



Institute for Child Health Policy at the University of Florida
Texas External Quality Review Organization

The Texas Medicaid STAR Program Child Behavioral Health Survey Report

Fiscal Year 2011

Measurement Period:

September 1, 2010 through August 31, 2011

**The Institute for Child Health Policy
University of Florida**

**The External Quality Review Organization
for Texas Medicaid Managed Care and CHIP**

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Executive Summary

Purpose

In fiscal year 2011, as part of external quality review activities for the State of Texas, the Institute for Child Health Policy (IHP) conducted a set of behavioral health member surveys with adults and parents of children enrolled in Texas Medicaid who were diagnosed with a behavioral health condition in the past 12 months. This report presents findings from the fiscal year 2011 STAR Child Behavioral Health Survey, conducted with parents and caregivers of child STAR members – including children in the Dallas service area, who receive behavioral health services through NorthSTAR.

The purpose of this survey is to:

- Describe the demographic and household characteristics of child members and their families
- Document the overall health status and well-being of child members
- Document caregiver experiences and satisfaction with the behavioral health (BH) services their child receives in STAR across five domains of care:
 - Utilization of BH counseling and treatment
 - Access to and timeliness of BH care
 - Health plan or BHO benefits, information, and assistance
 - Experiences in the clinician's office
 - Perceived outcomes of counseling and treatment
- Assess caregivers' perceived improvement of their child's BH symptoms, and the relationship of health service delivery factors on perceived improvement
- Compare caregiver experiences and satisfaction across programs and age groups, and between the fiscal year 2010 and 2011 surveys.

Methodology

Survey participants were selected from a stratified random sample of children enrolled in STAR for six months or longer between December 2009 and November 2010. The sample included only children with a record of one or more behavioral health diagnoses during the study enrollment period. The sample was stratified into four groups, representing members in both STAR and NorthSTAR, and in two different age groups – children younger than 13 years old, and adolescents 13 to 17 years old.

A target sample of 900 completed telephone interviews was set, representing 225 respondents per sampling group. Target samples were met or exceeded for all sampling groups except NorthSTAR children, with a total of 937 completed interviews collected. The response rate for this survey was 74 percent and the cooperation rate was 99 percent.

The fiscal year 2011 STAR Child Behavioral Health Survey included:

- The Experience of Care and Health Outcomes (ECHO®) Survey 3.0
- The Family Strain Index (FSI)
- Items developed by ICHP pertaining to parent and member demographic and household characteristics

Summary of Findings

Profile of survey participants (parents/caregivers):

- Three-quarters were the biological parent of the member.
- The vast majority were female (94 percent).
- The average age was 41 years old.
- Nearly one-third had not completed high school.
- Nearly two-thirds were single, separated, divorced, or widowed.

Profile of sampled child members:

- Fifty-seven percent were male and 43 percent were female.
- The mean age was 11 years old.
- More than one-half were Hispanic (59%)
- Forty-seven percent of girls and 46 percent of boys were overweight or obese.
- ADHD was the most common mental health diagnosis (38 percent)

ECHO® Composites and ratings

<u>ECHO® Composites</u>	<u>Mean</u>
<i>Getting Treatment Quickly</i>	2.15 (scale 1 - 3)
<i>How Well Clinicians Communicate</i>	2.52 (scale 1 - 3)
<i>Perceived Improvement of Child</i>	3.09 (scale 1 - 4)
<u>Caregiver rating of child's...</u>	<u>Mean</u>
Counseling or treatment	8.16 (scale 0 - 10)
Health plan	8.81 (scale 0 - 10)

Positive findings

- The majority of caregivers reported usually or always having timely access to routine counseling or treatment (73 percent).
- Fifty-five percent of caregivers said their child was usually or always seen within 15 minutes of his or her appointment.
- Three out of four caregivers reported that they did not experience problems with their child's health plan in getting the counseling or treatment their child needed (75 percent). Seventy percent did not have problems finding or understanding health plan information (70 percent), and 96 percent reported no problems in completing health plan paperwork.
- Most caregivers said their child's clinician gave them information regarding their child's rights as a patient (88 percent), treatment goals and options (90 percent), managing their child's condition (77 percent), and potential medication side effects (85 percent).
- A slight majority of caregivers believed their child had been helped a lot by the treatment or counseling he or she received (54 percent).
- Most caregivers reported their child had experienced improved symptoms and functioning compared to 12 months ago (between 72 and 78 percent).
- About half of caregivers of children with ADHD (47 percent), children with anxiety disorders (51 percent), and children with adjustment disorders (56 percent) reported having very low family strain related to their child's health conditions.
- There were no significant differences between the STAR and NorthSTAR programs on the survey items, suggesting that both BH delivery models can result in positive care experiences for the parent and child.

Improvement areas – Access to Care

- Access to BH care for children in STAR was lowest for professional counseling over the phone. Only one in four caregivers who tried to get professional counseling for their child over the phone said they usually or always got the counseling they needed (27 percent).
- Thirty-one percent of caregivers stated their child needed emergency counseling or treatment. Among these caregivers, more than one in four said their child “never” or “sometimes” saw someone as soon as they wanted (27 percent), suggesting a low level of access to urgent BH care for these members. The percentage of members with low access was considerably higher among STAR adolescents (38 percent) and NorthSTAR adolescents (43 percent).
- Among the 22 percent of caregivers reporting their child had exhausted his or her health plan benefits, nearly three out of four said their child was still in need of counseling or treatment (70 percent), and more than half said their child's BH provider requested that the health plan approve additional treatment (54 percent). Among those who said their providers requested approval for additional treatment, 61 percent said the health plan approved the request.

Recommendations

The EQRO recommends the following strategies to Texas HHSC for improving the delivery and quality of behavioral health care for children in STAR. These strategies are relevant to improving access to specialty care, which is one of HHSC's over-arching goals for STAR MCOs.

Domain	Recommendation	Rationale	HHSC Response
Access to professional counseling over the phone	STAR MCOs and the NorthSTAR BHO should consider interventions to improve access to professional BH counseling over the phone as part of their Performance Improvement Projects (PIPs) in the coming year.	The lowest rates of access were observed for caregivers who sought professional counseling for their child over the phone.	Section 8.1.15.3 Behavioral Health Services Hotline, of the Uniform Managed Care Contract, requires MCOs to have an emergency and crisis Behavioral Health Services Hotline staffed by trained personnel 24 hours a day, seven (7) days a week, toll-free throughout the Service Area. HHSC will urge MCOs to educate members about available hotlines. HHSC Overarching Goals for 2013 will include a focus on the area of access to behavioral health care. Managed care organizations may consider this topic for behavioral health related performance improvement projects.

Domain	Recommendation	Rationale	HHSC Response
<p>Addressing overweight and obesity in children with BH conditions</p>	<p>STAR MCOs and the NorthSTAR BHO should implement or improve upon efforts to identify children and adolescents with obesity/mental disorder co-morbidities, and devise programs to meet the special needs of these members.</p> <p>Standardized programs of health risk monitoring for youths with psychiatric conditions have been successful at identifying overweight and obesity in outpatient and day treatment settings.¹</p>	<p>Nearly half of child and adolescent members in the survey were overweight or obese. Obesity affects a large proportion of child STAR members with BH conditions, and weight-based stigmatization experienced by these members may be associated with more severe mental illness symptoms and a lower likelihood of seeking treatment.²</p>	<p>Value-added services for health and wellness are provided to members by the managed care organizations; examples include food counseling services (beyond the Medicaid limit) and behavioral health support, family weight loss counseling programs with a nutritionist, Weight Watchers program memberships, wellness tools and health coaching, and healthy eating classes.</p> <p>As part of Rider 50, HHSC had the EQRO examine if gaps in behavioral health care exist within the Texas STAR and STAR+PLUS programs and the factors that may influence gaps in care. Results from the study will be published in a report.</p> <p>HHSC will share the recommendations with managed care organizations and continue to bring forth topics related to this issue. Managed care organizations may consider this topic for performance improvement projects.</p>

Introduction and Purpose

In the Texas STAR program, members receive behavioral health services through three distinct models, depending on their managed care organization (MCO) and service area (SA). While some MCOs offer behavioral health as part of their integrated benefits package, others carve out behavioral health services to a sub-contracted behavioral health organization (BHO). STAR members living in the Dallas SA receive behavioral health care through the NorthSTAR program, which contracts with ValueOptions, a BHO.

With the increasing prevalence and rising cost of behavioral health conditions among members in Texas Medicaid, the quality of behavioral health care in Medicaid managed care has become a topic of concern.³ In 2009, the Texas Legislative Budget Board Staff (LBBS) published a set of recommendations for improving the transparency and accountability of behavioral health services in Texas Medicaid and CHIP.⁴ Among these, the LBBS recommended that the state implement surveys to assess member satisfaction and experiences with the behavioral health services they receive through their Medicaid MCO, BHO, or NorthSTAR.

In fiscal year 2011, as part of external quality review activities for the State of Texas, the Institute for Child Health Policy (IHP) conducted a set of behavioral health member surveys with adults and parents of children enrolled in Texas Medicaid who had been diagnosed with a behavioral health condition in the past 12 months. This report presents findings from the fiscal year 2011 STAR Child Behavioral Health Survey, conducted with parents and caregivers of child STAR members. Parents' satisfaction with their children's health care is associated with overall expectations of their children's care, and is an important indicator of health care quality.^{5,6,7}

The purpose of the fiscal year 2011 STAR Child Behavioral Health Survey is to:

- Describe the demographic and household characteristics of child STAR and NorthSTAR members with behavioral health conditions and their families.
- Document the health status and overall well-being of the child STAR and NorthSTAR behavioral health population.
- Document caregiver experiences and general satisfaction with the behavioral health care their children receive through STAR and NorthSTAR, across five domains of care:
 - Utilization of behavioral health counseling and treatment
 - Access to and timeliness of counseling and treatment
 - Health plan or BHO benefits, information and assistance
 - Experiences in the clinician's office
 - Perceived outcomes of counseling and treatment
- Assess caregivers' perceived improvement of their child's BH symptoms, and the relationship of health service delivery factors on perceived improvement
- Compare caregiver experiences and satisfaction across programs and age groups, and between the fiscal year 2010 and 2011 surveys.

Methodology

This section provides a brief overview of the methodology used to generate this report. Detailed descriptions of sample selection procedures, survey instruments, data collection, and data analyses are provided in Appendix A.

Sample Selection Procedures

STAR and NorthSTAR members younger than 18 years old were considered for inclusion in this survey if they met the following criteria: 1) Continuous program enrollment for one year (allowing for a 30 day gap in enrollment) between April and March 2011; and 2) Having record of one or more mental health or chemical dependency diagnoses (ICD-9-CM code) and procedural (CPT code) combinations (See **Table B1** in Appendix B). These criteria are based on the ECHO[®] and HEDIS[®] technical specifications, and ensure that children in the sample received (or were eligible to receive) behavioral health services, and that families would have sufficient experience with the program to respond to the survey questions.

Based on the above criteria, a sample of members stratified into four groups by age and program were selected for participation:

STAR children: ≤ 12 years old	NorthSTAR children: ≤ 12 years old
STAR adolescents: 13 to 17 years old	NorthSTAR adolescents: 13 to 17 years old

A target sample of 900 completed telephone interviews was set, representing 225 respondents per quota.

Survey Instruments

The fiscal year 2011 STAR Child Behavioral Health Survey included:

- The Experience of Care and Health Outcomes (ECHO[®]) Survey 3.0⁸
- The Family Strain Index (FSI)
- Items developed by ICHP pertaining to parent and member demographic and household characteristics

The ECHO[®] Survey is part of the Consumer Assessment of Healthcare Providers and Systems (CAHPS[®]) family of surveys. The child version assesses parents' experiences and satisfaction with various aspects of their child's behavioral health care. The survey allows for calculation and reporting of behavioral health care composites, which are scores that combine results for closely related survey items. ECHO[®] composite scores were calculated in the following domains:

- *Getting Treatment Quickly*
- *How Well Clinicians Communicate*
- *Perceived Improvement*

Researchers at ICHP scored the composites following CAHPS® specifications. Values for *Getting Treatment Quickly* and *How Well Clinicians Communicate* range from 1.00 to 3.00 (from low to high quality/satisfaction). Values for *Perceived Improvement* range from 1.00 to 4.00.

Survey Data Collection Techniques

The EQRO sent letters written in English and Spanish to caregivers of 4,130 sampled STAR members, requesting their participation in the survey. Of the advance letters sent, 24 were returned undeliverable.

The EQRO contracted with ICF Macro to conduct the surveys using computer-assisted telephone interviewing (CATI) between September 2011 and October 2011. ICF Macro telephoned parents and caregivers of STAR members seven days a week between 9 a.m. and 9 p.m. Central Time. Up to 25 attempts were made to reach a family before a member's phone number was removed from the calling circuit. If a respondent was unable to complete the interview in English, ICF Macro referred the respondent to a Spanish-speaking interviewer for a later time. Of the 937 completed interviews, 135 (14 percent) were done in Spanish.

Quota	Targeted # of completes	# of completes
STAR children	225	225
STAR adolescents	225	253
NorthSTAR children	225	212
NorthSTAR adolescents	225	247
Total	900	937

Attempts were made to contact caregivers of 4,267 children who were enrolled in STAR. Twenty-three percent of families could not be located. Among those located, six percent indicated that their child was not enrolled in STAR, and three percent refused to participate. The response rate was 74 percent and the cooperation rate was 99 percent.

Data Analysis

Descriptive statistics and formal statistical tests were performed using the statistical software package SPSS 17.0 (Chicago, IL: SPSS, Inc.). Frequency tables showing descriptive results for each survey question are provided in a separate Technical Appendix. The statistics presented in this report exclude "do not know" and "refused" responses. Percentages shown in most figures and tables are rounded to the nearest whole number; therefore, percentages may not add up to 100 percent.

Analysis of differences in frequencies used the Pearson Chi-square test of independence, and analysis of differences in means used t-tests and analysis of variance (ANOVA). These tests allowed comparison of frequencies and means among the four sampling groups and other demographic sub-groups within the sample.

In addition, researchers conducted a multivariate analysis to examine the effects of demographic, health status, and health delivery factors on caregivers' perceived improvement in their child's behavioral health.

Survey Results

This section presents survey findings regarding: 1) The demographic characteristics of caregivers and children; 2) Children's mental health diagnosis, health status, and well-being; 3) Utilization of counseling and treatment; 4) Access to and timeliness of receiving counseling and treatment; 5) Treatment benefits and health plan assistance; 6) The quality of the clinician; and 7) Outcomes of counseling and treatment. In addition, fiscal year 2011 results are compared with results from the fiscal year 2010 STAR Child Behavioral Health Survey on selected items.

Description of Children and Their Caregivers

Table B2 in Appendix B presents the demographic characteristics of child members and their caregivers participating in the STAR Child Behavioral Health Survey.

Child Characteristics

- Fifty-seven percent of children in the sample were male and 43 percent were female.
- Their average age was 11.1 years old. Nine percent of the children were under age six; 43 percent were between 6 and 11 years old, and 48 percent were 13 years old or above.
- Hispanic/Latinos were the largest racial-ethnic group, comprising 59 percent of child members. White, non-Hispanic children made up 18 percent of the sample; 18 percent were Black, non-Hispanic; and 5 percent were of "other" race/ethnicity.

Respondent/Caregiver Characteristics

- Females comprised 94 percent of all caregivers participating in the survey.
- Seventy-five percent of caregivers were the biological parent of a child member. Grandparents accounted for 17 percent of all respondents, and others, including aunts, uncles, and siblings, and non-relatives accounted for 7 percent of respondents.
- The age of caregivers ranged from 18 to 83 years old, with a mean age of 41 years old.
- Fifty-five percent of caregivers identified themselves as Hispanic or Latino; 25 percent were White, non-Hispanic; 17 percent were Black, non-Hispanic and 2 percent identified themselves as being of "other" race/ethnicity.
- Of the Hispanic/Latino caregivers, a majority indicated being of Mexican-American ethnicity (87 percent).
- Most caregivers were born in the United States (78 percent); 18 percent were born in Mexico; and 4 percent were born in a country other than Mexico or the U.S.

- Fifty-nine percent of caregivers reported mostly speaking English at home; 29 percent reported speaking both English and Spanish equally at home; and 12 percent reported speaking mostly Spanish at home.
- Thirty-one percent of caregivers had not completed high school; 36 percent held a high school diploma or general equivalency diploma; and 33 percent had taken some college courses or held a college degree.
- Thirty-six percent of caregivers were married or living with a partner, and the rest (64 percent) were divorced, separated, widowed or single.
- Single-parent households were more common among caregivers (64 percent) compared to two-parent households (36 percent).

Child Health and Well-Being

Mental Health Diagnosis

The EQRO obtained a primary mental health diagnosis from claims data for children in the STAR Behavioral Health survey sample. To summarize this data, mental health diagnoses were grouped into the following eight categories based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) classification system: 1) Attention-Deficit Hyperactivity Disorder (ADHD); 2) Adjustment Disorders; 3) Anxiety Disorders; 4) Pervasive Developmental Disorders (such as Autism); 5) Disruptive Behavior Disorders; 6) Learning Disorders; 7) Mood Disorders; and 8) Substance Abuse and Dependence Disorders.⁹ **Table B1** in Appendix B contains a list of specific mental health diagnoses included in each of the above categories.

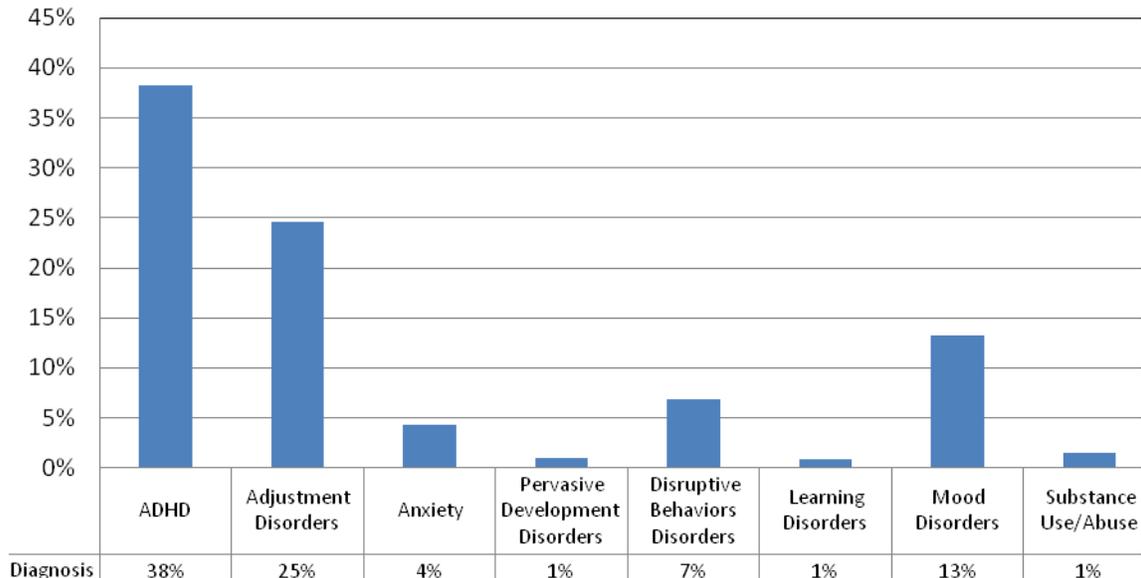
Figure 1 provides the percentage of children with a primary mental health diagnosis in each category.

The most common mental health diagnosis was ADHD. Thirty-eight percent had a primary diagnosis of ADHD.

The second-most common diagnostic category among children was adjustment disorders (25 percent), followed by mood disorders (13 percent), disruptive behavior disorders (7 percent), and anxiety disorders (4 percent).

One in five children in the sample had comorbid mental health issues (22 percent). Fifteen percent had one other mental health diagnosis and seven percent had two or more mental health diagnoses.

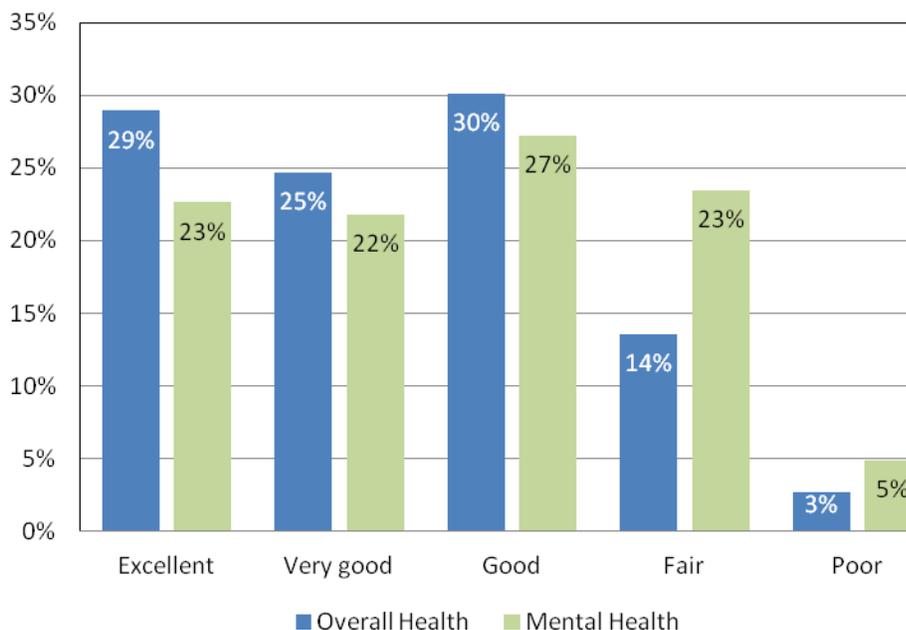
Figure 1. Primary Mental Health Diagnoses for STAR Child BH Survey Members



Caregivers’ Ratings of Their Child’s Health

Figure 2 presents caregivers' ratings of their child's overall health and mental health. Caregivers provided more favorable ratings of their child's overall health than mental health, with more caregivers reporting fair and poor mental health of their children.

Figure 2. Caregiver Ratings of Their Child’s Health

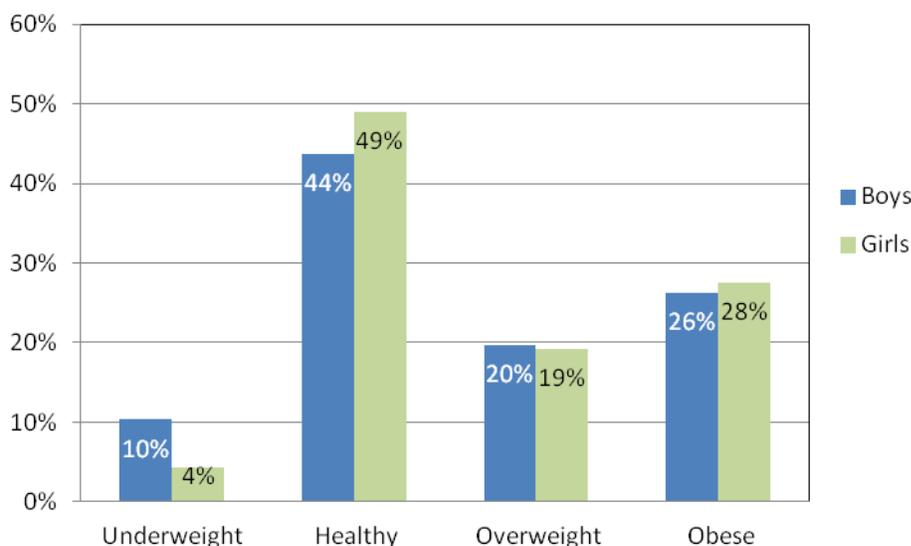


Fifty-four percent of caregivers rated their child's overall health as very good or excellent, compared to 45 percent who rated their child's mental health as very good or excellent. More than one-quarter (28 percent) of caregivers indicated that their child had fair or poor mental health, compared to 17 percent of caregivers indicating fair or poor overall health of their child.

Body Mass Index

Figure 3 provides the Body Mass Index (BMI) results for boys and girls in the sample. Based on height and weight data, 47 percent of girls and 46 percent of boys were classified as overweight or obese. For state-level comparison, the prevalence of overweight and obesity in Texas (in 2003-2004) has been estimated at 42 percent for 4th-graders, 39 percent for 8th-graders, and 36 percent for 11th-graders.¹⁰

Figure 3. Body Mass Index Classification for Boys and Girls



Utilization of Behavioral Health Counseling and Treatment

This section provides results for caregivers' self-report of their child's utilization of behavioral health services in the STAR Program.

Sixty-five percent of caregivers reported their child received behavioral health counseling, treatment, and/or medicine in the past 12 months. Among these caregivers:

- 80 percent reported making an appointment for their child for counseling or treatment.
- 17 percent said they called someone to get professional telephone counseling for their child.
- 80 percent indicated that their child took prescription medicine as part of his or her treatment.

- 31 percent stated their child needed emergency counseling or treatment.
- 21 percent reported that their child visited an emergency room or crisis center one or more times to get counseling or treatment.

Child's age and behavioral health diagnosis were associated with needing immediate BH care, good access to urgent BH care, and utilization of emergency BH services (see **Table B3** in Appendix B). Children in the youngest age category, 0 to 5 years old, reported higher rates of utilization of an emergency department or crisis center (33 percent) compared to children ages 6 to 11 years old (16 percent) or adolescents 12 to 18 years old (23 percent).

Members with an ADHD diagnosis were less likely than those without an ADHD diagnosis to need immediate care (26 percent vs. 35 percent), and were also less likely to have used immediate care services (15 percent vs. 27 percent). However, members with mood disorders were more likely than those without mood disorders to need immediate care (42 percent vs. 28 percent), had lower levels of good access to immediate care (60 percent vs. 73 percent), and were more likely to have utilized immediate care services (33 percent vs. 19 percent).

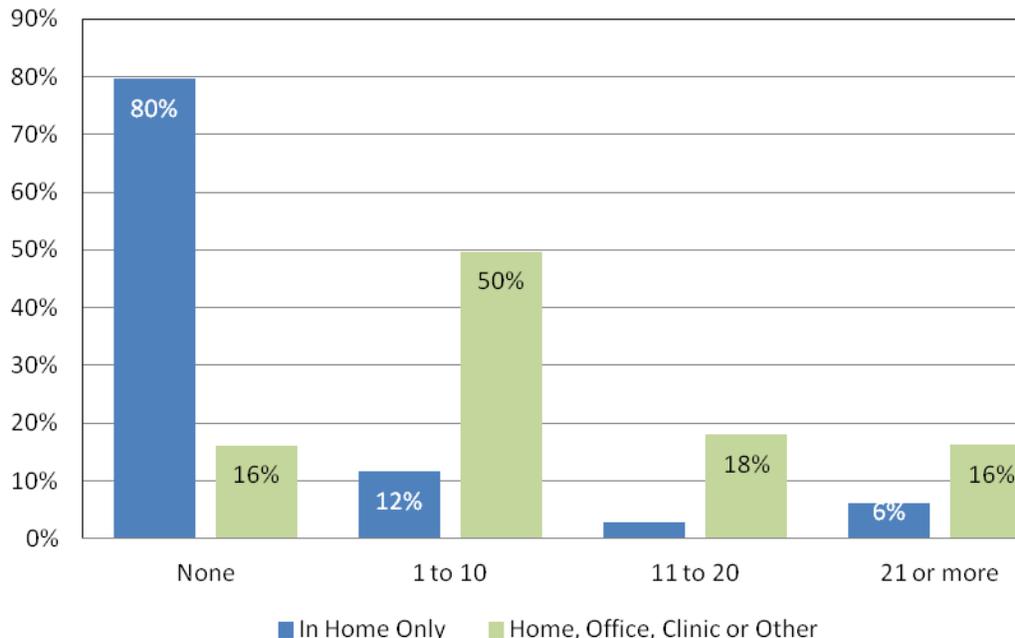
Behavioral health comorbidities were also significantly associated with need for immediate care – at 26 percent for members with no comorbidities, 40 percent for those with one comorbidity, and 59 percent for those with two or more comorbidities. Good access to immediate BH care was similar for members without comorbidities (71 percent) and members with one comorbidity (67 percent) or two or more comorbid conditions (70 percent).

Caregivers were asked to provide the number of times their child received counseling or treatment in the home, and the number of times their child received counseling, treatment, or medicine in the home, office, clinic or other treatment program (not counting emergency rooms or crisis centers). **Figure 4** presents the percentage of children who utilized treatment or counseling in different settings in the past 12 months.

Twenty percent of caregivers reported their child received counseling or treatment in the home in the past 12 months. Twelve percent utilized home counseling or treatment between 1 and 10 times. Three percent reported their child received home counseling or treatment 11 to 20 times, and six percent received home counseling 21 times or more.

Eighty-four percent of caregivers reported their child received counseling, treatment, or medicine in the home, an office, clinic, or other treatment program in the past 12 months. Half of all caregivers indicated their child received counseling, treatment, or medicine in the home, office, clinic, or other treatment program between 1 and 10 times (50 percent). The results suggest that brief treatment or counseling was the norm for this sample of children. However, 16 percent of caregivers reported that their child received behavioral health services in the home, office, clinic, or other treatment program more than 20 times.

Figure 4. Number of Times Members Used In-Home and Other BH Services



Access to and Timeliness of Behavioral Health Counseling and Treatment

This section provides caregivers' reports of access to and timeliness of receiving behavioral health counseling and treatment for their child enrolled in STAR.

Getting Treatment Quickly

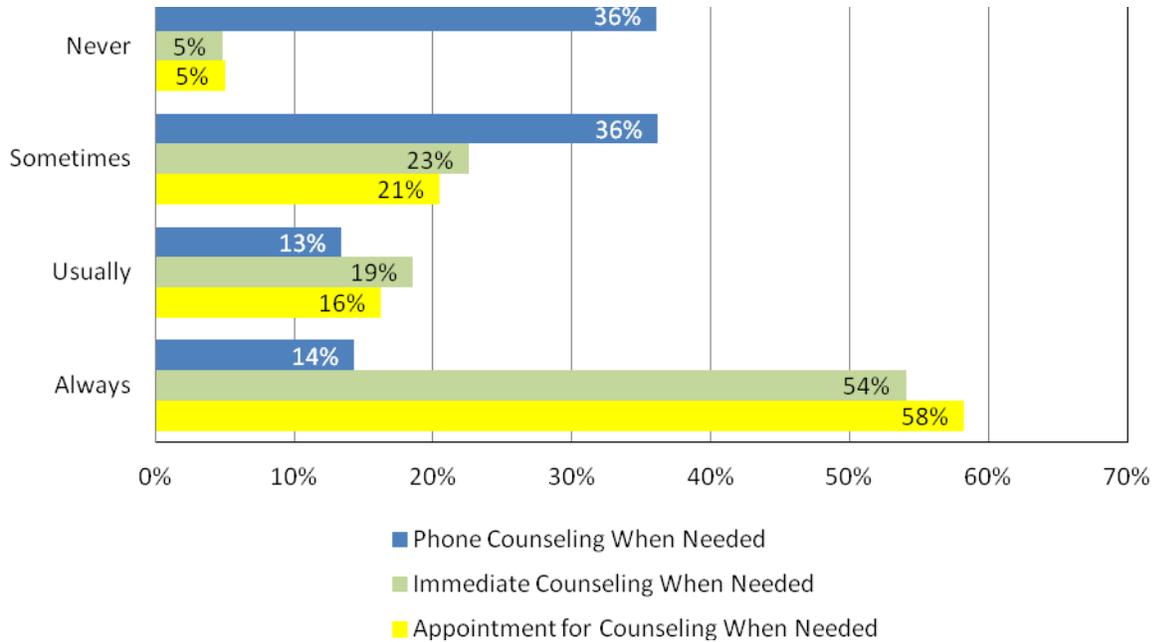
Three ECHO[®] survey questions comprise the composite *Getting Treatment Quickly* and assess how often caregivers were able to get routine and urgent treatment or counseling, and treatment or counseling over the telephone for their child. The mean for *Getting Treatment Quickly* was 2.15 (SD = 0.69) on a 3-point scale.

Figure 5 displays caregiver responses regarding how well they were able to obtain routine, immediate, and phone counseling and treatment services for their child when they were needed.

A majority of parents were always or usually able to obtain a routine appointment for counseling (74 percent) or immediate counseling (73 percent) when needed. By contrast, only one-quarter of caregivers (27 percent) were able to obtain phone counseling or treatment when needed.

The results reveal that the timeliness of receiving counseling or treatment depends on the type of care (e.g., routine appointment, urgent, and telephone) that children need. Based on caregivers' reports, children were more likely to receive timely routine behavioral health care than telephone or immediate care. Only a small percentage of caregivers were able to get timely professional counseling for their child over the telephone.

Figure 5. Percentage of Caregivers Reporting Getting Counseling or Treatment for Their Child by Type



Access to Clinicians

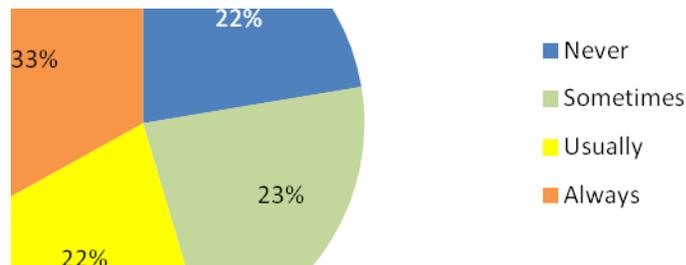
Caregivers were also asked how often they felt their child had someone to talk to for counseling or treatment when he or she was troubled. Seventy-two percent said their child usually or always had someone to talk to, while only 28 percent said their child never or only sometimes had someone to talk to.

When asked how often their family got the professional help they wanted for their child, 80 percent of caregivers said usually or always, and 5 percent reported never having the professional help they wanted.

Office Wait

Caregivers were asked how often their child was seen within 15 minutes of his or her appointment in the past 12 months. **Figure 6** provides the results for how often caregivers reported they waited less than 15 minutes before their child was seen for counseling or treatment.

Figure 6. How Often Child Was Seen Within 15 Minutes of Appointment



A majority of caregivers indicated their child was usually or always seen within 15 minutes of his or her scheduled appointment (55 percent). However, 22 percent said their child was never seen within 15 minutes, and 23 percent said their child was only sometimes seen within 15 minutes.

Behavioral Health Treatment Benefits and Assistance

This section provides results for caregivers' experiences with their child's health plan or the behavioral health organization that provides counseling or treatment.

Benefits

Caregivers were asked about their child's benefits for counseling or treatment under their health plan in the past 12 months. Specifically, caregivers were asked about whether their child had used up all of his or her benefits and were still in need of counseling or treatment, and whether they were informed about other ways to get counseling or treatment for their child.

- 22 percent of caregivers reported their child had used up all of his or her benefits for counseling or treatment.
- 70 percent of these caregivers indicated their child still needed counseling or treatment at the time the benefits were used up.
- 51 percent reported they were told about other ways to get counseling, treatment, or medicine for their child.

Behavioral health benefits in Texas Medicaid are limited to 30 encounters/visits per calendar year, with prior authorization required for extended encounters/visits that are determined to be medically necessary.¹¹ Results of this survey suggest that a small percentage of children in

STAR may still be in need of behavioral health services after exhausting their counseling or treatment benefits. It is possible that parents do not understand the health plan's behavioral benefits package. It is also possible that parents may disagree with their child's providers and/or health plan regarding which extended benefits are "medically necessary". If a clinician requests prior authorization for additional counseling or treatment visits and the health plan denies the request based on lack of medical necessity, the parent may still believe that their child is in need of additional treatment.

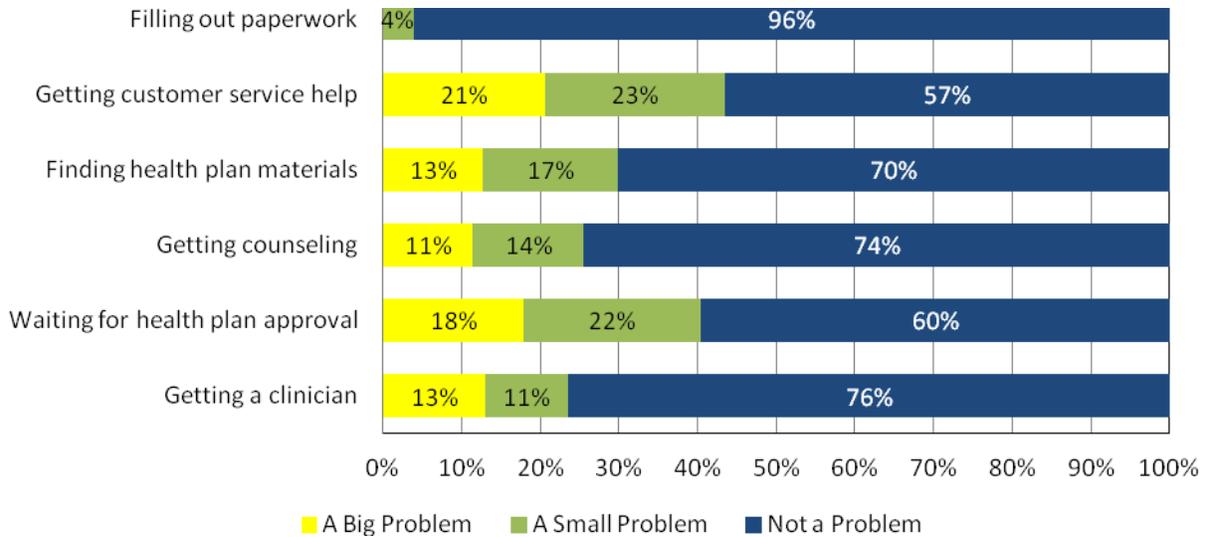
Among caregivers who reported their child had used up all of his/her BH counseling or treatment, 54 percent said their child's BH provider requested that the health plan approve additional treatment. Among those whose providers requested additional treatment, 61 percent said the health plan approved the request.

Getting Treatment Information and Assistance

Figure 7 presents caregivers' experiences with getting treatment information and assistance from their child's health plan and/or behavioral health organization in the past 12 months. The *Getting Treatment and Information from the Health Plan* composite was not calculated due to the small number of respondents answering the majority of these questions.

- 27 percent of caregivers said they had to fill out paperwork for their child's health plan regarding counseling or treatment. Ninety-six percent said it was not a problem to fill out and complete this paperwork.
- 37 percent of caregivers reported that, after joining the health plan, their child got someone new for counseling or treatment. Among these caregivers, 77 percent reported it was not a problem to get a clinician for their child they were happy with. Twenty-four percent reported it was a small or a big problem to get a clinician for their child they were happy with.
- 22 percent reported their child needed approval for counseling or treatment from the health plan. Among these caregivers, 60 percent indicated they experienced no problems with delays in counseling or treatment while waiting for approval from their child's health plan.
- 75 percent of caregivers reported it was not a problem to get the counseling or treatment they thought their child needed.
- 31 percent of caregivers said they looked for information about counseling or treatment from their child's health plan in written materials or over the Internet. Of these caregivers, 70 percent reported it was not a problem to find or understand health plan information.
- 22 percent stated they called the health plan's customer service to get information or help about counseling or treatment for their child. Fifty-seven percent said it was not a problem to get the help they needed for their child when calling the health plan's customer service.

Figure 7. Caregiver Experiences Getting Treatment Information and Assistance



The results in **Figure 7** suggest that caregivers had the most problems with: 1) Getting help from customer service; 2) Delays in their child's counseling or treatment while waiting for health plan approval; 3) Getting a clinician with whom they are satisfied; and 4) Finding health plan materials.

Quality of the Clinician

This section provides results for caregivers' experiences with their child's clinician, and specifically their evaluation of how well clinicians communicate, provide information about their child's treatment or counseling, show respect for their child's privacy, and demonstrate cultural competence.

How Well Clinicians Communicate

Five ECHO[®] survey questions comprise the composite *How Well Clinicians Communicate*. This composite assesses how often a child's clinician or therapist explains things well, listens carefully, shows respect, spends enough time with the family, and involves the family in treatment.

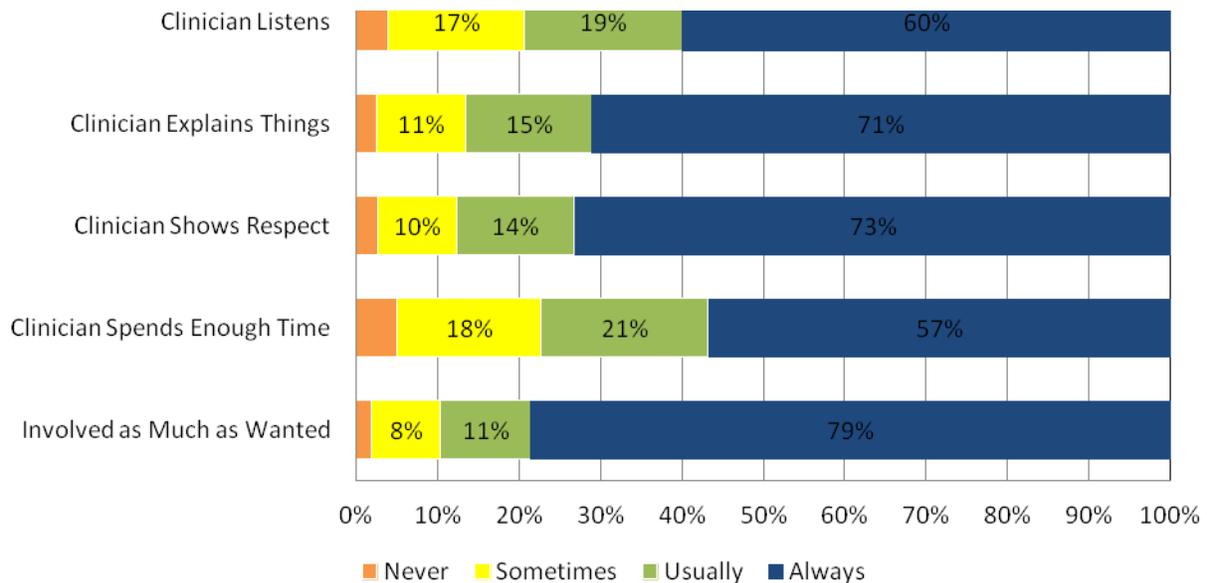
Figure 8 depicts the percentage of caregivers who usually or always had positive experiences based on the individual items that comprise the *How Well Clinicians Communicate* composite. **The majority of caregivers reported positive experiences with their child's clinician in the past 12 months.**

Among caregivers:

- 79 percent reported clinicians usually or always listened carefully to them.
- 87 percent reported clinicians usually or always explained things in a way they could understand.
- 88 percent reported clinicians usually or always showed respect for what they had to say.
- 77 percent reported clinicians usually or always spent enough time with them.
- 90 percent reported they were usually or always involved as much as they wanted in their child’s counseling or treatment.

The lowest caregiver satisfaction ratings regarded clinicians’ listening skills and spending enough time with the caregiver. Nearly 1 in 5 caregivers reported their child’s clinician never or only sometimes spent enough time with them (23 percent) or listened carefully to them (21 percent).

Figure 8. Caregiver Experiences with Doctors’ Communication



The average score for the *How Well Clinicians Communicate* composite measure was 2.51 (SD = .56) on a 3-point scale. This means that for all caregivers, perceptions of clinician communication was positive overall.

Caregiver experiences with doctors’ communication were associated with language, educational level and immigrant status. Caregivers who took the survey in Spanish had lower perceptions of *How Well Clinicians Communicate* (mean=2.35), as did first generation caregivers who were

born outside the United States (mean=2.36).^{12,13} Caregivers with lower educational levels also had a lower mean score on the composite compared to those with a high school diploma or a college degree (mean=2.38).¹⁴

Information from Clinicians

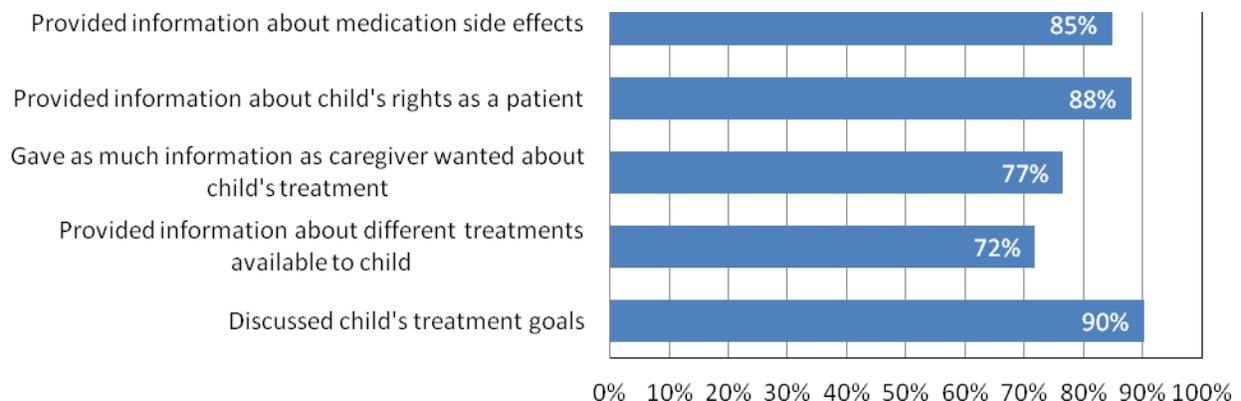
Caregivers were asked a series of questions on whether they were given information about their child's rights as a patient, the counseling or treatment options available to their child, the goals of treatment and how to manage their child's condition, and the side effects of medications.

Figure 9 provides the percentage of caregivers reporting that the clinician gave them information pertinent to their child's counseling or treatment in the past 12 months. Among caregivers:

- 88 percent reported they were given information about their child's rights as a patient.
- 72 percent reported they were informed about the counseling or treatment options available to their child.
- 90 percent stated the goals of their child's counseling or treatment were completely discussed with them.
- 77 percent indicated they were given as much information as they wanted about how to manage their child's condition.
- 85 percent indicated they were informed about medication side effects.

The majority of caregivers were satisfied with the amount of information the clinician gave them regarding their child's counseling or treatment. However, fewer caregivers reported receiving information about different treatments.

Figure 9. Clinician Information: Percentage of Caregivers Who Said Their Child's Clinician...



Patient Privacy

Caregivers were asked if anyone their child saw for treatment or counseling shared information with others that should have been kept private. The vast majority of caregivers reported that their child's clinician did not inappropriately share information about their child's treatment or counseling with others (94 percent). A small percentage of caregivers indicated that their child's clinician had shared information with others that should have been kept private (6 percent).

Cultural Competence

Caregivers were asked whether their child's race/ethnicity, culture, or religion made any difference in the kind of counseling or treatment he or she needed. The vast majority said no (92 percent), indicating that their child's race/ethnicity, culture or religion would not affect the kind of counseling or treatment he or she needed.

Among caregivers who indicated their child's race/ethnicity, culture, or religion made a difference in the kind of counseling or treatment he or she needed, 84 percent reported the care their child received was responsive to those needs.

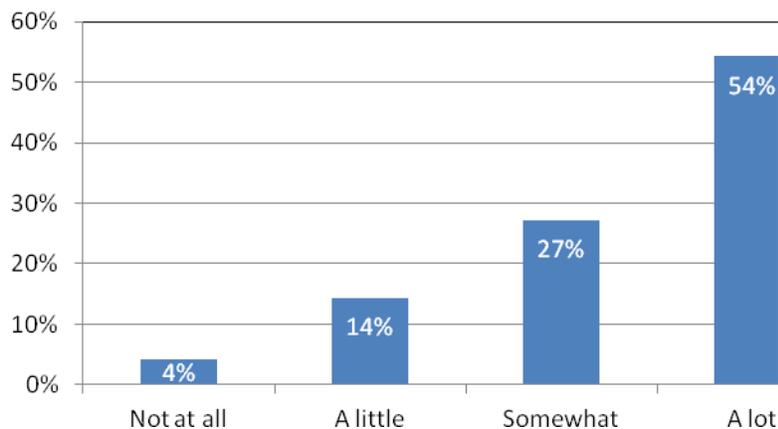
Perceived Outcomes of Behavioral Health Counseling and Treatment

How Much the Child Has Been Helped

To fully assess the quality of BH counseling or treatment for children in STAR, caregivers were asked about the outcomes of counseling or treatment for their child in the past 12 months. Specifically, caregivers were asked to rate how much their child had been helped by the counseling or treatment he or she received in the past 12 months.

Figure 10 provides the percentage of caregivers reporting their child had been helped by counseling or treatment a lot, somewhat, a little, or not at all.

Figure 10. Caregiver Perception of How Much Their Child Was Helped by BH Treatment



The majority of caregivers (81 percent) believed their child had been helped by the counseling or treatment he or she received in the past 12 months. More than half of caregivers believed their child had been helped a lot by the counseling or treatment he or she received (54 percent), and 27 percent of caregivers believed their child had been helped somewhat by the counseling or treatment he or she received.

Perceived Improvement

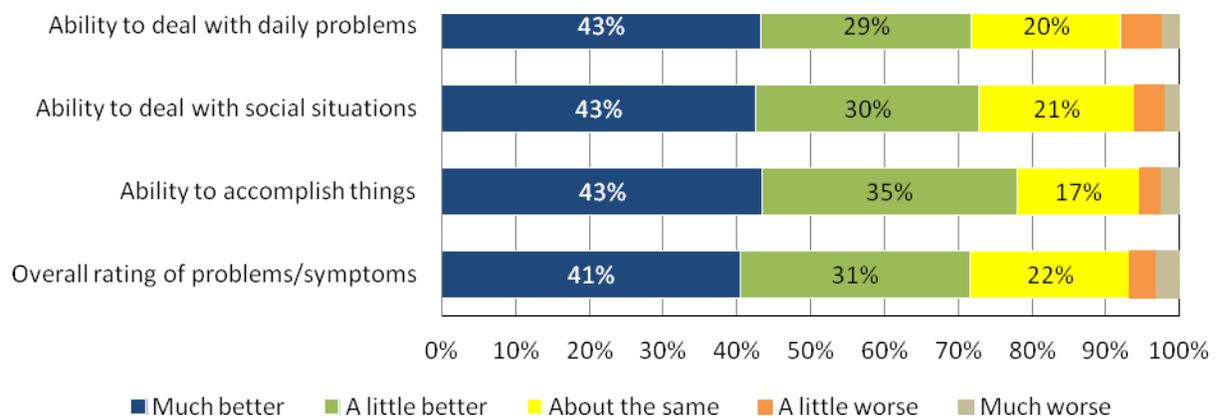
Four ECHO® survey items comprise the composite *Perceived Improvement*. This composite assesses caregiver perceptions of their child's ability to deal with daily problems and social situations, to accomplish the things he or she wants, and the overall improvement in their child's problems or symptoms. The program mean for the *Perceived Improvement* composite was 3.09 (SD = 0.79) on a 4-point scale.

Figure 11 presents caregivers' ratings of their child's improvement compared to 12 months ago. The majority of caregivers reported some degree of improvement in their child compared to 12 months ago. Specifically, caregivers reported their child was a little better or much better in his or her:

- Problems or symptoms (72 percent).
- Ability to deal with daily problems (72 percent)
- Ability to deal with social situations (73 percent)
- Ability to accomplish things (78 percent)

Between 17 and 22 percent indicated their child was about the same compared to 12 months ago. Less than 10 percent indicated their child was a little worse or much worse compared to 12 months ago.

Figure 11. Caregiver Ratings of Child's Improvement Compared to 12 Months Ago

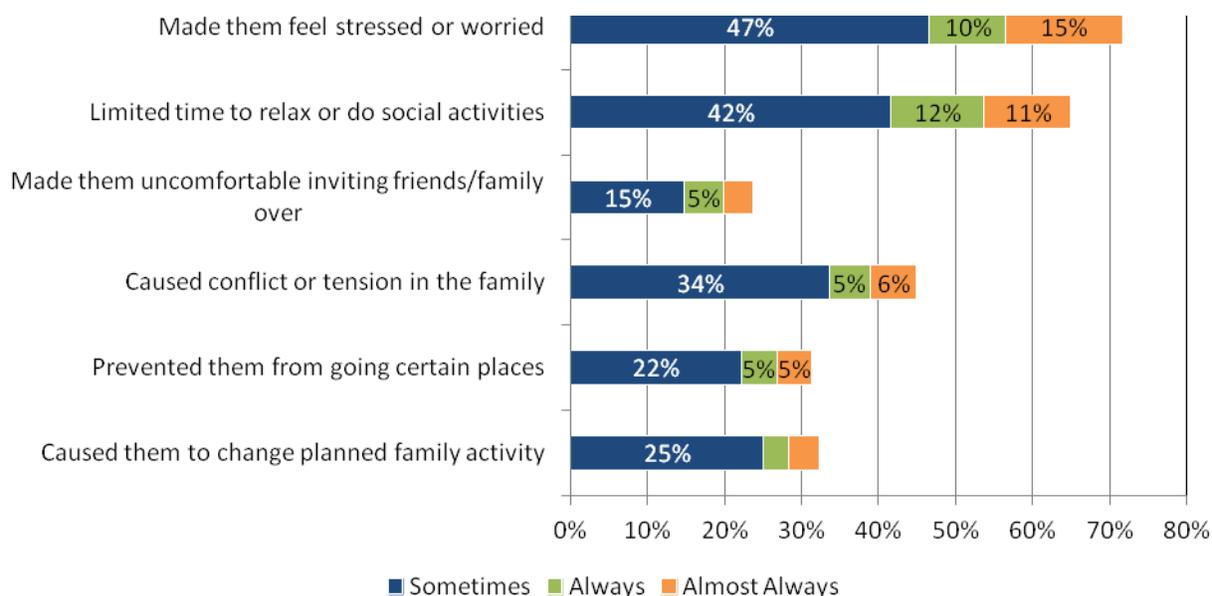


Family Strain

Families can often feel a sense of strain related to their child's mental or behavioral health condition. Strain can be related to various aspects of everyday parenting and family activities. The Family Strain Index was administered as part of this year's survey in order to gauge the level of strain within the family. Families that experience high levels of strain due to their child's mental or behavioral health condition may be at risk for poorer health outcomes.

Figure 12 displays the results of the six-item Family Strain Index. A majority of caregivers (72 percent) reported always, almost always, or sometimes experiencing stress or worry. Nearly the same percentage (65 percent) reported having limited time for relaxation or social activities. About one-third of caregivers reported being prevented from going certain places always, almost always or sometimes (31 percent) or changing planned family activities because of the child's illness (32 percent). Tension and conflict in the family was present in 45 percent of families at least some of the time and one in four caregivers said they felt uncomfortable inviting friends and family to their home (24 percent).

Figure 12. Family Strain: Percent of Caregivers Who Said Their Child's Condition...



In order to understand the levels of family strain, we combined all six items asked of respondents to create a scale measuring very low, low, moderate and high levels of strain (**Figure 13**). Caregivers reporting very low strain answered never or almost never to all of the questions. Caregivers reporting high strain responded always or almost always to all of the six questions.

Figure 13. Overall Family Strain for Caregivers of Children in STAR with BH Conditions

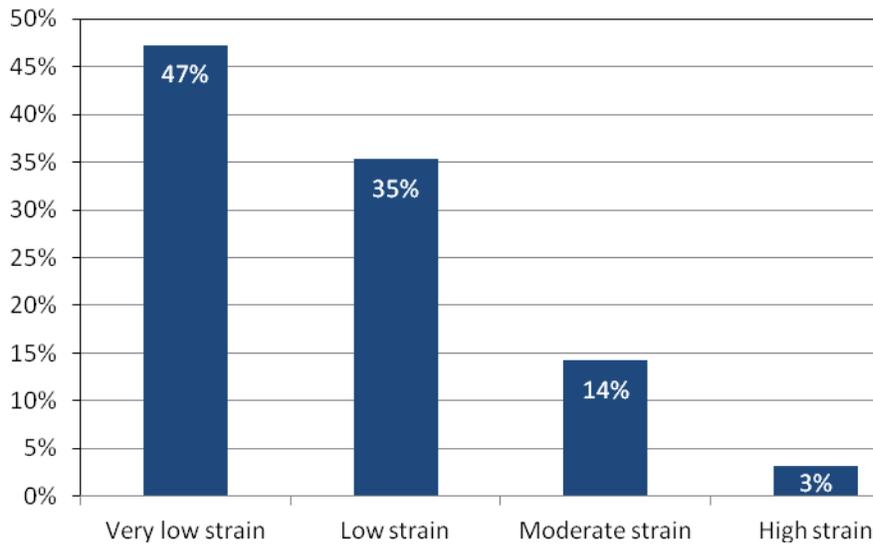


Table B4 in Appendix B shows the association of family strain to the most common behavioral health diagnoses within the STAR child population. The percentage who reported moderate or high family strain was higher among caregivers of children with mood disorders than those without (23 percent vs. 16 percent). The percent who reported very low strain was higher among caregivers of children with adjustment disorders than those without (56 percent vs. 44 percent).

Prior-Year Comparisons

In fiscal year 2010, the EQRO launched the first set of behavioral health surveys for Texas Medicaid, including the STAR Child Behavioral Health Survey. This section presents a two-year comparison of findings on selected ECHO[®] survey items for caregivers of children in STAR with behavioral health conditions, for 2010 and 2011. ¹⁵ **Table 1** compares ECHO[®] composites and ratings between 2010 and 2011. Scores for *Getting Treatment Quickly* and caregivers' rating of their child's health plan increased between the two years, although these differences were not statistically significant.

Table 1. ECHO[®] Composites and Ratings in 2010 and 2011

ECHO [®] Survey Item	2010 mean	2011 mean
<i>Getting Treatment Quickly</i>	2.04	2.14
<i>How Well Clinicians Communicate</i>	2.51	2.52
<i>Perceived Improvement</i>	3.10	3.08
Rating of child's counseling and treatment	8.04	8.12
Rating of child's health plan	8.81	8.79

Table 2 compares findings on indicators of access to BH care between 2010 and 2011. The percent of children who needed urgent counseling or treatment decreased significantly from 36 percent in 2010 to 30 percent in 2011.¹⁶ Although an increase in access to timely urgent BH care increased between the two years (from 63 percent to 70 percent), the difference was not significant.

Fewer caregivers in 2011 called to get professional counseling for their child on the phone (18 percent), compared to caregivers in 2010 (23 percent).¹⁷ Good access to professional phone counseling was low in both years (29 percent and 27 percent, respectively).

The percentage of caregivers who made a routine appointment for their child to get BH treatment or counseling increased significantly from 72 percent in 2010 to 80 percent in 2011.¹⁸ Good access to routine BH care increased slightly between the two years, although the difference was not significant.

Table 2. Need For and Access to BH Care in 2010 and 2011^a

ECHO[®] Survey Item	2010 mean	2011 mean
Child needed urgent counseling or treatment	36%	30%
Child usually or always got timely urgent BH care	63%	70%
Child used emergency care center at least once	22%	21%
Called to get professional counseling on the phone	23%	18%
Usually or always got needed phone counseling	29%	27%
Made routine BH appointment for child	72%	80%
Usually or always got timely routine BH appointment	74%	77%

^a Values for 2011 may not match those presented in the body of this report because the analysis was performed on unweighted data.

Summary Points and Recommendations

This report highlights results from the fiscal year 2011 STAR Child Behavioral Health Survey Report regarding: 1) Sociodemographic and health characteristics of children and their parents/caregivers; 2) Access to and timeliness of behavioral health counseling and treatment; 3) Behavioral health treatment benefits and assistance; 4) Quality of the clinician; and 5) Perceived outcomes of behavioral health counseling and treatment.

Sociodemographic Characteristics of Children and Their Caregivers

- **Member characteristics.** The majority of children in the sample were male (57 percent) and Hispanic (59 percent), with a mean age of 11.1 years old.
- **Parent/Caregiver characteristics.** Survey respondents were predominantly female (94 percent) and Hispanic (55 percent), with an average age of 41 years old. Thirty-one percent had not completed high school. The majority of caregivers were single, separated, divorced, or widowed at the time of the survey (64 percent).

Child Health Status

- **Mental health.** The most prevalent mental health problem among children in the sample was ADHD (38 percent). Other common mental health diagnoses for children were Adjustment Disorders (25 percent), Mood Disorders (13 percent), Disruptive Behavioral Disorders (7 percent), and Anxiety Disorders (4 percent).
- **Caregiver ratings of their child's health.** Caregivers rated their child's overall health higher than their child's mental health. Fifty-four percent said their child's overall health was very good or excellent, compared to 45 percent who said their child's mental health was very good or excellent. One in four caregivers rated their child's mental health as fair or poor (28 percent).
- **Body Mass Index (BMI).** Forty-seven percent of girls and 46 percent of boys in the sample were classified by the BMI as overweight or obese.

Utilization of Behavioral Health Counseling or Treatment

- **Utilization of counseling and treatment.** Sixty-five percent of caregivers reported their child received counseling, treatment, and/or medicine in the past 12 months. Among these caregivers, more than three-quarters reported making an appointment for counseling or treatment for their child (80 percent).
- **Getting counseling or treatment over the telephone.** Seventeen percent of caregivers reported calling someone to get professional counseling on the telephone for their child.
- **Emergency counseling or treatment.** Nearly one-third of caregivers stated their child needed emergency counseling or treatment (31 percent), and one in five visited an

emergency room or crisis center at least once to get counseling or treatment in the past 12 months (21 percent).

- **Prescription medicine.** The vast majority of caregivers said their child took prescription medication as part of his or her behavioral health treatment (80 percent).
- **Context of counseling or treatment.** Most caregivers reported their child received counseling, treatment or medicine in the home, office, clinic or other treatment program (84 percent). Twenty percent indicated their child received counseling or treatment only in the home.
 - **The amount of counseling or treatment.** Forty-nine percent indicated their child received counseling, treatment, or medicine in the home, office, clinic, or other treatment program between 1 and 10 times, 18 percent between 11 and 20 times, and 16 percent more than 20 times.

Access to and Timeliness of Behavioral Health Counseling and Treatment

- **Getting treatment quickly.** The mean for *Getting Treatment Quickly* was 2.15 (SD = 0.69) on a 3-point scale. Timely access to counseling or treatment depended on the type of care the child needed:
 - 75 percent of caregivers reported they usually or always were able to get a routine appointment for counseling or treatment as soon as they wanted.
 - 73 percent reported they usually or always saw someone as soon as they wanted when their child needed counseling or treatment right away.
 - 28 percent reported they usually or always were able to get the professional counseling their child needed on the telephone.
- **Access to clinicians.** Eighty percent of caregivers said their family usually or always got the professional help they wanted for their child. In addition, 72 percent said their child usually or always had someone to talk to when he or she was troubled. However, 28 percent of caregivers said their child never or only sometimes had someone to talk to when he or she was troubled.
- **Office wait.** A majority of caregivers indicated their child was usually or always seen within 15 minutes of his or her scheduled appointment (55 percent). However, 45 percent said their child was never or only sometimes seen within 15 minutes of his or her scheduled appointment.

Behavioral Health Treatment Benefits and Assistance

- **Benefits.** One in five caregivers reported their child had used up all of his or her benefits for counseling or treatment (22 percent). Among these caregivers, 70 percent indicated their child still needed counseling or treatment at the time the benefits were used up. These findings suggest that some members may not be familiar with their behavioral health benefits or may disagree with their providers or health plan regarding which extended benefits are medically necessary.

- **Extended benefits authorization.** Among caregivers who reported their child had used up all of his/her BH counseling or treatment, 54 percent said their child's BH provider requested that the health plan approve additional treatment. Among those whose providers requested additional treatment, 61 percent said the health plan approved the request.
- **Getting treatment information and assistance.** With regard to their experiences with the health plan, most caregivers reported it was not a problem: 1) To get someone for their child they were happy with (77 percent); 2) To get approval from their child's health plan for counseling or treatment (60 percent); 3) To get the counseling or treatment they thought their child needed (75 percent); 4) To find or understand health plan information (70 percent); 5) To get help from customer service (57 percent); and 6) To fill out and complete health plan paperwork (96 percent).
 - A substantial minority of caregivers reported problems with the health plan in getting a clinician for their child that they were happy with (24 percent), with delays in their child's counseling or treatment while waiting for health plan approval (40 percent), and with getting help for their child by calling customer service (44 percent).

Quality of the Clinician

- **How well clinicians communicate.** The mean for the *How Well Clinicians Communicate* composite was 2.52 (SD = 0.55) on a 3-point scale. The majority of caregivers reported their child's clinician usually or always: (1) Listened carefully to them (79 percent); (2) Explained things in a way they could understand (87 percent); (3) Showed respect for what they had to say (88 percent); and (4) Spent enough time with them (77 percent). In addition, 90 percent reported they were usually or always involved as much as they wanted in their child's counseling or treatment.
- **Information giving by clinicians.** Most caregivers reported their child's clinician gave them information regarding:
 - Their child's rights as a patient (88 percent)
 - The counseling or treatment options available to their child (72 percent)
 - The goals of their child's counseling or treatment (90 percent)
 - Managing their child's condition (77 percent)
 - Medication side effects (85 percent).
- **Patient privacy.** The vast majority of caregivers reported that their child's clinician did not inappropriately share information about their child's treatment or counseling with others (94 percent). However, six percent of caregivers indicated that their child's clinician had shared information with others that should have been kept private.
- **Cultural competence.** The vast majority of caregivers said their child's race/ethnicity, culture, or religion would not affect the kind of counseling or treatment he or she needed (92 percent).

Perceived Outcomes of Behavioral Health Counseling and Treatment

- **How much the child has been helped.** Half of caregivers believed their child had been helped a lot by the counseling or treatment he or she received (54 percent), and 27 percent of caregivers believed their child had been helped somewhat.
- **Perceived outcomes.** The mean for the *Perceived Improvement* composite was 3.09 (SD = 0.79) on a 4-point scale. The majority of caregivers reported some degree of improvement in their child compared to 12 months ago. Specifically, caregivers reported their child was a little better or much better in his or her: 1) Ability to deal with daily problems (72 percent); 2) Ability to deal with social situations (73 percent); 3) Ability to accomplish things (78 percent); and 4) Problems or symptoms (72 percent).
 - Between 17 and 22 percent of caregivers indicated their child was about the same compared to 12 months ago.
 - Child's age and parent experiences with clinician communication were all predictive of high *Perceived Improvement* in multivariate models.

Recommendations

The EQRO recommends the following strategies to Texas HHSC for improving the delivery and quality of behavioral health care for children in STAR. These strategies are relevant to improving access to specialty care, which is one of HHSC's over-arching goals for STAR MCOs.

Domain	Recommendation	Rationale	HHSC Response
Access to professional counseling over the phone	STAR MCOs and the NorthSTAR BHO should consider interventions to improve access to professional BH counseling over the phone as part of their Performance Improvement Projects (PIPs) in the coming year.	The lowest rates of access were observed for caregivers who sought professional counseling for their child over the phone.	Section 8.1.15.3 Behavioral Health Services Hotline, of the Uniform Managed Care Contract, requires MCOs to have an emergency and crisis Behavioral Health Services Hotline staffed by trained personnel 24 hours a day, seven (7) days a week, toll-free throughout the Service Area. HHSC will urge MCOs to educate members about available hotlines.

			<p>HHSC Overarching Goals for 2013 will contain focuses in the area of access to behavior health care. Managed care organizations may consider this topic for behavioral health related performance improvement projects.</p>
<p>Addressing overweight and obesity in children with BH conditions</p>	<p>STAR MCOs and the NorthSTAR BHO should implement or improve upon efforts to identify children and adolescents with obesity/mental disorder co-morbidities, and devise programs to meet the special needs of these members.</p> <p>Standardized programs of health risk monitoring for youths with psychiatric conditions have been successful at identifying overweight and obesity in outpatient and day treatment settings.¹⁹</p>	<p>Nearly half of child and adolescent members in the survey were overweight or obese. Obesity affects a large proportion of child STAR members with BH conditions, and weight-based stigmatization experienced by these members may be associated with more severe mental illness symptoms and a lower likelihood of seeking treatment.²⁰</p>	<p>Value-added services for health and wellness are provided to members by the managed care organizations; examples include food counseling services (beyond the Medicaid limit) and behavioral health support, family weight loss counseling programs with a nutritionist, Weight Watchers program memberships, wellness tools and health coaching, and healthy eating classes.</p> <p>As part of Rider 50, HHSC had the EQRO examine if gaps in behavioral health care exist within the Texas STAR and STAR+PLUS programs and the factors that may influence gaps in care. Results from</p>

			<p>the study will be published in a report.</p> <p>HHSC will share the recommendations with managed care organizations and continue to bring forth topics related to this issue. Managed care organizations may consider this topic for performance improvement projects.</p>
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The EQRO also recommends that HHSC and STAR MCOs monitor the following areas, based on findings of low caregiver satisfaction in domains that do not directly address the over-arching goals. Continued issues with quality of care in these domains may warrant additional studies and their inclusion in MCO performance improvement projects.

- Emergency counseling and treatment.* While a relatively small number of children have an unmet need for immediate behavioral health care, adolescents, children with certain behavioral health conditions, and children with comorbidities disproportionately fall into this category. Health plans are encouraged to remain up-to-date on new interventions for improving access to emergency psychiatric care. One effective approach is the psychiatric emergency service (PES) model, which combines immediate psychiatric assessment, appropriate decision-making in admission or discharge of patients with psychiatric emergencies, and a therapeutic environment that includes proper psychiatric, medical, and social support.²¹
- Health Plan Benefits.* Among the 22 percent of caregivers reporting their child had exhausted his or her health plan benefits, nearly 3 out of 4 said their child was still in need of counseling or treatment (70 percent). It is possible that parents do not completely understand their child's benefit package and perceive that the benefits have been used when some might be available. In analyses the EQRO conducted for the State of Florida, parents mistakenly reported benefit package limits had been reached when they had not. In addition, health plans need to work closely with providers to help them understand the benefits package and facilitate the providers' adjustment of treatment plans and recommendations as needed.

Appendix A. Detailed Survey Methodology

Sample Selection Procedures

Survey participants were selected from a stratified random sample of children younger than 18 years old who were enrolled in STAR in Texas for six months or longer between April 2010 and March 2011. Selection criteria permitted one gap in enrollment lasting 30 days or less, provided that the gap did not occur in the first month or sixth month of the member's enrollment. The sample included only children with a record of one or more of the behavioral health diagnoses shown on **Table A1** during the study enrollment period. These criteria ensured that all children in the sample had received or were eligible to receive behavioral health services, and that families would have sufficient experience with the program to respond to the survey questions.

Table A1. Behavioral Health Diagnoses for Inclusion in the Sample

ICD-9-CM Code	Description
290	Dementias
291	Alcohol-induced mental disorders
292	Drug-induced mental disorders
293	Transient mental disorders due to conditions classified elsewhere
294	Persistent mental disorders due to conditions classified elsewhere
295	Schizophrenic disorders
296	Episodic mood disorders
297	Delusional disorders
298	Other nonorganic psychoses
299	Pervasive developmental disorders
300	Anxiety, dissociative, and somatoform disorders
301	Personality disorders
302	Sexual and gender identity disorders
303	Alcohol dependence syndrome
304	Drug dependence
305	Nondependent abuse of drugs
306	Physiological malfunction arising from mental factors
307	Special symptoms or syndromes, not elsewhere classified
308	Acute reaction to stress
309	Adjustment reaction
310	Specific nonpsychotic mental disorders due to brain damage
311	Depressive disorder, not elsewhere classified
312	Disturbance of conduct, not elsewhere classified
313	Disturbance of emotions specific to childhood and adolescence
314	Hyperkinetic syndrome of childhood
315	Specific delays in development
316	Psychic factors associated with diseases classified elsewhere

Table A2 shows the sampling strategy used for this survey. A target sample of 900 completed interviews was set, stratified to include equal representation from four groups: 1) STAR children, 2) STAR adolescents, 3) NorthSTAR children, and 4) NorthSTAR adolescents. This sample size was selected to: 1) provide a reasonable confidence interval for the survey responses, and 2) ensure there was a sufficient sample size to allow comparisons among the four program/age groups. Target samples were met or exceeded for all quotas except the NorthSTAR child group

Table A2. Survey Sampling Strategy

Sampling quota	Target sample	Completed interviews
STAR children	225	225
STAR adolescents	225	253
NorthSTAR children	225	212
NorthSTAR adolescents	225	247
Total	900	937

Using a 95 percent confidence interval, the responses provided in the tables and figures of this report are within 3.1 percentage points of the “true” responses in the population of children in STAR with behavioral health diagnoses. At the quota level, responses are within 6.5 percentage points for STAR children, 6.0 percentage points for STAR adolescents, and 6.3 percentage points for NorthSTAR children, and 5.4 percentage points for NorthSTAR adolescents.

Enrollment and claims data were provided to ICHP from a third party administrator for STAR in Texas. Researchers used enrollment data to identify members who met the sample selection criteria and to obtain their contact information. Member names, mailing addresses, and telephone contact information for 4,267 eligible STAR members were collected and provided to interviewers. For households with multiple eligible children, one child from the household was randomly chosen as the member for whom the caregiver would respond to the survey. Researchers compared respondents and non-respondents on member age, sex, and race/ethnicity to identify any participation biases in the final sample. Claims data were used to identify each sampled member’s primary and secondary behavioral health diagnoses.

Survey Instruments

The fiscal year 2010 STAR Child Behavioral Health Survey included:

- The Experience of Care and Health Outcomes (ECHO®) Survey 3.0²²
- Family Strain Index
- Items developed by ICHP pertaining to parent and member demographic and household characteristics

The ECHO® Survey is part of the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) family of surveys. The child version assesses parents' experiences and satisfaction

with various aspects of their child's behavioral health care, including access to and timeliness of care, communication with clinicians, and outcomes of counseling and treatment. The STAR Child Behavioral Health Survey used both the Managed Care Organization (MCO) and Managed Behavioral Health Organization (MBHO) versions of the ECHO[®]. The question sets of both versions are nearly identical, with additional questions dealing with health plan information and treatment in the MCO version. Respondents whose children received BH care through their STAR MCO completed the MCO version, and respondents whose children received BH care through a BHO and NorthSTAR completed the MBHO version.

The ECHO[®] composite measures are scores that combine answers to closely related survey questions, providing a comprehensive yet concise summary of results for multiple items. For the present survey, ECHO[®] composite scores were calculated in the following three domains of behavioral health care:

- *Getting Treatment Quickly*
- *How Well Clinicians Communicate*
- *Perceived Improvement*

A fourth domain, *Getting Treatment and Information From the Plan or MBHO*, was not included in analyses because of the low number of respondents who answered its corresponding questions. A fifth domain, *Information About Treatment Options*, was not discussed in the findings because it comprises a single question in the child version of the ECHO[®]. This question, which assesses whether parents were told about different treatments available for their child's condition, was included in the multivariate analyses described below.

Researchers scored the composites following CAHPS[®] specifications, with the range of values depending on the domain's type of response set. For *Getting Treatment Quickly* and *How Well Clinicians Communicate*, which have frequency-based response sets (Never, Sometimes, Usually, Always), scores range from 1.00 to 3.00. For *Perceived Improvement*, which has a problem-based response set (Much Better to Much Worse), scores range from 1.00 to 4.00. For each of the three domains, a respondent's composite score was not calculated or considered in analysis if the respondent answered less than half of the questions in the composite.

The survey also includes questions regarding the demographic and household characteristics of parents and their children. These questions were developed by ICHP and have been used in surveys with more than 25,000 Medicaid and CHIP members in Texas and Florida. The items were adapted from questions used in the National Health Interview Survey, the Current Population Survey and the National Survey of America's Families.^{23,24,25}

Respondents were also asked to report their child's height and weight. These questions allow calculation of the child's body mass index (BMI), a common population-level indicator of overweight and obesity.

Survey Data Collection

The EQRO sent letters written in English and Spanish to caregivers of 4,130 sampled STAR members, requesting their participation in the survey. Of the advance letters sent, 24 were returned undeliverable.

The EQRO contracted with ICF Macro to conduct the surveys using computer-assisted telephone interviewing (CATI) between September 2011 and November 2011. ICF Macro telephoned parents and caregivers of STAR members seven days a week between 9 a.m. and 9 p.m. Central Time. The Computers for Marketing Corporation (CfMC) CATI software package was used to rotate calls during weekdays (9 a.m. to 5 p.m.), weekday evenings (5 p.m. to 9 p.m.), and weekends (10 a.m. to 9 p.m.) to maximize the likelihood of reaching potential survey respondents. If a respondent was unable to complete the interview in English, ICF Macro referred the respondent to a Spanish-speaking interviewer for a later time. Of 937 completed interviews, 135 (14 percent) were done in Spanish.

Up to 25 attempts were made to reach a family before a member's phone number was removed from the calling circuit. No financial incentives were offered to participate in the surveys. Attempts were made to contact caregivers of 4,267 children who were enrolled in STAR. Twenty-three percent of families could not be located. Among those located, six percent indicated that their child was not enrolled in STAR, and three percent refused to participate. The response rate was 74 percent and the cooperation rate was 99 percent.

To test for participation bias, the distributions of child's age, sex, and race/ethnicity were collected from the enrollment data and compared between caregivers who responded to the survey and caregivers who did not respond to the survey. Compared with children of caregivers who responded to the survey, children of caregivers who did not respond were more likely to be Hispanic (53 percent vs. 48 percent), and slightly less likely to be White, non-Hispanic (23 percent vs. 26 percent).²⁶ Children of caregivers who responded to the survey were slightly older than children of caregivers who did not respond (11.5 vs. 11.2 years old).²⁷ Differences in child's sex between respondents and non-respondents were not significant. Differences in the distribution of child's race/ethnicity suggest that a participation bias may be present in the survey data. When interpreting results of this report, it should be taken into account that those who participated were less likely to have Hispanic children.

The respondent was selected by asking to speak to the person in the household who was most knowledgeable about the child's health and health care. The respondent was also asked to confirm that the child was presently enrolled in STAR in Texas.

For most survey items, caregivers had the option of stating they did not know the answer to a question. They also were given the choice to refuse to answer a particular question. If a respondent refused to answer an individual question or series of questions but completed the interview, their responses were included in the analyses following CAHPS[®] specifications.

Data Analysis

Descriptive statistics and formal statistical tests were performed using the statistical software package PASW 18.0 (IBM SPSS). Frequency tables showing descriptive results for each survey question are provided in a separate Technical Appendix. The statistics in this report exclude "do not know" and "refused" responses. Percentages shown in most figures and tables are rounded to the nearest whole number; therefore, percentages may not add up to 100 percent.

To facilitate inferences from the survey results to the STAR member behavioral health population, results were weighted to the full set of eligible beneficiaries in the enrollment dataset. A separate weight was calculated for each of the four sampling groups, in which frequencies were multiplied by the inverse probability of inclusion in the final sample (the total number of eligible members in the enrollment file divided by the number of members in the final sample). **Table A3** provides the weights for each of the four sampling groups. The frequencies and means presented in this report and the accompanying Technical Appendix incorporate survey weights.

Table A3. Quota Weighting Strategy

Quota	Population of eligible members (N)	Number of completed surveys (n)	Weight
STAR Children	8,671	225	38.54
STAR Adolescents	5,810	253	22.96
NorthSTAR Children	1,698	212	8.01
NorthSTAR Adolescents	968	247	3.92

Analysis of differences in frequencies used the Pearson Chi-square test of independence, and analysis of differences in means used t-tests and analysis of variance (ANOVA). To prevent overestimation of statistical significance resulting from sample size inflation, all tests were performed without weighting. These tests allowed comparison of frequencies and means among the delivery model quotas, and among the following demographic sub-groups within the sample:

- Child's age or age group
- Child's race/ethnicity
- Parent education

Body mass index was calculated by dividing the child's weight in kilograms by their height in meters squared. BMI could be calculated for 681 children in the sample for whom height and weight data were complete (73 percent). Height data were missing for 232 children (25 percent of the sample), and weight data were missing for 79 children (8 percent of the sample).

For children, the clinical relevance of BMI values varies by sex and age. Using sex-specific BMI-for-age growth charts from the National Center for Health Statistics (NCHS), children with valid BMI data were classified into one of four categories:²⁸

- 1) Underweight (less than 5th percentile)
- 2) Healthy (5th percentile to less than 85th percentile)
- 3) Overweight (85th percentile to less than 95th percentile)
- 4) Obese (95th percentile or greater)

These standardized BMI categories for children may be used for comparison with national and state averages. Analyses of child BMI excluded children younger than two years old, for whom data are not provided on NCHS BMI-for-age growth charts. Also excluded were 50 children whose BMI deviated considerably from age- and sex-specific child growth standards provided by the World Health Organization.^{29,30} By these standards, any BMI value that exceeded five standard deviations below or above the age- and sex-specific median BMI was considered biologically implausible and likely the result of errors in data collection.

Researchers also performed one multivariate analysis to predict the caregiver's perceived improvement in their child's behavioral health, controlling for demographic, health status, and health delivery characteristics. This analysis allowed researchers to assess the relative influence of health delivery factors (including certain ECHO[®] composite domains) on the ECHO[®] *Perceived Improvement* scores. The detailed methodology and results for this analysis can be found in Appendix C of this report.

Appendix B. Supplementary Tables

Table B1. Primary Mental Health Diagnosis among Children

Attention-Deficit/Hyperactivity Disorders (ADHD)	ADHD Combined Type ADHD Predominantly Inattentive Type ADHD Predominantly Hyperactive-Impulsive Type
Adjustment Disorders (i.e., a stress-related disturbance marked by emotional distress and impaired functioning that does not meet criteria for another DSM-IV-TR Axis I disorder)	Adjustment Disorder with Depressed Mood Adjustment Disorder with Anxiety Adjustment Disorder with Mixed Anxiety and Depressed Mood Adjustment Disorder with Disturbance of Conduct Adjustment Disorder with Mixed Disturbance of Emotions
Anxiety Disorders	Panic Disorder Agoraphobia Specific Phobia Social Phobia Posttraumatic Stress Disorder Acute Stress Disorder Generalized Anxiety Disorder Anxiety Disorder due to a Medical Condition Anxiety Disorder <i>Not Otherwise Specified</i> (NOS)
Pervasive Developmental Disorders	Autistic Disorder Asperger's Disorder Pervasive Developmental Disorder NOS
Disruptive Behavior Disorders	Conduct Disorder Oppositional Defiant Disorder Disruptive Behavioral Disorder NOS
Learning and Communication Disorders	Reading Disorder Mathematics Disorder Disorder of Written Expression Learning Disorder NOS Expressive Language Disorder Mixed Receptive-Expressive Language Disorder Phonological Disorder Stuttering Communication Disorder NOS
Mood Disorders	Major Depressive Disorder Dysthymic Disorder Depressive Disorder NOS Bipolar I Disorder Bipolar II Disorder Bipolar Disorder NOS Mood Disorder due to General Medical Condition Mood Disorder NOS
Substance Use/Abuse Disorders:	Drug or Alcohol Abuse Drug or Alcohol Dependence

Note: Not all diagnoses were grouped into a category and only the most prevalent categories of disorders were identified.

Table B2. Demographic Characteristics of Child Members and Their Caregivers

	STAR BH Survey Caregivers	STAR BH Survey Members
Gender		
Male	6.0%	56.8%
Female	94.0%	43.2%
Age		
	41.2 years (SD=12.9)	11.1 years (SD=3.9)
Race/Ethnicity		
Hispanic/Latino	55.4%	59.0%
White, non-Hispanic	25.3%	17.6%
Black, non-Hispanic	17.0%	18.2%
Other, non-Hispanic	2.3%	5.1%
Language		
Mostly English	58.6%	
Mostly Spanish	12.1%	
Both English and Spanish	29.3%	
Relationship to Child		
Biological Parent	75.0%	
Other Parent	1.3%	
Grandparent	16.9%	
Other	6.7%	
Educational Level		
Less than high school	30.9%	
High school diploma or GED	36.3%	
Some college/degree	32.8%	
Family Structure		
Single parent household	64.0%	
Two-parent household	35.6%	
Not a Parent	0.4%	
Marital Status		
Married/living with partner	36.3%	
Single	27.1%	
Divorced/Separated/Widowed	36.6%	
Nativity		
Born in the US	78.0%	

Table B3. Need/Use of Immediate Care Services by Age, Health Condition and Program

	% Needing Immediate Care	% with Good Access to Immediate Care^c	% Utilizing ER or Crisis Center
Age^b			
0-5 years	33%	91%	33%
6-11 years	34%	80%	16%
12-18 years	28%	60%	23%
ADHD^{a, b}			
Yes	26%	74%	15%
No	35%	67%	27%
Disruptive Behavioral Disorder			
Yes	27%	100%	6%
No	30%	68%	22%
Mood Disorders^{a, b}			
Yes	42%	60%	33%
No	28%	73%	19%
Adjustment Disorders			
Yes	27%	80%	24%
No	31%	68%	20%
Anxiety Disorders			
Yes	48%	64%	22%
No	30%	70%	21%
Comorbid Conditions^a			
No Comorbidities	26%	71%	20%
One comorbidity	40%	67%	25%
Two or more comorbidities	59%	70%	24%
Program			
STAR	31%	70%	22%
NorthSTAR	30%	70%	20%

^a Differences between groups on need for immediate care were significant at $p < 0.05$.

^b Differences between groups on utilization of emergency BH care were significant at $p < 0.05$.

^c Good access to immediate care is defined as “usually” or “always” getting immediate care as soon as it was needed.

Table B4. Family Strain within Different Diagnostic Categories

	Total	ADHD	Behavioral	Mood *	Adjustment *	Anxiety	> 1 Comorbidity
Very Low Strain	47%	47%	33%	34%	56%	51%	40%
Low Strain	35%	35%	48%	42%	28%	43%	37%
Moderate Strain	14%	14%	20%	19%	12%	3%	16%
High Strain	3%	4%	0%	5%	4%	3%	7%
* P<.05							

Appendix C. Multivariate Analysis

Many of the ECHO[®] Survey questions included in the fiscal year 2011 STAR Child Behavioral Health Survey could be combined to form composite scores in general domains of behavioral health care. The ECHO[®] composite domains presented in this report include: *Getting Treatment Quickly, How Well Doctors Communicate, Information About Treatment Options, and Perceived Improvement*. Among these, *Perceived Improvement* functions as a parent-report outcome measure, combining a parent's responses about their child's behavioral health improvement in the past year. Specifically, the *Perceived Improvement* domain assesses improvement in a child's ability to: 1) deal with daily problems, 2) deal with social situations, 3) accomplish things, and 4) deal with symptoms or problems.

Most questions in the ECHO[®] Child Survey address the parent's experiences with their child's behavioral health care, which indicate the quality of MCO/BHO *processes*. Thus, having a parent-report measure of their child's improvement provides a unique opportunity to assess the role of health care factors on subjective *outcomes*. For this reason, ICHP conducted a multivariate analysis to test the relative influence of demographic factors, health status, and health care factors on the *Perceived Improvement* score.

Methodology

This analysis was conducted using unconditional logistic regression, with the outcome dichotomized (0 or 1) to permit calculation of the likelihood of high perceived improvement.

The outcome variable may be interpreted as the odds that a parent would rate their child's behavioral health improvement highly, in comparison to their child's peers. In the absence of national standards for what represents "high" *Perceived Improvement* on the ECHO[®] survey, a threshold was selected based on the quartiles of distribution of responses within the study data. *Perceived Improvement* scores range from 1 (lowest) to 4 (highest). For the multivariate analysis, high *Perceived Improvement* was defined as any score equal to or greater than the 4th quartile of the distribution of responses (3.75). Thus, scores ranging from 1.00 to 3.74 were re-coded as "0", and scores ranging from 3.75 to 4.00 were re-coded as "1".

Five models predicting perceived improvement were conducted using the following groups of covariates:

1) *Demographics*:

- **Child's sex:** categorized as male or female. Male members were the reference group.
- **Child's race/ethnicity:** categorized as White, non-Hispanic; Hispanic; or Black, non-Hispanic. The reference group was White, non-Hispanic children. Members

of Other, non-Hispanic race/ethnicity were excluded from the analysis because they represented only 4 percent of members in the dataset.

- **Child's age:** categorized into three age cohorts: Up to 5 years old, 6 to 11 years old, or 12 to 18 years old. The reference group was children up to 5 years old.
- **Parent's level of education:** categorized into three levels of education: Less than high school, high school, some college or college graduate. The reference group was parents with less than high school education.
- **Household type:** categorized as single-parent or two-parent household, with two-parent households functioning as the reference group.

2) *Health status:*

- **Child's BMI classification:** categorized as obese or non-obese, with non-obese children functioning as the reference group.
- The following five prevalent diagnostic categories were included (as primary diagnoses). For each, children without the condition were the reference group:
 - **ADHD**
 - **Behavioral problems**
 - **Adjustment disorders**
 - **Anxiety disorders**
 - **Mood disorders**
- **Co-morbidities:** The presence of behavioral health co-morbidities was categorized as no co-morbidities or one or more co-morbidities. The reference group was children with no co-morbidities.

3) *Health delivery:*

- **Program:** categorized as STAR or NorthSTAR, with STAR as the reference group.
- The remaining three ECHO[®] composites were each dichotomized according to their quartiles of distribution in the dataset, with children in the upper quartile coded as "1" (representing the best health delivery experiences) and children in the lower three quartiles coded as "0". Children in the lower three quartiles for each composite were the reference group:
 - **Getting Treatment Quickly** (4th quartile = 3.00)
 - **How Well Clinicians Communicate** (4th quartile = 3.00)
 - **Information About Treatment Options** (4th quartile = 1.00)

4) *Demographics and health status:* This model included all covariates in Models 1 and 2.

- 5) *Demographics, health status, and health delivery*: This model included all covariates in Models 1, 2, and 3.

Table C1 presents the distribution of *Perceived Improvement* ratings (low or high) for each of the factors included in this analysis. Results for the five models are presented in **Table C2**, using odds ratios to indicate the influence of factors on *Perceived Improvement*. The odds ratios represent the likelihood of a parent perceiving their child's behavioral health improvement as high in comparison to those in the reference group (REF), controlling for all other factors in the model. An odds ratio above 1.00 suggests that children in the specified category are more likely to have high perceived improvement than children in the reference group. Conversely, an odds ratio below 1.00 suggests that children in the specified category are less likely to have high perceived improvement than children in the reference group. Odds ratios that are statistically significant at $p < 0.05$ are indicated with an asterisk (*).

Results

Among the demographic, health status, and health delivery factors tested in this analysis, only four had significant effects on the likelihood of a child's behavioral health improvement: 1) presence of one or more BH comorbidities, 2) *Getting Treatment Quickly*, 3) *How Well Clinicians Communicate*, and 4) *Information About Treatment Options*.

In Model 3, both *How Well Clinicians Communicate* and *Information About Treatment Options* were positively associated with better perceived improvement. In this model, caregivers who reported better communication with clinicians were 4.1 times more likely to report improvement in their child over the past year. Similarly, caregivers who reported better experiences with information about treatment options were 3.7 times more likely to say their child had improved.

In Model 4, caregivers of children who had one or more comorbid condition in addition to their mental/behavioral health diagnosis were about 40 percent less likely to report improvement in the past 12 months compared to caregivers of children with no comorbid conditions. In the final model (Model 5), which included all variables, *Getting Treatment Quickly* was associated with *Perceived Improvement*. Caregivers who reported receiving treatment quickly were 3.3 times more likely to report improvement in their child's behavioral health condition.

Among the five items that are part of the *How Well Clinicians Communicate* composite, all had significant associations with high *Perceived Improvement* in chi-square tests (**Table C3**): (1) Clinicians listening carefully; (2) Clinicians explaining things in a way that was easy to understand; (3) Clinicians showing respect for what parents had to say; (4) Clinicians spending enough time with the parent; and (5) Parents being involved as much as they wanted in their child's counseling or treatment. Good communication is important for clinicians in establishing a rapport with their patients' parents, and likely plays a role in establishing regular, continuous care. If a behavioral health care provider gives parents little opportunity to voice their concerns, seems disrespectful or abrupt, or does not share in clinical decision-making, parents may be less likely to return to that provider. Communication may also affect a child's improvement because a great deal of progress in behavioral health conditions takes place in the home.³¹

Parents who do not receive or are unable to understand counseling from clinicians on strategies to improve their child's health are less likely to see real improvement than those who understand and follow a clinician's instructions.

Table C1. Predictors of High Perceived Improvement – Distribution of Scores

Factor	ECHO [®] Perceived Improvement Score			
	1.00 – 3.74 (lower)		3.75 – 4.00 (higher)	
	N	%	N	%
Child's sex				
Male	370	69.8%	160	30.2%
Female	277	68.5%	128	31.6%
Child's race/ethnicity				
White, non-Hispanic	134	71.3%	54	28.7%
Hispanic	307	65.5%	162	34.5%
Black, non-Hispanic	157	73.4%	57	26.6%
Child's age				
0 – 5 years	39	72.2%	15	27.8%
6 – 11 years	225	70.5%	94	29.5%
12 – 18 years	340	68.0%	160	32.0%
Parent's education				
Less than high school	198	69.2%	88	30.8%
High school diploma	232	67.6%	111	32.4%
Some college	167	70.8%	69	29.2%
College degree	48	71.6%	19	28.4%
Household type				
Two-parent household	215	66.6%	108	33.3%
Single-parent household	420	70.7%	174	29.3%
Child's BMI classification				
Non-obese	323	68.1%	151	31.9%
Obese	135	72.6%	51	27.4%
ADHD				
No	372	67.3%	181	32.7%
Yes	275	72.0%	107	28.0%
Behavioral problem				
No	613	69.3%	272	29.8%
Yes	34	68.0%	16	32.0%
Adjustment disorder				
No	513	70.2%	218	29.8%
Yes	134	65.7%	70	34.3%

Anxiety				
No	619	69.2%	275	30.8%
Yes	28	68.3%	13	31.7%

Table C1 (continued)

Factor	ECHO [®] <i>Perceived Improvement Score</i>			
	1.00 – 3.74 (lower)		3.75 – 4.00 (higher)	
	N	%	N	%
Mood disorder				
No	548	69.0%	246	31.0%
Yes	99	70.2%	42	29.8%
Child’s BH co-morbidities				
No co-morbidities	520	68.2%	242	31.8%
One or more co-morbidities	127	73.4%	46	26.6%
Behavioral health delivery model				
STAR	322	67.6%	154	32.4%
NorthSTAR	325	70.8%	134	29.2%
Getting Treatment Quickly^a				
Quartiles 1-3	133	85.8%	22	14.2%
Quartile 4	44	72.1%	17	27.9%
How Well Clinicians Communicate				
Quartiles 1-3	301	80.5%	73	19.5%
Quartile 4	159	64.9%	86	35.1%
Information About Treatment Options^b				
Quartiles 1-3	140	80.0%	36	20.0%
Quartile 4	313	71.6%	124	28.4%
^a Difference significant at p < 0.05				
^b Difference significant at p < 0.01				

Table C2. Predictors of High Perceived Improvement – Odds Ratios

Factor	Model 1	Model 2	Model 3	Model 4	Model 5
Child's sex					
Male	REF	-	-	REF	REF
Female	0.97	-	-	1.10	1.19
Child's race/ethnicity					
White, non-Hispanic	REF	-	-	REF	REF
Hispanic	1.35	-	-	1.42	1.20
Black, non-Hispanic	0.85	-	-	0.80	1.30
Child's age					
0 – 5 years	REF	-	-	REF	REF
6 – 11 years	1.10	-	-	1.30	+
12 – 18 years	1.34	-	-	1.59	+
Parent's education					
Less than high school	REF	-	-	REF	REF
High school diploma	1.25	-	-	1.40	0.36
Some college	1.20	-	-	1.37	1.03
College degree	0.94			0.99	0.85
Household type					
Two-parent household	REF	-	-	REF	REF
Single-parent household	0.75	-	-	0.87	2.22
Child's BMI classification					
Non-obese	-	REF	-	REF	REF
Obese	-	0.80	-	0.76	0.74
Child's primary BH diagnosis					
ADHD					
No	-	REF	-	REF	REF
Yes	-	0.69	-	0.87	0.59
Behavioral problem					
No	-	REF	-	REF	REF
Yes	-	0.71	-	0.92	0.98
Adjustment disorder					
No	-	REF	-	REF	REF

Yes	-	0.86	-	0.92	0.40
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Table C2 (continued)

Factor	Model 1	Model 2	Model 3	Model 4	Model 5
Anxiety					
No	-	REF	-	REF	REF
Yes	-	0.61		0.51	+
Mood disorder					
No	-	REF	-	REF	REF
Yes	-	0.94	-	1.13	0.32
Child's BH co-morbidities					
No co-morbidities	-	REF	-	REF	REF
One or more co-morbidities	-	0.69	-	0.61 ^a	0.95
Behavioral health delivery model					
STAR	-	-	REF	-	REF
NorthSTAR	-	-	0.65	-	0.99
Getting Treatment Quickly					
Quartiles 1-3	-	-	REF	-	REF
Quartile 4	-	-	1.54	-	3.28 ^a
How Well Clinicians Communicate					
Quartiles 1-3	-	-	REF	-	REF
Quartile 4	-	-	4.11 ^a	-	2.53
Information About Treatment Options					
Quartiles 1-3	-	-	REF	-	REF
Quartile 4	-	-	3.72 ^a	-	5.07
+ numbers too small to calculate *p < 0.05					

Table C3. Individual Clinician Communication Items and *Perceived Improvement*

Percent of parents saying their child’s clinicians “always”...	ECHO [®] Perceived Improvement Score	
	1.00 – 3.74	3.75 – 4.00
Listened carefully to them ^a	73.9%	87.4%
Explained things in a way they could understand ^a	82.4%	94.3%
Showed respect for what they had to say ^a	85.2%	94.3%
Spent enough time with them ^a	72.6%	88.7%
Involved them in their child’s treatment as much as they wanted ^a	87.0%	95.6%

^a Difference significant at $p < 0.01$

Endnotes

¹ Gabel, S., M. Radigan, R. Wang, L.I. Sederer. 2011. "Health monitoring and promotion among youths with psychiatric disorders: program development and initial findings." *Psychiatric Services* 62(11): 1331-1337.

² Russell-Mayhew, S., G. McVey, A. Bardick, A. Ireland. 2012. "Mental Health, Wellness, and Childhood Overweight/Obesity." *Journal of Obesity* doi: 10.1155/2012/281801.

³ U.S. Department of Health and Human Services. 1999. *Mental Health: A Report of the Surgeon General*. Rockville, MD.

⁴ The Legislative Budget Board Staff (LBBS). 2009. *Texas State Government Effectiveness and Efficiency: Selected Issues and Recommendations*. Available at: <http://www.lbb.state.tx.us/>.

⁵ Halfon, N., M. Inkelas, R. Mistry, and L.M. Olson. 2004. "Satisfaction with Health Care for Young Children." *Pediatrics* 113: 1965-1972.

⁶ Mangione-Smith, R., and E.A. McGlynn. 1998. "Assessing the Quality of Healthcare Provided to Children." *Health Services Research* 33 (suppl.): 1059-1090.

⁷ Darby, C. 2002. "Patient/Parent Assessment of the Quality of Care." *Ambulatory Pediatrics* 2(suppl.): 345-348.

⁸ Consumer Assessment of Healthcare Providers and Systems (CAHPS®). 2011. "ECHO® Survey and Reporting Kit." Available at: <http://www.cahps.ahrq.gov/Surveys-Guidance/ECHO.aspx>.

⁹ American Psychiatric Association (APA). 2000. *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)*. Washington, D.C.: American Psychiatric Association.

¹⁰ Hoelscher, D.M., R.S. Day, E.S. Lee, R.F. Frankowski, S.H. Kelder, J.L. Ward, and M.E. Scheurer. 2004. "Measuring the Prevalence of Overweight in Texas Schoolchildren." *American Journal of Public Health* 94(6): 1002-1008.

¹¹ Texas Medicaid and Healthcare Partnership (TMHP). 2010. *Texas Medicaid Provider Procedures Manual. 7.4.1. Annual Encounters/Visits Limitations*. Available at: <http://www.tmhp.com/HTMLmanuals/TMPPM/2010/2010TMPPM-18-066.html>.

¹² $F=5.89$, $p = 0.02$

¹³ $F=4.96$, $p = 0.01$

¹⁴ $F=4.89$, $p < 0.001$

¹⁵ Values for 2011 may not match those presented in the body of this report because the analysis was performed on unweighted data.

¹⁶ Chi-square = 4.11, $p = 0.043$

¹⁷ Chi-square = 6.69, p = 0.010

¹⁸ Chi-square = 9.58, p = 0.002

¹⁹ Gabel, S., M. Radigan, R. Wang, L.I. Sederer. 2011. "Health monitoring and promotion among youths with psychiatric disorders: program development and initial findings." *Psychiatric Services* 62(11): 1331-1337.

²⁰ Russell-Mayhew, S., G. McVey, A. Bardick, A. Ireland. 2012. "Mental Health, Wellness, and Childhood Overweight/Obesity." *Journal of Obesity* doi: 10.1155/2012/281801.

²¹ Woo, B.K.P., V.T. Chan, N. Ghobrial, and C.C. Sevilla. 2007. "Comparison of two models for delivery of services in psychiatric emergencies." *General Hospital Psychiatry* 29: 489-491.

²² CAHPS[®]. 2011.

²³ National Center for Health Statistics. 2008. *National Health Interview Survey*. Available at: <http://www.cdc.gov/nchs/nhis.htm>.

²⁴ U.S. Census Bureau. 2008. *Current Population Survey*. Available at: <http://www.census.gov/cps>.

²⁵ Urban Institute. 2008. *National Survey of America's Families*. Available at: <http://www.urban.org/center/anf/nsaf.cfm>.

²⁶ Chi-square = 14.04, p = 0.015

²⁷ T-test = -2.328, p = 0.020

²⁸ National Center for Health Statistics (NCHS). 2000. "Clinical Growth Charts: BMI-for-Age." Available at: <http://www.cdc.gov/growthcharts/>.

²⁹ World Health Organization. 2008. "WHO Child Growth Standards." Available at: <http://www.who.int/childgrowth/software/en/>.

³⁰ World Health Organization. 2008. "Growth Reference Data for 5 – 19 Years." Available at: <http://www.who.int/growthref/en>.

³¹ Aman, M.G., et al. 2009. "Medication and Parent Training in Children With Pervasive Developmental Disorders and Serious Behavior Problems: Results From a Randomized Clinical Trial." *Journal of the American Academy of Child and Adolescent Psychiatry*, 48(12): 1143-1154.