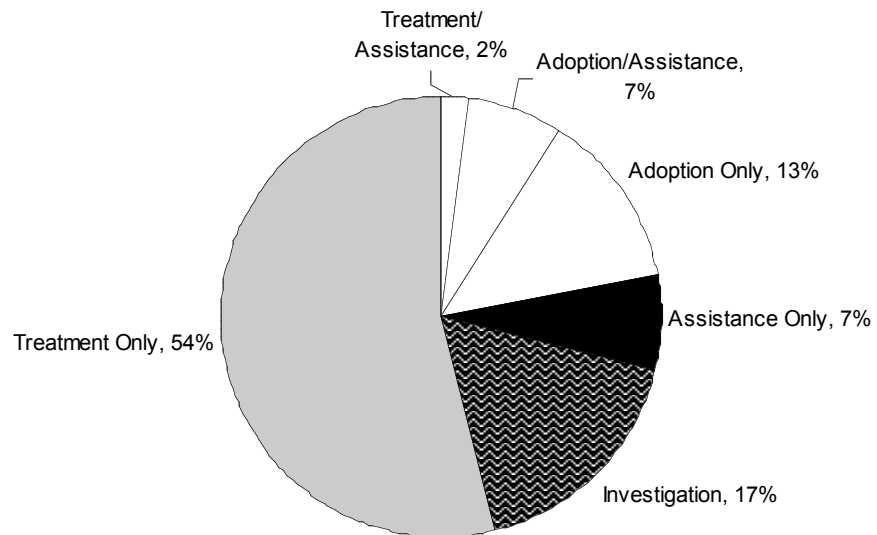
## Division Involvement

Children served by the F.A.C.T. Project are expected to need the services of multiple state agencies. Because it is one of the entry criteria, all children are involved with special education services, either locally or through DOE, at the time of their enrollment. In addition, 47% of the children are involved in more than one division of DSCYF (see Figure 7 for a breakdown of division involvement and Figure 8 for further detail on type of involvement with DFS). Of the 30 children with a diagnosis of Mental Retardation or Autism most likely to have received services from the division of Developmental Disabilities Services, 14 (47%) were active with that division as of July, 2005.

**Figure 7. Involvement with CMH, YRS and DSF at Time of Enrollment in F.A.C.T (n=135)**



**Figure 8. Type of DFS Involvement at Time of Enrollment in F.A.C.T. (n=46)**



## Summary: Is F.A.C.T. Serving Its Intended Target Population?

As shown in Table 4, the evidence indicates that F.A.C.T. is serving its target population. Children served have been in the target age range. All have been involved with special education, many with multiple state agencies. The diagnoses and risk factor data suggest that these are children that could be in need of progressively more intense and restrictive services, if the service package available through the project was not in place.

**Table 4. Comparison of Criteria for Participation and the Population Served by F.A.C.T.**

Criteria for Participation	Population Served*
Age range between 3-18	Children ranged in age from 4-18.
Age focus on children 9-14 years	60% of children were 9-14 at time of enrollment.
Involvement in special education services	100% of children were involved in special education services at time of enrollment.
At risk of placement in residential care	90% had more than one psychiatric diagnosis at the time of enrollment in F.A.C.T. 61% had at least one diagnosis that indicated mental retardation or a developmental disability at time of enrollment. 46% had a psychiatric hospitalization before enrollment in F.A.C.T.
Multiple agency involvement	In addition to involvement with special education services, 47% of children were involved with at least one other DSCYF Division at the time of enrollment with F.A.C.T. Additionally, 47% of children with an eligible diagnosis were involved with DDDS as of July, 2005.

\*Status at enrollment is based on all 139 children. Status before F.A.C.T. enrollment is based on the 84 F.A.C.T. children who were receiving DCMHS services before joining the project.

# **Service Use Among Children in the F.A.C.T. Project**

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A general goal of systems of care approaches is to minimize the amount of time children spend in restrictive, bed-based placements, particularly ones outside of their home communities. This is typically accomplished by providing a broader array of community-based services that are accessible within children's home communities. This goal serves several functions: children are able to be served in the least restrictive environment that is the most clinically appropriate; children have better access to family and other social supports if they can remain near their homes; and funds otherwise spent on bed-based services can be re-allocated to less expensive community-based services.

This report examines patterns of service use among children enrolled in the F.A.C.T. Project. Specifically, the amount of time that children are enrolled in the project, the extent to which they use bed-based services versus community-based services, and stability in their home and educational environments were examined. Data on length of stay and service use were drawn from the FACTS Management Information System. Data from the F.A.C.T. national evaluation interviews were tapped to examine the stability of living situations and special education placements. The information is related to the F.A.C.T. project goals of keeping children with severe emotional and behavioral problems in the least restrictive environments possible.

## **Length of Stay in F.A.C.T.**

The amount of time that children stay in the F.A.C.T. project was calculated using data from the 75 cases that had been closed as a F.A.C.T. case as of May 31, 2005 and the 69 cases active on that date.

For the active cases:

- The average length of stay was more than 11½ months.
- The longest stay was more than 4 years and 5 months.
- About 86% had been enrolled in F.A.C.T. 2 years or less. Seven percent had been enrolled more than 2½ years.

For discharged cases:

- The average length of stay was a little over 21 months.
- The shortest stay was a little over 3 months and the longest was almost 4½ years.
- Nearly 70% of the children had been discharged in less than 2 years.

The disparate average lengths of stay (LOS) reflect an increase in the number of children discharged from the project since the last evaluation report. The average LOS for active cases decreased as a result, while that for discharged cases increased.

## Changes in Restrictiveness of Care

One goal of F.A.C.T. is to reduce the use of restrictive, bed-based services in favor of more community-based, family-focused services, such as outpatient therapy and behavioral aides. The effects of shifting service patterns are two-fold. First, as children receive less restrictive, community-based services, they are able to spend more time in their home communities, an important goal of the system of care approach. Second, by decreasing the extent to which bed-based services are used, more money can be shifted to support community-based services and expand capacity, also an important system of care goal.

### Most Intense Level of Service

#### Analysis Strategy

The first set of analyses focuses on change in the most intensive mental health service level used by F.A.C.T. children over time. Because the levels of intensity/restrictiveness of services provided by DFS and YRS are conceptualized differently by each of those divisions (compared to each other and to F.A.C.T.), service data from these divisions are not comparable for the purposes of this analysis and were excluded from this examination. Mental health service data for four groups of children were examined:

- The 116 children who had been enrolled in F.A.C.T. at least 6 months,
- The 85 children who had been enrolled at least 12 months,
- The 53 who had been enrolled at least 18 months
- The 32 who had been enrolled at least 24 months, and
- The 20 children who were in a bed-based service at time of entry into F.A.C.T.

The most intense mental health service each child received was identified at 3 month intervals starting at the date of enrollment into the project. In order to be considered in the classification scheme, a service needed to have been open for at least 4 consecutive days. For each 3 month period, all services received within 2 weeks before and 2 weeks after each respective reference date (e.g., the date 6 months after enrollment date) were considered. The 2 exceptions were at enrollment and at discharge, where only the 2 weeks following enrollment and the 2 weeks preceding discharge were reviewed. Services were grouped into three levels: lower intensity, moderate intensity, and high intensity (also called “bed-based services”). (Table 1 lists the specific services for each level of intensity.)

At each time period, children were classified into one of three categories based on their service profile:

- High Intensity – the most intense service received was a bed-based service classified as a high intensity service.
- Moderate Intensity – the most intense service received was of moderate intensity.
- Low Intensity – only lower intensity services were received.

**Table 1. Service Intensity Classification**

<b>Lower Intensity Services</b>
– Case Management Only

<ul style="list-style-type: none"> <li>- Outpatient Services with or without Wraparound Aide Services</li> <li>- Wraparound Aide services Only</li> <li>- Intensive Outpatient Therapy</li> <li>- Partial Day Hospital</li> <li>- Partial Day Treatment</li> </ul>
<b>Moderate Intensity Services</b> <ul style="list-style-type: none"> <li>- Crisis Intervention</li> <li>- Day Hospital</li> <li>- Day Treatment</li> <li>- Treatment Group Home</li> <li>- Individualized Residential Treatment</li> </ul>
<b>High Intensity (Bed-Based) Services</b> <ul style="list-style-type: none"> <li>- Residential Treatment Center</li> <li>- Inpatient Hospitalization</li> <li>- Crisis Bed</li> <li>- ICT Residential Placement</li> </ul>

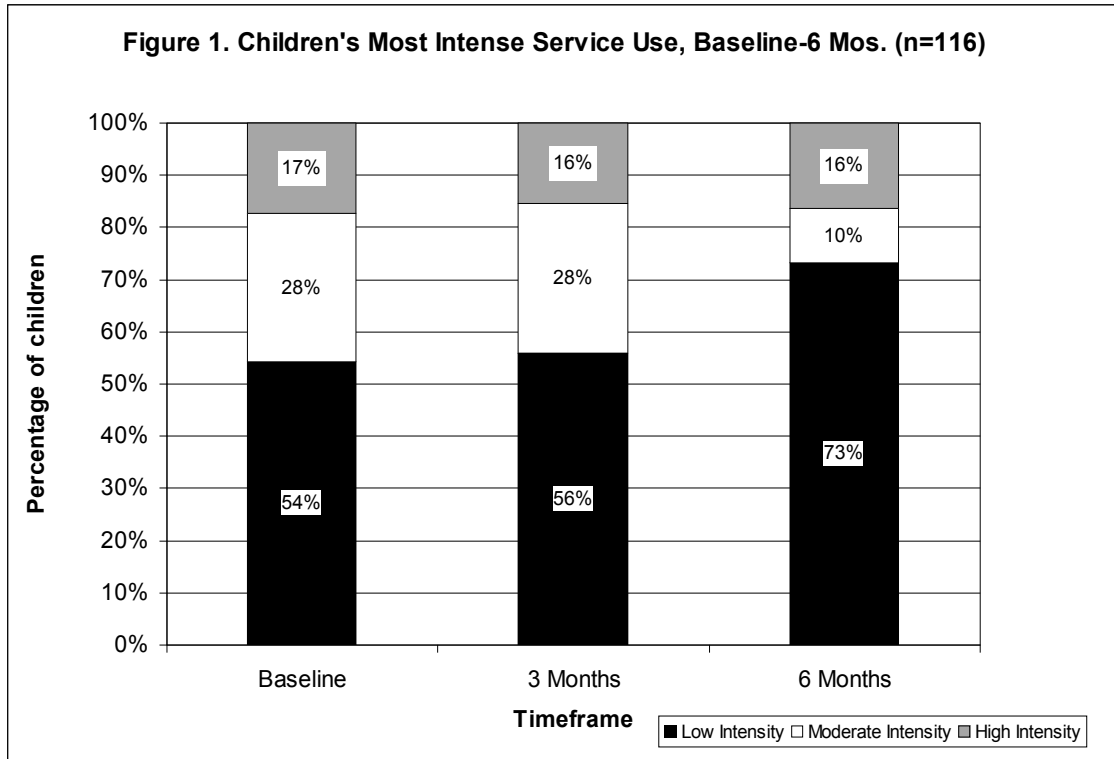
### Summary of Results

- Across the four groups and at all time points, most children fell into the Low Intensity group, indicating they only received lower intensity services (see Figures 1-4).
- The percentage of children falling into the High Intensity group remained relatively stable across time for the 6, 12, 18, and 24 month groups. However, the percentage of children in the Low Intensity group generally increased over time while the proportion in the Moderate Intensity group decreased (Figures 1-4).
- For the bed-based entry group, more than half had moved to a lower level of service by 3 months. All but one child had moved to a lower level of service by 9 months (Table 2).

### Detailed Results

Figure 1 shows the service use data for the 116 children who were enrolled in F.A.C.T. for at least six months. Of these children, the proportion in the High Intensity group was just over 15% and did not change much. However, from baseline to six months, the percentage of children in the Low Intensity group increased by more than one-third, while the proportion in the Moderate Intensity group decreased by almost two-thirds.



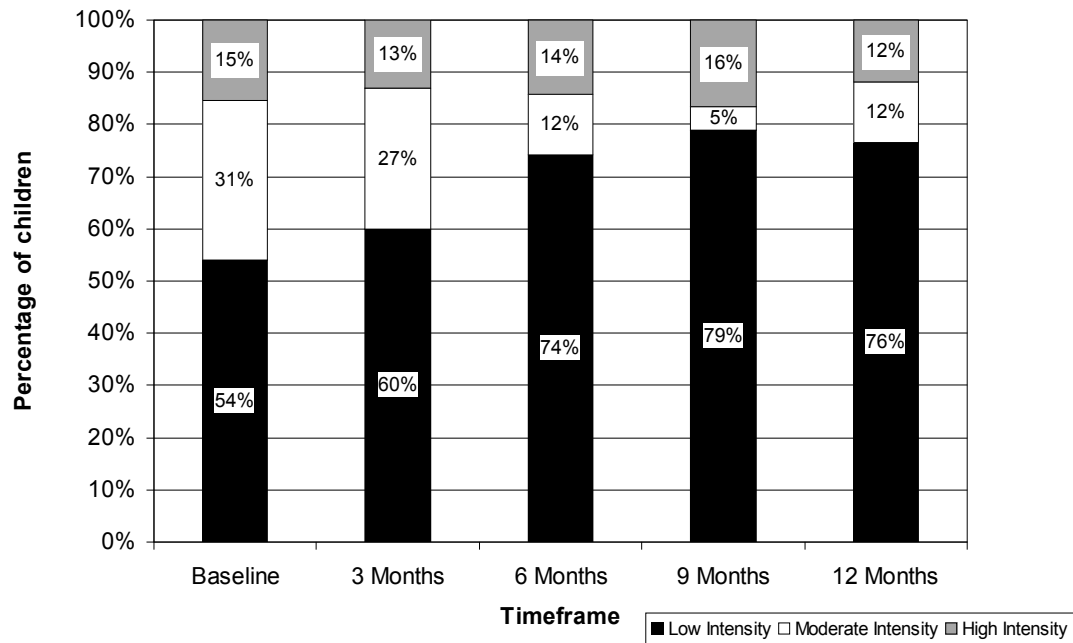


Examination of the data for the 85 children who were enrolled in F.A.C.T. for at least twelve months (Figure 2) revealed that the proportion in the High Intensity group was between 12% and 16%. This proportion did not change much over time. However, from baseline to 12 months, the percentage of children in the Low Intensity group increased by more than 40% and the proportion in the Moderate Intensity group decreased by nearly two-thirds.

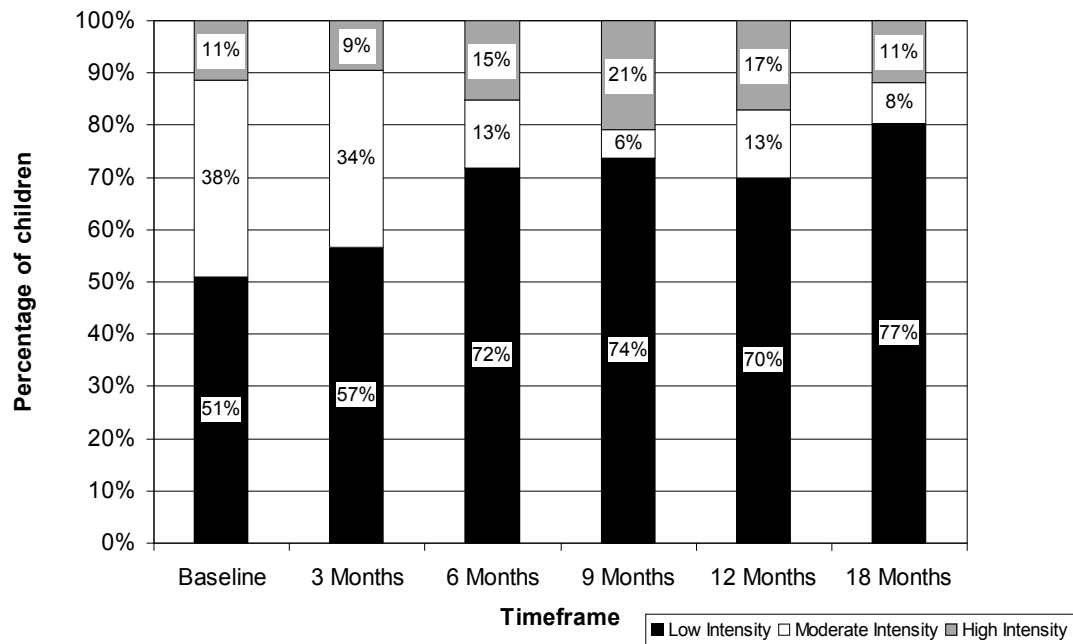
Figure 3 presents the data for the 53 children who were enrolled in F.A.C.T. for at least 18 months. Of these children, the proportion in the High Intensity group had more variation across time, but at 18 months was at the same level as baseline. Following the same pattern as the 6 and 12 month groups, the proportion in the Moderate Intensity group decreased, while that for the Low Intensity group increased.

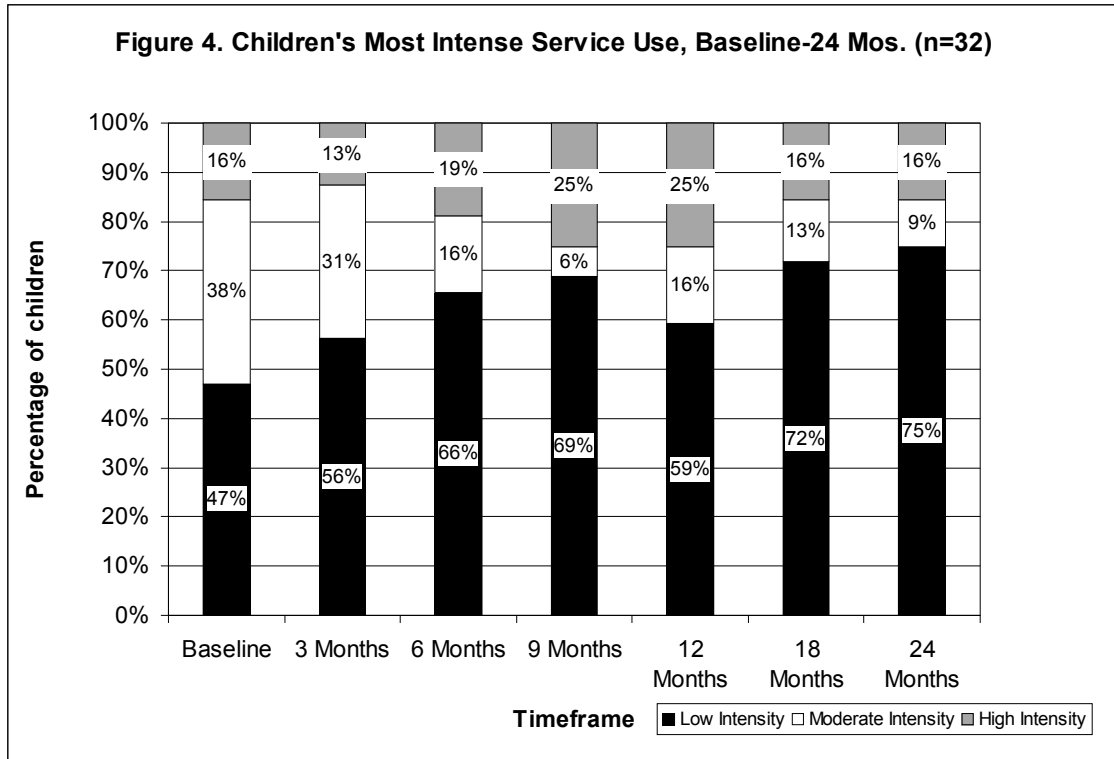
The data for the 32 children who were enrolled in F.A.C.T. for at least 24 months (Figure 4) showed variability similar to that of 18 month group. Of these children, the proportion in the High Intensity group varied across time but at 24 months was at the same low level as baseline. The proportion in the Moderate Intensity group decreased by almost 75% and the proportion in the Low Intensity group increased by almost 50%.

**Figure 2. Children's Most Intense Service Use, Baseline-12 Mos. (n=85)**



**Figure 3. Children's Most Intense Service Use, Baseline-18 Mos. (n=53)**





Twenty children were in a bed-based service when they entered the F.A.C.T. project. By six months, all were in a lower level of service. By one-year, nine of these children had been discharged and all but one of the remaining 11 had moved to lower intensity services. (See Table 2.)

**Table 2. Level of Most Intense Service at 3 Month Intervals for the 20 Children Who Entered at the Most Restrictive Level of Service**

level of service	Number of Children						
	At Enrollment	3 Mos.	6 Mos.	9 Mos.	12 Mos.	18 Mos.	24 Mos.
Low		9	10	11	10	5	1
Moderate		2	9	0	0	0	2
High (Bed-Based)	20	9	0	1	1	1	2
Discharged		0	1	8	9	14	15

### Community Tenure and Bed-Based Services

Another way of thinking about patterns of service use is whether the services received allow children to spend more time in their home communities versus outside the community in a bed-based setting. The amount of time that children are in community-based services is called "community tenure."

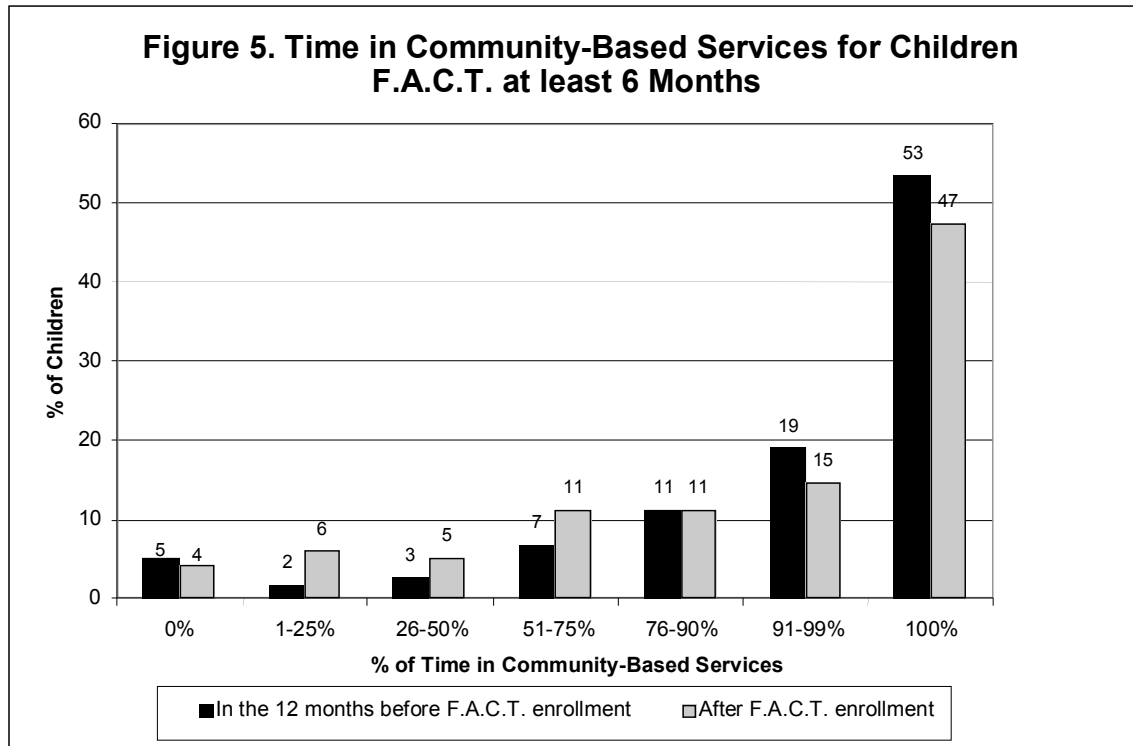
### Analysis Strategy

Community tenure was computed as the percentage of total service days in which community-based services were received. All bed-based services and placements provided through CMH, YRS, and DFS in response to mental health and/or behavior-related problems (including delinquent behavior) were considered in the analysis. If a child happened to be listed as receiving more than two or bed-based services with overlapping time periods, however, the days in the overlap were only counted once to accurately compute community tenure.

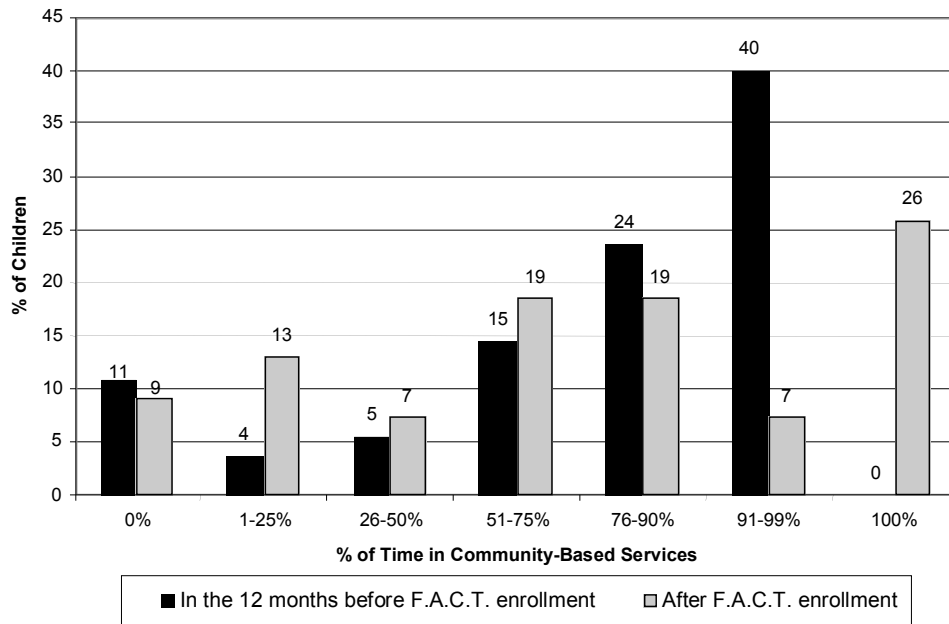
The analysis focused on the 116 children who had been enrolled in F.A.C.T. at least 6 months and the 54 children who had a bed-based service in the 12 months prior to enrolling in F.A.C.T. Community tenure was computed for the period of actual service delivery in the 12 months prior to F.A.C.T. enrollment and was compared to community tenure during the entire period of enrollment in the project.

### Summary of Results

- Of the 116 children who had been enrolled in F.A.C.T. at least 6 months, 54 (47%) had received at least one bed-based service in the year before enrolling in F.A.C.T. Twelve (10%) spent less than 50% of their time in the community (Figure 5.)
- Community tenure before and during F.A.C.T. enrollment remained stable among the six (5%) children who had no community-based services in the 12 months before enrolling in F.A.C.T.. Of these, five children had no community-based services after enrolling in F.A.C.T. (Figure 5).
- The overall proportion of children who had less than 50% of their time in community-based services changed for both study groups (increasing from 20% to 29% among the bed-based group and from 10% to 15% in the larger group) (Figure 6.)



**Figure 6. Community Tenure Rates for Children with Services in the 12 Months before Enrollment**



## Stability of Living and Educational Environments

By providing community-based and family-focused services, F.A.C.T.'s system of care effort is intended to support more stable lives for the children it serves. The information in this section is drawn from two questionnaires from the national evaluation interviews, the Restrictiveness of Living Environment Scale, Revised (ROLES-R) and the Educational Questionnaire (EQ). The EQ provides data on the proportion of time children spend in different levels of intensity of special education and the type of school environment that they are in. The data collected from these instruments is limited to the children participating in the F.A.C.T. national evaluation interview. Data are available for 40 children at baseline, 24 at 12 months, and 19 at 12 months.

### Restrictiveness of Living Environment Scale (ROLES-R)

The ROLES-R documents the settings in which children have lived during the past 6 months. There are 27 placement categories, such as independent living by self; living independently in community with minimal supervision; two parents/caregivers, at least one biological; foster care; and so on. Respondents are asked where the child is living, then the response is categorized by the interviewer according to a specific list of options.

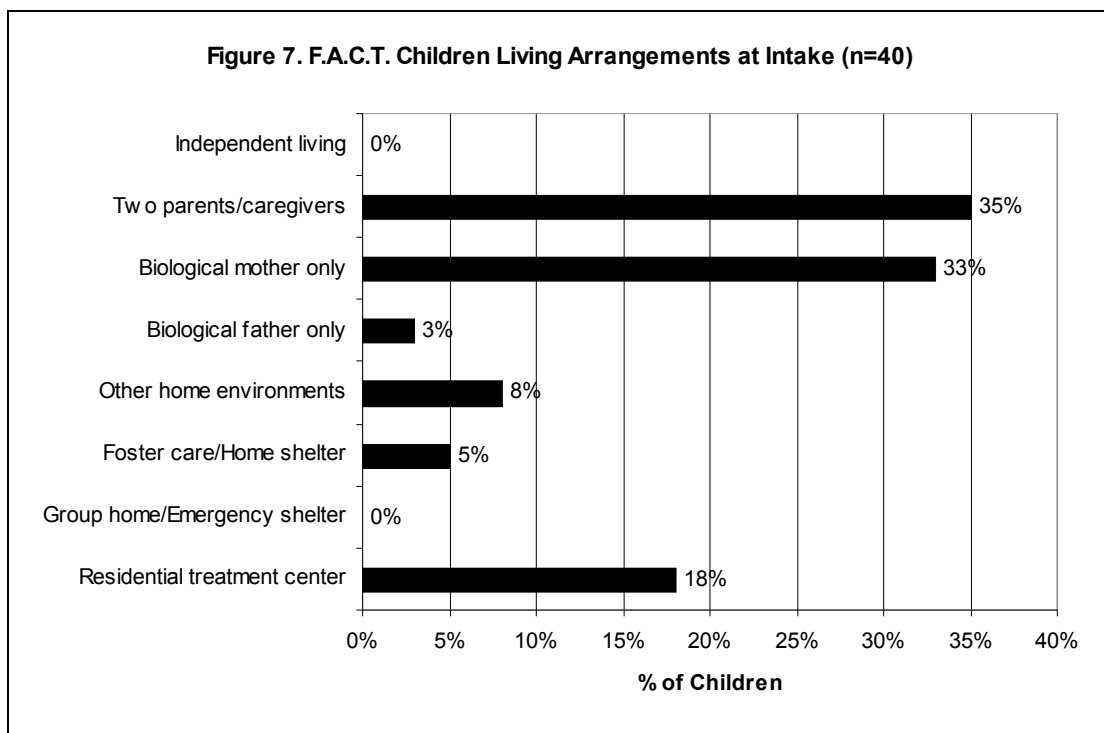
#### Summary of Results

- At baseline, the average number of living situations in the previous six months was 2.4. At the 6 month interviews, the average number of living situations was 2.
- At the baseline interview, fewer than half of the children had been in a single living situation in the previous 6 months. At 6 months and 12 months, over half had been in a single living situation.

- Most children were living in a home (i.e., living with any combination of parents, living with friends or relatives, or living alone and independently) at some point in each 6 month period.
- The second most common living situation reported was a residential treatment center, with about one-quarter to one-third living in such a setting at some point in each of the 6 month periods.

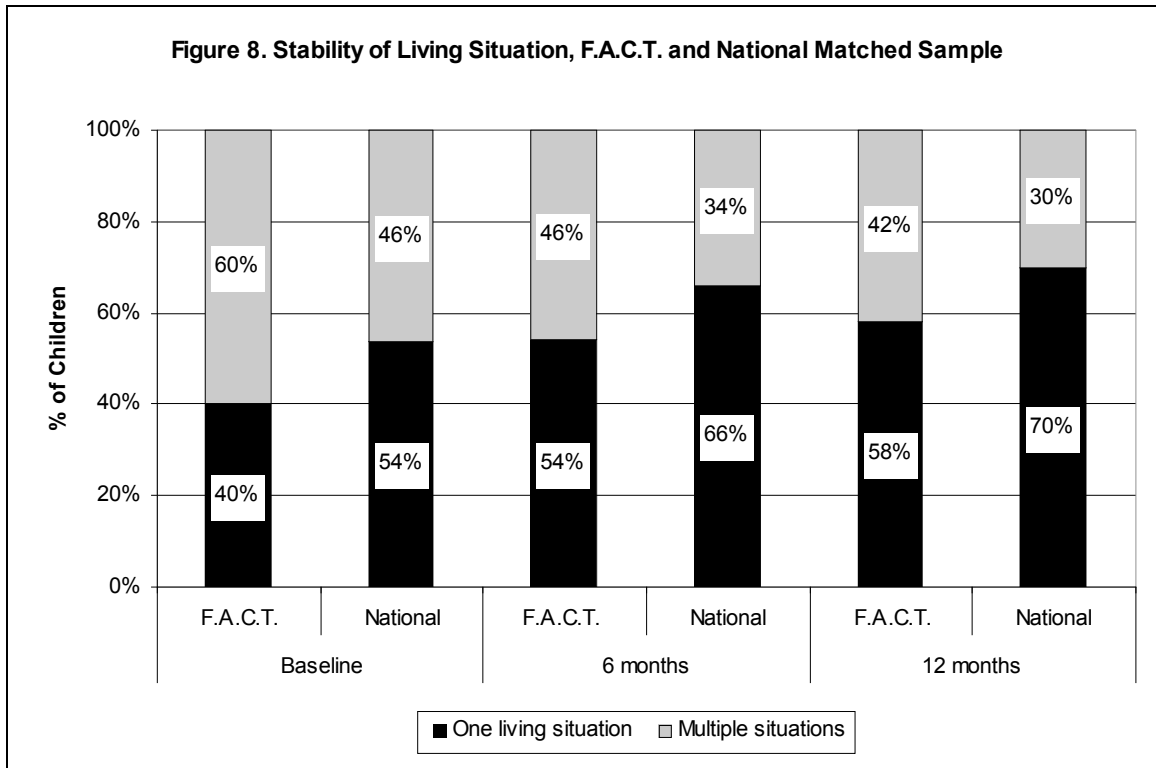
### Detailed Results

For the F.A.C.T. children participating in the national evaluation interviews, home (i.e., living with any combination of parents, living with friends or relatives, or living alone and independently) was the most commonly reported living situation at baseline. Residential treatment centers were the second most commonly reported situation (see Figure 7). At 6 and 12 months, home and residential treatment centers were still the most commonly reported situations.



\* *Independent living* included independent living by self, living with friend/partner, and school dormitory. *Other home environments* included split parenting, home of relative, adoptive home, and home of a friend. *Foster care* included camp, supervised independent living, foster care, therapeutic foster care, specialized foster care, and individual home emergency shelter. *Group home/emergency shelter* included group emergency shelter, group home, and residential job corp. and vocational center. *Residential treatment center* included non-drug/alcohol residential treatment center, drug/alcohol residential treatment center, medical hospital (non-psychiatric), and psychiatric hospital. *Jail* included jail, prison, youth correctional center, and juvenile detention center.

As shown in Figure 8, at the time of the baseline interviews, 40% of children in the F.A.C.T. national evaluation had been in a single living situation in the previous 6 months, with an average of 2.4 living situations per child. At both follow up points, a little more than half of the F.A.C.T. children had been in a single living situation in the previous 6 months. The average number of living situations at 6 months was 2; at 12 months the average was 1.9. Figure 8 also compares the stability of F.A.C.T. national evaluation participants' living situations with that of the national matched sample. At each time point, the national sample has a somewhat higher percentage of children in a single living situation.



\* The national sample size was n=173 at each time points.

\*\* The FACT sample sizes were 40, 24, and 19 at baseline, 6 months, and 12 months.

## Educational Settings and Placements

The interviews conducted for the national evaluation ask caregivers what proportion of time their children spend in different levels of intensity of special education. Respondents are asked where the child is going to school, then the response is categorized by the interviewer according to a specific list of options. Table 3 shows that most of the parents and caregivers participating in the F.A.C.T. national evaluation interviews report that their child spends more than 75% of their school day in special education classes.

**Table 3. Types of Special Education Placements per F.A.C.T. National Evaluation Participant Report**

Special Education Placements	Baseline (n=40)	6 months (n=24)	12 months (n=19)
Spending more than 75% of their school day in special education classes	71%	83%	79%
In a class with at least some children who were not involved in special education	49%	38%	16%
In at least one class where all children were involved in special education	83%	79%	84%

## **Conclusion**

The service level intensity data suggest that F.A.C.T. most children can be served in F.A.C.T. without the use of bed-based mental health services. These data also suggest that F.A.C.T. has been able to successfully (and relatively quickly) transition children to community-based mental health services from bed-based mental health services being received at the time of project enrollment. The community tenure data, which examines a broader service picture, indicate that most children spend most of their service time, both before and during F.A.C.T., in community-based services. There is a slight trend toward children spending somewhat less time in community-based services during their time in F.A.C.T. However, given the complexity of the needs of many F.A.C.T. children, this is not necessarily a surprising finding and may potentially reflect both these characteristics and close cooperation between multiple agencies serving these children. Overall, it appears that most children are being served in least restrictive, community-based services, an important goal of the system of care approach.



# F.A.C.T. Service Costs: Fiscal Years 2001 Through 2004

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University of Delaware

This report presents the highlights of analyses of data related to the costs of serving children in the F.A.C.T. Project. A number of areas are addressed in this report, including total costs, average costs per child, the relationship between costs and child outcomes, and factors associated with more intense service and higher service costs. Also addressed are some issues related to the financial sustainability of the clinical approach represented by F.A.C.T., including comparisons with Medicaid reimbursement rates and the average cost of a long-term residential placement provided through the Department of Education (the latter considered to be the placement children are at risk of entering if F.A.C.T. services were not available)<sup>1</sup>.

## Methods

### Data Sources

The F.A.C.T. Project evaluation team compiled data on the cost of mental health services received by children in the project in fiscal years 2001, 2002, 2003, and 2004 from the Division of Child Mental Health Services (DCMHS) data unit. Data on education costs for FY 2002 through FY 2004 was provided by the Delaware Department of Education (DOE). Child-level cost data was not available from the divisions of Family Services (DFS), Youth Rehabilitative Services (YRS), or Developmental Disabilities Services (DDDS), three other divisions that have provided services to children served by F.A.C.T.<sup>2</sup>.

### Who Was Included in the Analyses?

The number of children included in each analysis varied. For the overall cost analysis, any child who received any mental health service beyond case management during a given fiscal year was included in the analysis. This criterion served to eliminate some children enrolled in a given fiscal year for only a very short period of time. As a result, these analyses were limited to 33 children in FY2001, 52 children in FY2002, 60 in FY2003, and 67 in FY2004. Because the FY2001 data are not as complete (i.e., no DOE data) as the cost data for the other years, data from that year are not included in all sets of analyses.

For the analyses of special issues (e.g., cost per discharge outcome), the same general criterion discussed above was applied, along with criteria specific to the issue of interest (e.g., child had been discharged from the project; child had been enrolled in a bed-based service). The selection processes for the special issues and sample sizes are discussed in more detail in each section of this report.

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<sup>1</sup> One of the original goals of this work was to examine the cost data for children from DCMHS to allow for additional comparisons with F.A.C.T. costs. As part of the national evaluation Service and Cost Study conducted by ORC MACRO (the agency that oversees all national evaluation activities), it was agreed that MACRO would examine DCMHS cost data and make cost comparisons with the F.A.C.T. Project. A variety of issues delayed MACRO's work in this area. By late July it was clear that MACRO would not be able to complete the work in time for this report. Unfortunately, the window had also passed for the evaluation team to be able to do the work. As a result, minimal comparisons have been made to DCMHS costs. The intention remains for MACRO to complete its work and provide the project with the results when ready.

<sup>2</sup> Different cost procedures used by these divisions do not capture actual costs per child in a ready to use format.

## What Was Examined?

The analyses this report is based on focused on F.A.C.T. Project total costs (for all children) and average monthly costs per child. Where practical, comparisons of average monthly costs per child were made to criteria related to the financial viability of the F.A.C.T. model. The first criterion is the Medicaid Bundled Rate, which is the amount of money provided through Medicaid for each child served by DCMHS (\$4, 239 per month). The second criterion is the average cost of a long-term residential placement provided by DOE (\$13,333) through the Interagency Collaborative Team (ICT), the interagency group charged with finding solutions for meeting the needs of children local special education districts are having difficulty serving. This latter criterion was selected because F.A.C.T. children are considered to be at risk of needing a long-term residential placement if project services were not available, and such a placement would likely be funded by DOE.

In computing the average monthly cost for each child for a fiscal year, mental health costs were calculated as follows:

$$\frac{\text{Cost of Bed-based and Community-Based services}}{\text{\# of mos. enrolled during the fiscal year}} + \frac{\text{Case Management cost allocation}}{12}$$

The Case Management cost allocation was calculated by dividing the total salary figure for the F.A.C.T. Clinical Services Management Team (CSMT) for a fiscal year by the number of children served in that year. This allowed more of the real service costs to be included in the analyses. It should be noted that crisis bed services are considered to be integrated within crisis intervention services. Together, they are considered to be a community-based service and their costs are included in that category.

This approach to computing mental health costs was used to remove the distorting effects associated with substantial, but expected, differences in the number of months children were enrolled in the project in a given fiscal year. The more basic method of dividing total fiscal year mental health service costs (i.e., bed-based and community-based services) by the number of children served yields average yearly cost/child figures that are artificially low, as the costs incurred for children enrolled for less than 12 months would be spread out over a period longer than the actual length of enrollment.

Special education costs fell into one of two categories. The first, standard special education cost, is the set per-child per year amount for providing special education services in the schools (about \$20,000 per child in FY 2002 through FY 2004). The second category, ICT costs, reflects the actual costs of special education and other services funded through the ICT. Only children who were involved with the ICT had costs in this latter category, and costs varied depending on what type of services a child received. If a child was involved with the ICT (and only a minority were each fiscal year), the child's ICT costs were used in determining average monthly special education costs. If a child was not involved with the ICT, the standard figure was used in computing the average monthly cost.

Information about length of stay in special education services was not available for this report. As a result, average monthly special education costs were computed by dividing the special education costs for a given fiscal year by 12. Average monthly total costs were then computed for each child by adding the average monthly mental health cost to the average monthly special education cost.

## Findings

### Total Costs

Table 1 presents the total costs for FY 2002 through FY 2004 along with the average monthly total and average monthly mental health costs per child. Total costs have consistently been in the mid-upper \$3 million dollar range, while the number of children served by F.A.C.T. has increased in each of those years. In two of the three fiscal years, mental health costs accounted for a little more than half of the total costs (Figure 1). Average

total monthly per-child costs have decreased over the period studied. Average monthly per child mental health costs were lower in FY 2003 and FY 2004, as compared to FY 2002, although the FY 2004 amount is slightly higher than that for FY 2003.

**Table 1: Total and Average Monthly Costs For Children Enrolled in the F.A.C.T. Project, FY 2002-2004.**

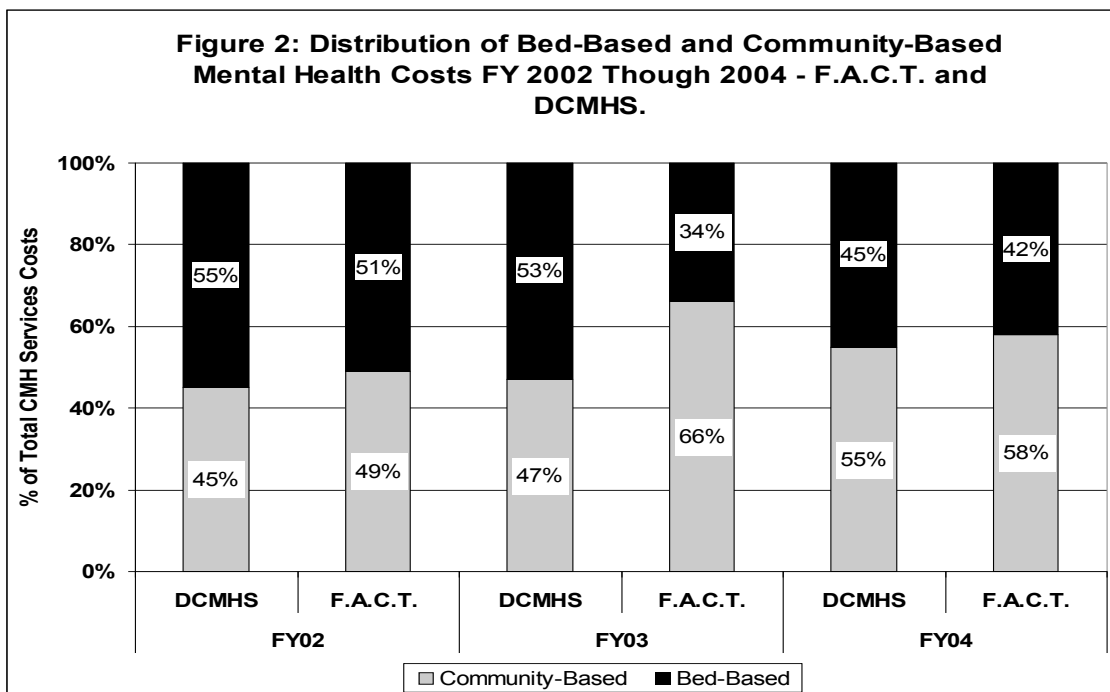
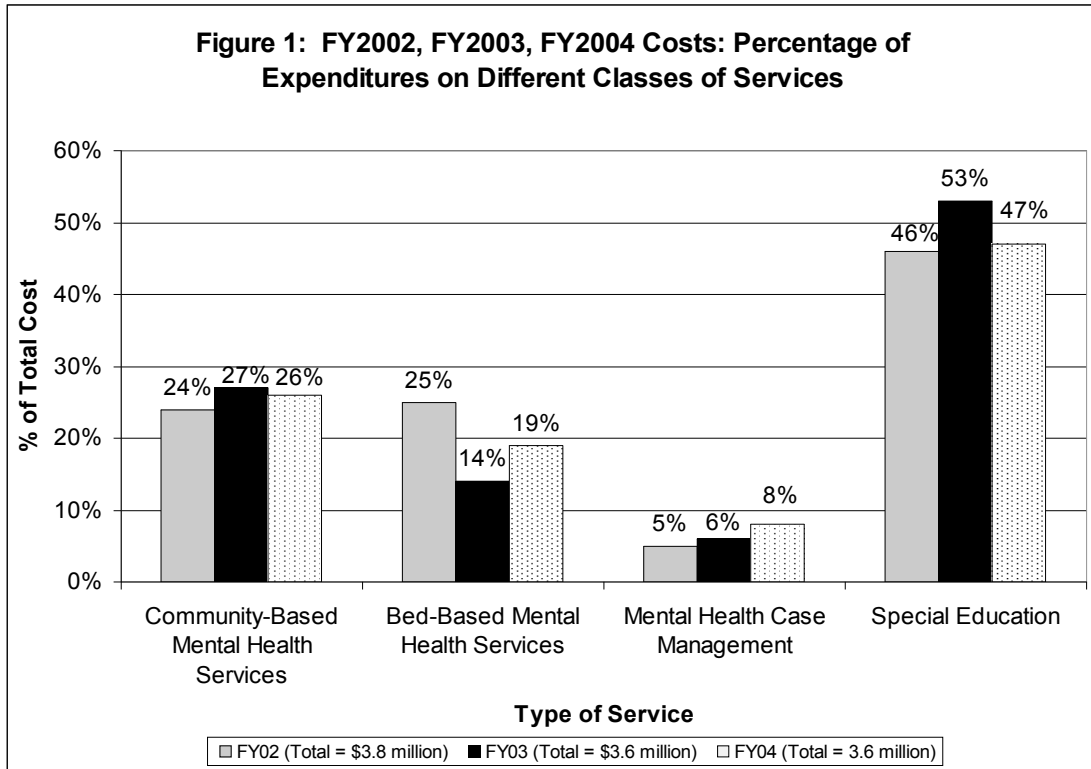
	<b>FY 2002</b>	<b>FY 2003</b>	<b>FY 2004</b>
Total Mental Health and Special Education Costs	\$3.77 million	\$3.57 million	\$3.56 million
Average Monthly Total Cost Per Child - Mental Health and Special Education	\$6,424	\$5,537	\$5,226
Average Monthly Cost Per Child – Mental Health only	\$3,672	\$2,903	\$3,132
Number of Children included	52	60	67

One goal of the system of care approach is to provide more community based services to keep children out of bed-based services and in their local communities. By working toward this goal, the proportion of expenditures on bed-based services should decrease, while that for community-based services should increase. The proportion of the total mental health service dollars spent by F.A.C.T. on bed-based (24 hour) services increased from FY 2001 (44%) to FY 2002, then decreased from FY 2002 to FY 2003. The proportion then increased between FY 2003 and FY 2004 (Figure 2).

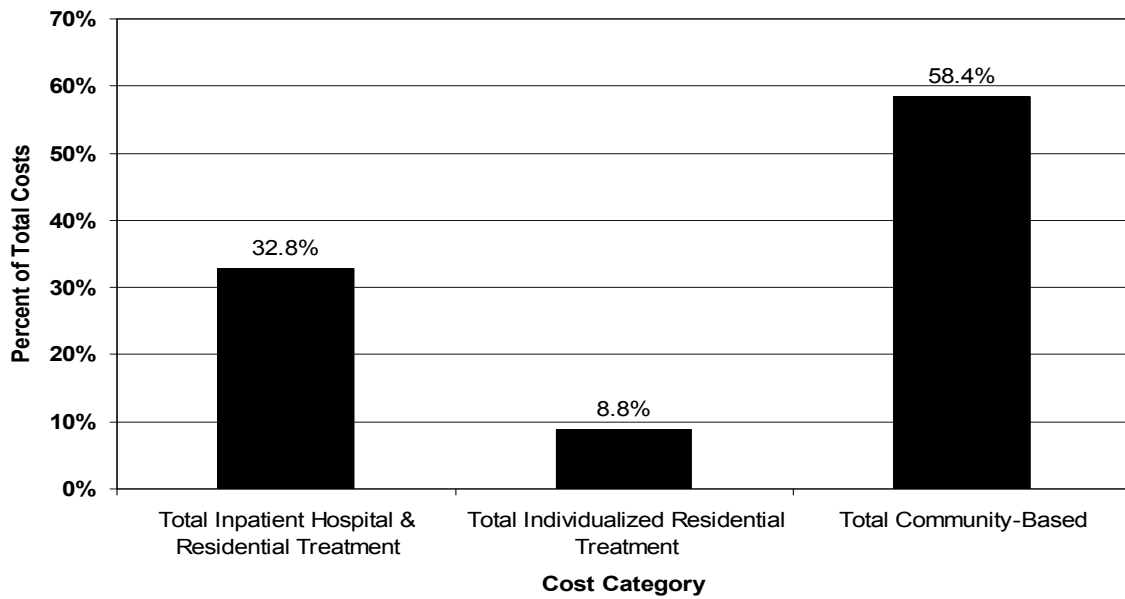
Two children in FY 2002 and two in FY 2004 appear to have moved from a bed-based service provided by another division or department to one provided by F.A.C.T. An additional child, who had no other active placements, entered the project in FY 2004 and incurred substantial bed-based costs during that year. The two children in FY 2002 accounted for about 25% of the bed-based costs in that year. The three FY 2004 children accounted for about 17% of the bed-based costs that year. As a result, at least a portion of the net increases in bed-based service costs in those years is partially attributable to these five children.

The reverse of this pattern (i.e., an apparent shift in bed-based costs from F.A.C.T. to another agency or department) was not evident. The increase in bed-based costs in FY 2004 may also be associated with the introduction of Individualized Residential Treatment (IRT) as a bed-based service option. IRT, Delaware's equivalent of Therapeutic Foster Care, is a less intensive, lower cost, and desirable alternative to facility-based residential treatment. Figure 3 presents FY 2004 mental health service costs with IRT broken out separately.

The proportion of mental health service dollars spent on bed-based services has been lower for F.A.C.T. compared to DCMHS overall, with a large difference in FY 2003 (Figure 2). While a causal attribution for the reason for the decreases seen in the F.A.C.T. costs compared to FY 2002 cannot be made, a decrease in the use and costs of restrictive bed-based services is one of the goals of the F.A.C.T. Project. Figure 4 presents the distribution of bed-based mental health costs as a percentage of children served rather than as a proportion of mental health expenditures. As the figure illustrates, a relatively small percentage of children account for a large percentage of bed-based service costs.



**Figure 3: Percent of Mental Health Services Cost Expenditures for FACT, FY 2004 (N = 67 children)**



**Figure 4: F.A.C.T. Bed-Based Mental Health Services Cost Distribution (by Children), FY2001 - FY2004**

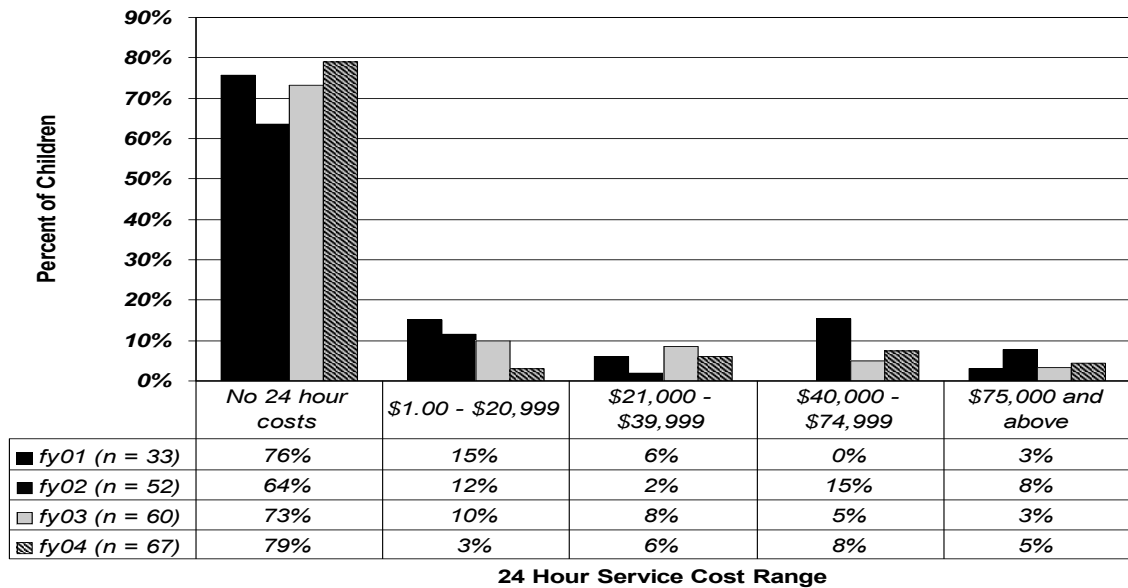


Table 2 shows that, for the years for which data are available, more than 70% of the children had average monthly mental health costs that were lower than the Medicaid Bundled Rate and more than 90% had lower total monthly costs than the cost of an ICT Residential Placement. Lower – but still substantial – proportions of children had lower total monthly costs than the Medicaid Bundled Rate. The average monthly cost/child was compared to the Medicaid Bundled Rate and the average monthly ICT Residential Placement cost. This comparison found that:

- F.A.C.T.'s FY 2003 and FY 2004 average monthly per-child costs of mental health services (services + care management) were substantially less than the \$4,239 that is the monthly Medicaid Bundled Rate DCMHS receives for each child served in the traditional mental health system (see Figure A-1 for this information in graphic form).
- F.A.C.T.'s average total monthly costs (services + care management + special education) for FY 2002 through FY 2004 were far less than the estimated monthly ICT residential placement cost for those years (see Figure A-2 for this information in graphic form).

**Table 2: Proportion of F.A.C.T. Children Whose Average Monthly Costs Were Lower Than The Medicaid Bundled Rate and the Average Monthly ICT Residential Placement Cost.**

	FY 2002	FY 2003	FY 2004
Percent of Children Whose Total Monthly Costs Were Lower Than the Medicaid Bundled Rate <sup>1</sup>	NA	43.3%	56.7%
Percent of Children Whose Total Monthly Costs Were Lower Than the Average Monthly Cost of an ICT Residential Placement <sup>2</sup>	94.2%	95%	98.5%
Percent of Children Whose Mental Health Costs Were Lower Than the Medicaid Bundled Rate	NA	73.3%	76.1%
Number of Children included	52	60	67

<sup>1</sup>Medicaid Bundled Rate = \$4,239.

<sup>2</sup>ICT Residential Placement Estimated Monthly Cost = \$13,333

### **Additional Examination of Bed-Based Costs**

Additional analyses were conducted to further explore bed-based service costs. The focus of these analyses was to describe these children and try to identify variables that might help explain why some children had higher bed-based costs than others.

#### ***Sample Size and Analysis Approach***

Bed-based service cost data for all children who had a bed-based service provided through F.A.C.T. in any of the fiscal years (n=33) were examined. This group was comprised of 17 children who first enrolled in F.A.C.T. in FY 2001, nine who did so in FY 2002, five in FY 2003, and two in FY 2004.

As part of this exploratory analysis, two sets of groups were created: one based on costs, the other on age. The cost data had two natural break points that were used to form 3 groups about equal in number. The lower cost group was composed of the 11 children whose total bed-based cost across fiscal years was less than \$31,000. The medium cost group contained the 10 children whose costs were between \$31,000 and \$65,000. The final 12 children had costs over \$65,000 and were designated as the higher cost group.

Three groups of equal size were also created based on children's ages. The low age group was made up of children younger than 11.7 years. The middle group was composed of children 11.7 to 14 years. The final group contained children older than 14. While statistically created, the age break groups roughly correspond to the ages of children in elementary, middle, and high school.

The total bed-based cost for each child was computed by summing all of the bed-based costs across fiscal years. Average monthly bed-based costs were computed by dividing the bed-based total by the total number of months enrolled in the F.A.C.T. project.

Patterns of bed-based service use (F.A.C.T. and non-F.A.C.T.), costs for bed-based services within F.A.C.T., legal involvement, and other variables were examined. As appropriate, these data were also examined by categories of the groups described above.

## **Results**

Entry into bed-based services occurred early on for many children. A substantial proportion of the 33 children (61%) incurred bed-based mental health service costs during their first year in F.A.C.T. The highest proportions were for children who enrolled during FY 2004 (100%), followed by the FY 2002 group (67%), the FY 2003 group (60%), and the FY 2001 group (47%).

The provision of bed-based services to these children by other agencies or departments was relatively common. A substantial minority of children (49%) had a bed-based service provided by DFS, YRS, or DOE at some point during their enrollment in F.A.C.T. Thirty-three percent of children were in other placements during their first year of F.A.C.T. enrollment (100% of the FY 2004 group, 40% of FY 2003, 29% of FY 2001, and 22% of FY 2002). Sixteen children (49%) received a bed-based service from another agency or department during every year they were enrolled in F.A.C.T. Five (15%) had such services during most years of enrollment, eight (24%) in half of enrollment years, and four (12%) in fewer than half.

The 33 children who had received bed-based services were broken into three categories based on their total bed-based costs: high cost (>\$65,000), medium cost (\$31,000 to \$65,000), and low cost (<\$31,000). Twelve children (36%) had total bed-based costs in excess of \$65,000 (11 of these in excess of \$100,000). Eight (67%) of these children enrolled in F.A.C.T. during FY 2001 and four had bed-based services provided through another agency or department (all of which covered the first year of project enrollment). Nine children (75%) had a bed-based service provided by F.A.C.T. during the first year of project enrollment. Seven children (58%) in this high-cost group had a history of legal involvement (compared to seven, or 33%, from the lower cost group), with five of these children from the FY 2001 group. Three children (25%) in this group had diagnoses related to a developmental disability, compared to five (24%) in the lower cost group.

Ten children were in the medium cost group, and 11 children were in the low cost group. Of these 21 children, 11 (52%) received F.A.C.T.-provided bed-based services in their first year of enrollment, seven (33%) through other entities. Overall, 13 children (62%) from this group had bed-based services that were provided by another division or department at some point during their enrollment in F.A.C.T.

Table 3 provides a more detailed look at a variety of characteristics for the three cost groups. The high cost group was younger on average than the other two cost groups, had the highest percentage of legal involvement, and was comprised mostly of children who enrolled in F.A.C.T. in FY 2001. The medium cost group was older on average, had the greatest percentages of children in the custody of the state and of children with placements from other entities, and had the lowest rate of legal involvement. The low cost group was comprised mostly of children who enrolled in FY 2001 and had the next highest rate of legal involvement.

Not surprisingly, length of enrollment in F.A.C.T. and percent of fiscal years enrolled where bed-based services were received had the strongest relationship to bed-based costs (significant correlations of around .34). Age was negatively and significantly correlated with total costs ( $r = -.38$ ).

**Table 3. Examination of Characteristics of Children with High, Medium, and Low Bed-based Service Costs.**

	<b>High Cost (&gt;\$65,000) (n=12)</b>	<b>Medium Cost (\$31,000 - \$65,000) (n=10)</b>	<b>Low Cost (&lt;\$31,000) (n=11)</b>
<b>Custody at Enrollment</b>	Parent – 58% Relative – 33% State – 8%	Parent – 30% Relative – 20% State – 50%	Parent – 64% Relative – 27% State – 9%
<b>Had Other Placements</b>	33%	70%	46%
<b>ICT-Involved at Enrollment</b>	33%	30%	36%
<b>Age Group at Enrollment*</b>	Low – 67% Middle – 0% High – 33%	Low – 0% Middle – 80% High – 20%	Low – 27% Middle – 27% High – 46%
<b>Average Age at Enrollment</b>	11.9 years	13.1 years	13.2 years
<b>Had Legal Involvement</b>	58%	30%	55%
<b>Fiscal Year First Enrolled</b>	FY2001 – 67% FY2002 – 25% FY2003 – 8% FY2004 – 20%	FY2001 – 30% FY2002 – 50% FY2003 – 0% FY2004 – 20%	FY2001 – 55% FY2002 – 9% FY2003 – 36% FY2004 – 20%
<b>Average Length of Enrollment (months)</b>	30.2	22.1	20.7
<b>% of Total Fiscal Years Enrolled with Bed-based Costs</b>	81%	67%	52%

\* Low age = younger than 11.7 years; Middle age = 11.7 – 14.0 years; High age = older than 14 years

Of the seven children in the custody of the state, one (14%) was involved with the ICT at the time of project enrollment, five (71%) had placements from other entities while enrolled in F.A.C.T., and only one had legal involvement. Of the nine children in the custody of a relative, four (44%) were involved with the ICT, five (56%) had other placements, and eight (89%) had legal involvement. Of the 17 children in the custody of a parent, eight (47%) were involved with the ICT, six (35%) had other placements, and seven (41%) had legal involvement.

These data indicate or suggest that:

- Most children received bed-based services from F.A.C.T. in their first year of enrollment, with almost half receiving such services from any source throughout the entire time they were enrolled in the project.
- Children with the highest bed-based mental health costs were younger at enrollment, stayed longer in the project, incurred bed-based costs in a greater percentage of fiscal years enrolled, and, just barely, had the highest percentage of legal involvement. This group of children may, perhaps, be the highest need group (suggested by age, length of stay, and legal involvement) that the project can keep enrolled and on an acceptable



trajectory (i.e., making at least some progress) over a long period of time. However, the data are not sufficient to explore this issue further, primarily because of the small number of children.

- There appears to be at least several different subgroups of children with bed-based mental health service costs. While the number of children with bed-based costs is not sufficient to explore this issue in depth, it is a reasonable hypothesis that each of these groups may potentially have fairly distinct bed-based mental health service cost trajectories. For example, the medium cost group had higher levels of state custody and placements provided by other entities, and lower levels of legal involvement. This would suggest that this group's bed-based costs across agencies may be substantially more than the bed-based mental health costs, but primarily due to DFS and DOE placements.

## **Costs by Discharge Outcome**

Costs were examined for all children who had been discharged from the F.A.C.T. Project by the end of FY 2004 and who received any mental health service beyond case management during a given fiscal year (n= 57 children). The analysis focused on costs for bed-based and community-based mental health services received from FY 2001 through FY 2004 while children were enrolled in the project. In order to maximize the number of children included in the analysis, education costs were not included since these data were not available for FY 2001.

Total mental health costs for each child was computed by summing costs across all fiscal years. The average mental health cost per outcome was derived by dividing the sum of the total costs by the number of children discharged. Average mental health costs per child per month were computed by dividing a child's total mental health service costs by the number of months the child was enrolled.

Discharge outcomes were based on clinical judgment and grouped into three categories: successful outcomes (i.e., treatment goals were sufficiently reached), unsuccessful outcomes (i.e. went into a residential setting expected to last at least three months, or the child left, was withdrawn from or dropped out of school, or was making poor progress), or premature (i.e. the family left the project or the child turned 18 years old).

## **Total Mental Health Service Costs During F.A.C.T.**

The total mental health service costs for all children discharged from FY 2001 through FY 2004 was \$3.06 million. Of this amount, \$1.77 million (58%) was spent on community-based services. Expenditures on bed-based services accounted for the remaining \$1.29 million (42%). For successful outcomes, most dollars were spent on community-based services (Table 4), and this proportion was almost 50% higher than that for cases that did not have a successful outcome. When comparing the successful outcome group to the unsuccessful outcome group, this difference was even more extreme, with the proportion of community-based expenditures in the former group double that of the latter group.

**Table 4: F.A.C.T. Total Mental Health Service Costs for All Discharged Cases by Discharge Outcome (FY2001 through FY2004, N=57 children)**

	Community-Based Services	Bed-Based Services	Total Mental Health Services
<b>Successful Outcome (N=32)</b>	\$1,165,843 (67.6%)	\$559,285 (32.4%)	\$1,725,127
<b>Other than Successful Outcome (N=25)</b>	\$605,672 (45.4%)	\$727,790 (54.6%)	\$1,333,462
<b>Unsuccessful Outcome (N=15)</b>	\$298,256 (38.8%)	\$469,642 (61.2%)	\$767,898
<b>Premature Discharge (N=10)</b>	\$307,416 (54.4%)	\$258,148 (45.6%)	\$565,564

### **Costs Per Outcome**

The average cost of mental health services per discharged case for children discharged from F.A.C.T. between FY 2001 and FY 2004 was \$53,660. Little difference in average cost was evident between cases that were identified as successful discharges and the remainder of the discharged cases (Table 5).

**Table 5: F.A.C.T. Average Total Mental Health Service Costs per Discharged Case by Discharge Outcome (FY2001 through FY2004, N=57 children)**

	Community-Based Services	Bed-Based Services	Total Mental Health Services
<b>Successful Outcome (N=32)</b>	\$36,433 (67.6%)	\$17,478 (32.4%)	\$53,911
<b>Other than Successful Outcome (N=25)</b>	\$24,227 (45.4%)	\$29,112 (54.6%)	\$53,339
<b>Unsuccessful Outcome (N=15)</b>	\$19,884 (38.8%)	\$31,309 (61.2%)	\$51,193
<b>Premature Discharge (N=10)</b>	\$30,742 (54.4%)	\$25,815 (45.6%)	\$56,557

Examination of bed-based and community-based service costs, however, reveal important differences in cost patterns. For successful cases, approximately 50% more was spent on community-based services compared to the remainder of discharged cases. Expenditures on bed-based services for successful discharges were 60% of the average for the remainder of discharged cases. The cost differences in the two service areas are even greater when comparing successful and unsuccessful cases.

Table 6 presents the average monthly mental health service costs (based on length of F.A.C.T. enrollment) for the various discharge outcome groups. On average, monthly costs for all groups were below \$3,000. Average costs for most children in all groups also fell within the monthly Medicaid Bundled Rate of \$4,239.

**Table 6: F.A.C.T. Average Monthly Mental Health Service Costs per Discharged Case by Discharge Outcome (FY2001 through FY2004, N=57 children)**

	<b>Community-Based Services</b>	<b>Bed-Based Services</b>	<b>Total Mental Health Services</b>	<b>% of Children within Medicaid Bundled Rate</b>
<b>Successful Outcome (N=32)</b>	\$1,575 (62.3%)	\$954 (37.7%)	\$2,529	84%
<b>Other than Successful Outcome (N=25)</b>	\$1,401 (47.2%)	\$1,566 (52.8%)	\$2,967	80%
<b>Unsuccessful Outcome (N=15)</b>	\$1,181 (39.9%)	\$1,776 (60.1%)	\$2,957	80%
<b>Premature Discharge (N=10)</b>	\$1,739 (58.2%)	\$1,251 (41.8%)	\$2,990	80%

These data indicate that, while there are not substantial differences between children with successful outcomes and children with other than successful outcomes with respect to average mental health costs, a markedly greater percentage of dollars is spent on community-based mental health services for successful cases. Also, most children in either outcome group had average mental health costs that fell within the monthly Medicaid Bundled Rate.

## **Cost and Legal Involvement**

Mental health service costs were also examined for two groups of children enrolled during the period FY 2001 through FY 2004: those who had historical or current legal involvement and those who did not. A total of 95 children (30 with legal involvement, 65 without) met the criteria for inclusion in this analysis.

Substantial differences were evident in the length of time the two groups of children were enrolled in F.A.C.T. Children who had legal involvement were in the project longer on average (23 months versus 16 months), with 70% enrolled more than 18 months, compared to 33% for children without legal involvement. Also, more children without legal involvement had been enrolled less than one year (45% compared to 10%). Examination of the mental health service cost totals indicated they were strongly correlated with length of stay. As a result, only average monthly comparisons were made in order to factor out the effect of time and present a more accurate picture of costs.

Average total monthly mental health service costs between the two groups of children differed by less than \$200 (Table 7). The most marked difference was for bed-based service costs, which were about 40% higher for children in the legal involvement group. More than half of the children in this group had bed-based service costs, compared to just over a quarter of children in the group without legal involvement. The data also indicate that the average total mental health service costs for most children in each group would fall within the monthly Medicaid Bundled Rate.

**Table 7: Average Monthly Mental Health Service Costs by Legal Involvement Group.**

	<b>Legal Involvement (N=30)</b>	<b>No Legal Involvement (N=65)</b>
<b>Average Monthly Costs</b>		
<b>Community-Based Services</b>	\$1,544	\$1,746
<b>Bed-Based Services</b>	\$1,422	\$1,023
<b>Total Mental Health Services</b>	\$2,966	\$2,769
<b>% of Children with no Bed-Based Service Costs</b>	46.7%	72.3%
<b>% of Children within Medicaid Bundled Rate</b>	76.7%	78.5%

With respect to mental health services funded by the F.A.C.T. Project, children with legal involvement are slightly more expensive to serve, more so with respect to bed-based service costs. However, from a mental health services cost recovery and sustainability perspective, they are similar to children without legal involvement.

While this particular analysis did not discover substantial differences in mental health service costs, costs for those children with legal involvement could be greater if the costs of services received from other divisions were included in the analysis. As indicated earlier, different cost accounting procedures in those divisions made cross-division analyses impossible.

## **Conclusions and Considerations**

The cost data appear to support the notion that the system of care approach to providing mental health services to children, as represented by the F.A.C.T. Project, is a financially viable way of serving children with serious and complicated emotional and behavioral problems who are at risk of medium to long term deep-end service use. Nearly all children in fiscal years 2002 through 2004 had mental health service and special education costs which were below the estimated average monthly ICT Residential placement cost of \$13,333. With respect to the cost of mental health services, about 75% of children in those years studied had average monthly costs that were below the monthly Medicaid Bundled Rate of \$4,239. F.A.C.T. has increasingly spent a larger proportion of mental health service dollars on community-based services, although the more recent introduction of Individualized Residential Treatment may have led to an increase in the rate of bed-based expenditures for FY 2004. The data also suggest that there may be a key subset of children who appear to have an intermittent and perhaps persistent need for bed-based services, and as a result, are likely to be more costly to serve within the current service array.

The average mental health services cost per outcome also indicate that success is not achieved at prohibitively high cost, with these costs for most children falling within the Medicaid Bundled Rate. Also, children that the project has not been able to successfully serve are not appreciably more expensive, with respect to mental health service costs, than those with successful outcomes. There are significant differences, however, in the proportion of dollars spent on community-based services, with the rate for successful cases far higher than that for unsuccessful cases.

There are important limitations to these data. These data present only a partial picture of the total costs of serving children in the F.A.C.T. Project because of limitations in the availability of cost information from YRS, DFS, and DDDS. It is possible that if data from these divisions were available, the total costs of more children served by the project would exceed the average ICT placement cost and lead to a somewhat different picture of overall financial viability, as compared to this specific comparison criterion.

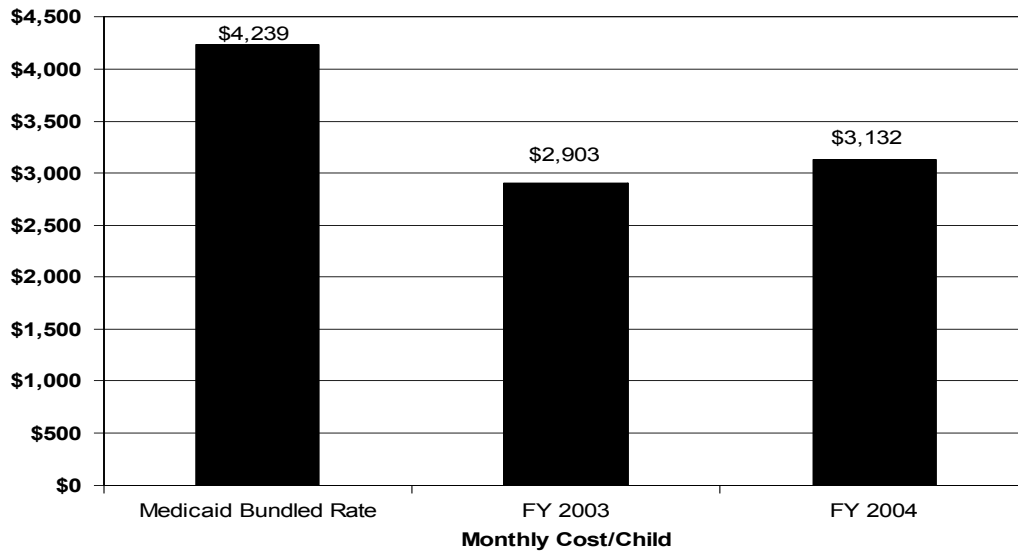
These analyses were also not able to satisfactorily explore issues related to bed-based service costs. A primary limitation in this area was the relatively low number of children incurring these costs. Coupled with the lack of cost data cited above, it was not possible to explore this issue in a thorough and statistically robust way that could inform project practices.

An issue this report does not address is that of the overall costs and benefits of the F.A.C.T. Project approach. Cost analysis experts in the human services field caution that to fully understand the costs and benefits of a given service program, the relationships of costs and services to benefits and client social-behavioral outcomes should be examined. Such an approach provides a more complete picture of how a program works in relationship to its operating costs. Better program or service continuation/refinement/discontinuation decisions can then be made based on a rich and

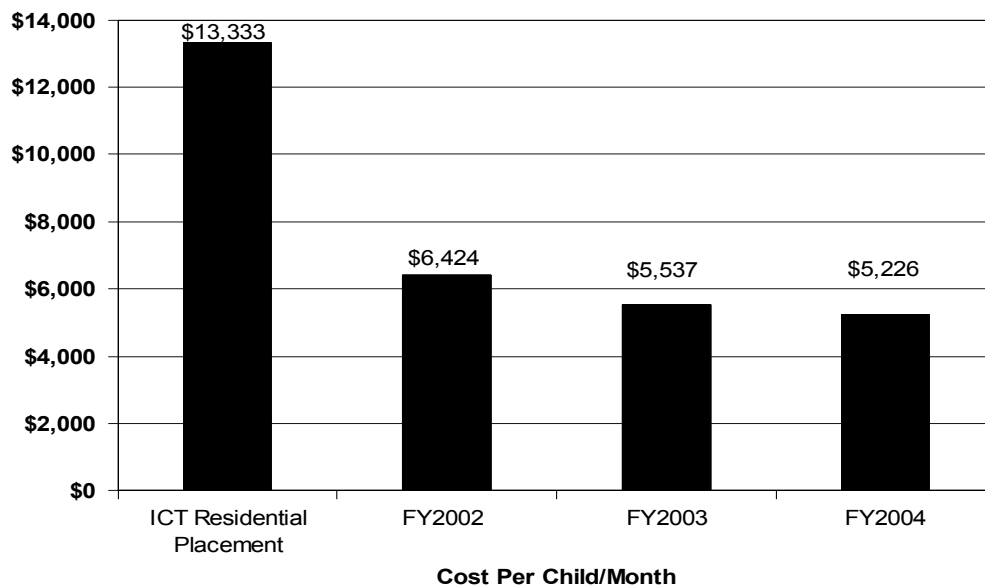
thorough data picture that includes all costs and all benefits (actual and estimated) that might be expected to occur (short, medium, and long term). This type of cost analysis was beyond the capacity of the F.A.C.T. Evaluation team for two reasons: (a); lack of sufficient data (costs, insufficient information from measures of processes and outcomes) and (b) lack of expertise and resources to overcome the data limitations. However, such an approach can be implemented by DCMHS in the future, and there are several useful cost-benefit models, particularly one developed by Brian Yates of American University, a manual for which is available for free through the National Institute of Drug Abuse (<http://www.nida.nih.gov/IMPCOST/IMPCOSTIndex.html>).

## Appendix

**Figure A-1: FACT FY2003 and FY2004 Average Monthly Mental Health Service Costs Compared to Medicaid Bundled Rate.**



**Figure A-2: F.A.C.T. Children's Average Total Monthly Cost Compared to Monthly Cost for ICT Residential Placement**



# **Progress and Outcomes Among Children Served by the F.A.C.T. Project**

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An overarching goal of the F.A.C.T. project is to decrease problematic behaviors while enhancing positive behaviors to produce better functioning in the lives of the children the project serves. Children's behavioral and emotional well-being can be assessed using a variety of approaches. One way is to examine problem behaviors and symptoms, with desirable outcomes equaling fewer problems/symptoms. Another way is to examine both problem behaviors and behaviors which reflect competencies and strengths, with improvement marked by a decline in problematic behavior and increases in positive behaviors. Yet another way is to assess a child's ability to function effectively in different life areas or domains, such as at home, at school, and with friends. The F.A.C.T. evaluation used a combination of these assessment strategies, described in the next section.

## **Assessment Tools and Issues**

The specific tools and approaches used were:

- The locally-implemented Child and Adolescent Functional Assessment Scale (CAFAS) to measure child functioning.
- Collecting clinical judgments about outcomes for children who were discharged from the project.
- A locally-implemented (i.e. administered to all F.A.C.T. families by CSCs, not just those who are part of the national evaluation) Behavioral and Emotional Rating Scale (BERS) and the Ohio Youth Problems, Functioning, and Satisfaction Scales (Ohio Scales).
- Examination of educational outcomes/progress data from schools and instruments used in local and national evaluation activities.
- Four instruments from the national evaluation interviews conducted with a subset of F.A.C.T. families:
  - The Child Behavior Check List (CBCL) and the Youth Self Report (YSR – the child version of the CBCL) to measure problem behaviors;
  - The Behavioral and Emotional Rating Scale (BERS) to measure behavioral strengths; and
  - The Educational Questionnaire (EQ) to measure school performance and behavior.

A variety of issues affected the availability of data for examining child progress and outcomes. The data from clinical judgments about outcomes at discharge is the most comprehensive with respect to the proportion of children covered, but is fairly limited as to the amount of information provided on this topic. Issues related to family participation in the national interviews and those related to accessing

educational data from the schools severely limited the amount of useful data from these sources (see the introduction to this compendium for a thorough discussion of the issues related to these two data areas). Gaps exist in the CAFAS data that limited to a moderate extent the number of children for whom comparisons could be made over time. The locally administered BERS and Ohio Scales only began in the fall of 2004, in response to a desire to collect family perspectives about child progress and outcomes, and only cover children active in the project since that time and only for a relatively short period of time (three to nine months). The ability to examine progress and outcomes was also limited by the lack of processes within DCMHS for systematically collecting useful data on progress and outcomes. The existing process for measuring progress on treatment goals was found to not be a reliable or useful assessment of child progress, and data from it were not used. These issues precluded the development of a comprehensive, thorough, and singular understanding of child progress and outcomes.

Given the amount of data provided in this report and the varying level of information needs of different stakeholders, we have organized it as follows:

- Summary of findings – Provided at the beginning of this report and focused on the findings best supported by the available data, this section highlights the CAFAS and discharge outcomes because they cover the most children and provide the best data on child functioning. This is followed by a summary of the most significant findings from the remaining sources.
- Scale/source-specific analyses – Results of analyses are presented for each scale or source mentioned above, except the national CBCL, YSR, and BERS. Each of the sections provides detail about methodology, sample sizes, and more detailed results of the analyses (for those interested in that level of detail). The results for those scales with the best data (CAFAS and clinical judgments about discharge outcomes) are presented first. These are followed by the results from the local BERS and Ohio Scales and the data regarding education-related progress.
- A national interview instrument (CBCL, YSR, and BERS) Appendix – Because of the small sample sizes for these instruments and the inability to generalize the results of the data, these analyses are included in an Appendix. Because there are better data available, these data were not used as part of the larger examination of child progress and outcomes, but are included as a supplement for the purpose of including all available information on child functioning.

## **Findings about Child Progress and Outcomes**

### **Key Findings**

#### **CAFAS Findings**

Results of comparisons of CAFAS ratings at enrollment to CAFAS ratings at 12 months, 18 months, and discharge indicate that most of the children studied are functioning better or about the same (based on overall score and number of domains rated 'severe' impairment) at each of the respective follow-up periods (see Table 1 for a summary of the results). Analysis of the data for the most seriously impaired children, as measured by overall level of impairment, indicate that total scores improved for two-thirds or more of these children in each of the comparison groups. The most seriously impaired children were those children whose overall level of impairment at baseline was rated either "marked" or "severe," meaning their total CAFAS score was at least 100 or higher. Among the children who had three or more scales rated 'severe' at baseline, an even greater percentage improved at the follow up period.

The CAFAS data indicate improved functioning in approximately half the children served by FACT. Improvement was even more apparent among those children most in need based on baseline



scores and scale patterns. There are subsets of children that have declined or remain relatively unchanged, per the CAFAS data, and this finding is consistent with others regarding service use and discharge outcomes. To get a sense of the characteristics of children who improved compared to those who declined or remained unchanged, the evaluation looked at the largest group of children for whom data was available (the 67 children with a baseline and a 12 month CAFAS rating). The evaluation looked at basic demographic variables such as age, race, and gender, as well as custody status at enrollment, legal involvement, risk factors, special education classifications and DSM IV diagnoses. This comparison found that children who were doing worse at 12 months were older at enrollment into F.A.C.T., had higher rates of state custody, had higher rates of legal involvement, had more risk factors on average, and had higher proportions of oppositional or conduct disorders and impulse control disorders than children who were doing better at 12 months. Children whose functioning declined after 12 months appear to have characteristics that suggest they may face some challenges that affect treatment.

**Table 1. Summary of Child and Adolescent Functional Assessment Scale Analyses**

<b>Type of Change</b>	<b>Comparison</b>		
	<b>Baseline-12 Months (N = 67 children)</b>	<b>Baseline-18 Months (N = 41 children)</b>	<b>Baseline-Discharge (N = 47 children)</b>
<i>Change in overall functioning:</i>			
% doing better	55%	48%	55%
% with no change	21%	25%	19%
% doing worse	24%	27%	26%
% 'Marked' or 'Severe' doing better	76% (29 of 38 children)	65% (15 of 23 children)	72% (18 of 25 children)
<i>Change in the number of problem areas rated "severe"</i>			
Fewer areas rated severe	51%	51%	51%
Same number of areas rated severe	22%	15%	17%
More areas rated severe	27%	34%	32%
Of those w/ 3 or more severe ratings initially, % with fewer	92% (23 of 25 children)	75% (12 of 15 children)	76% (11 of 14 children)
<i>Areas showing the most improvement</i>	<ul style="list-style-type: none"> <li>– Getting along with others</li> <li>– Behaving at home</li> <li>– Behaving in the community</li> <li>– Expressing/ managing moods or emotions</li> </ul>	<ul style="list-style-type: none"> <li>– Getting along with others</li> <li>– Behaving at home</li> <li>– Behaving in the community</li> <li>– Expressing/ managing moods or emotions</li> </ul>	<ul style="list-style-type: none"> <li>– Getting along with others</li> <li>– Behaving at home</li> <li>– Behaving in the community</li> <li>– Expressing/ managing moods or emotions</li> </ul>

### **Outcomes at Discharge from F.A.C.T.**

The clinical team leader for the project was interviewed by evaluation staff to collect impressions of child functioning at discharge. There were 73 discharges rated for 71 children (two children were enrolled in and discharged from the project twice), and the discharges were grouped into three categories: successful outcomes (i.e., treatment goals were sufficiently reached), unsuccessful outcomes (i.e. went into a residential setting expected to last at least three months, or the child left, was withdrawn from or dropped out of school, or was making poor progress), or premature (i.e. the family left the project or the child turned 18 years old). Of the 73 discharges that had occurred in F.A.C.T. by the time of this particular study, 56% were judged to have been successful outcomes. Another 25% were considered to be unsuccessful outcomes because the children had been placed in bed-based settings expected to last longer than three months (with almost all of this group of children entering a YRS or ICT placement). All of the remaining cases were classified as premature discharges, with two-thirds of this group making progress on at least some treatment goals at the time of discharge. Overall, most children (68%) had successful outcomes or were making progress at the time of discharge from F.A.C.T. About a third (32%) had unsuccessful outcomes or did not appear to be making progress at the time of discharge.

### **The Bottom Line**

Unfortunately, the limitations of the data regarding child outcomes and progress prohibit conclusive statements from being made about the overall impact of the F.A.C.T. Project on the children it serves. The CAFAS and outcomes at discharge data (the best data sources) indicate that, for the children studied, more than half showed improvement or had a successful discharge outcome. Around 25%, however, made poor progress or had an unsuccessful discharge outcome. A comparison of children who improve on the CAFAS with children who get worse suggests that there are differences in the needs of and challenges faced by these two groups of children.

### **Summary of Other Findings**

Because of limitations of the data, such as sample sizes and incompleteness of data, the following areas of child functioning do not warrant as detailed a discussion as the CAFAS and outcomes at discharge. The most significant findings from each area are summarized here, and more detail can be found in the detailed findings section of this report.

Data from the local BERS and Ohio Scales suggest that caregivers perceive a positive impact on fairly serious behavioral problems over just a relatively short intervention period. Strengths and aspects of functioning, however, exhibited less change, a pattern consistent with the literature in that area. Data from the national interviews generally reflect these findings regarding problems and strengths.

Progress and outcomes related to school are more difficult to comment on with confidence. The various data regarding attendance issues indicate that most of the children studied do not have a serious attendance problem. The data on academic performance indicate that most children studied are reading or doing math problems below grade level and aren't performing tasks well that are partly requisite for academic success (e.g., handing in assignments on time, completing homework, studying for tests). Small gains in paying attention in class were reported by caregivers, however. Understanding academic performance is made even more difficult because of the variability of educational environments (e.g., public school, treatment-center based school environment), performance standards, and learning challenges (e.g., mental retardation, learning disorders) children served by the F.A.C.T. Project have faced.

## Detailed Findings

### Child and Adolescent Functional Assessment Scale (CAFAS)

#### CAFAS Domains and Ratings

The CAFAS provides ratings regarding how children are functioning on eight life domains:

- Behavior at School or Work
- Behavior at Home
- Behavior in the Community
- Behavior toward Others
- Moods and Emotions
- Self-Harmful Behavior
- Substance Use
- Thinking/Communication

On each domain, children receive a rating of:

- 0 (Minimal or No Impairment)
- 10 (Mild Impairment)
- 20 (Moderate Impairment), or
- 30 (Severe Impairment)

The rating for each domain is determined by the most serious behavior that occurred within the rating period. The ratings do not distinguish between a child who has had consistent problems throughout the period from one who had an isolated incident of problem behavior.

The developer of the CAFAS tool recommends several kinds of analyses to examine change in functioning at the group level. Change in overall functioning was measured by looking at total CAFAS scores. "Better" is defined as a 20-point or greater decrease in total CAFAS score from enrollment to the follow-up period. "Worse" is defined as a 20-point or greater increase in total score. Per the developer, a 20 point change in total score is considered to be a clinically significant and moderate treatment effect. Levels of overall impairment are defined as:

- Severe (total CAFAS score of 140 or more)
- Marked (total CAFAS score of 100-130)
- Moderate (total CAFAS score of 50-90)
- Mild (total CAFAS score of 20-40)
- Minimal or None (total CAFAS score of 0-10)

CAFAS scores are also routinely analyzed by examining movement between total impairment levels, change in the number of individual scales rated as severely impaired, and, at the individual scale level, change in the percentage of moderate and severe ratings.

## **Implementation of CAFAS in F.A.C.T.**

In the F.A.C.T. Project, Clinical Services Coordinators (CSCs) were expected to administer the CAFAS at the time of a child's enrollment, every six months after that<sup>1</sup>, and then one last time at or about the time a child is discharged from F.A.C.T. CSCs made use of all the information that they had available (including case records, direct contacts with families, and other sources) to decide on the rating. The rating refers to the child's functioning in the previous 30 days. The 30 day rating window means that most of a child's behavior during a given 6 month period is not considered in the rating process. It is important to keep in mind, therefore, that if a longer rating period were used, given the nature of the rating criteria, a more serious picture might emerge at baseline and/or follow up, but never a less serious picture.

For a variety of reasons (e.g., staffing changes, delays in receiving training) CAFASs were not completed for all children at all possible time periods. As a result, our analyses focused on comparisons for three groups of children, those who had:

- a baseline CAFAS (completed within 3 months of enrollment in F.A.C.T.) and a CAFAS completed about 12 months later,
- a baseline CAFAS and one about 18 months later, and
- a baseline and 'discharge' CAFAS (CAFAS completed within 3 months of discharge from the project).

The baseline-12 month comparison could be made for 67 children and the baseline-18 month comparison could be made for 41 children. Data were available for 47 children for the baseline-discharge comparison. Since neither of the comparisons could be made for all children, data for 125 children who had a first CAFAS completed within 6 months of enrollment were also examined to provide a general profile of children as they enter the project. These data were also used to determine the extent to which each comparison group was similar or dissimilar from the larger group of F.A.C.T. children.

## **Detailed CAFAS Results**

### **How Do Children Look at Enrollment?**

Table 2 compares the level of impairment across five groups: the 125 children out of the total 139 F.A.C.T. enrollees for whom early CAFAS data was available, the 67 children that had both baseline and 12 month CAFAS ratings, the 41 children that had both baseline and 18 month CAFAS ratings, the 47 children that had both baseline and discharge CAFAS ratings, and the 568 children in the national matched sample. The national matched sample had higher proportions of children with "severe" impairment at enrollment (46%) than any of the F.A.C.T. groups.

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<sup>1</sup> The original follow up period was three months, which was consistent with how DCMHS was implementing CAFAS at the time F.A.C.T. began. Once the division stopped using the CAFAS (about 1 ½ years later), the project adopted the six-month follow up period used for the national evaluation.

**Table 2. Overall Impairment at Enrollment: F.A.C.T. Study Groups and National Matched Sample**

<b>Level of Overall Impairment at Enrollment</b>	<b>First CAFAS Group</b>	<b>12 Month Group</b>	<b>18 Month Group</b>	<b>Discharge Group</b>	<b>National Matched Sample</b>
<b>Severe (total score above 130)</b>	16%	19%	17%	17%	46%
<b>Marked (total score of 100-130)</b>	37%	37%	39%	36%	30%
<b>Moderate (total score of 50-90)</b>	43%	37%	37%	38%	19%
<b>Mild (total score of 20-40)</b>	4%	6%	7%	9%	4%*
<b>Minimal (total score less than 20)</b>	0	0	0	0	NA
<b>Average Total Score</b>	100.3	103.9	100.2	99.6	129.1
<b>Sample Size</b>	<b>125</b>	<b>67</b>	<b>41</b>	<b>47</b>	<b>568</b>

\*Data for the Mild and Minimal categories of the national matched sample were combined for the targeted MACRO comparison sample.

Table 3 compares the impairment of the five groups by CAFAS domain. All of the F.A.C.T. groups looked fairly similar on most domains, with some relatively small differences on the School, Community, and Moods/Emotions scales. Larger proportions of the national sample were severely or moderately impaired at intake on most scales compared to the F.A.C.T. groups, except for the Home scale.

**Table 3. Percent of Children Rated Severely or Moderately Impaired on Each Scale at Intake: F.A.C.T. Study Groups and National Study Sample**

<b>Scale</b>	<b>First CAFAS Group</b>	<b>12 Month Group</b>	<b>18 Month Group</b>	<b>Discharge Group</b>	<b>National Matched Sample</b>
<b>School</b>	87%	85%	80%	81%	88%
<b>Home</b>	76%	81%	80%	79%	80%
<b>Community</b>	29%	36%	34%	40%	44%
<b>Behavior Towards Others</b>	73%	79%	73%	72%	85%
<b>Moods/Emotions</b>	56%	54%	51%	49%	79%
<b>Self-harmful Behaviors</b>	17%	16%	12%	13%	33%
<b>Substance Use</b>	4%	4%	2%	4%	8%
<b>Sample Size</b>	<b>125</b>	<b>67</b>	<b>41</b>	<b>47</b>	<b>567-570</b>

Table 4 presents data on the number of scales rated 'severe' impairment at baseline. Again, only relatively small differences between the various groups were evident.

**Table 4. Number of Scales Rated Severe at Intake, All F.A.C.T. Groups**

Number of Scales	First CAFAS Group	12 Month Group	18 Month Group	Discharge Group
0	12%	15%	15%	17%
1	26%	19%	20%	19%
2	30%	28%	29%	34%
3	20%	22%	22%	17%
4	8%	10%	12%	6%
5	3%	3%	2%	4%
6	1%	2%	0	2%
Sample Size	125	67	41	47

Examination of the extent to which the three comparison groups may have been different from the overall baseline CAFAS profile indicated that all groups were fairly similar in the distribution of total scores, number of scales rated 'severe' impairment, and the distribution of higher scores on the individual scales. This finding indicates there is no reason to expect that the findings for the comparison groups would have been substantially different had comparison data been available for more children.

#### **Detailed Results: Comparison of Functioning at Baseline and 12 Months**

Sixty-seven children had CAFAS ratings completed at or around enrollment and at or around 12 months after enrollment. As shown in Figure 1, 55% of these children were doing better after 1 year of enrollment and 24% were doing worse. Among the 38 children most impaired at enrollment (total scores above 100), the proportion doing better at 12 months was even greater (79%). (As described earlier, "better" is defined as a decrease in overall CAFAS score of 20 points or more. "Worse" is an increase in overall CAFAS score of 20 points or more.)

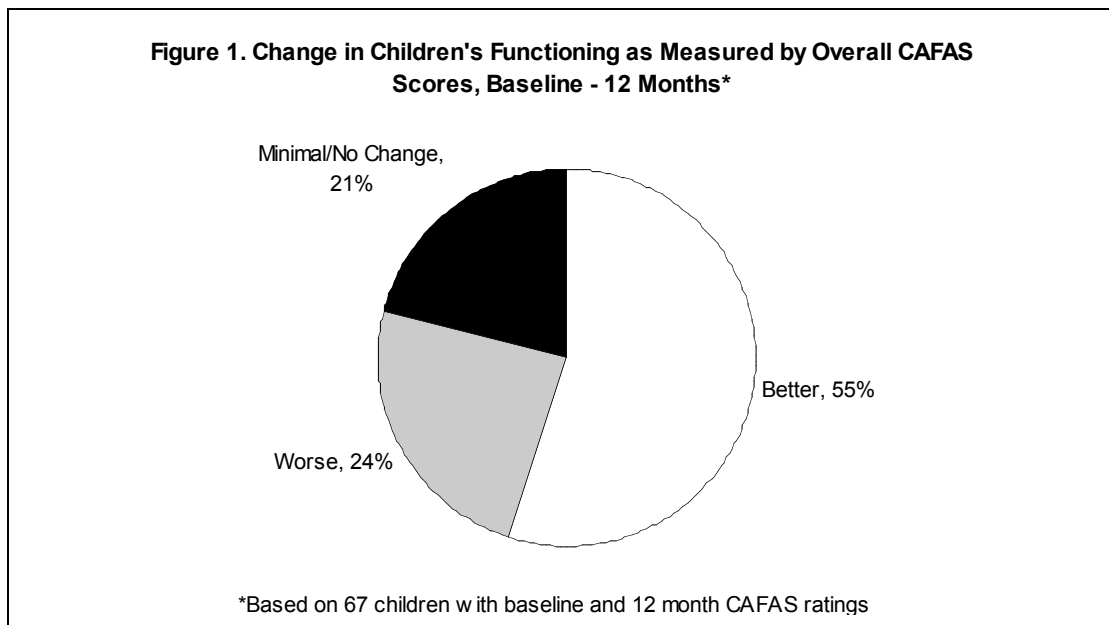


Table 5 displays changes in children's functioning as measured by changes in impairment level. This is a more conservative assessment of change in functioning than change in overall score. While the overall score is considered to have a clinically significant change if it changes by 20 or more points, it may take more than 20 points for a child to move out of one level of impairment to another (see page 6 for an explanation of the levels). While the overall score shows 37 children (55%) doing better, Table 5 shows that only 29 children (43%) improved their level of functioning. Twenty-five of those children moved from Marked or Severe ratings of their overall impairment at enrollment to improved levels of functioning within 12 months. Table 5 shows that 11 children (16%) moved from lower levels of severity to higher levels of severity.

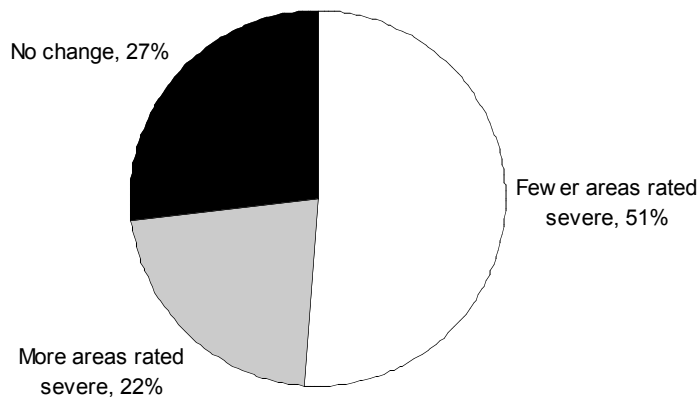
Another way of assessing change in functioning is by looking at the change in the number of CAFAS areas receiving a "severe" rating. No F.A.C.T. child had more than 6 CAFAS domains with a "severe" rating. Thirty-four (51%) of the 67 F.A.C.T. children for whom there were CAFAS ratings at baseline and 12 months had fewer areas rated "severe" after one year in the program (92% of children with 3 or more severe areas at baseline). Fifteen children (22%) had more areas rated severe (see Figure 2).

How to read Table 5: The number of children in the gray-shaded cells had no change in their level of impairment from baseline to 12 months. The numbers above the gray-shaded cells indicate the number of children whose functioning worsened from baseline to 12 months. The numbers below the gray-shaded cells indicate the number of children who experienced improved functioning from baseline to 12 months.

**Table 5. Change in Functioning as Measured by Level of Overall CAFAS Score, Baseline – 12 Months**

Impairment at Enrollment	Change in Impairment at 12 Months					Total at Enrollment
	Minimal-None ↓	Mild ↓	Moderate ↓	Marked ↓	Severe ↓	
Minimal or None →	0	0	0	0	0	0
Mild →	0	1	1	2	0	4
Moderate →	1	3	13	6	2	25
Marked →	0	1	14	7	3	25
Severe →	0	1	5	4	3	13
<b>Total at 12 Months →</b>	<b>1</b>	<b>6</b>	<b>33</b>	<b>19</b>	<b>8</b>	<b>67</b>

**Figure 2. Change in Children's Functioning as Measured by the Number of CAFAS Areas Rated "Severe," Baseline - 12 Months\***



\*Based on the 67 children with baseline and 12 month CAFAS

As Table 6 shows, 18 children had more areas rated severe at 12 months than at the time they were enrolled in F.A.C.T. 34 had fewer areas rated severe. Fewer children had 3 or more areas rated severe after one year in the project (25 had 3 or more at enrollment; 16 had 3 or more at 12 months).

How to read Table 6: The number of children in the gray-shaded cells had no change in the number of CAFAS domains that were rated severe from baseline to 12 months. The numbers above the gray-shaded cells are the number of children who had more domains with severe ratings at 12 months than at baseline (indicating a decrease in functioning). The numbers below the gray-shaded cells are the number of children who had fewer domains with severe ratings at 12 months than at baseline (indicating improved functioning).

**Table 6. Change in # of CAFAS Scales Rated "Severe," Baseline – 12 Months**

# of Scales Rated Severe at Enrollment	# of Scales Rated Severe at 12 Months							Total # of Children ↓
	0 ↓	1 ↓	2 ↓	3 ↓	4 ↓	5 ↓	6 ↓	
0 →	3	5	0	1	1	0	0	10
1 →	4	5	2	2	0	0	0	13
2 →	2	5	6	3	3	0	0	19
3 →	4	7	2	1	0	1	0	15
4 →	0	3	1	3	0	0	0	7
5 →	0	1	1	0	0	0	0	2
6 →	0	0	0	0	1	0	0	1
Total # of Children →	13	26	12	10	5	1	0	67



Looking at changes in the number of children with severe or moderate ratings from baseline to 12 months for the specific CAFAS domains, we find:

- In the School Domain, 57 children (85%) had severe or moderate ratings at enrollment. Six of these were doing better (with ratings of mild or minimal/none) one year later. Note that children with IEPs or other special educational plans are rated as having “moderate” problems with functioning in the School Domain. Any child who cannot be maintained in a special or regular classroom without intensive support services receives a “severe” rating.
- In the Home Domain, 54 children (81%) had severe or moderate ratings at enrollment. 17 of these were doing better one year later.
- In the Behavior with Others Domain, 53 children (79%) had severe or moderate ratings at enrollment. 25 of these were doing better one year later.
- In the Moods and Emotions Domain, 36 children (54%) had severe or moderate ratings at enrollment. 18 were doing better one year later.
- In the Behavior in the Community Domain, 24 children (36%) had severe or moderate ratings at enrollment. 7 of these were doing better one year later.
- In the Self Harmful Behavior Domain, 11 children (16%) had severe or moderate ratings at enrollment. 8 were doing better one year later.
- In the Substance Abuse Domain, 3 children (4%) had severe or moderate ratings at enrollment. Only one was doing better one year later.
- In the Thinking/Communication Domain, 10 children (15%) had severe or moderate ratings at enrollment. 9 were doing better one year later.

#### **Interpreting F.A.C.T. Children’s CAFAS Results in the School Domain**

All F.A.C.T. children are involved with special education services and are likely to have long-term involvement. Because CAFAS ratings on the School domain are determined in part by the school services a child receives and/or the nature of the school setting, F.A.C.T. children are likely to be rated with significant impairment in the School domain at the time of entry into the project and at subsequent data collection points. In other words, CAFAS ratings are not a very sensitive measure of a child’s improved functioning in school.

#### **What do we know about children with different outcomes?**

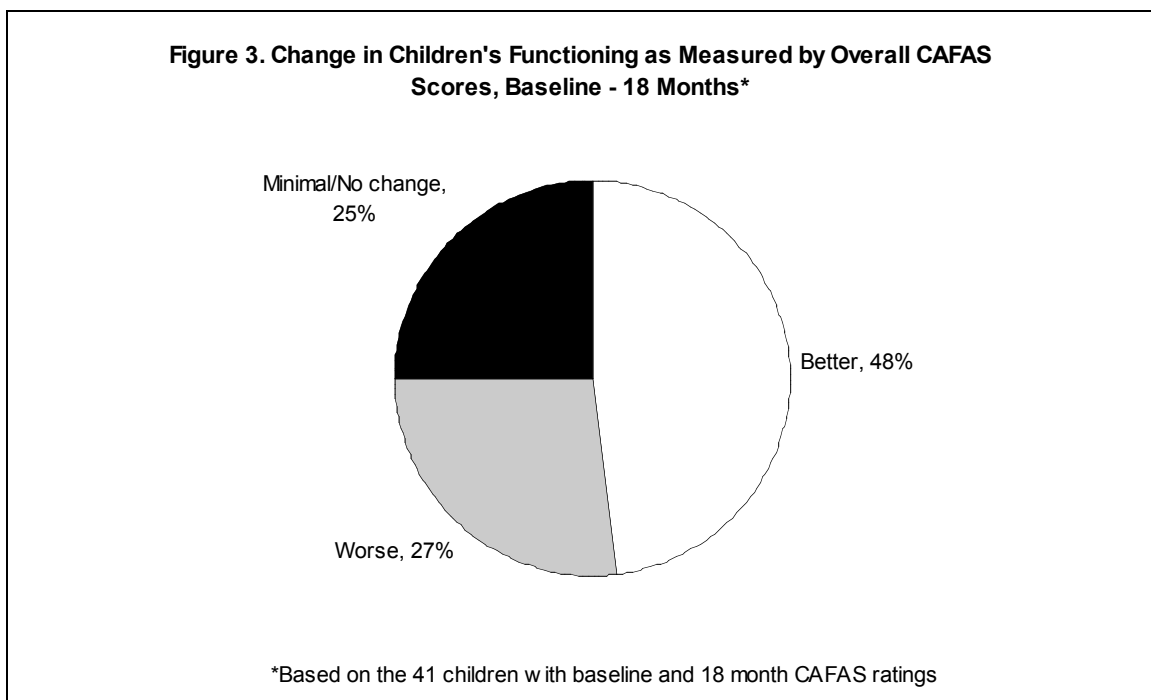
To compare children who improve with children who get worse, the evaluation looked at the biggest group of children with CAFAS data, the 67 children with baseline and 12 month CAFAS ratings. This comparison was not done for the other two CAFAS groups. In the 12 month group, 37 children were doing better at 12 months, 14 showed no change, and 16 were doing worse. The children who were doing worse had a distinctly different clinical picture at enrollment than the children who were doing better. Notably:

- The children who were doing worse were about a year older at enrollment than children who were doing better or the same (13 years compared to 12 years).
- The children who were doing worse had a rate of being in state custody that was almost 3 times as high as for children who were doing better.
- A greater proportion of children who got worse had involvement with the legal system (56%) compared to children who got better or stayed the same (32% and 29% respectively).

- Children who got worse had a higher number of child and family risk factors on average than children who got better or stayed the same. A greater proportion of those who got worse experienced physical and/or sexual abuse and had run away without a caregiver knowing their whereabouts. A slightly higher proportion of children who got worse had attempted suicide or abused illegal substances.
- Children who got worse had higher proportions of oppositional or conduct disorders and impulse control disorders than kids who get better. There was not much difference between children with respect to other diagnoses.

### **Detailed Results: Comparison of Functioning at Baseline and 18 Months**

Forty-one children had CAFAS ratings completed at or around enrollment and at or around 18 months after enrollment. This group is similar to the average F.A.C.T. child in their age at enrollment, gender and race/ethnicity characteristics. As shown in Figure 3, 48% of these children were doing better after 1½ years of enrollment and 27% were doing worse. 25% showed no clinically significant change. Among the 23 children most impaired at enrollment (total scores above 100), the proportion doing better at 18 months was even greater (65%).



As shown in Table 7, the more conservative measure of change in children's functioning (change in the overall level of impairment) showed slightly less improvement and slightly less deterioration. Table 7 shows that only 17 children (41%) improved their level of functioning. Thirteen of those children moved from Marked or Severe ratings of their overall functioning at enrollment to improved levels of functioning within 18 months. Six children (15%) experienced a decrease in their level of functioning.

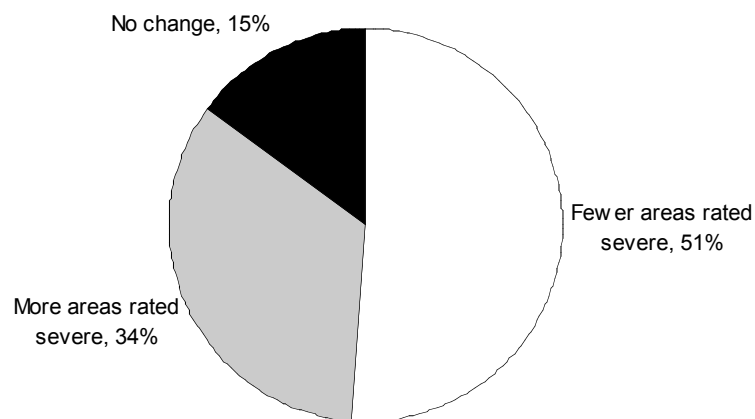
**How to read Table 7:** The number of children in the gray-shaded cells had no change in their level of impairment from baseline to 18 months. The numbers above the gray-shaded cells indicate the number of children whose functioning worsened from baseline to 18 months. The numbers below the gray-shaded cells indicate the number of children who experienced improved functioning from baseline to 18 months.

**Table 7. Change in Functioning as Measured by Level of Overall CAFAS Score, Baseline – 18 Months**

Impairment at Enrollment	Change in Impairment at 18 Months					Total at Enrollment
	Minimal-None ↓	Mild ↓	Moderate ↓	Marked ↓	Severe ↓	
Minimal or None →	0	0	0	0	0	0
Mild →	0	2	1	0	0	3
Moderate →	0	2	8	5	0	15
Marked →	0	2	7	6	1	16
Severe →	0	0	6	0	1	7
<b>Total at 18 Months →</b>	<b>0</b>	<b>6</b>	<b>22</b>	<b>11</b>	<b>2</b>	<b>41</b>

Figure 4 shows that 51% of the 41 F.A.C.T. children for whom there were CAFAS ratings at baseline and 18 months had fewer areas rated “severe” after 1½ years in the program (75% for children with three or more areas at baseline). A little more than 1/3 had more areas rated severe.

**Figure 4. Change in Children's Functioning as Measured by the Number of CAFAS Areas Rated "Severe," Baseline - 18 Months\***



\*Based on the 41 children with baseline and 18 month CAFAS ratings

As Table 8 shows, 14 children had more areas rated severe at 18 months than at the time they were enrolled in F.A.C.T. Twenty-one had fewer areas rated severe. Fewer children had 3 or more areas rated severe after 1 ½ years in F.A.C.T. (15 at enrollment, 9 at 18 months).

How to read Table 8: The number of children in the gray-shaded cells had no change in the number of CAFAS domains that were rated severe from baseline to 18 months. The numbers above the gray-shaded cells are the number of children who had more domains with severe ratings at 18 months than at baseline (indicating a decrease in functioning). The numbers below the gray-shaded cells are the number of children who had fewer domains with severe ratings at 18 months than at baseline (indicating improved functioning).

**Table 8. Change in # of CAFAS Scales Rated “Severe,” Baseline – 18 Months**

# of Scales Rated Severe at Enrollment	# of Scales Rated Severe at 18 Months						Total # of Children ↓
	0 ↓	1 ↓	2 ↓	3 ↓	4 ↓	5 ↓	
0 →	2	4	0	0	0	0	6
1 →	4	0	3	1	0	0	8
2 →	0	5	2	4	1	0	12
3 →	2	3	2	1	1	0	9
4 →	1	2	1	0	1	0	5
5 →	0	1	0	0	0	0	1
<b>Total # of Children →</b>	<b>9</b>	<b>15</b>	<b>8</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>41</b>

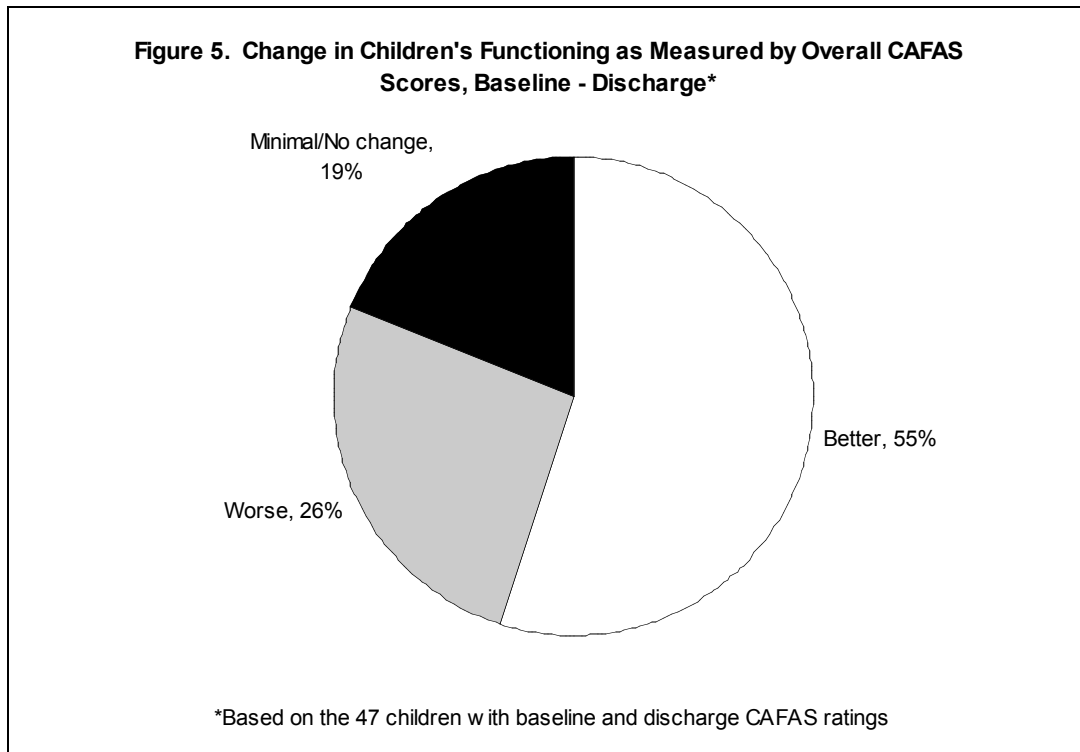
Looking at changes in the number of children with severe or moderate ratings from baseline to 18 months for the specific CAFAS domains, we find:

- In the School Domain, 33 children (80%) had severe or moderate ratings at enrollment. 2 of these were doing better (with ratings of mild or minimal/none) 1 ½ years later.
- In the Home Domain, 33 children (80%) had severe or moderate ratings at enrollment. 13 of these were doing better 1 ½ years later.
- In the Behavior with Others Domain, 30 children (73%) had severe or moderate ratings at enrollment. 19 of these were doing better 1 ½ years later.
- In the Moods and Emotions Domain, 21 children (51%) had severe or moderate ratings at enrollment. 15 were doing better one 1 ½ years later.
- In the Behavior in the Community Domain, 14 children (34%) had severe or moderate ratings at enrollment. 7 of these were doing better 1 ½ years later.
- In the Self Harmful Behavior Domain, 5 children (12%) had severe or moderate ratings at enrollment. All 5 children were doing better 1 ½ years later.
- In the Substance Abuse Domain, 1 child (2%) had a severe or moderate rating at enrollment. This child still had a severe or moderate rating 1 ½ years later.
- In the Thinking/Communication Domain, 6 children (15%) had severe or moderate ratings at enrollment. All 6 children were doing better 1 ½ years later.

### **Detailed Results: Comparison of Children's Functioning at Baseline and Discharge**

Forty-seven children had CAFAS assessments when they first enrolled in F.A.C.T. and when they were discharged from F.A.C.T. This group is similar to the average F.A.C.T. child in their age at enrollment, gender and race/ethnicity characteristics.

Figure 5 shows that 55% of the 47 F.A.C.T. children for whom there were CAFAS ratings at baseline and discharge had clinically significant positive change in their overall CAFAS scores when they were discharged. 19% showed no change, and 26% were doing worse. Among the 26 children most impaired at enrollment (total scores above 100), the proportion doing better at 12 months was even greater (76%).



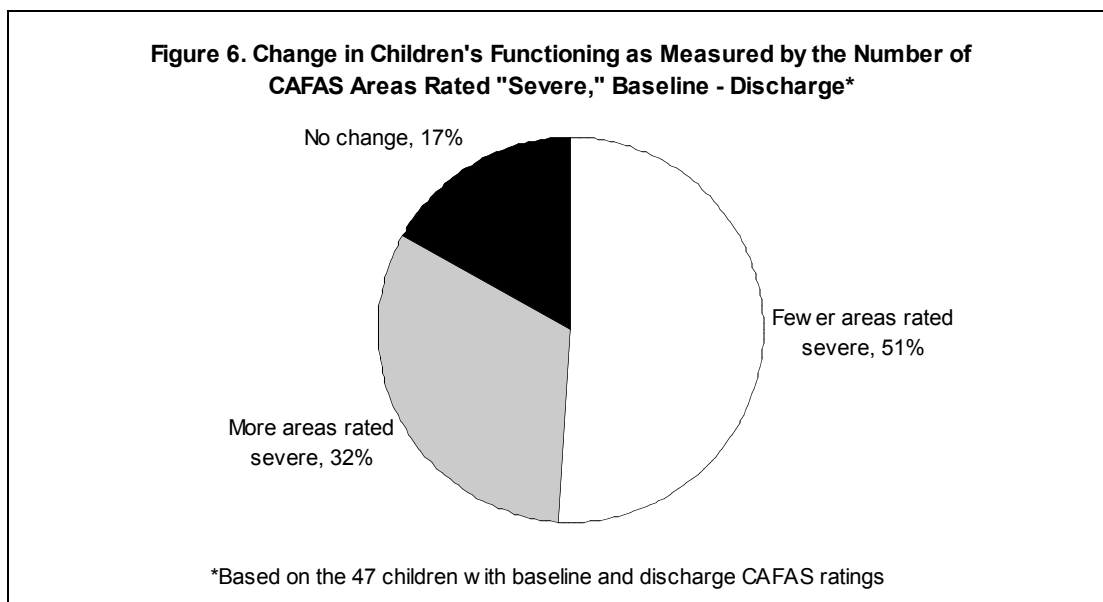
As shown in Table 9, children's change in the overall level of impairment was slightly different than their change in total score. A smaller percentage (47% or 22 children) showed improved functioning, and a smaller percentage (17% or 8 children) experienced a decrease in functioning. 17 of the 22 children showing improved functioning had either Marked or Severe ratings of their overall impairment at enrollment.

**How to read Table 9:** The number of children in the gray-shaded cells had no change in their level of impairment from baseline to discharge. The numbers above the gray-shaded cells indicate the number of children who experienced a decrease in functioning from baseline to discharge. The numbers below the gray-shaded cells indicate the number of children who experienced improved functioning from baseline to discharge.

**Table 9. Change in Functioning as Measured by Level of Overall CAFAS Score, Baseline – Discharge**

Impairment at Enrollment	Change in Impairment at Discharge					Total at Enrollment
	Minimal-None ↓	Mild ↓	Moderate ↓	Marked ↓	Severe ↓	
Minimal or None →	0	0	0	0	0	0
Mild →	0	3	0	0	1	4
Moderate →	1	4	8	4	1	18
Marked →	0	5	7	3	2	17
Severe →	1	0	3	1	3	8
Total at Discharge →	2	12	18	8	7	47

Figure 6 shows that 51% of the 47 F.A.C.T. children with baseline and discharge CAFAS ratings had fewer problem areas rated severe at discharge than at baseline (76% for children with three or more severe areas at baseline). Thirty-two percent had more problem areas rated severe.



As shown in Table 10, 15 children had more areas rated severe at discharge than at the time they were enrolled in F.A.C.T. Twenty-four had fewer areas rated severe. Fewer children had 3 or more areas rated severe at discharge than at enrollment (14 at enrollment, 11 at discharge).

How to read Table 10: The number of children in the gray-shaded cells had no change in the number of CAFAS domains that were rated severe from baseline to discharge. The numbers above the gray-shaded cells are the number of children who had more domains with severe ratings at discharge than at baseline (indicating a decrease in functioning). The numbers below the gray-shaded cells are the number of children who had fewer domains with severe ratings at discharge than at baseline (indicating improved functioning).

**Table 10. Change in # of CAFAS Scales Rated “Severe,” Baseline – Discharge**

# of Scales Rated Severe at Enrollment	# of Scales Rated Severe at Discharge							Total # of Children ↓
	0 ↓	1 ↓	2 ↓	3 ↓	4 ↓	5 ↓	6 ↓	
<b>0 →</b>	4	3	0	1	0	0	0	<b>8</b>
<b>1 →</b>	3	2	2	2	0	0	0	<b>9</b>
<b>2 →</b>	5	5	2	4	0	0	0	<b>16</b>
<b>3 →</b>	2	4	0	0	0	2	0	<b>8</b>
<b>4 →</b>	0	2	0	0	0	1	0	<b>3</b>
<b>5 →</b>	1	0	1	0	0	0	0	<b>2</b>
<b>6 →</b>	0	0	0	0	1	0	0	<b>1</b>
<b>Total # of Children →</b>	<b>15</b>	<b>16</b>	<b>5</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>47</b>

Looking at changes in the number of children with severe or moderate ratings from baseline to discharge, by CAFAS scale, we find:

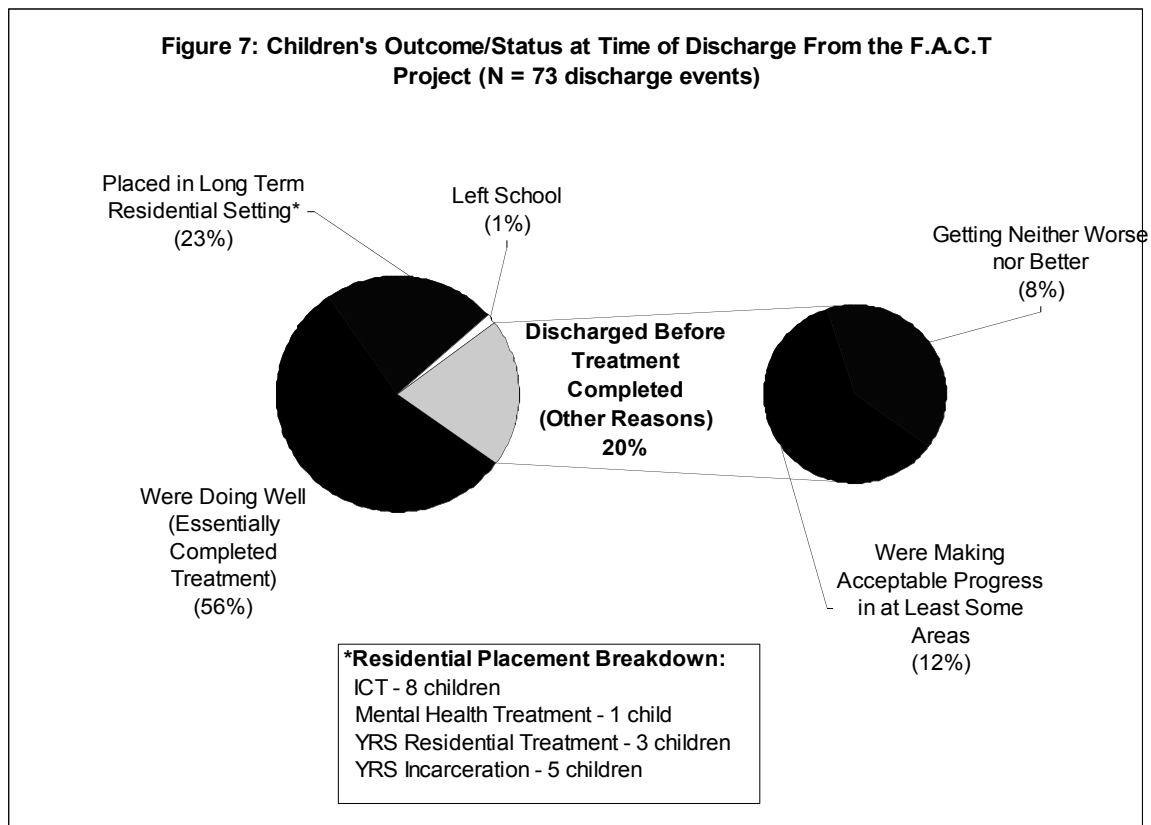
- In the School Domain, 38 children (81%) had severe or moderate ratings at enrollment. Seven of these were doing better (with ratings of mild or minimal/none) at the time of their discharge from F.A.C.T.
- In the Home Domain, 37 children (79%) had severe or moderate ratings at enrollment. 22 of these were doing better at the time of their discharge from F.A.C.T.
- In the Behavior with Others Domain, 34 children (72%) had severe or moderate ratings at enrollment. 21 of these were doing better at discharge.
- In the Moods and Emotions Domain, 23 children (49%) had severe or moderate ratings at enrollment. 15 were doing better at discharge.
- In the Behavior in the Community Domain, 19 children (40%) had severe or moderate ratings at enrollment. 9 of these were doing better at discharge.
- In the Self Harmful Behavior Domain, 6 children (13%) had a severe or moderate rating at enrollment. 4 of these were doing better at discharge.
- In the Substance Abuse Domain, 2 children (4%) had a severe or moderate rating at enrollment. Both of these children still had a severe or moderate rating at discharge.
- In the Thinking/Communication Domain, 10 children (21%) had a severe or moderate rating at enrollment. 9 of these were doing better at discharge.

## Children's Status at Discharge from F.A.C.T.

In early June of 2005, a review was conducted of children who had been discharged from F.A.C.T. up to that time. The review covered a total of 71 children and 73 discharge events (2 children had enrolled and been discharged twice) and involved an interview with the project's clinical director about these cases. The focus was on making clinical judgments about the progress these children had made by the time they were discharged from the F.A.C.T. Project. There were three basic outcome categories a child could be assigned to in the rating scheme:

- discharged because treatment had essentially been completed and most treatment goals had been met (successful outcome);
- discharged because a defined negative criteria was reached (i.e., went into a residential setting expected to last at least three months or the child left, was withdrawn from or dropped out of school, or was making poor progress) (unsuccessful outcome); or
- the family left the project (by choice or because of failure to meet participation requirements) or the child turned 18 and aged out of the program (premature discharge).

Results indicate that more than half of the children had been discharged because they had essentially completed treatment (Figure 7). Just under one-fourth were discharged because they had been placed in a long term bed-based setting (almost half of these in a juvenile justice setting). About one-fifth were discharged prematurely, but almost two-thirds of these children were making acceptable progress on at least some of their treatment goals at the time of discharge.





These findings are fairly consistent with those from the analyses of the discharge CAFAS data, with respect to the percentage of children showing improvement. Considered together, these findings suggest that there is a large group of children that clearly progress through the project to the point that they no longer need the intensive support provided by F.A.C.T. It is also clear that there is a smaller group of children on whom the project has not been able to make a significant impact. Children in this group either needed a more intensive bed-based placement or committed a legal offense resulting in detention or incarceration. There is also a third group of children who appear to be making at least some progress, but for a variety of reasons departed the program prematurely.

The fact that some children have unsuccessful outcomes should not necessarily be taken to mean that there are some children who will not benefit from an intensive intervention model such as that used by the F.A.C.T. Project. Rather, it may be the case that children with undesirable discharge outcomes (particularly those with juvenile justice involvement) may need a more intensive intervention perhaps focused on a broader or different variety of treatment goals or perhaps additional intervention options (e.g., for older children with a history of juvenile offenses, interventions specific to conduct disorder or antisocial personality disorder).

## **Local Data on Behavioral Issues and Strengths**

In the fall of 2004, the F.A.C.T. Project, in response to caregiver input, adopted two caregiver report measures of behavioral issues and strengths. The two measures, administered through interviews by the project's clinical team every three months to all children active in the project, were the Ohio Youth Problem, Functioning, and Satisfaction Scales (Ohio Scales) - Parent Form and the Behavioral and Emotional Rating Scale-II (BERS).

The Ohio Scales contains 20 items that assess a variety of problematic behaviors (e.g., getting into fights, using drugs or alcohol, lying, talking about death) on a 6-point Likert scale (0 = 'not at all' a problem through 5 = a problem 'all of the time'). An additional 20 items are designed to assess aspects of functioning in different life areas (e.g., getting along with family, being motivated, accepting responsibility for actions, ability to express feelings) on a 5-point Likert scale (0 = 'extreme troubles' through 4 = 'doing very well'). The Ohio Scales also contains an additional four questions that assess caregiver hopefulness and stress, but those results are not presented here.

The Ohio Scales generates three scale scores, all of which involve simply summing the items each scale is comprised of. The Problem scale ranges from 0 to 100, with higher scores equaling higher levels of problems. Scores below 25 are considered to be at a non-problematic level. The Functioning Scale ranges from 0 to 80, with higher scores equating to better functioning. Scores above 50 are considered to be in the 'normal' range of functioning.

The BERS contains 52 items that measure a variety of behavioral and emotional strengths children may have (e.g., sharing with others, interacting positively with others). Each item is rated on a 4 point Likert scale (0 = 'not at all like the child' through 3 = 'very much like the child'). The BERS provides standardized scores for five different types of strengths and an overall strength score (more detail about the BERS is presented on page 30 of this report). To try to better understand strengths among children in the project, the BERS analyses focused on the five subscales:

- Interpersonal Strength – the ability to control emotions or behavior in social situations.
- Family Involvement – participation in and relationship with the family.
- Intrapersonal Strength – the child's broad outlook about his/her competence and accomplishments.
- School Functioning – competence in school and classroom tasks.
- Affective Strength – the ability to accept affection and express feelings toward others.

The analyses of the BERS and Ohio Scales data focused on children with data at two time points to maximize the number of children included. The actual interval between Time 1 and Time 2 varied from 3-6 months. Sample sizes were 46 for the BERS and 44 to 46 for the Ohio Scales.

To examine change for the Ohio Scales and BERS, two approaches were used. First the mean scores at Time 1 and Time 2 were examined, using paired samples T-tests, for the respective subscales of each instrument to determine whether statistically significant change in the means had occurred. The second approach focused on examining reliable and clinically significant change in individual scales scores. The latter approach focused on visually examining the data to determine how many children showed reliable improvement or deterioration (i.e., the difference in the two scores was large enough that there was a low likelihood it was the result of measurement error) and how many showed clinically significant improvement (i.e. had reliable improvement and the time 2 score was in the non-problematic range). The determination of reliable change was complete for both instruments. Examination of clinically significant change was not conducted for the BERS, as no critical cut-points are used. Instead, Time 2 scores were compared to the Average range to provide a frame of reference for examining relative change.

## Ohio Scales Results

Examination of the Problem Scales scores indicated that more than four times as many children improved as got worse at Time 2 (Table 11), although more than half of children showed only small changes. The majority of those who improved (59%) showed clinically significant improvement (i.e., scores were below 25). The statistically significant improvement in the mean score at Time 2 (means = 33.9 [T1] and 28.4 [T2];  $t=2.33$ ,  $df=45$ ,  $p=.024$ ) reflected the improvements seen in individual scores.

Scores on the Functioning Scale at Time 2 were more equally spread between improvement and deterioration (Table 11). Half of the children who improved showed clinically significant change (i.e., Time 2 scores above 50). The largest proportion of children, however, made only small changes. Differences in the mean scores were not statistically significant (means = 39.8 [T1] and 41.3 [T2];  $t = -.684$ ,  $df=43$ ,  $p=.498$ ).

**Table 11. Change from Time 1 to Time 2 for the Ohio Scales Problem and Functioning Scales**

<b>Number of Children Showing:</b>	<b>Problem Scale* (N=46)</b>	<b>Functioning Scale** (N=44)</b>
No Reliable Change	25 (54.3%)	19 (43.2%)
Reliable Deterioration	4 (8.7%)	11 (25%)
Reliable, but not clinically significant, Improvement	7 (15.2%)	7 (15.9%)
Reliable and Clinically Significant Improvement	10 (21.7%)	7 (15.9%)

\*The range of scores for the problem scale is 0-100. The cut point for determining clinically significant change is 25. Difference between Time 1 & 2 scores for the change on this scale to be considered reliable is 10 or more points, and if the score is also 25 or below, the change is clinically significant.

\*\*The range of scores for the functioning scale is 0-80. The cut point for determining clinically significant change is 50. Difference between Time 1 & 2 scores for the change on the scale to be considered reliable is 8 or more points, and if the score is also 50 or below, the change is clinically significant.

## BERS Results

For two of the five BERS subscales (Interpersonal and School Functioning), substantially more children were rated as improved than worse off at Time 2. The remaining scales had roughly equal numbers of children rated worse off or better at Time 2. A substantial portion of children on each showed little change between time points.

Since the BERS does not provide a single cut-point for determining 'normal' versus deficient levels of strengths, examining scale scores with respect to the average range (scores of between 8 and 12) is another way of exploring change. For all but one scale (School Functioning), far more children had scale scores at Time 2 which were above average than below average (Table 12), compared to other children with behavioral and emotional problems. However, at least half of the children on each scale fell into the average range.

**Table 12. Change from Time 1 to Time 2 for the BERS Subscales**

	Interpersonal	Family Involvement	Intrapersonal	School Functioning	Affective Strength
Reliable Deterioration*	13 (28.3%)	11 (23.9%)	11 (23.9%)	10 (21.7%)	11 (23.9%)
Unreliable Change	10 (21.7%)	25 (54.4%)	21 (45.7%)	17 (37%)	22 (47.8%)
Reliable Improvement	23 (50%)	10 (21.7%)	14 (30.4%)	19 (41.3%)	13 (28.3%)
<b>Score At Time 2</b>					
Below Average	6 (13%)	4 (8.7%)	6 (13%)	6 (13%)	5 (10.9%)
In Average Range	28 (60.8%)	23 (50%)	24 (52.2%)	32 (69.6%)	25 (54.4%)
Above Average	12 (26.1%)	19 (41.3%)	16 (34.8%)	8 (17.4%)	16 (34.8%)

\*The differences between Time 1 & 2 scores for the change on these scales to be considered reliable varied between .8 and 1.2 points.

Average scores on the five BERS subscales were fairly similar at both time points (Table 13). As a result, a statistically significant difference was found for only one subscale (School Functioning\*).

**Table 13. BERS Scales Means and T-Test for Children with BERS at 2 Time Points (N=46)**

	Time 1	Time 2	T-test Information
Interpersonal	10.0	10.9	T=-1.22, p=.228
Family Involvement	11.6	11.7	T=-.418, p=.678
Intrapersonal	10.8	11.0	T=-.639, p=.526
School Functioning	9.2	10.9	T=-2.12, p=.039*
Affective Strength	11.6	11.6	T=-.089, p=.93

### **Bottom Line**

For more than one-third of the 46 children studied, problem behaviors, as measured by the Ohio Scales, showed at least some level of improvement at Time 2 (more than 20% improved to a clinically significant level).

The picture regarding functioning and strengths was more mixed. The proportions of children getting better or worse on the Ohio Scales and BERS at Time 2 were much closer (with the exception of the Interpersonal and School Functioning BERS subscales, where about twice as many children made gains).

With the exception of some strength scores, more children had problem, functioning, or strength scores that showed little change at Time 2, than did those who showed marked improvement or worsening. This is not unexpected, given the nature of the children in the project, that the sample included a mix of newer admissions and children who had been with the project for a while, and that strengths and functioning generally are slower to show improvements. Data from the Ohio Scales and the BERS continue to be collected by the project to determine what length of stay in the program is associated with improvement in functioning.

## **School Performance and Behavior**

Given the unsuccessful attempts to secure data on education variables from F.A.C.T. children's schools, several data sources were examined in an attempt to understand school performance and behavior among F.A.C.T. participants. The nature of the various sources of data, number of children covered by each source, and the variability in overlap among children covered by the different sources precluded a comprehensive examination of any education-related variable (see the Introduction to this compendium for a detailed discussion of issues related to collecting educational data).

As a result of these varying issues, this section presents findings separately for each data source. The presentations are grouped together for each main issue investigated (i.e., attendance, disciplinary actions, and school performance). However, caution should be exercised when examining the findings in this section. Given the issues discussed in the first paragraph, conclusions that can be made about the data are extremely limited.

Regarding the data collected directly from the schools. Because of the high degree of variability in the amount of information provided by the schools on each variable, the results described below include only information for which data were available from at least nine participants. In addition, while the intent was to look at this data longitudinally, the sparse response rate prohibited this type of analysis. Note that the data from schools is presented as distinct groups that may only have minimal overlap between years. Therefore, when reviewing the data tables, comparisons should not be made between different year groups.

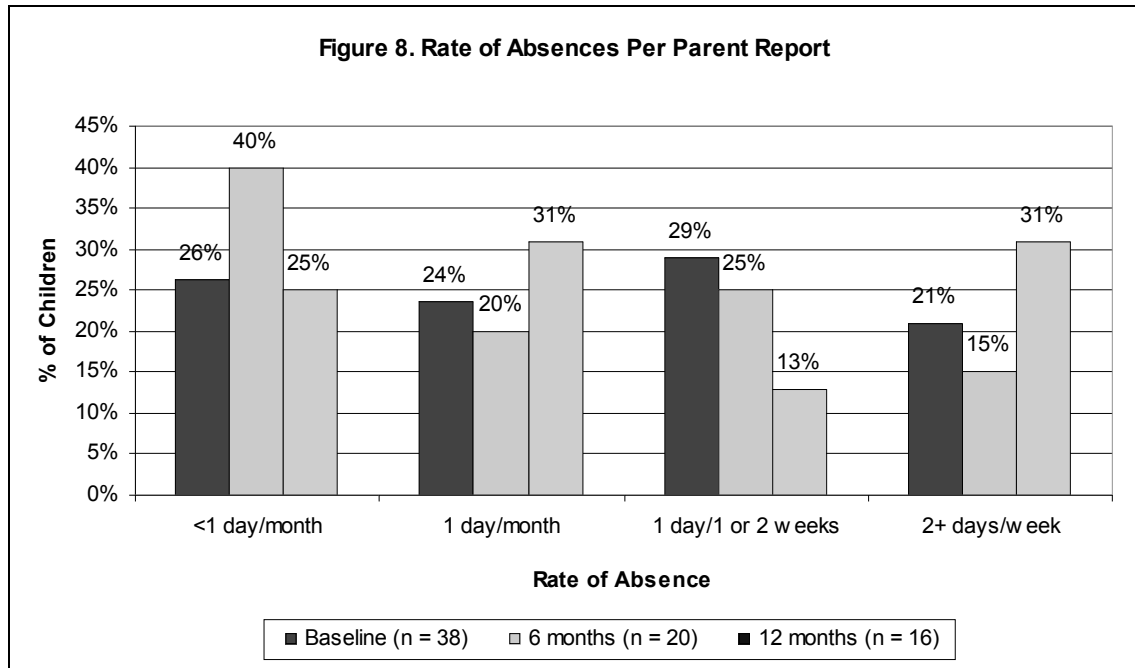
### **Attendance**

**Ohio Scales** – The Ohio Scales (OS) includes a question about the extent to which skipping school or classes is a problem. The caregiver report data for the 46 children who had a first and second OS completed indicate that most children at each time point (87% and 85%, respectively) did not skip school in the 30 days prior to each administration.

**Local BERS** – The Behavioral and Emotional Rating Scale (BERS) includes one question asking about children's regular attendance at school. Caregiver reports for the 46 children who had a first and second local BERS completed indicate that few children had attendance problems in the prior 90 days at either time period (24% and 17% respectively).

**Educational Questionnaire** – The Educational Questionnaire (EQ) from the national evaluation asks caregivers to quantify the number of absences over the six months prior to the interview. At baseline, 6, and 12 months between 50% and 60% of caregivers reported that their child was absent from school no more than once a month (see Figure 8).

**Data from Schools** – The limited data available from the school collection approach indicated that most children in all three time groups were absent less than 20 days in the respective school years for each group. The Year 2 group had a greater proportion of children with total absences in excess of 20 days (see Table 14).



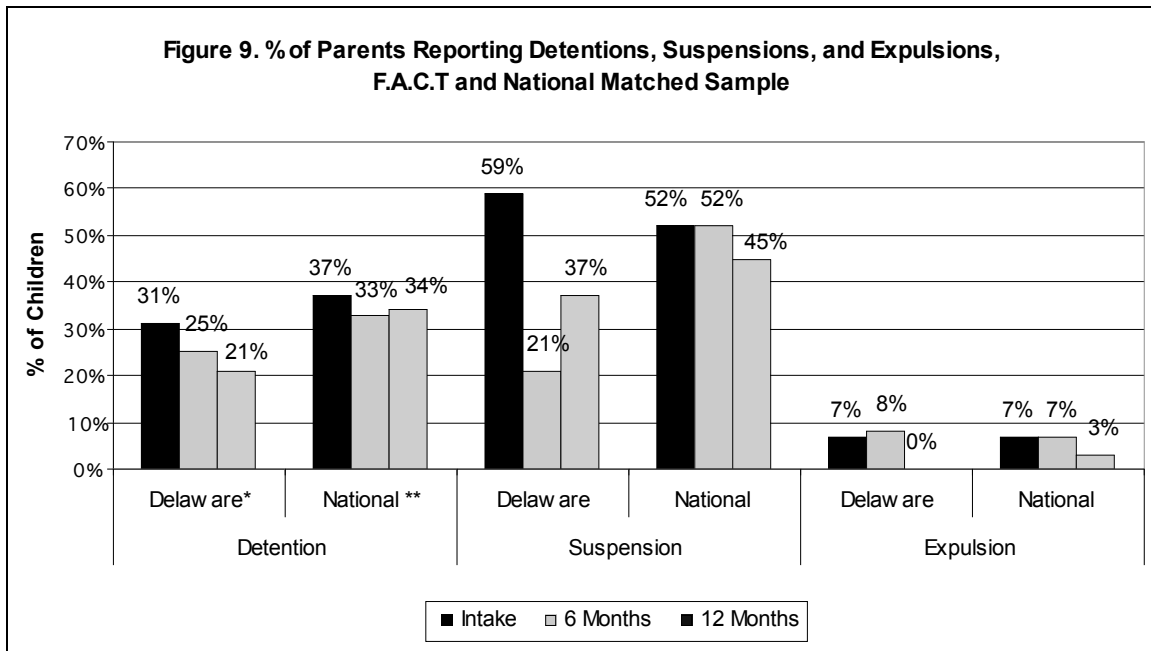
**Table 14: Number of Days Absent from School, Baseline Group, Year 1 Group, Year 2 Group**

Time Period	Sample size	0 – 10 Days	11 – 20 Days	21 – 40 Days	41+ Days
Baseline	14	9	2	2	1
Year 1	15	5	5	4	1
Year 2	11	3	3	5	0

### Disciplinary Actions

**Educational Questionnaire** – The Educational Questionnaire (EQ) also asks about suspensions, detentions, and expulsions (see Figure 9). These data indicate that the proportion of children receiving suspensions were substantially lower at the follow-up periods compared to 59% at baseline. Smaller decreases were evident in detentions from the 31% baseline level. At both follow up points (6 months and 12 months), F.A.C.T. had smaller proportions of children with detention or suspensions than the national matched sample. Very few children at all time points were reported by their caregivers to have been expelled from school.

**Data from Schools** – The majority of students in each time group received fewer than two days of in school suspension in the respective school years (see Table 15). A similar pattern exists for out-of-school suspensions, with the exception of the Year 2 group. Most children in this group received three or more days of out-of-school suspension in that study year (see Table 16). Finally, few children received home-bound instruction, the special education alternative to expulsion, in the two years for which sufficient data were available (Table 17).



\*Delaware sample size for: Intake (n=41), 6 Months (n=24), 12 Months (n=19)

\*\*National sample size for: Detention (n=149), Suspension (n=159), Expulsion (n=155)

**Table 15: Number of Days of in In-School Suspension, Baseline Group, Year 1 Group, Year 2 Group**

Time Period	Sample size	0 Days	1 - 2 Days	3 – 5 Days	6+ Days
Baseline	13	9	1	1	2
Year 1	11	6	2	2	1
Year 2	9	4	2	2	1

**Table 16: Number of Days of in Out-of-School Suspension, Baseline Group, Year 1 Group, Year 2 Group**

Time Period	Sample size	0 Days	1 - 2 Days	3 – 5 Days	6+ Days
Baseline	9	8	1	0	0
Year 1	12	6	2	3	1
Year 2	9	3	0	3	3

**Table 17: Number of Days of Home Based Instruction, Baseline Group and Year 1 Group**

Time Period	Sample size	0 Days	1 - 30 Days	31 – 60 Days	61+ Days
Baseline	12	10	1	1	0
Year 1	16	12	2	1	1

## Performance

**Local BERS** – The Behavioral and Emotional Rating Scale (BERS) includes two questions about math and reading grade levels. The BERS also asks four questions about school-related tasks which are necessary but not sufficient components of academic success – completing tasks on time, competing homework regularly, paying attention in class, and studying for tests.

When asked about whether their children are completing math problems at or above grade level, the responses of most caregivers at each time point (76% and 72%) indicated there were significant issues in this area. A similar question about reading levels had the same pattern of results, with most caregivers indicating significant concerns (78% and 73% respectively). It is important to note that a significant number of children served by the F.A.C.T. Project have identified cognitive and/or learning disabilities.

Review of the school task data indicates that the most problematic areas were studying for tests (87% and 80%), completing homework regularly (67% and 54%), and completing tasks on time (54% and 61%). The school task perhaps most likely to respond to psychological/pharmacological intervention, paying attention in class, showed some improvement, with fewer caregivers reporting significant issues at time 2 (50% and 39%).

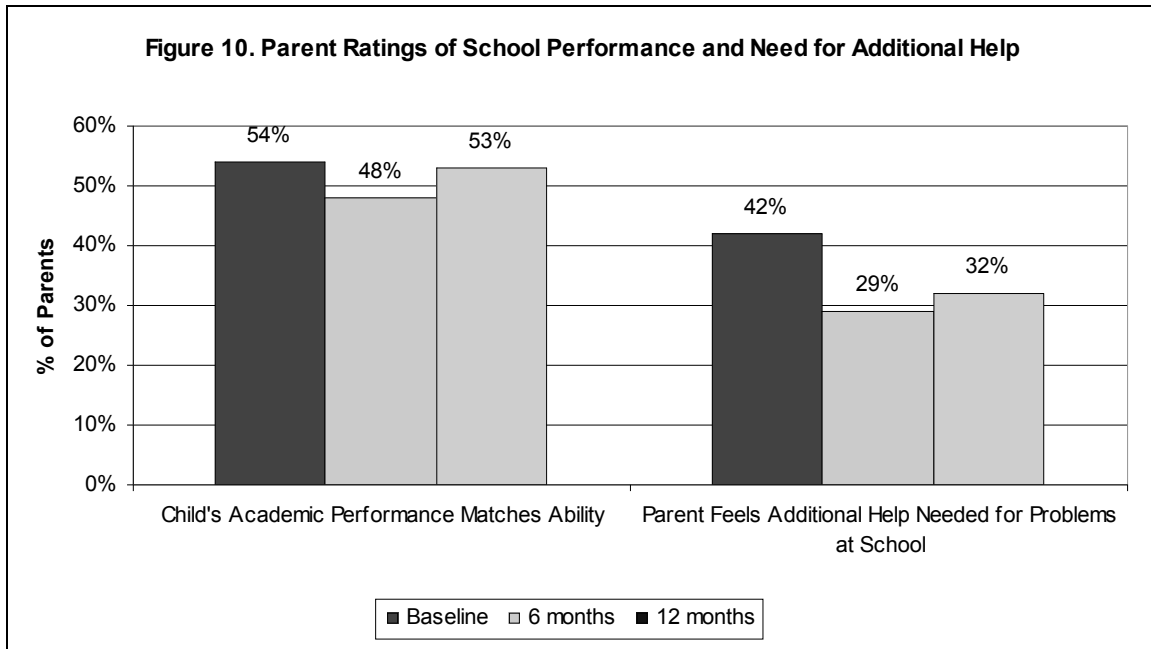
**Ohio Scales** – The OS also asks about whether a child is attending school *and* getting passing grades while doing so. Most of the 46 caregivers responding at baseline and follow-up reported that their children were doing “OK” or better in this area in the past 30 days (60% and 57%). Around one-quarter of children at each time point (27% at time 1 and 20% at time 2) were reported to have significant problems with respect to academic performance. A lot of variability was evident from time 1 to time 2, with 39% of caregivers reporting at least somewhat more problems at time 2 and 30% reporting fewer problems.

**Educational Questionnaire** – The Educational Questionnaire (EQ) also asks about academic performance. At all three time points, most caregivers reported that their children had an average academic performance of “C” or “B” (Table 18). At all three time points, around half of caregivers felt that their child’s academic performance matches the child’s ability (Figure 10). At the follow up points, a smaller proportion of parents than at baseline felt that additional help was needed for problems at school (Figure 10).

**Table 18. Parent Reports of Their Child’s Academic Performance**

	Baseline (n=41)	6 Months (n=24)	12 Months (n=18)
Mostly As	2	5	3
Mostly Bs	8	3	7
Mostly Cs	18	10	6
Mostly Ds	1	0	0
Failing at least half classes	1	1	0
Satisfactory	6	1	2
Needs Improvement	4	1	0
Other	1	1	0





### **The Bottom Line**

There were multiple sources of educational data, and each source was incomplete or otherwise problematic. As such, general conclusions cannot be drawn based on these sources. However, the data can be summarized according to variable and discussed by individual scale.

**Attendance** – Per the Ohio Scales, few of the 46 children studied skip school or classes. Data from the BERS indicate that most of the 46 children studied attend school regularly. Most of the children for whom data were available from the Educational Questionnaire (EQ) missed school no more than once a month. School data for the children for whom such data were provided indicated that most missed 20 or fewer days of school during each school year for which data were provided.

**Disciplinary Actions** – Data from the EQ indicated that rates of suspension from school and detention were lower at follow up periods for the children studied. School data indicated that most of the children for whom data were provided had two days or less of in-school or out-of-school suspensions in the particular years examined, and most did not experience home-bound instruction (the special education alternative to expulsion).

**Academic Performance** – Data from the EQ indicated that most children had average grades of “C” or “B” at all time points, but only about half of caregivers feel their child’s academic ability matches the child’s potential. Results of the Ohio Scales indicate more than half of children were attending school *and* getting passing grades, with about one-quarter experiencing significant problems in this area. The BERS data indicate that most of the children studied are working below grade level on math and reading. The BERS also indicates that most children have problems on school-related tasks like completing tasks on time, doing homework, and studying for tests. Some gains were reported in the extent to which the children studied were paying attention in class.

## Child Functioning Appendix

### Children's Behavioral & Emotional Status

#### Analysis Tools

The F.A.C.T. national evaluation interviews use three measures to examine behavioral strengths and challenges of the F.A.C.T. children. The Child Behavior Check List (CBCL) is a measure of problems and competencies and is completed by caregivers. The Youth Self Report (YSR) is the youth version of the CBCL and is completed through a youth interview. Both measures provide scores on a number of classes of behaviors/symptoms. Competence is broken out into Activities, Social, and School categories. Two categories of problems are assessed: Externalizing (which includes Social Problems, Attention Problems, Delinquent Behaviors, and Aggressive Behaviors) and Internalizing (which includes Withdrawn, Somatic Complaints, Anxious/Depressed, and Thought Problems). Based on the scores, children are classified as being in the normal range for a behavior class, the clinical range, which means that the behavior is at a level typically seen in children with behavioral and/or emotional problems, or the borderline clinical range between normal and clinical.

For the three Competency subscales on the CBCL, scores range from 20 to 55:

- A score less than 30 means the child is functioning in the clinical range in that area (less competence).
- A score from 30-33 means the child is functioning in the borderline range in that area.
- A score of more than 33 means the child has normal functioning in that area (more competence).

For the total competency scale on the CBCL, scores range from 10 to 80:

- A score less than 37 means the child is functioning in the clinical range in that area (less competence).
- A score from 37-40 means the child is functioning in the borderline range in that area.
- A score of more than 40 means the child has normal functioning in that area (more competence).

For the eight problem subscales on the CBCL, scores range from 50 to 100:

- A score more than 70 means the child is functioning in the clinical range in that area (more problems).
- A score from 67-70 means the child is functioning in the borderline range in that area.
- A score of less than 67 means the child is functioning in the normal range in that area (fewer problems).

For the Internalizing, Externalizing, and Total Problem scales on the CBCL, score ranges are 31-100, 30-100, and 23-100, respectively. For all three scales:

- A score more than 63 means the child is functioning in the clinical range in that area (more problems).
- A score from 60-63 means the child is functioning in the borderline range in that area.
- A score of less than 60 means the child is functioning in the normal range in that area (fewer problems).

The Behavioral and Emotional Rating Scale (BERS) measures a variety of behavioral and emotional strengths children may have (e.g., sharing with others, interacting positively with others) and is reported by caregivers as part of the F.A.C.T. national evaluation interviews. The BERS provides standardized scores for an overall strengths scale as well as for five subscales (Interpersonal Strength, Family Involvement, Intrapersonal Strength, School Functioning, and Affective Strength).

For the subscales, scores range from 1 to 17:

- A score less than 10 means the child has below average strength in the sub-area.
- A score more than 10 means the child has above average strength in the sub-area.
- A score of 10 means the child has average strength in the sub-area.

For the overall scale, scores range from 34-164:

- A score less than 90 means that the child has below average strength overall.
- A score more than 110 means that the child has above average strength overall.
- A score of 90-110 means that the child has average strength.

Our analyses were limited to those children whose families are participating in the F.A.C.T. national evaluation interviews. Table 19 shows the sample sizes for each instrument at the different time periods. Clinically significant change at an individual level was assessed using the reliable change index.

**Table 19. Typical Sample Sizes for Measures of Behavioral Strengths and Challenges**

<b>Assessment Tool</b>	<b>Intake</b>	<b>6 Months</b>	<b>12 Months</b>
CBCL	42	24	19
YSR	25	19	12
BERS	38	22	18

### Summary of Results for the National Interviews: CBCL, YRS, and BERS

Most of the caregivers in the F.A.C.T. national evaluation interviews reported that their children showed no significant change in challenging behaviors at 6 months, while 1/4 of caregivers reported that their children showed improvement in challenging behaviors (Table 20). This pattern is the same at 12 months. With respect to behavioral strengths, more than half the children studied show no significant change at 6 months, but at 12 months, 35% show improvement in this area.

**Table 20. Summary of Parent and Youth Perceptions of Competencies, Behavioral and Emotional Strengths, and Problems as Measured by National Interview Instruments**

What was assessed?	6 Month Sample Results	12 Month Sample Results
Caregiver Perceptions of Problems (CBCL)	Over 1/4 (26%) of the 23 children showed clinically significant improvement in their Total Problem scores. 13% showed clinically significant worsening.	Of the 19 children, over 1/4 (26%) showed improved overall problem levels and 11% showed worsening.
Caregiver Perceptions of Competencies (CBCL)	100% of the 14 children showed no change in total competency.	100% of the 11 children showed no change in total competency.
Youth Perceptions (YSR) *	Youth reported substantially fewer problems on average than caregivers did, with no scores in the clinical range.  Average scores at follow up were consistently lower than intake scores.	Youth reported substantially fewer problems on average than caregivers did, with no scores in the clinical range.  Average scores at follow up were consistently lower than intake scores.
Caregiver Perceptions of Behavioral and Emotional Strengths (BERS)	25% of the 20 children in the F.A.C.T. sample showed clinically significant improvements in their overall BERS Strength Score. 20% showed clinically significant worse scores.	35% of the 17 children in the F.A.C.T. sample showed improvements in their overall BERS Strength Score. 24% showed deterioration.

\*Note - marked differences between CBCL and YSR scores are not unusual. Youth in clinical populations generally tend to under-report problem behavior and over report strengths on the YSR.

## Detailed Results of the Child Behavior Checklist (CBCL) and the Youth Self Report (YSR)

As shown in Table 21, most scores for the national and F.A.C.T. samples on the 8 problem subscales reported by parents are in the clinical or borderline range, while scores reported by youth are in the normal range. Overall there is little difference between the F.A.C.T. and national samples.

**Table 21. Child Competence and Behavioral and Emotional Problems at Intake, National and F.A.C.T. Comparison**

	Caregiver Report (CBCL)*		Youth Report (YSR)**	
	Mean Range		Mean Range	
	F.A.C.T.	National	F.A.C.T.	National
<b>Competence</b>				
Activities	Normal	Normal	Normal	Normal
Social	Normal	Normal	Normal	Normal
School***	Borderline	Borderline	N/A	N/A
<b>Total Competence</b>	Clinical	Clinical	Normal	Normal
<b>Behavioral and Emotional Problems</b>				
Withdrawn	Borderline	Normal	Normal	Normal
Somatic Complaints	Normal	Normal	Normal	Normal
Anxious/Depressed	Borderline	Borderline	Normal	Normal
Social Problems	Clinical	Borderline	Normal	Normal
Thought Problems	Clinical	Borderline	Normal	Normal
Attention Problems	Clinical	Clinical	Normal	Normal
Delinquent Behaviors	Normal	Borderline	Normal	Normal
Aggressive Behaviors	Clinical	Clinical	Normal	Normal
<b>Internalizing Problems</b>	Clinical	Clinical	Normal	Normal
<b>Externalizing Problems</b>	Clinical	Clinical	Borderline	Borderline
<b>Total Problems</b>	Clinical	Clinical	Borderline	Borderline

\* F.A.C.T. sample sizes on the CBCL range from 28-42. National sample sizes range from 449-580.

\*\* F.A.C.T. sample size on the YSR is 25, except Social Competence with a sample size of 22 and Total Competence with a sample size of 19. National sample sizes range from 307-389.

\*\*\* Youth do not report their school competence.

Figure 11 shows the average scores for each of the Problem subscales at the 3 time points. Changes in scores may be a result of the decreasing sample sizes at the 6 month and 12 month interviews.

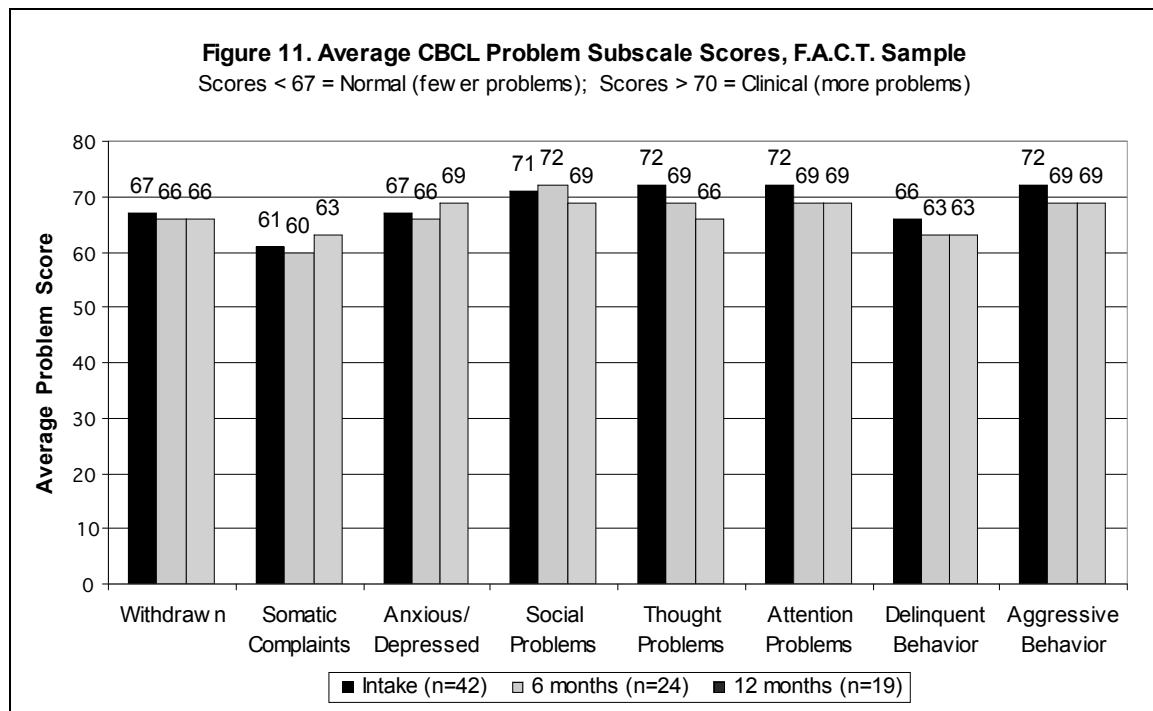
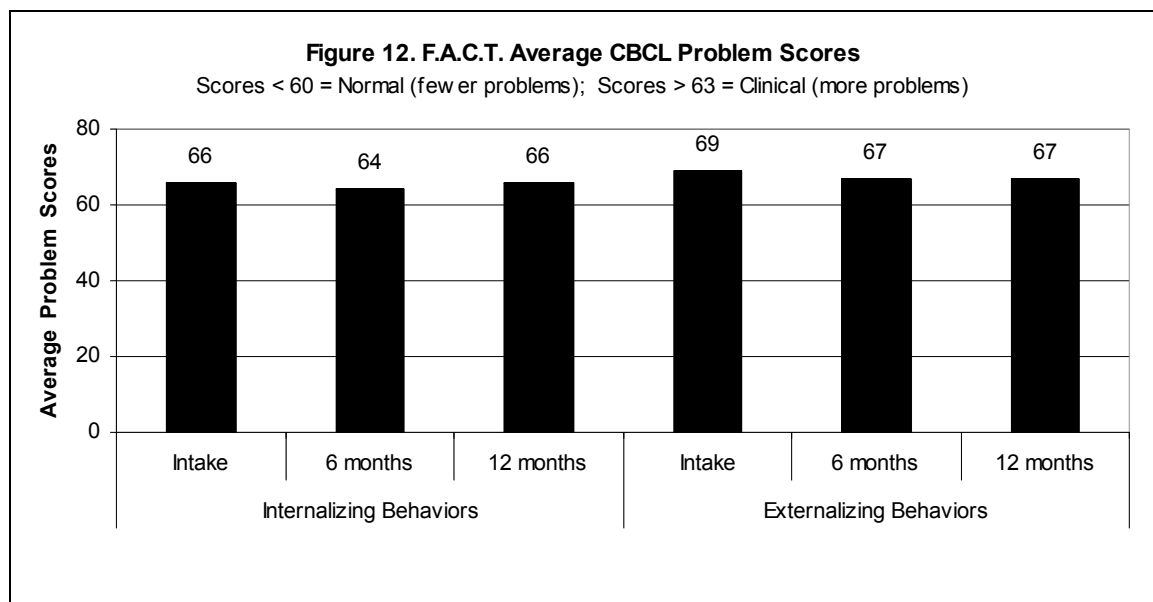


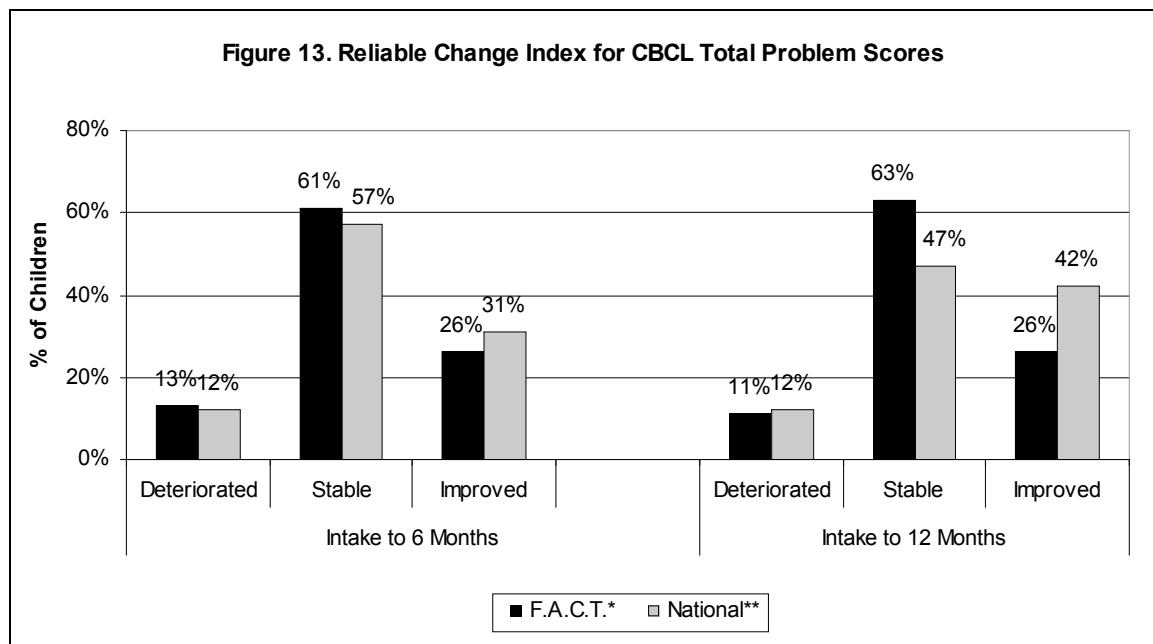
Figure 12 summarizes the caregiver data on the problems of their children in the categories of Externalizing and Internalizing Problems. Caregivers indicated Internalizing problems were a moderate concern at intake, 6 months, and 12 months, with the average scores slightly above the clinical range cut point. Externalizing problems were in the clinical range at all three data collection periods as reported by caregivers.



\*The F.A.C.T. sample had 42, 24, and 19 participants at intake, 6 months, and 12 months, respectively.

Figure 13 shows clinically significant changes in Total Problem Scores for the F.A.C.T. and national samples. From the intake interview to the interview at 6 months, 26% of the children had improved their Total Problem scores, while 13% showed deteriorated Total Problem scores. Compared to the national sample, a much larger percentage of the F.A.C.T. sample showed improved Total Problem Scores over time. Most F.A.C.T. children remained stable.

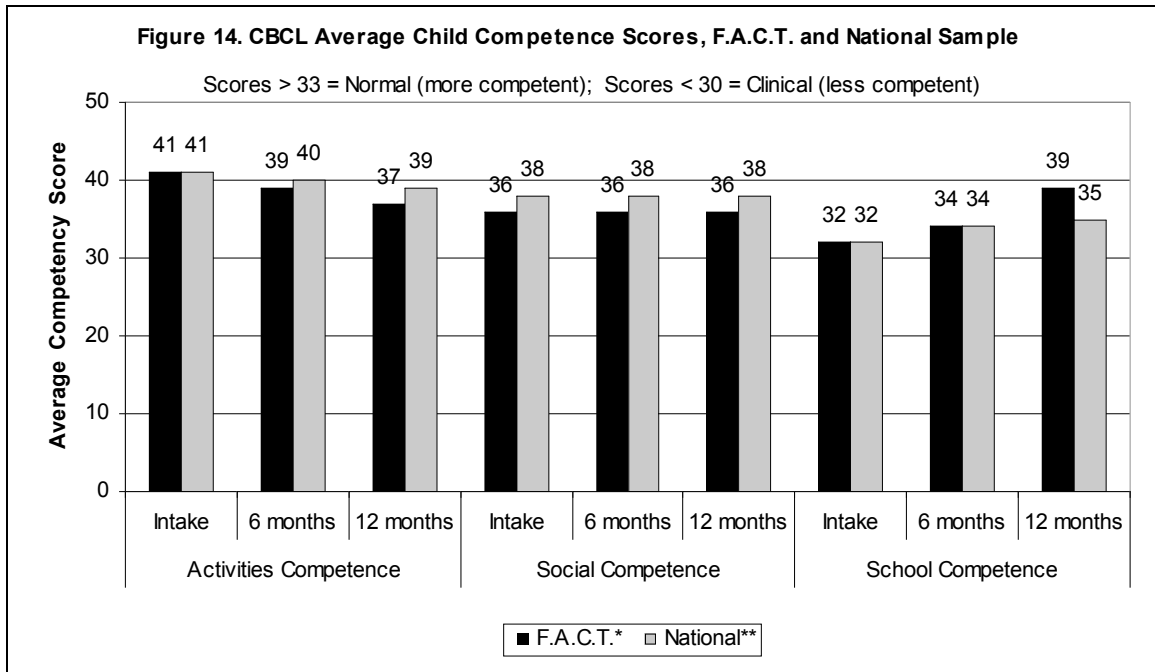
**The Reliable Change Index:** The Reliable Change Index measures whether there has been a clinically significant change in a child's status between two points in time. In Figure 13, 26% of the 23 F.A.C.T. children with CBCL data at intake and 6 months experienced a clinically significant improvement in their Total Problem scores and 13% had clinically significant worse scores. Of the 19 children with CBCL data at intake and 12 months, 26% showed improved scores and 11% showed worse scores.



\* The sample sizes for the F.A.C.T. sample were 23 at 6 months and 19 at 12 months.

\*\*The sample sizes for the national sample were 392 at 6 months and 314 at 12 months.

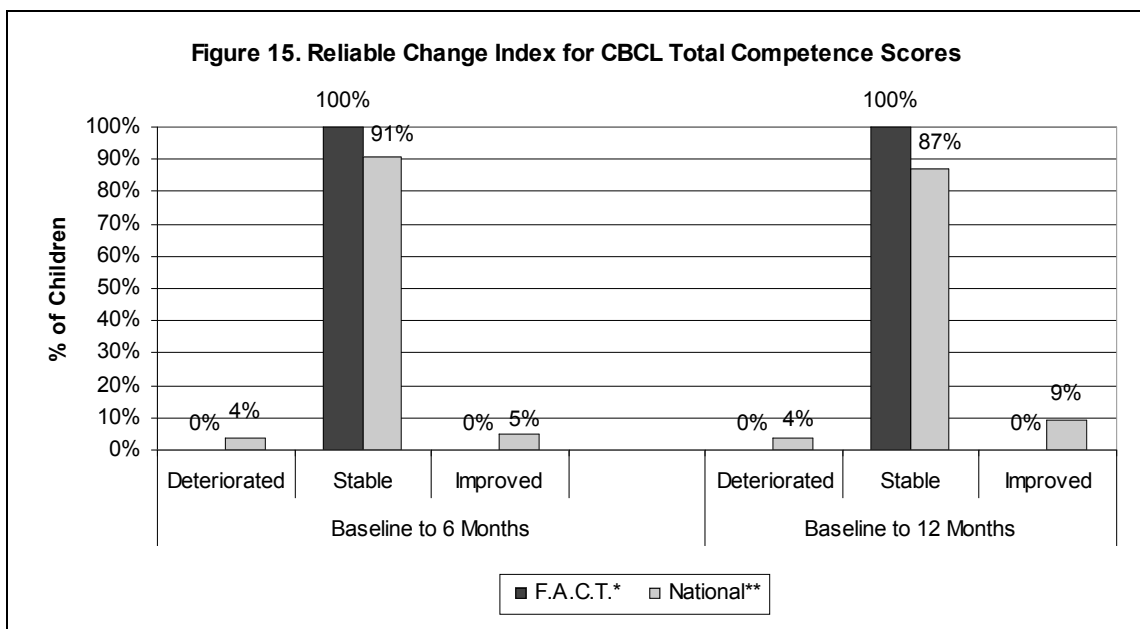
Figure 14 shows that the average Activities Competency score and the average Social Competency scores are in the normal range (a score of 34 or more) at all 3 time periods. The average School Competency score is in the borderline range at intake but rises to the normal range at both follow-up time points. Figure 14 also shows that the national sample reports greater competence on the Social competence subscale at all three time points and the Activities competence subscale at 6 and 12 months. The two samples show equal competence on the School subscale at intake and 6 months, but the F.A.C.T. sample reports greater School competence at 12 months.



\*The F.A.C.T. sample had some variation in sample sizes for the different scales at each time point, but averaged 34, 20, and 16 at intake, 6 months, and 12 months, respectively.

\*\* The national sample had some variation in sample sizes but averaged 125 at all 3 time points.

Figure 15 shows clinically significant changes in Total Competence Scores for the F.A.C.T. and national samples. From the intake interview to the interviews at 6 months and 12 months, the F.A.C.T. children showed no change in their scores. The majority of the national sample showed no change in their scores either, although a small percentage improved over time, and a smaller percentage got worse over time.

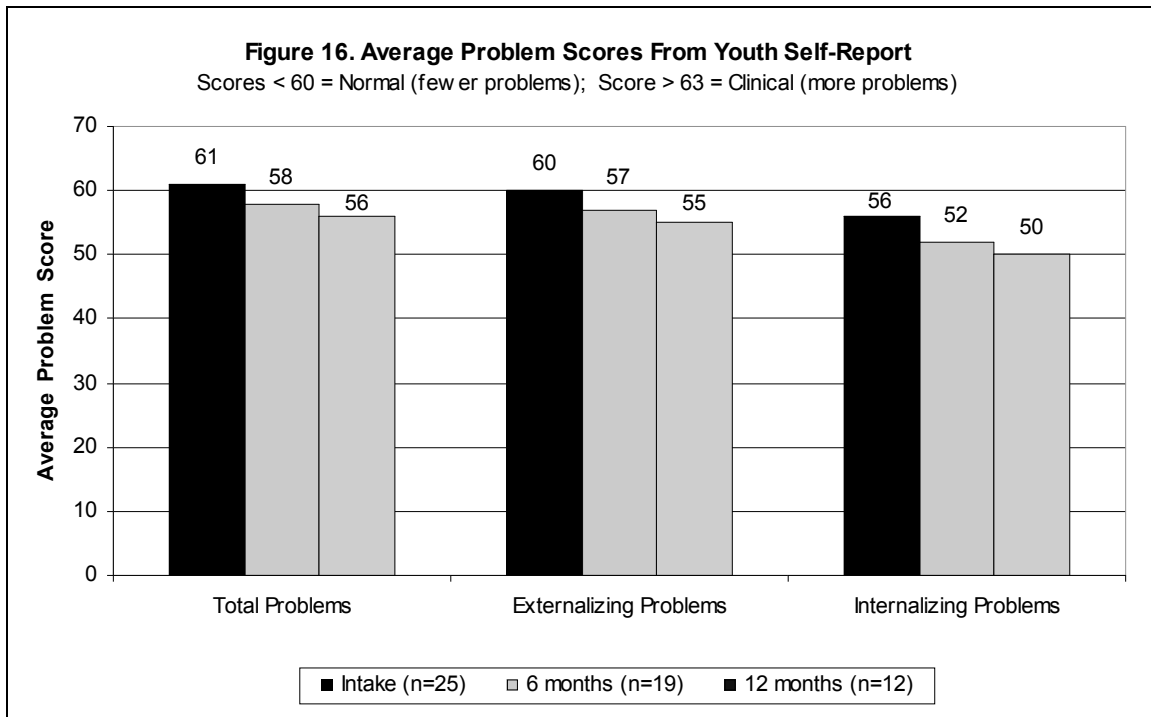


\* The sample sizes for the F.A.C.T. sample were 14 at 6 months and 11 at 12 months.

\*\*The sample sizes for the national sample were 277 at 6 months and 218 at 12 months.



Youth reported substantially fewer problems on average than did caregivers (see Figure 16). None of the youth ratings at any time point were in the clinical range, whereas all of the caregiver ratings at all time points were in the clinical range.



### Detailed Results of the Behavioral and Emotional Rating Scale (BERS)

The children's level of overall strength was right around average across the three interviews (at enrollment, 6 months, and 12 months). As shown in Table 22, the F.A.C.T. children were similar to the children in similar sites across the country on their BERS scores at intake. (The five subscales have a standardized-score range from 1 to 17, with scores below 10 indicating below average strength, a score of 10 indicating average strength, and scores above 10 indicating above average strength. The overall strength quotient has a range from 34 to 164, with scores below 90 indicating below average strength, scores between 90 and 110 indicating average strength, and scores above 110 indicating above average strength.)

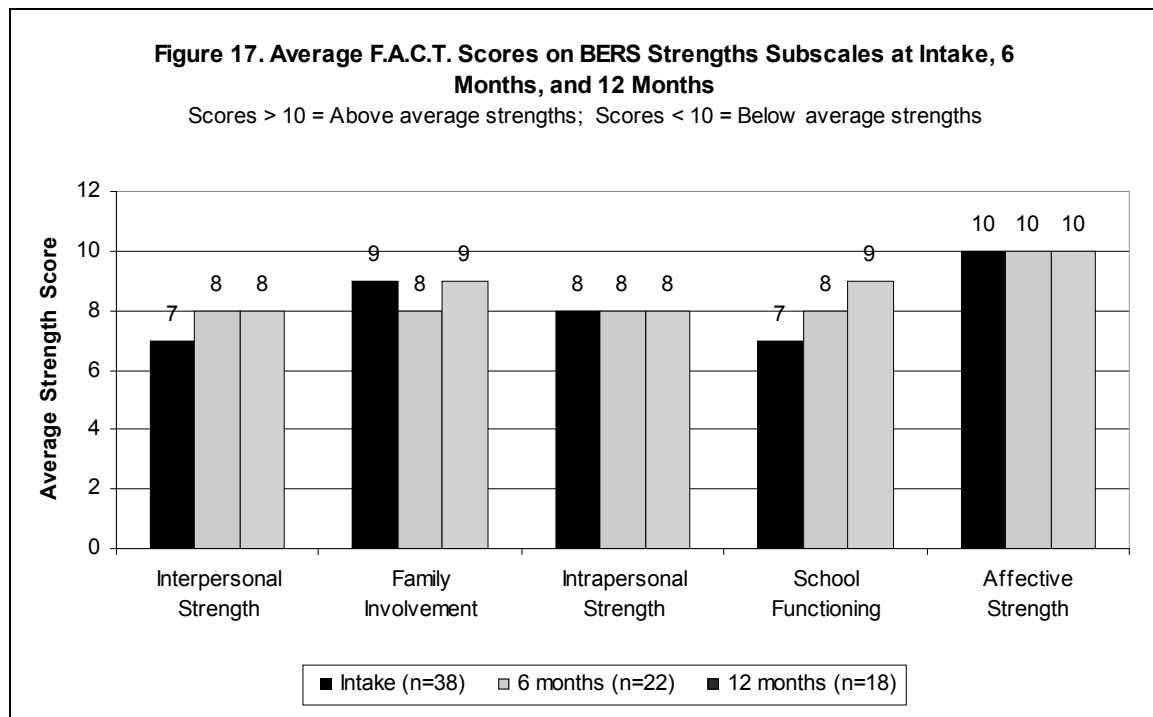
**Table 22. Average BERS Scores at Intake for F.A.C.T. Children and the National Matched Sample**

BERS Scale	F.A.C.T.*	National**
Interpersonal Strength	7	7
Family Involvement	9	8
Intrapersonal Strength	8	8
School Functioning	7	7
Affective Strength	10	10
BERS Strength Quotient	88	86

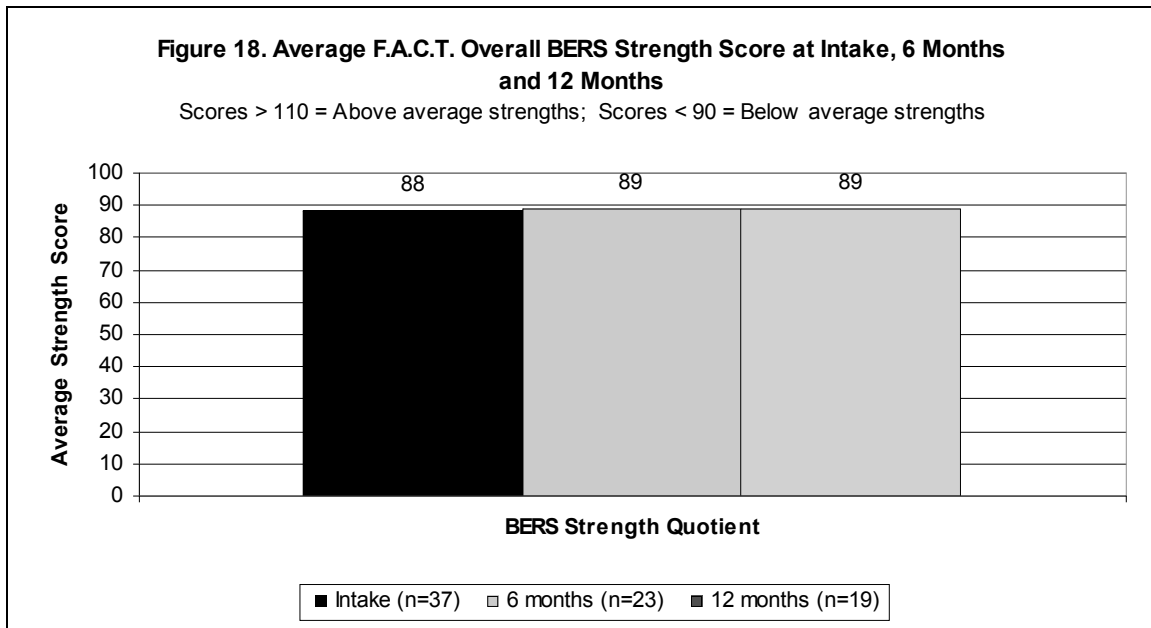
\* FACT samples for BERS scales at intake ranged from 37 to 39.

\*\* National samples for BERS scales at intake ranged from 549 to 573.

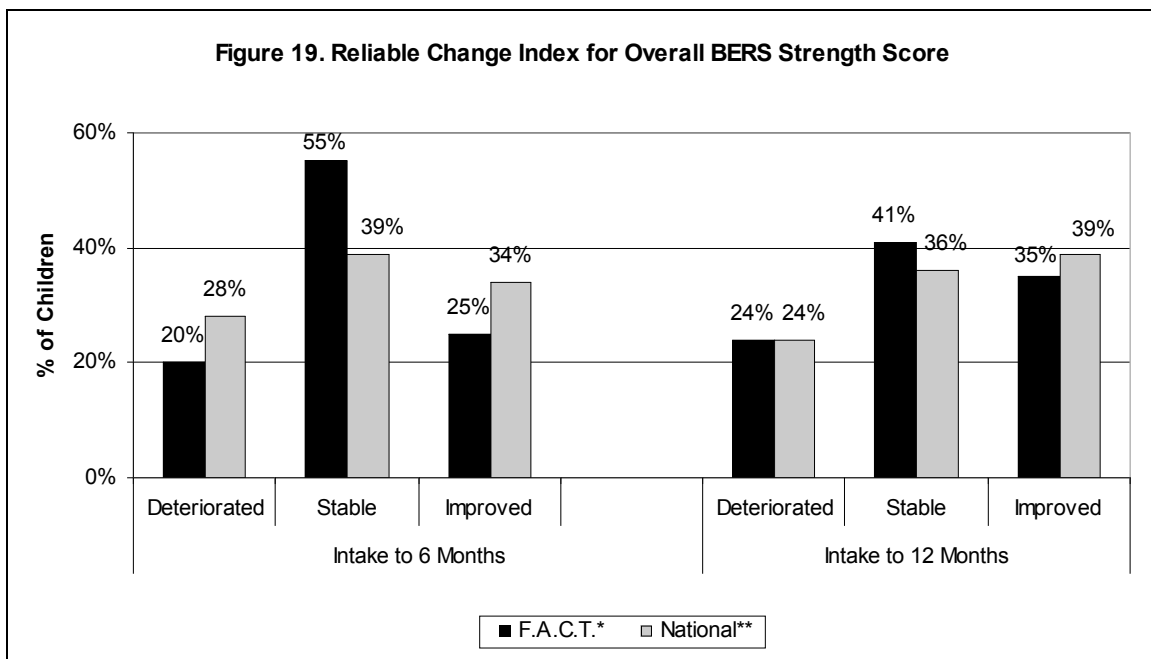
The analyses of group averages for the different categories of strengths found that the children had less than average strengths in the areas of Interpersonal Strength, Family Involvement, Intrapersonal Strength, and School Functioning. The children's level of Affective Strength remained at average at all three time points (see Figure 17).



As shown in Figure 18, the children's level of overall strength was just below average across the three interviews (at enrollment, 6 months, and 12 months).



Although similar at intake, the F.A.C.T. children were less likely than the national sample to improve and more likely to remain stable (Figure 19).



\* The sample sizes for the F.A.C.T. sample were 20 at 6 months and 17 at 12 months.

\*\*The sample sizes for the national sample were 384 at 6 months and 311 at 12 months.

# **F.A.C.T. Children's Involvement with the Legal System**

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Systems of care grant sites vary in their foci. Some sites target children who have become involved in the juvenile justice system. Other sites may target a broader population of children, some of whom are involved with juvenile justice along with other service systems. Delaware's F.A.C.T. Project falls into the latter category of grant sites, with a minority of children served also involved with the state's juvenile justice agency, the Division of Youth Rehabilitative Services (YRS), at some point in their lives prior to or during enrollment in F.A.C.T. This report explores legal involvement among children in the F.A.C.T. Project.

## **Methods**

F.A.C.T. children's involvement with the legal system was examined for the periods before and during enrollment in the project using information from the FACTS management information system. Demographic and diagnosis information was examined and drawn from FACTS and project records. CSC CAFAS data and data on outcomes at discharge were also examined.

Legal involvement was defined as committing or being accused of an incident that resulted in a legal charge that was prosecuted or plea-bargained, and resulted in a sentence. A single incident may generate a number of charges, which vary in severity. In analyzing legal involvement, we examined the characteristics of children who had legal involvement; compared the number of incidents before and during enrollment in F.A.C.T. and examined how severe the most serious charge was for each incident; and examined the relationship between legal involvement and child outcomes. This particular study focused on the 125 children who had been served by F.A.C.T. through April 15, 2005.

## **Who are the Children with Legal Involvement?**

On average, F.A.C.T. children with legal involvement at any point before or during enrollment in the project are two years older at the time of enrollment in the project compared to children without legal involvement (Table 1). With respect to risk factors, children with legal involvement are more than two times more likely to have runaway, almost 10 times more likely to engage in substance abuse, and almost two times more likely to have attempted suicide. They are somewhat more likely to have a parent convicted of a crime, come from a family where there are substance abuse issues, and to have experienced physical abuse.

These children are also one and one-half times more likely to be diagnosed with a conduct or oppositional disorder or a disorder related to depression. Additionally, they are half as likely to have a diagnosis related to mental retardation or a developmental disorder and half as likely to have a learning or related disorder. They are also one-fifth less likely to have an ADHD diagnosis. The most common special education classification for children with legal involvement is Learning Disabled (33%).

Of 38 children (out of 40 with legal involvement) who had a baseline CAFAS, 61% were "marked" or "severe" at baseline, compared to 49% of kids with no legal involvement.

**Table 1: Characteristics of F.A.C.T. Children with Legal Involvement.**

<b>Characteristic</b>	<b>Legal Involvement</b>	<b>No Legal Involvement</b>
Age at enrollment in F.A.C.T.	14.2 years	12.2 years
<b>Risk Factors</b>		
Family substance abuse issues	74%	67%
Parent convicted of a crime	65%	57%
Family mental illness	53%	72%
Runaway in past	59%	23%
Experienced physical abuse	41%	30%
Engaged in substance abuse	29%	3%
Attempted suicide	24%	14%
<b>Diagnoses</b>		
ADHD	58%	71%
Oppositional and Conduct disorders	58%	36%
Mood Disorders	58%	38%
Developmental disorders and Mental Retardation	33%	61%
Learning and related disorders	15%	29%

### **Extent of Legal Involvement**

Overall, 40 (32%) of the 125 children included in the study had at least one incident of involvement with the legal system. Of the 31 children who had legal involvement before F.A.C.T. enrollment, 14 did not have any incidents after enrollment. Of the 17 children who had legal involvement both before and during F.A.C.T. enrollment, 7 decreased the level of their most severe incident during F.A.C.T. enrollment and 10 had fewer incidents during F.A.C.T. enrollment. Nine children who had no legal involvement before F.A.C.T. had their first legal involvement after enrolling in the project. For details, see Tables 2 and 3.

**Table 2. Overview of Legal Involvement Before and During Enrollment in F.A.C.T.**

<b>Legal Involvement Indicator</b>	<b>Before Enrollment</b>	<b>During Enrollment</b>
# of children with at least one incident	31 (25%)	26 (21%)
Total # of incidents	97	66
Average # of incidents/child with legal involvement	3.1	2.5
% of children with at least one charge with a severity rating in the top half of the rating scale	15 (48%)	11 (42%)

**Table 3: Change in Legal involvement Before and During F.A.C.T. (n=125\*)**

Status Before FACT	Status During FACT		
	With legal involvement	Without legal involvement	Total
With legal involvement	17 (14%)	14 (11%)	31 (25%)
Without legal involvement	9 (7%)	85 (68%)	94 (75%)
<b>Total</b>	26 (21%)	99 (79%)	125 (100%)

\*The four children who were discharged and then re-enrolled in F.A.C.T. are counted twice since they have two periods of before F.A.C.T. and during F.A.C.T.

### Legal Involvement and Functioning/Outcomes

Table 4 presents CAFAS data on functioning at 12 months after enrollment in F.A.C.T.. Most notable is that more children with legal involvement (for whom data was available) were doing worse at 12 months compared to children without legal involvement. Considering that children with legal involvement have higher rates of some key risk factors and diagnoses that may make treatment more challenging, this not necessarily a surprising finding.

**Table 4: CAFAS Data at 1 Year: Children with and without Legal Involvement.**

Type of Change	Baseline-12 Month Comparison	
	Kids with legal involvement (n=24)	Kids without legal involvement (n=43)
<b>Change in overall functioning</b>		
% of kids doing better	50%	58%
% of kids with no change	13%	26%
% of kids doing worse	38%	16%
<b>Change in the number of problem areas rated "severe"</b>		
% of kids with fewer scales rated severe	50%	51%
% of kids with the same number of scales rated severe	17%	26%
% of kids with more scales rated severe	33%	23%

### Status at discharge

A review of the status of children at the time of discharge from the F.A.C.T. Project revealed that more children *without* a history of legal involvement (before or during F.A.C.T. enrollment) were judged to have made enough progress to warrant discharge (67% of 44 children) compared to children *with* a history of legal involvement (42% of 29 children). Children with a history of legal involvement were also twice as likely (33% vs. 16%) to have been discharged because they had been placed in a 24 hour setting expected to last at least 3 months.

An examination of the CAFAS data available at discharge (Table 5) mirrors the picture seen in the discharge judgment data. At least for the children with legal involvement for whom data was available, these children are much more likely to have shown a deterioration in functioning at the time of discharge from the project.

**Table 5: CAFAS Data at Time of Discharge: Children with and without Legal Involvement.**

<b>Type of Change</b>	<b>Baseline-Discharge Comparison</b>	
	<b>Kids with legal involvement (n=21)</b>	<b>Kids without legal involvement (n=26)</b>
<b>Change in overall functioning</b>		
% of kids doing better	43%	65%
% of kids with no change	10%	27%
% of kids doing worse	48%	8%
<b>Change in the number of problem areas rated “severe”</b>		
% of kids with fewer scales rated severe	43%	58%
% of kids with the same number of scales rated severe	14%	19%
% of kids with more scales rated severe	43%	23%

## **Conclusion**

While only a relatively small minority of children in the F.A.C.T. Project had historical or current involvement in the juvenile justice system, the data suggest that the project may play a role in preventing future legal involvement issues or decreasing the behaviors that can lead to involvement. The data also suggest that this subgroup of children differs in some ways that may make successful intervention more challenging. This group of children was older at time of enrollment and had higher levels of certain risk factors and diagnoses that present challenges for intervention. The data on functioning and outcomes support this notion, as children with legal involvement did not make as much progress and generally had poorer outcomes compared to children without legal involvement. Given the age, diagnosis, and risk factor patterns mentioned earlier, these outcome and functioning patterns are not that surprising.

These findings suggest that it may be difficult to serve children with legal involvement history (or high potential) if they enter the system of care intervention approach later rather than earlier in life. This does not imply that the F.A.C.T. Project cannot successfully serve children with legal involvement history or potential. Instead it suggests two ideas. First, older children in this sub-population may need a modified and perhaps more intensive intervention approach to better address associated treatment challenges and more favorably alter developmental trajectories. Second, interventions may be more effective if children with potential for legal involvement were identified and engaged in the system of care at much younger ages, while it is still perhaps easiest to intervene.

# Family Functioning and Resources Among Families Served by the F.A.C.T. Project

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## Introduction

Having a child with a serious emotional and/or behavioral disturbance can place considerable stress on families and caregivers, and can strain family relationships and the resources (financial and non-financial) necessary for families to function effectively. Conversely, problems in these areas that occur for reasons beyond those related to caring for such a child (e.g., loss of job through a large-scale layoff) can place additional strain on resources or family functioning and present additional challenges for caregivers.

As families are almost always the primary source of social support for children, substantial caregiver stress, problems in family functioning, and difficulties in securing sufficient financial and other key resources have the potential to weaken such an important protective factor, creating challenges for successful treatment of children with serious emotional and behavioral problems. It is important, therefore, that system of care efforts assess variables related to family functioning.

## Measures of Family Functioning and Resources

In recognition of the potential impacts of children with serious behavioral and emotional problems on families, the F.A.C.T. national evaluation interviews include questionnaires to assess caregiver strain, family functioning, and resources available to the family. The specific measures (descriptions of these measures are provided in Appendix A of this compendium) used are:

- The Caregiver Strain Questionnaire (CGSQ),
- The Family Assessment Device (FAD), and
- The Family Resource Scale (FRS).

The sample sizes for each of these instruments at the Baseline, 6 month, and 12 month interviews are provided in Table 1.

**Table 1. Sample Sizes for Measures of Behavioral Strengths and Challenges**

Assessment Tool	Baseline	6 Months	12 Months	18 Months
CGSQ	38	22	18	-
FAD-Caregiver	37	22	18	9
FAD-Youth	24	16	10	10
FRS	38	21	18	-

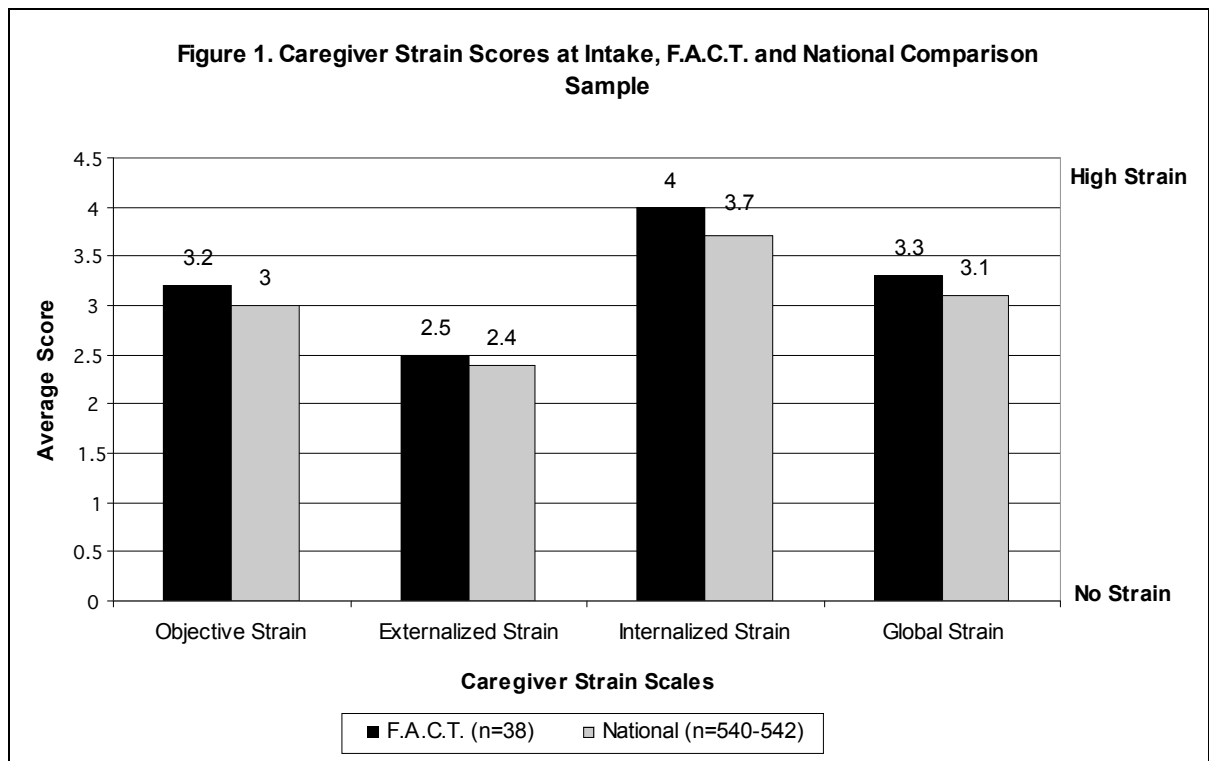


## Caregiver Strain Questionnaire (CGSQ) Results

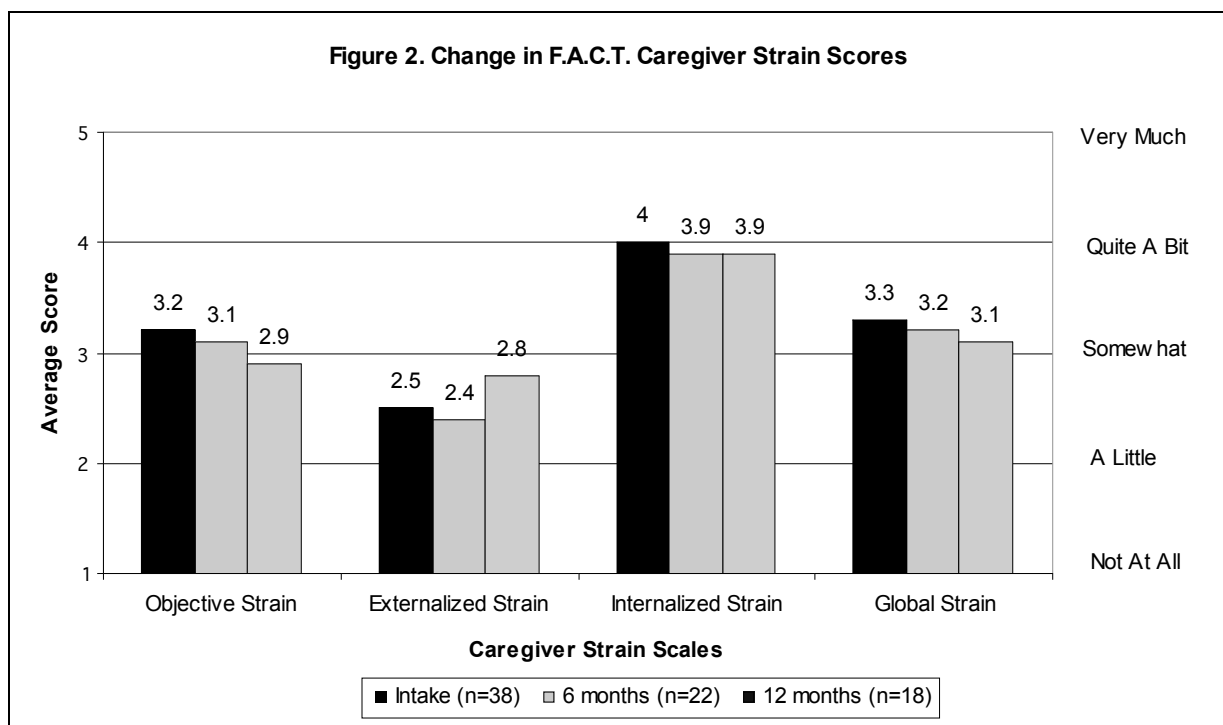
The CGSQ asks about the strain caregivers experience day to day related to caring for their children served by the F.A.C.T. project. Three kinds of strain are measured:

- Internalized Strain, which includes worry, guilt, and fatigue caregivers may experience;
- Objective Strain, which focuses on things like trouble with neighbors, disrupted family relationships, and loss of personal time; and
- Externalized Strain, which includes caregiver anger and resentment toward the child.

Data from the larger national comparison sample indicate that the F.A.C.T. caregivers participating in the national evaluation report similar levels of strain compared to other caregivers nationally at intake (Figure 1).



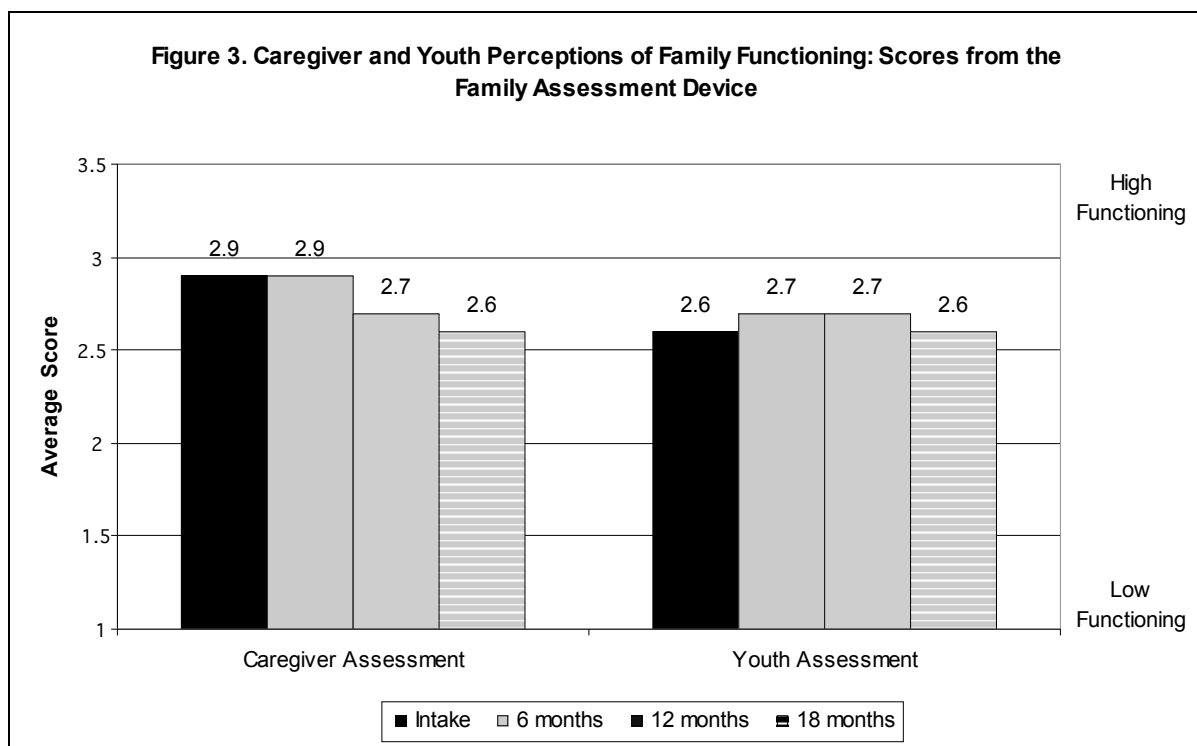
Across all three data collection points, the F.A.C.T. caregivers participating in the national evaluation interviews reported higher levels of internalized strain (“quite a bit” of strain) than objective or externalized strain (strain was between “a little” and “somewhat” of a problem). Levels of each of these types of strain at the follow up points were similar to baseline levels (Figure 2).



## Family Assessment Device (FAD) and Family Resource Scale (FRS) Results

Both caregivers and youth participating in the F.A.C.T. national evaluation interviews were asked about their family relationships, communication, the family's ability to solve problems, and related issues as part of the Family Assessment Device (FAD). The FAD provides an overall score regarding family functioning.

Figure 3 summarizes the results for the FAD. On average, the caregivers participating in the F.A.C.T. national evaluation interviews indicated that their families were functioning relatively well overall: Over the four time periods, the average scores ranged from 2.6 to 2.9 on a four point scale, with four indicating high functioning and 1 indicating low functioning. Youth ratings were similar to those provided by the caregivers.



\*See Table 1 for sample sizes. Changes in the average score across the different time periods may reflect changes in the number of people reporting instead of actual changes in family functioning.

F.A.C.T. national interview data also provides data on the resource needs and challenges of families. The Family Resource Scale (FRS) asks about the following types of resources:

- Cash and Recreation, which includes money for necessities (e.g., monthly bills, special equipment), saving, and discretionary expenses (e.g., things for one's self, family entertainment, toys, travel or vacation);
- Time and Social Support, including time for self care (sleep, rest, exercise, alone time), time with significant adults (partner, friends), and time with family;
- Basic Needs, which focuses on the adequacy of housing, food, clothing, and utilities, and money for necessities;
- Health Care/Social Services, which includes medical and dental care and public assistance; and
- Secondary Needs, like transportation, phone access, and a good job.

On average and at all three time points, the caregivers participating in the national evaluation interviews indicated that their Basic needs, Health Care/Social Services, and Secondary Needs were between “sometimes adequate” and “usually adequate.” Resources levels for to Cash and Recreation and Time and Social Support were consistently between “seldom adequate” and “sometimes adequate.”

On a 5-point scale, with 1=not at all adequate and 5=almost always adequate, the overall FRS was 3.5 at baseline, 3.3 at 6 months and 3.1 at 12 months. Although there is a slight downward trend in perceived resources, the change is not statistically significant.

## **Conclusion**

Unfortunately, data regarding family functioning, resources, and strain, does not exist for most families served by the F.A.C.T. Project. With other, multiple areas of inquiry identified by stakeholders as high priority, the evaluation was not able to devote resources to a more thorough investigation of this issue.

The available data do suggest that families may be experiencing some issues related to resources, strain, and functioning that can make it challenging to successfully maintain a child with serious emotional and behavioral problems in the family home without meaningful supports for caregivers. Since families are the focal point of system of care philosophy, it would be beneficial to the larger system of care effort in Delaware to systematically assess these family variables more thoroughly in the future.

# **Satisfaction with Planning and Services in The F.A.C.T. Project**

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The extent to which systems of care implement their respective care management/coordination and provision activities in accordance with System of Care (SOC) principles and values is a critical factor in effectively serving families. SOC values emphasize respect for families and creating family-friendly procedures, structures, and services, including service planning meetings. Measurement of the extent to which SOC principles are implemented at the family level, along with assessments of family satisfaction, as a result, can provide useful information about these process issues that can lay the groundwork for effective intervention.

This report presents data on satisfaction with planning and services in the F.A.C.T. Project. Since F.A.C.T. emphasizes family-centered, team-oriented, and strengths-based planning, understanding perceptions regarding involvement in the service planning process is essential to understanding satisfaction overall. The data come from two sources -- the F.A.C.T. national evaluation interviews and the Measuring Integrity in Systems of Care (MISC) survey study.

## **Survey of the Individualized Child Service Team Members**

### **The Survey Instrument**

An adaptation of the Measuring the Integrity of Systems of Care (MISC) scale, originally designed by Flam, Furlong & Wood in 1998, was used to evaluate the F.A.C.T. Individualized Child Service Team (ICST) meetings. This survey was distributed during July and August of 2004 (timeframe 1) and again in June of 2005 (timeframe 2) to gauge the extent to which meeting participants felt the meetings and service plans generated were consistent with system of care principles. The MISC was modified to create two questionnaires of similar format -- one for family members/caregivers and another for other ICST members, which includes mental health providers, educational professionals and other professionals. For example, an item on the ICST questionnaire reads, "Team members use words that families understand," while the coordinating item on the family questionnaire reads, "Other team members use words that I understand."

The MISC evaluated meetings based on five categories:

- the individuality of the service plans that are created,
- the way that team members show respect for families,
- the way team members show understanding of families' experiences,
- how involved family members are as equal team members, and
- the utilization of family resources and community services.

Four sections of the MISC asked respondents how often different experiences occurred while participating as a member of the F.A.C.T. service planning team. If working on more than one

team, the survey instructed the respondent to rate items based on his/her overall experience. Respondents used a 5-point Likert scale ranging from 1 (Never) to 5 (Always). The rating scale for the first section was different because family questionnaires asked respondents to rate their level of agreement with items using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), while the other ICST respondents continued to rate how often experiences of coordinating items occurred with a scale ranging from 1 (Never) to 5 (Always).

In each time frame, surveys were sent to the teams of all children enrolled at least four months prior to the respective survey date and which had at least one ICST meeting during the preceding four to six months. During the first timeframe, 66 (36%) of 179 meeting attendees responded to the survey. Twenty-one (43%) of the 48 family members in the sample responded. Forty-five (34%) of the 131 other ICST members responded.

During the second timeframe, fewer meeting attendees responded to the MISC survey. Surveys were sent to 131 possible meeting attendees. Thirteen surveys (one family and 12 ICST surveys) were undeliverable by the post office and, because of time limits, were not re-mailed. Out of the remaining 118 meeting attendants 48 (40%) responded to the survey. Thirty-six (46%) of the 77 other ICST members responded. Twelve (29%) of the 41 family members in the sample responded. All response information reflects surveys received by July 22, 2005.

## **Overview of Results**

In general, the survey responses in each time frame were positive, with average responses ranging from 3.4 to 4.8, on a 5 point scale (Tables 1-4 provide a detailed breakdown of results). Seven items received positive answers from more than 90% of the caregiver respondents, with most of these items related to showing respect for families.

Although none of the items received positive responses from more than 90% of the other ICST respondents during Time 1 (T1), nine items were rated positive by more than 90% of respondents during Time 2 (T2). Most of these items related to showing respect for families and the extent to which families are treated as equal team members.

### **Individualized Service Planning**

Overall, the items concerning the individualized service planning process received lower ratings than the items in the other sections. In this category, both family members and other ICST respondents gave the lowest ratings at both time frames to the items about crisis planning and the identification and inclusion in service plans of non-professional family supports and local organizations that are culturally competent. Other ICST members generally rated these items lower than family respondents, with typically less than 60% providing positive responses. Positive opinions among family members about the availability of crisis plans almost doubled from T1 to T2. A substantial improvement among other ICST members was also noted regarding opinions about the extent to which local, culturally sensitive organizations are included in the service plans.

### **Showing Respect for Families**

The category of items relating to how team members show respect for families generally received the most positive scores from family respondents and other ICST respondents at both timeframes. The item rated with the least proportion of positive ratings by other ICST members (66.7%) at T1 was about team meetings being scheduled well in advance. This item was rated more positively during T2, with 76.5% of other ICST members rating it with positive scores.

### **Understanding Families' Experiences**

The items concerning the way team members show understanding of families' experiences received mixed responses from both family members and other ICST members. At T1 the three items receiving the highest proportion of positive ratings from family members were about how team members recognize and identify children's strengths and needs at school, and their strengths in the community. Opinions were less positive at T2, but the smaller sample for that time period makes it difficult to determine the extent to which that reflects a substantial change in family experiences.

Among other ICST members, marked improvements were noted in opinions related to the development of services that are respectful of family culture and the extent to which families share information about their cultural backgrounds and preferences.

### **Involving Family Members as Equal Team Members**

Family members generally assigned positive ratings to items related to how involved family members are as equal members. The item, "Our family members are present at team meetings," received the lowest proportion at T1 (66.7%) and the second lowest at T2 (84.3%) of "always" or "often" answers from families. The item receiving the lowest proportion of positive answers (66.7% at T1 and 75% at T2) from other ICST members was "Team members share responsibility for services regardless of which agency originally referred families to the team." Family members were not asked to rate this item. The item that showed the most dramatic change in family responses (71.4% at T1, compared to 100% at T2) was "Team members work with children and families to find service options that aim to keep children safe and at home."

## **F.A.C.T. National Evaluation Interviews: Satisfaction Questionnaires**

Satisfaction with services is measured by the F.A.C.T. national evaluation interviews only at follow up interview points. Data from the Family Satisfaction Questionnaire (FSQ) for this group of families are as follows:

- Eighteen (86%) of the 21 caregivers responding to the 6-month follow-up interview said that they were 'satisfied' or 'very satisfied' with the number of times they were asked to participate in meetings where services for their children were planned. Fifteen (71%) were 'satisfied' or 'very satisfied' when asked about their involvement in such planning meetings. Of the 17 caregivers responding at 12 months, 13 (76%) were satisfied with the frequency of invitations and 13 (76%) were satisfied with their involvement.
- Seventeen (81%) of 21 of caregivers at 6 months and 14 (82%) of 17 at 12 months indicated they were 'satisfied' or 'very satisfied' with the services their children had been receiving in the previous 6 months.
- Twenty of 21 (95%) caregivers at 6 months and 16 of 17 (94%) at 12 months felt that services had been helpful for their children.
- At 6 months, the level of satisfaction with their children's progress was lower than that for other satisfaction questions, with 11 of 21 (52%) caregivers indicating they were 'satisfied' or 'very satisfied.' At 12 months, satisfaction with children's progress was somewhat lower than other satisfaction questions, with 12 of 17 (71%) indicating they were 'satisfied' or 'very satisfied.'

Another perspective regarding satisfaction comes from data collected by the Education Questionnaire (EQ). As part of this questionnaire, caregivers are asked to give their child's school a grade with respect to how well the school is meeting the child's needs. Data are available for baseline and the two follow up periods. Across all three time points, baseline, 6 months, and 12 months, most parents (51%, 65%, and 74% respectively) graded schools with either an "A" or "B" in terms of their performance in meeting children's needs.

## **Conclusions**

While not definitive, taken together, the data presented here suggest that the F.A.C.T. ICST meetings and the service planning process are conducted in ways that are consistent with systems of care principles and ways that both families and other ICST meeting participants generally feel positively about. Services provided through F.A.C.T. also appear to be viewed favorably, although there is a disconnect between satisfaction with services and satisfaction with child progress. Such a disconnect however, is not unexpected. Children served by the F.A.C.T. Project, and other similar grant projects nationally, are often the most difficult to treat. As a result, treatment progress is expected to be slow, even though families may be pleased with the services they are receiving.



**Table 1. MISC Time 1 and Time 2 Results: Individualized Service Planning Items**

Item Text	Family Respondents T1			ICST Respondents T1			Family Respondents T2			ICST Respondents T2		
	Average	SD	% Agree or Strongly Agree	Average	SD	% Always or Often	Average	SD	% Agree or Strongly Agree	Average	SD	% Always or Often
There is a crisis plan that is ready and available.	3.50	1.05	38.1%	3.75	1.03	53.3%	4.00	1.00	72.8	3.70	.99	60%
There is a service plan that supports children's strengths in all areas of development (including social, academic, and life skills).	4.10	1.02	85.7%	4.05	1.02	62.2%	4.18	.75	81.9%	4.03	.98	73.3%
There is a service plan that addresses families' cultural, economic, and social needs.	3.95	.95	71.5%	3.80	1.07	55.6%	4.09	.94	81.9%	4.00	.85	76.4%
Teams work together to brainstorm creative service options.	4.25	.91	76.2%	4.26	.93	73.3%	4.18	.75	81.9%	4.03	.94	70.6%
People such as family members, friends, spiritual leaders, and other caring individuals are recognized and included to provide help and support as a part of the service plan.	3.90	1.34	66.6%	3.80	1.11	62.2%	4.00	1.21	66.7%	3.59	1.19	56.2%
Local organizations who respect families' cultural backgrounds are used to provide support as a part of the service plan.	3.95	1.35	61.9%	3.40	1.07	46.7%	4.25	.87	75%	3.71	1.22	51.6%
Team services are provided in the least restrictive environments.	4.24	1.22	85.7%	4.39	.66	88.9%	4.58	.67	91.7%	4.47	.62	94.1%

	Family Respondents T1			ICST Respondents T1			Family Respondents T2			ICST Respondents T2		
Item Text	Average	SD	% Agree or Strongly Agree	Average	SD	% Always or Often	Average	SD	% Agree or Strongly Agree	Average	SD	% Always or Often
Team members work together to make sure children's living arrangements meet their needs (helpful services, structure, and necessary limits).	4.24	1.00	71.4%	4.19	.91	77.8%	4.00	1.41	66.6%	4.12	.96	81.8%
Team members work together to identify and access a wide range of local community services and resources that are well-matched for children and families.	4.05	1.12	70.6%	4.10	.93	66.7%	4.00	1.21	66.7%	3.94	1.06	66.7%

**Table 2. MISC Time 1 and Time 2 Results: Showing Respect for Families Items**

Item Text	Family Respondents T1			ICST Respondents T1			Family Respondents T2			ICST Respondents T2		
	Average	SD	% Always or Often	Average	SD	% Always or Often	Average	SD	% Always or Often	Average	SD	% Always or Often
Team members use words that families understand.	4.76	.44	100%	4.23	.99	82.3%	4.25	1.55	83.3%	4.46	.51	100.0%
Team members use words that are respectful of families' cultural backgrounds.	4.76	.54	95%	4.32	1.01	86.6%	4.75	.45	100%	4.57	.56	97.1%
Family members are treated like expert team members.	4.43	.81	90.4%	4.23	.84	80%	4.5	.91	91.7%	4.23	.84	80.0%
Meetings are scheduled well in advance.	4.58	.61	85.7%	4.02	.93	66.7%	4.25	1.14	91.7%	4.15	.86	76.5%
Team meetings are convenient for the families' schedules (transportation and child care needs).	4.67	.73	95.2%	4.42	.70	84.4%	4.33	.89	75%	4.39	.79	87.8%
I believe that even if there are setbacks or problems, the other members of the team will continue to support children and their families.	4.43	1.03	85.7%	4.41	.66	88.9%	4.17	1.03	75%	4.49	.74	91.4%

**Table 3. MISC Time 1 and Time 2 Results: Understanding Families' Experiences Items**

	Family Respondents T1			ICST Respondents T1			Family Respondents T2			ICST Respondents T2		
Item Text	Average	SD	% Always or Often	Average	SD	% Always or Often	Average	SD	% Always or Often	Average	SD	% Always or Often
Team members work together to recognize and identify children's and families' <u>strengths</u> in different environments such as:												
Home	4.38	4.16	80.9%	4.30	.89	80%	4.25	.97	66.6%	4.38	.71	87.5%
School	4.48	.87	85.7%	4.20	.95	71.1%	4.33	.89	75%	4.27	.72	84.8%
Community	4.38	.973	85.7%	4.05	1.09	66.6%	4.0	1.04	66.7%	3.94	1.12	69.7%
Team members work together to recognize and identify children's and families' <u>needs</u> in different environments such as:												
Home	4.24	1.79	76.2%	4.32	.86	82.2%	4.08	.90	66.7%	4.42	.71	87.8%
School	4.50	.69	85.7%	4.41	.73	84.4%	4.08	1.0	75%	4.38	.74	91.2%
Community	4.24	1.14	80.9%	4.12	.97	68.9%	4.0	1.04	66.7%	4.21	.89	81.9%
Team members work together to develop services that are respectful of families' ways of life, preferences, and priorities.	4.19	.93	76.2%	4.39	.75	82.2%	4.08	.90	66.7%	4.53	.62	94.1%
Families share information with other team members about their cultural backgrounds and preferences.	4.05	1.19	76.2%	3.57	1.06	46.6%	3.92	1.08	75%	4.00	.88	75.1%

**Table 4. MISC Time 1 and Time 2 Results: Families as Equal Team Members Items**

Item Text	Family Respondents T1			ICST Respondents T1			Family Respondents T2			ICST Respondents T2		
	Average	SD	% Always or Often	Average	SD	% Always or Often	Average	SD	% Always or Often	Average	SD	% Always or Often
Our family members are present at team meetings.	3.95	1.24	66.6%	4.45	.79	84.4%	4.5	.80	83.4%	4.61	.65	91.6%
Families have the opportunity to express their goals, preferences, and dreams to other team members.	4.33	.97	85.7%	4.55	.79	88.9%	4.5	.67	91.6%	4.61	.55	97.2%
Team members who provide services to families effectively work with family strengths in the service plan.	4.29	.90	81%	4.23	.74	80%	4.33	.89	75%	4.15	.83	78.8%
Team members who provide services to families effectively work with family needs in the service plan.	4.10	1.0	76.2%	4.27	.76	80%	4.33	.78	83.3%	4.28	.63	90.6%
Team members share responsibility for services regardless of which agency originally referred families to the team.	N/A	N/A	N/A	4.07	.88	66.7%	N/A	N/A	N/A	4.03	.90	75%
Family members are treated like full partners and are actively involved in all decision-making.	4.24	1.04	81%	4.40	.73	82.2%	4.42	.97	83.4%	4.25	.84	81.3%
Team members work with children and families to find service options that aim to keep children safe and at home.	4.19	1.78	71.4%	4.42	.73	82.2%	4.5	.91	100%	4.42	.71	87.8%

# **Implementation of the System of Care Through the F.A.C.T. Project**

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As described in the introduction to this compendium, one of F.A.C.T.'s objectives is to foster the establishment of a "system of care" for the target population. To achieve this success, F.A.C.T. must (1) enhance family involvement in the service system, (2) provide a complete array of community-based, family-focused, and culturally-competent services in the least restrictive environment that is clinically appropriate, (3) apply a validated clinical services management model, and (4) sustain the system of care for the target population after the grant ends. Effective collaboration is an essential component of most of these goals. The sources for this information include the MACRO System of Care Assessment (SOCA) briefing by federal evaluators in May 2005, reports from Human Systems and Outcomes (HSO) who has done consultation work for the Division of Child Mental Health Services, interviews with administrators in F.A.C.T. partner agencies, and a review of weekly reports from the various divisions within DSCYF, meeting notes, and other relevant documents.

## **Family Involvement**

Extensive family involvement in all aspects of a system of care is one of the key principles underlining the system of care approach. The F.A.C.T. project has had a good record of family involvement in project governance, service planning, participation in system of care conferences, and program evaluation. However, through many of the program years, the project was lacking an effective family support organization. In late 2003 and 2004, F.A.C.T. maintained its commitment to family involvement and was able to eventually help foster the development of the Delaware Federation of Families for Children's Mental Health (FOF), a family-run support and advocacy organization for families of children with mental health issues. Specific highlights of family involvement are:

- The Delaware FOF, with the guidance and support of Children and Families First (CFF), became formally established in late 2004 as a family support and advocacy organization. FOF currently provides two support groups for families as part of its activities.
- Delaware FOF and CFF hired parent partners to serve as resources for F.A.C.T. families. However, despite the efforts of FOF and CFF, there has been a high level of turnover among the parent partners and some difficulties with recruiting new partners.
- FOF and CFF have coordinated various trainings to expand awareness about the system of care effort in Delaware and FOF members have been a part of DSCYF's efforts to train department staff around system of care principles and values.
- In summer 2004, FOF and CFF facilitated a family-professional partnership conference. FOF was solely responsible for repeating this conference in May 2005. FOF has also participated in May is Mental Health Month public awareness activities.

- In its 2005 SOCA visit, ORC Macro identified several areas where FOF could expand its role and become more involved in service provision. These areas include transition planning and connecting families to alternative supports in the community, outreach to emerging cultural groups, and evaluation.
- In the short-term, FOF appears able to sustain its activities through initial fund raising work, support from the F.A.C.T. Project, and its partnership with DCMHS and the University of Delaware to implement a three-year parent training grant. Longer term sustainability, as for most family organizations that have emerged under the SAMHSA grant program that has funded F.A.C.T., is an unknown at this point in time. As a very young non-profit organization, FOF will need to build its membership base (which has been a struggle to date) and expand its board to build connections with the philanthropic community and other potential sources of support. As other family organizations have done, FOF will also need to explore revenue-generating activities, such as providing trainings, building its evaluation work capacity to enable it to potentially obtain contracts to do evaluation work and increase its competitiveness for grants.
- Families continue to expand their presence in the larger system of care through membership in various advisory councils related to children's mental health issues, and DSCYF's system of care roll-out effort. There is also good family involvement at the service planning level, as this is a standard of the project. An important challenge remains involving a broader group of families in governance and committees, particularly those that operate beyond the auspices of the F.A.C.T. Project. To make this type of family involvement sustainable and practical for most potential families, national recommendations indicate that a variety of supports be made available. These include financial supports (compensation for missed work time, transportation/mileage reimbursement, and child /elder care assistance) and making meetings accessible for families (e.g., convenient meeting times [including evenings as necessary] and locations, making use of technology, such as conference and video calling, and providing an orientation/mentoring support).
- Through its funding of the national FOF organization's family evaluation training provided to a small group of Delaware families, the project has provided another avenue for families to be involved in the larger system of care.

## **Array of Community-Based, Family-Focused, and Culturally Competent Services**

Having an array of services requires both the presence of appropriate services and coordination between services. Key findings in this area are:

- There is evidence that F.A.C.T. has made a positive impact on accessibility of services and expanding the service array.
  - ❖ Respondents to the F.A.C.T. stakeholder interviews noted the addition of (IOP) capacity. IOP has repeatedly been recognized as a valuable addition by ORC Macro.
  - ❖ Respite services were added and CMH has an increased ability to serve children with mental retardation/developmental delays.
  - ❖ Some respondents also noted that they were able to offer more creative and flexible services to families.

- ❖ The findings of ORC Macro suggest that F.A.C.T.'s service delivery has improved since last year and is building more on child, family, and community strengths.
- Efforts continue to fill service gaps and provide better services to families.
  - ❖ MACRO suggested in its 2005 SOCA visit that the system of care needed more psychiatrists. To address this issue, internship/residency program options are being explored at the Terry Center.
  - ❖ Efforts continue to expand the availability of mental health services in the child welfare and juvenile justice systems, in recognition of the mental health needs of these children.
  - ❖ Crisis planning and crisis response have been repeatedly identified as a weakness by F.A.C.T. caregivers and respondents to ORC Macro's SOCA interviews. Issues have centered around service availability and the need to develop crisis plans and provide ready access to them. However, these services may have improved. Respondents to the ICST survey, both family members and other team members, gave a higher rating to crisis planning at the second administration of the survey than at the first. In addition, crisis services were recently cited by HSO as an asset in the system.
  - ❖ Through contracts with the University of Delaware, efforts continue to expand Positive Behavioral Supports in the schools and the capacity of providers to serve children with mental retardation/developmental delays through Positive Behavior Intervention training for providers.
- Some concerns about services remain.
  - ❖ There is a need to expand IOP capacity and provide additional resources for children with special needs (e.g., those with retardation/developmental delays, substance abuse issues, fire starting, sex offender issues).
  - ❖ In a recent consultation visit, Human Systems and Outcomes (HSO) cited two services issues facing the larger system of care effort: creating a stronger child mental health presence in local communities and increasing mental health services and expertise in the schools.
  - ❖ A consistent issue reported by MACRO has been variation in service availability in different parts of the state, with fewer services generally available in Kent and Sussex County. In the spring of 2005, the Mental Health Committee of the Delaware Health Care Commission began a study to explore the supply of and demand for behavioral health services. This study will determine what parts of Delaware may be designated by the federal government as mental health professional shortage areas, increasing options for using federal resources to recruit new clinicians to underserved parts of the state.
  - ❖ HSO recommended that DCMHS should not design specific services for children with autism and/or traumatic brain injury. Rather, these children should be served by DDDS, unless there is a clear transfer of resources and responsibilities to DCMHS.

## **Use of a Validated Clinical Model**

F.A.C.T. uses a strengths-based, family-focused, and individualized clinical model. The data indicate that this approach continues to be implemented as designed and is well received by caregivers and others. The only aspect of this model that was questioned previously was the adequacy of the treatment and service plans. These concerns were addressed by implementing Plan of Care books so that the CSCs have ready access to the plans and by work to address the consistent implementation of Individualized Service Plans for children



served by more than one division within DSCYF. This approach was recently cited by HSO as a strength of DCMHS.

## **Collaboration**

Collaboration among agencies and partners is a key value of the system of care approach and critical to the success of such efforts. The F.A.C.T. Project appears to have fostered good collaboration among its partner agencies and organizations.

- ORC Macro found in its 2005 SOCA visit that there was strong coordination among agencies, especially in the area of joint trainings.
- Stakeholder interview respondents generally reported positive outcomes with regard to sharing information. More than half of the respondents felt that there has been a positive change in communication as a result of F.A.C.T. This is illustrated by such comments as “There is an increase of information coming out of CMH” and “There is a change in the depth of information and the type of information being shared.” However, the sharing of record keeping and management information systems data was one of the lowest rated areas of collaboration. Laws, policies, and procedures related to information privacy has accounted for many of the difficulties in this area.
- All stakeholder interview respondents felt that their agency had some role in governance and decision making and that their agency was represented on at least one committee, council, or workgroup. However, some comments indicated that providers would like more of a role in governance. There was also some suggestion that the housing of the SOC in DSCYF may make some entities feel as if they are not full or equal partners. This is not an uncommon occurrence in SOC efforts and is often addressed through thinking about the SOC mission more broadly.
- Most stakeholder interview respondents felt that the sharing of resources has changed as a result of F.A.C.T. and the system of care effort in the state. However, the sharing of funds and the purchasing of services was one of lowest rated areas of collaboration indicating there are issues that need to be addressed in this area.
- Collaboration at the service delivery has been strong. At times, however, success in this area has been dependent on the extent to which case managers and equivalent positions at other child serving agencies have been inclined or able to participate, and less so on agency policies. Agency missions and policies have also presented barriers at times to developing a single overarching plan to guide service delivery for a given family.

## **Sustaining the System**

Considering all of the available data from the current year and previous years, F.A.C.T. appears to be demonstrating that the system of care is a viable approach for serving children with serious and complex mental health needs and is having an impact on the larger system.

F.A.C.T. partnered with Delaware’s Mental Health Association (MHA) in 2003 to conduct a social marketing campaign and expanded that campaign in 2004 with a variety of public awareness activities. The summer 2004 announcement of a partnership between MHA and Delaware State University to bring mental health education and awareness efforts to Kent and Sussex counties has the potential to increase awareness of the system of care effort in those

parts of the state. This culminated in the formation in 2005 of the Center for Mental Health Education and Research at DSU.

ORC Macro stated that system of care values and principals appear to be embedded in the fabric of Delaware's child-serving system, and most respondents to the F.A.C.T. Evaluation interviews felt that the project has been effective in marketing the system of care philosophy. A continued increase in awareness of system of care principles in the broader population of families of children with mental health needs is likely to lead to increased family demand and support for a system of care approach. The joint participation of F.A.C.T., DSCYF, and Federation of Family representatives on advisory councils for cultural competence, social marketing, and others is another part of laying the groundwork for broader systems change. F.A.C.T. Evaluation interview respondents also reported that F.A.C.T. has impacted their agencies by increasing the focus on strengths-based practices, individualized and community-based services, and family involvement.

The varied efforts to expand community-based service and provider capacity and provide additional alternatives to bed-based care also are important infrastructure-creating steps necessary to effectively maintain children in their local communities. The cost data from fiscal years 2003 and 2004 indicate that the F.A.C.T. model of coordinating mental health services can successfully redirect money from bed-based care to community-based services and, for most children, mental health services can be supported entirely by the Medicaid Monthly Bundled Rate per child. In 2005, ORC MACRO did raise the concern that the most deep-end children (i.e., those who have had the most extensive use of bed-based services) would present challenges from a sustainability perspective, as these children have been more expensive to serve.

HSO also recommended that the larger system of care effort needs to adopt quality improvement and evaluation processes that allow for a data driven system of planning, managing, and decision making. Such an approach would allow for the assessment of system performance and the evaluation of intervention impacts. HSO considered this component crucial to the future of the SOC effort.

## Summary

The data indicate that the implementation of F.A.C.T. has been largely successful. Substantial service gaps existed early on in the project. Although some areas still need strengthening, considerable efforts have been made to close these gaps and to demonstrate that alternative service approaches can be effective. F.A.C.T. has also had an influence on the broader system of care effort in the state. Specifically, despite continued challenges, great progress has been made in involving families in the system of care and in fostering the development of a sustainable family organization. Collaboration within the system of care has generally been found to be effective, productive and welcome. The system of care approach as represented by F.A.C.T. appears to have good support from families, providers, and partner agencies. In addition to its effects on children's mental health services and the larger system of care, F.A.C.T.'s implementation also indicates that the approach is sustainable. Data on costs and services indicate that F.A.C.T. is a cost-efficient approach to providing children's mental health services and that, for most children, mental health service costs could be fully covered by Medicaid. However, children with the most severe problems have been expensive to serve because of the nature of their needs and present the greatest challenge from a sustainability perspective.

## Appendix A: National Evaluation Instruments

This appendix presents descriptive information about the instruments in the national evaluation for which data are presented in the various reports in this compendium.

### **Behavior and Emotional Rating Scale (BERS)**

The BERS is designed to be completed by caregivers or professionals (e.g. teachers) to identify the emotional and behavioral strengths of children aged 5 to 18 years. It has 52 statements about a child's behaviors and emotions in the last 6 months. For example, Statement #1 is "Demonstrates a sense of belonging to family." Each item is rated on a 4-point scale with the following response options: 0=Not at all like the child; 1=Not much like the child; 2=Like the child; and 3=Very much like the child. The BERS is comprised of 5 domains of behavioral and emotional strengths. The five subscales are mutually exclusive, i.e., one item contributes to one and only one subscale. The scales are described below. Higher scores on any of the scales indicate greater strength.

Calculation of each BERS scale score involves calculating a raw score for each scale by taking the sum of valid responses across items that make up that scale; then the raw scores are converted into standardized scores using a look-up table. Finally, using a different look-up table, the sum of the standardized scores is converted into an overall strength quotient.

The five subscales have a standardized-score range from 1 to 17, with scores below 10 indicating below average strength, a score of 10 indicating average strength, and scores above 10 indicating above average strength. The overall strength quotient has a range from 34 to 164, with scores below 90 indicating below average strength, scores between 90 and 110 indicating average strength, and scores above 110 indicating above average strength.

### **Child Behavior Checklist (CBCL)**

The CBCL is a caregiver report to measure competencies and behavioral and emotional problems among children aged 4 through 18 years. It has 20 competence items and 118 problem behavior items to assess children's competencies and symptoms in the last 6 months. Response options for the 20 competence items vary based on the types of questions asked. For example, the item on time spent in each sport is rated on a 4-point scale: don't know, less than average, average, and more than average. The 118 problem behavior items are rated on a 3-point scale with the following response options: 0=Not true; 1=Somewhat or sometimes true; 2=Very true or often true.

The CBCL is comprised of 3 competency subscales, as well as a total competency scale; 8 narrow band syndrome scales, 2 broadband syndrome scales, and a total problem scale. The scales are not mutually exclusive, i.e., one item may contribute to more than one scale. Higher scores on the competency scales indicate greater competence, while higher scores on the problem behavior scales indicate higher level of problems.

To calculate each CBCL scale score, first a raw score is calculated by taking the sum of valid responses across items that make up that scale; then the raw scores are converted into standardized T-scores using a look-up table. The three competence subscales have a T-score range from 20 to 55, with scores under 30 in the clinical range (i.e. less competence), scores between 30 and 33 in the borderline clinical range, and scores over 33 below in the clinical range (i.e. greater competence). The total competence has a T-score range from 10 to 80, with scores under 37 in the clinical range (i.e. less competence), scores between 37 and 40 in the borderline clinical range, and scores over 40 below the clinical range (i.e. greater competence).

The 8 narrow band syndrome scales have a T-score range from 50 to 100, with scores under 67 below the clinical range (i.e. fewer problems), scores between 67 and 70 in the borderline clinical range, and scores over 70 in the clinical range (i.e. more problems). The Internalizing scale has a T-score range from 31 to 100, the Externalizing scale has a T-score range from 30 to 100, and the Total Problem scale has a T-score range from 23 to 100. All three scales have scores under 60 below the clinical range (i.e. fewer problems), scores between 60 and 63 in the borderline clinical range, and scores over 63 in the clinical range (i.e. more problems).

### **Caregiver Strain Questionnaire (CGSQ)**

The CGSQ is a caregiver report to assess the extent to which caregivers are affected by the special demands associated with caring for a child with emotional and behavioral problems. It contains 21 items that assess strain experienced by caregivers in the last 6 months related to the care of a child with emotional and behavioral challenges. For example, Item 2 asks “How much of a problem was your missing work or neglecting other duties because of your child’s emotional or behavioral problem?” Items on the CGSQ are rated on a 5-point scale with the following response options: 1=Not at all; 2=A little; 3=Somewhat; 4=Quite a bit; and 5=Very much.

The CGSQ is comprised of three domains of caregiver strain, as well as a global strain scale to assess the overall strain experienced by caregivers. The three subscales are mutually exclusive, i.e., one item contributes to one and only one subscale. Each scale score is the mean of the valid responses across items that make up that scale. Higher scores on any of the scales indicate greater strain.

### **Educational Questionnaire (EQ)**

The EQ is administered to caregivers or staff-as-caregivers in interview format to collect information on children’s educational status and their experiences in school during the past 6 months. It contains 21 questions, including items about school (first grade through twelfth grade) attendance; grade level; school achievement; type of school setting (e.g., special or alternative school); reasons for placements; special education; overall academic performance; and whether the child has been suspended, detained, or expelled from school. The final items on the questionnaire assess availability and effectiveness of help (from the school) to meet educational, behavioral, and/or emotional needs of the child. Response questions include yes/no, multiple choice, and fill-in-the-blank.

### **Family Assessment Device (FAD)**

The FAD is the only family measure administered to both caregivers and youth to measure how families interact, communicate and work together. The modified version used in the National Evaluation for Phase III sites has 12 statements about general family functioning in the last 6 months. Items on the FAD are rated on a 4-point scale with the following response options: 1=Strongly disagree; 2=Disagree; 3=Agree; and 4=Strongly agree. A single general functioning scale score is the mean of the valid responses across the 12 items. Higher scores on the scale indicate higher levels of family functioning.

### **Family Resource Scale (FRS)**

The FRS is a caregiver report to measure the adequacy of a variety of resources needed by households with young children. It has 30 questions about the extent to which resources are adequate for families in the last 6 months. For example, Question 1 asks about “food for 2 meals a day.” Items on the FRS are rated on a 5-point scale with the following response options: 1=Not at all adequate; 2=Seldom adequate; 3=Sometimes adequate; 4=Usually adequate; and 5=Almost always adequate. The FRS is comprised of 6 domains of family resources. The 6

subscales are mutually exclusive, i.e., one item contributes to one and only one subscale. Each scale score is the mean of the valid responses across items that make up that scale. Higher scores on any of the scales indicate more family resources.

### **Family Satisfaction Questionnaire, Abbreviated Version (FSQ-A)**

The FSQ-A is a caregiver report to assess the caregiver's satisfaction in the past 6 months with services received as a whole, the child's progress, the cultural competence and family-focused nature of services, and the effects (if any) of the system of care on the ability of the caregiver (or other family member) to be productive in his/her work. The FSQ-A contains one screening question followed by 14 questions. The initial screening question asks whether the caregiver, youth, and/or his/her family have received any services in the past 6 months. If not, the remainder of the questionnaire is skipped. The first data collection point for the FSQ-A is at 6 months after children and families enroll in system-of-care programs.

The first part of the FSQ-A contains seven questions that assess the caregiver's satisfaction in the past 6 months with services as a whole, the child's progress, and the cultural competence and family-focused nature of services. For example, question 7 asks, "How satisfied have you been with *child's name* progress in the past 6 months?" These seven questions are rated on a 5-point scale with the following response options: 1=Very dissatisfied; 2=Dissatisfied; 3=Neutral; 4=Satisfied; 5=Very satisfied.

The second part of the FSQ-A contains seven questions that assess whether the services the family received improved the caregiver's (or other family member's) ability to work for pay, and quantifies the impact in terms of days worked. For example, question 13 asks, "Have the services *child's name* or your family received helped *you/other person* miss fewer days or fewer hours of work?"

### **Restrictiveness of Living Environment Scale, Revised (ROLES-R)**

The ROLES-R incorporates an adapted version of the Restrictiveness of Living Environments Scale (ROLES) with a Placement Stability Scale. This adapted scale provides valuable information about children's living environments, which helps determine how the type and number of living arrangements may affect children's lives. For instance, children with fewer changes in living environments within a 6-month period may experience more stability. Information collected with this tool also makes possible further insight into the way in which shifts in types of settings affect children's lives. Data should also indicate frequency of use of more restrictive service settings such as residential treatment centers. The ROLES-R is administered to caregivers or staff-as-caregivers in interview format.

The ROLES-R documents the settings in which children have lived during the past 6 months. There are 27 placement categories, such as independent, living by self; living independently in community with minimal supervision; two parents/caregivers, at least one biological; biological mother only, without partner; camp; supervised independent living; and foster care.

### **Youth Self Report (YSR)**

The YSR is the adolescent self-report version of the Child Behavior Checklist (CBCL). Youth aged 11 through 18 years assess their own competencies and behavioral and emotional problems. It has 18 competence items and 112 problem behavior items for youth to assess their own competencies and symptoms in the last 6 months. Response options for the 18 competence items vary based on the types of questions asked. For example, the item on time spent in each sport is rated on a 4-point scale: don't know, less than average, average, and more than average. The 112 problem behavior items are rated on a 3-point scale with the following response options: 0=Not true; 1=Somewhat or sometimes true; 2=Very true or often true.

The YSR is comprised of 2 competency subscales, as well as a total competency scale; 8 narrowband syndrome scales, 2 broadband syndrome scales, and a total problem scale. The scales are not mutually exclusive, i.e., one item may contribute to more than one scale. Higher scores on the competency scales indicate greater competence, while higher scores on the problem behavior scales indicate higher level of problems. Calculating each YSR scale score involves taking the sum of valid responses across items that make up that scale; then the raw scores are converted into standardized T-scores using a look-up table. For more information on the scoring and interpretation of the CBCL scales, please refer to the YSR Manual (Achenbach, 1991).

The two competence subscales have a T-score range from 20 to 55, with scores under 30 in the clinical range (i.e. less competence), scores between 30 and 33 in the borderline clinical range, and scores over 33 below the clinical range (i.e. greater competence). The total competence has a T-score range from 10 to 80, with scores under 37 in the clinical range (i.e. less competence), scores between 37 and 40 in the borderline clinical range, and scores over 40 below the clinical range (i.e. greater competence). The 8 narrowband syndrome scales have a T-score range from 50 to 100, with scores under 67 below the clinical range (i.e. fewer problems), scores between 67 and 70 in the borderline clinical range, and scores over 70 in the clinical range (i.e. more problems). The Internalizing scale has a T-score range from 31 to 100, the Externalizing scale has a T-score range from 30 to 100, and the Total Problem scale has a T-score range from 23 to 100. All three scales have scores under 60 below the clinical range (i.e. fewer problems), scores between 60 and 63 in the borderline clinical range, and scores over 63 in the clinical range (i.e. more problems).