



Texas Medicaid Managed Care STAR Kids Program Focus Study Pre-implementation Descriptive Report

Contract Years 2015 and 2016

**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

Children and adolescents in Medicaid with special health care needs and disabilities represent a unique population that poses particular challenges with regard to health services delivery, quality evaluation, and quality improvement. Historically, these children received acute care services through a fee-for-service model, and in most states, long-term services and supports (LTSS) through institutions and waiver programs. Texas recently joined a growing number of states that are implementing managed care models to provide services for children with special health care needs (CSHCN) and children with disabilities.

The STAR Kids program, implemented on November 1, 2016, provides managed care services to Medicaid members 20 years of age or younger who receive SSI benefits or benefits through any of several state programs for children with disabilities – including members living in long-term care facilities or enrolled in a waiver program for home- and community-based services (HCBS). To assist Texas Health and Human Services (HHS) in assessing implementation of STAR Kids, the Institute for Child Health Policy at the University of Florida – the external quality review organization (EQRO) for Texas Medicaid – is conducting a multi-year focus study with two primary aims: (1) to identify utilization and quality-of-care measures appropriate to the STAR Kids population; and (2) to compare findings on selected survey and administrative measures in the population of members eligible for STAR Kids before and after program implementation.

This *Pre-implementation Descriptive Report* is the second of two EQRO focus study reports scheduled for 2017. Using administrative and survey data, the study provides baseline results on utilization, access, and satisfaction measures for Medicaid beneficiaries with disabilities who were eligible for STAR Kids prior to program implementation. Texas HHS and the STAR Kids managed care organizations (MCOs) can use these findings to identify aspects of health care quality that are relevant for the STAR Kids population and that require monitoring or improvement during the first year of implementation.

Methodology

The EQRO conducted the pre-implementation study in two phases: (1) a telephone survey of caregivers of individuals who were eligible for STAR Kids in the year prior to implementation; and (2) a summary of results on administrative measures for individuals eligible for STAR Kids, using claims and encounter data from calendar years 2014 and 2015. To assist in identifying STAR Kids-eligible members for this study, HHS provided the EQRO with a list of children, adolescents, and young adults enrolled in one or more of the following four service groups in fiscal year 2014: (1) Medically Dependent Children Program (MDCP); (2) Texas Department of Aging and Disability Services (DADS) Home- and Community-Based Services (HCBS) programs for children with intellectual and developmental disabilities (IDDs); (3) Fee-for-service-SSI; and (4) STAR+PLUS-SSI.

The caregiver survey incorporated items from the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Health Plan Survey for Children with Chronic Conditions (Version 5.0), and the National Survey of CSHCN (NS-CSHCN). Administrative measure

sources included: the Healthcare Effectiveness Data and Information Set (HEDIS); the Agency for Healthcare Research and Quality (AHRQ) Pediatric Quality Indicators (PDIs); and 3M measures of potentially preventable events (PPEs).

Summary of Findings

STAR Kids-eligible members in the different service groups differed considerably with regard to demographics, health status, and health service needs. In particular:

- Members in MDCP were more likely to live in households with two married parents, and less likely to live in Spanish-speaking households. Members in DADS IDD waivers were generally older, with the highest proportion of adolescents among all service groups. Members in FFS-SSI and STAR+PLUS-SSI were more likely to be Hispanic.
- Members in all service groups had high rates of special health care needs, ranging from 88 percent in FFS-SSI to 99 percent in MDCP. Members in MDCP had higher rates of limitations to activities of daily living, while members in DADS IDD waivers were more likely to need treatment or counseling for an emotional, behavioral, or developmental condition.
- Service needs were highest in the MDCP group. In particular, members in MDCP had a disproportionately greater need for home health care and assistance, special medical equipment and devices, specialist appointments, and special therapies.

These differences in member characteristics highlight the importance of assessing each service group separately and serve as a starting point for developing approaches to quality monitoring and improvement in the STAR Kids population. The profile of special health care and service needs for each STAR Kids eligibility group can help in focusing efforts toward ensuring provider network adequacy, developing appropriate disease and care management programs, and identifying and prioritizing quality-of-care measures.

Caregivers were generally satisfied with the care from their children's personal doctors, specialist providers, and overall health care. However, several key survey measures showed need for improvement and/or a need to focus on specific service groups. These included:

- CAHPS® *Getting Needed Care* and *Getting Specialized Services*, particularly in the highest-need groups (MDCP and DADS IDD waivers).
- CAHPS® *Prescription Medications* among members in MDCP and DADS IDD waivers.
- NS-CSHCN measures of access to care coordination for members in all groups.

Findings on administrative measures revealed the need for continued monitoring with regard to developmental screening for children in the first three years of life; well-care visits for children in the first 15 months of life; compliance with asthma medications for members transitioning from FFS and STAR+PLUS; follow-up after hospitalization for mental illness, particularly in the 7-day follow-up period; alcohol and other drug dependence treatment for adolescents; reductions in prescription of multiple, concurrent antipsychotics; improvements in rates of metabolic screening for members on concurrent antipsychotics; and improvements in rates of psychosocial care as first-line treatment for FFS-SSI and STAR+PLUS-SSI members prescribed antipsychotics.

Members in MDCP had the highest rates of potentially preventable hospital admissions (PPAs), potentially preventable emergency department visits (PPVs), and potentially preventable readmissions within 30 days (PPRs). Members in all groups had generally high rates of PPVs, although PPVs were the least costly type of potentially preventable event. With regard to reasons for PPEs:

- Seizures and pneumonia were the most common reasons for PPAs in MDCP, DADS IDD waivers, and FFS-SSI, while bipolar disorder was the most common reason for PPAs in STAR+PLUS-SSI. Admissions for gastroenteritis, upper respiratory infections, and urinary tract infections also were common.
- Infections of the upper respiratory tract and otitis media were the most common reason for PPVs in all four service groups.
- The most common reason for PPRs differed considerably across service groups. In MDCP, nearly half of all PPRs were due to medical readmissions for *acute conditions* that may be related to care delivered during the initial admission or in the post-discharge period. Among members in DADS IDD waivers and FFS-SSI, approximately four in ten PPRs resulted from mental health or substance abuse readmissions (following an initial admission for a mental health or substance abuse diagnosis). In STAR+PLUS, mental health or substance abuse readmissions accounted for more than three-quarters of PPRs.

Recommendations

Based on these findings, the EQRO makes the following recommendations for HHS and the STAR Kids MCOs for ensuring access to and quality of care for STAR Kids members during the first year of implementation:

- *STAR Kids MCOs should tailor outreach, quality monitoring, and improvement programs to the demographics, health status, and health service needs of each service group.*
- *STAR Kids MCOs should consider expanding on provider education programs to improve experiences with and effectiveness of care in several domains, including cultural competency and compliance with recommended antipsychotic prescribing practices.*
- *HHS and STAR Kids MCOs should consider further studies to assess reasons for deficiencies in care coordination in the STAR Kids population.*
- *HHS and STAR Kids MCOs should consider further studies to understand reasons for low rates of developmental screening in this population.*
- *STAR Kids MCOs should conduct root cause analyses to determine reasons for low rates of treatment for alcohol and other drug dependence (AOD) among adolescents.*
- *STAR Kids MCOs should develop and implement performance improvement projects to reduce potentially preventable events in this population – in particular, PPVs in all service groups, and all types of PPEs among members in MDCP.*

Introduction

In recent years, states have increasingly turned to risk-based managed care for child and adolescent Medicaid beneficiaries with disabilities. Managed care techniques can create a pathway toward higher-quality services and more predictable costs, provided that cost savings are achieved by eliminating inefficiencies rather than by reducing the quality or availability of care for people with disabilities.¹ According to a survey conducted by the Kaiser Family Foundation in 2010, 26 states required managed care for at least some children who receive Supplemental Security Income (SSI), and 32 states required managed care for at least some children with special health care needs (CSHCN).^{2,3} However, managed care penetration rates for people with disabilities in these states remain low, with only 15 states covering 75 percent or more of such enrollees through managed care organizations (MCOs) as of July 2015.⁴

In order to expand Medicaid managed care enrollment for children, adolescents, and young adults with disabilities⁵, Texas Health and Human Services (HHS) launched the STAR Kids program on November 1, 2016. Participation in the program is mandatory for Medicaid members 20 years of age or younger who receive services or benefits through SSI; SSI and Medicare; the Medically Dependent Children Program (MDCP) waiver; the Youth Empowerment Services (YES) waiver; a community-based intermediate care facility for individuals with an intellectual disability or related condition (ICF/IID) or nursing facility; the Medicaid Buy-in program; or any of four DADS home- and community-based services (HCBS) waiver programs for children with intellectual and developmental disabilities (IDDs). Beneficiaries in all of these eligibility groups now receive acute care services through STAR Kids, including primary and specialty care, preventive care, hospital visits, and prescription drugs, as well as certain types of long-term services and supports (LTSS) such as personal care services and private duty nursing. Families of STAR Kids members also receive help with care coordination.

Through a contract with HHS, the Institute for Child Health Policy (ICHP) at the University of Florida serves as the Texas External Quality Review Organization (EQRO). This report presents findings produced by the EQRO on selected survey and administrative measures for Texas Medicaid members who were eligible for STAR Kids prior to implementation, including children, adolescents, and young adults enrolled MDCP, a DADS HCBS waiver program for individuals with IDD, fee-for-service (FFS) and SSI, or STAR+PLUS and SSI. For both phases, this report presents findings separately for each of the four service groups of interest.

Methodology

This section provides a detailed description of the methodology used to generate results from the EQRO's pre-implementation study of STAR Kids-eligible members. The evaluation includes administrative measures of access, utilization, and effectiveness of care calculated using claims and encounter data for calendar years 2014 and 2015, and survey measures of caregiver experiences and satisfaction with care collected in telephone surveys administered in 2016.

The pre-implementation study focused on children, adolescents, and young adults with disabilities in four service groups of interest to HHS: (1) MDCP; (2) DADS IDD waivers; (3) FFS-SSI; and (4) STAR+PLUS-SSI. The DADS IDD waiver group includes members in the Community Living Assistance and Support Services (CLASS), Deaf Blind with Multiple Disabilities (DBMD), Home- and Community-based Services (HCS), and Texas Home Living (TxHmL) waiver programs. Prior to acquiring the list of members eligible for this study, the EQRO used enrollment statistics from 2013 and 2014 provided by HHS for each of the four service groups to determine study feasibility and set survey completion targets. This study excludes dual-eligible members, who represented less than one percent of STAR Kids-eligible members in the 2013/2014 enrollment data.

Identification of STAR Kids-Eligible Members

The EQRO identified individuals eligible for STAR Kids in the four service groups from member lists compiled by HHS using fiscal year 2014 enrollment data; together, the lists contained 173,605 unique members. In many cases, individuals appeared on more than one list. This occurred mainly because FFS and STAR+PLUS are the primary delivery systems for acute care, while the MDCP and DADS waivers provide long-term services and supports. **Table 1** shows the distribution of unique members in the member list according to service group.

Overall, the largest service group was FFS-SSI (N=158,634), followed by STAR+PLUS-SSI (N=19,686), MDCP (N=5,607), and DADS IDD waiver (N=5,445). These counts represent the sum of all members in each service group shown on **Table 1**; some members are therefore duplicated across service groups. For example, a member in MDCP and FFS-SSI counts as being in both MDCP and FFS-SSI for the purposes of defining each service group population.

The most common types of duplication across lists involved members who were enrolled in both FFS-SSI and MDCP (2.97 percent of all unique members), FFS-SSI and a DADS IDD waiver (2.65 percent), and FFS-SSI and STAR+PLUS (2.91 percent). Most MDCP and DADS IDD waiver members in the population had concurrent enrollment in FFS-SSI, which is expected given that FFS is the primary type of insurance for acute care services in these populations. Members who were listed as being in both FFS-SSI and STAR+PLUS-SSI likely had been enrolled in FFS for one part of fiscal year 2014 and STAR+PLUS for the other part.

Table 1. Service Group Populations for STAR Kids Pre-Implementation Study

	Population	Percent of total population
Single Service Group		
MDCP	192	0.11%
DADS IDD Waiver	314	0.18%
FFS-SSI	143,429	82.62%
STAR+PLUS-SSI	14,302	8.24%
Two Service Groups		
MDCP and FFS-SSI	5,163	2.97%
DADS IDD Waiver and FFS-SSI	4,600	2.65%
STAR+PLUS and FFS-SSI	5,046	2.91%
MDCP and DADS IDD Waiver	7	0.004%
Three Service Groups		
DADS IDD Waiver and STAR+PLUS	156	0.09%
MDCP, DADS IDD Waiver, and FFS-SSI	214	0.12%
MDCP, FFS-SSI, and STAR+PLUS	28	0.02%
DADS IDD Waiver, FFS-SSI, and STAR+PLUS	151	0.09%
Four Service Groups		
MDCP, DADS IDD Waiver, FFS-SSI, and STAR+PLUS-SSI	3	0.002%
Total Unique Members in Population	173,605	

For quality-of-care reporting, it is important that members be counted in a single service group. In cases where listed members were duplicated across two or more service groups, the EQRO resolved service group assignment according to the program membership combinations outlined in **Table 2**. Membership in MDCP took precedence over all other service groups, while membership in a DADS IDD waiver took precedence over FFS or STAR+PLUS. In cases where members were listed as being in both FFS and STAR+PLUS, but not a waiver program, the method of resolving service group assignment depended on the type of data being collected. For survey measures, the EQRO screened for the correct program directly from caregivers in the telephone survey script. For administrative measures, the EQRO considered the program of record on the anchor date specific to the administrative measure, or excluded the case from measures where continuous enrollment is required.

Table 2. Resolving Service Group Membership for Members on More Than One List

Program membership combination	Resolution
MDCP and DADS IDD	MDCP
MDCP and FFS/ STAR+PLUS	MDCP
DADS IDD and FFS / STAR+PLUS	DADS IDD
FFS and STAR+PLUS (no waiver)	Program confirmed by caregiver (survey) Program of record on anchor date (administrative)
MDCP, DADS IDD, and FFS / STAR+PLUS	MDCP

Caregiver Survey

To assess caregivers' experiences and satisfaction with care their children received prior to STAR Kids implementation, the EQRO developed a telephone survey tool and fielded a survey with 986 caregivers of STAR Kids-eligible members ages 20 and younger between August and October 2016. The caregiver survey provides baseline information on special health care needs; access to and timeliness of routine, urgent, and specialist care; experiences communicating with providers and receiving patient-centered care; experiences with care coordination; and overall satisfaction with care. The same caregivers will be contacted to collect this information in a follow-up survey project beginning in May 2018.⁶

Sample Selection Procedures

The EQRO selected survey participants from four random samples of children and adolescents 20 years of age and younger as of November 1, 2016, representing one sample for each of the four service groups in this study. Using enrollment data from fiscal year 2014 for the population of members in each group, the EQRO identified individuals who met the sample selection criteria and obtained their contact information. Individuals who belonged to more than one service group during fiscal year 2014 were assigned to a service group following the method described on **Table 2**. The EQRO developed screening language in the telephone survey tool to confirm the listed member's service group at the time of the call, and to reassign members who changed service groups. Additionally, the screener ensured that the member had been enrolled in the specified service group for at least six months. This criterion was chosen to conform with the recall period of CAHPS® Health Plan surveys for Medicaid and to ensure that the caregiver had sufficient history with their child's health care to respond to the survey questions.

The EQRO set a target of 250 completed telephone interviews in each of the four service group quotas to be collected over a 10-week fielding period with caregivers of sampled members. Member names, mailing addresses, and telephone contact information for 6,700 eligible individuals were collected and provided to interviewers. For households with multiple children enrolled in any of the four service groups, one member from the household was randomly chosen to be included in the sample. Member age, sex, and race/ethnicity were also collected from the enrollment data to allow for comparisons between respondents and non-respondents and identify any possible participation biases in the final sample.

Survey Instrument

In collaboration with HHS, the EQRO designed a telephone survey tool for caregivers of children and adolescents eligible for the STAR Kids program. The EQRO considered two established survey tools for children with chronic conditions and special health care needs as a source of survey items: (1) the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Health Plan Survey for Children with Chronic Conditions (Version 5.0H);⁷ and (2) the National Survey of CSHCN (NS-CSHCN).⁸ For survey items derived from the NS-CSHCN, the EQRO made modifications to question wording to conform with a six-month recall period, ensuring consistency with questions derived from the CAHPS® survey.

The survey instrument covers caregivers' experiences and satisfaction with several types of care their children received in the past six months, including care from personal doctors, well-child care, specialist care and specialized services, care coordination, transportation, prescription medicines, and transition to adult care. Additionally, experiences and satisfaction with the child's health plan is obtained in a separate section applicable only to members in STAR+PLUS.

Specifically, the survey tool included:

- Key items from the CAHPS® Health Plan Survey 5.0H Child Questionnaire with Children with Chronic Conditions Measures (Medicaid module).
- Supplemental items from the CAHPS® Health Plan Survey 4.0 regarding shared decision-making, home health care or assistance, and medical transportation.
- Items from the NS-CSHCN addressing care coordination, person-centered care, and transition to adult care.
- Items developed by the EQRO regarding contact with personal doctors prior to emergency department use.
- Items developed by the EQRO pertaining to member and caregiver demographics and household characteristics.

The CAHPS® Health Plan Survey is a product of the Agency for Healthcare Research and Quality (AHRQ) and is used extensively by states and health plans for measuring and reporting consumers' experiences with their or their children's health plans and providers. For the STAR Kids Pre-implementation Survey, the EQRO included key items from the Medicaid module of CAHPS® 5.0H – a version of the survey used by the National Committee for Quality Assurance (NCQA) and by state Medicaid agencies for reporting core quality measures to the Centers for Medicare and Medicaid Services (CMS).⁹ The EQRO also included questions to assess shared decision-making, access to home health care, and access to medical transportation from the CAHPS® 4.0 Supplemental Item set.¹⁰ The medical transportation items were modified to collect experiences with either health plan transportation or the Texas Medicaid Medical Transportation program, which operates statewide.

The CAHPS® survey allows for the calculation and reporting of health care composites, which are scores that combine results for closely related survey items, as well as single-item measures in key domains. The EQRO calculated CAHPS® composite and single-item scores for STAR Kids-eligible members in the following eight domains:

<i>Getting Needed Care</i>	<i>Getting Specialized Services</i>
<i>Getting Care Quickly</i>	<i>Personal Doctor</i>
<i>How Well Doctors Communicate</i>	<i>Getting Needed Information</i>
<i>Prescription Medicines</i>	<i>Shared Decision-Making</i>

The first three measures – *Getting Needed Care*, *Getting Care Quickly*, and *How Well Doctors Communicate* – are core CAHPS® composites. The other five are CAHPS® composites (*Getting Specialized Services*, *Personal Doctor*, and *Shared Decision-Making*) or single-item measures (*Prescription Medicines*, *Getting Needed Information*) based on the item set for children with chronic conditions. Specifications by AHRQ produce scores that represent the percentage of caregivers who “always” had positive experiences in the given domain. National benchmarks for these scores are available through the CAHPS® Database.¹¹ However, these standards are based on health plan data for the general Medicaid population, which should be taken into account when making comparisons with the STAR Kids-eligible population. The EQRO calculated scores for composite and single-item measures in all domains using AHRQ specifications. The single item used for *Prescription Medicines*, which asks caregivers how often it was easy to get prescription medicines for their child, was modified for this survey to ensure responses were available for all service groups.¹²

Additionally, AHRQ and NCQA have separate item sets for the *Shared Decision-Making* composite. The AHRQ version includes items that address communication between caregivers and providers about choices for the child’s treatment generally. The NCQA version includes items that deal with communication between caregivers and providers specifically in regard to decision-making for the child’s medications. As part of an effort to identify appropriate measures for the STAR Kids population moving forward, the EQRO fielded both item sets, allowing for *Shared Decision-Making* to be calculated following both AHRQ and NCQA specifications.

In addition, the CAHPS® Health Plan Survey for Children with Chronic Conditions incorporates the CSHCN Screener, which is a five-item, caregiver-reported screening tool to identify children with special health needs based on the definition provided by the federal Maternal and Child Health Bureau (MCHB).¹³ The screener asks caregivers whether their child has any of the following five types of special needs, lasting or expected to last for at least 12 months:

- Needing or using medication prescribed by a doctor
- Above-routine need for or use of medical, mental health, or educational services
- Limitations that result in an inability to do things most children of the same age can do
- Needing or using specialized therapies such as physical, occupational, or speech therapy
- Needing or receiving emotional, behavioral, or developmental treatment or counseling

The NS-CSHCN was a national telephone survey designed to collect information about the health and well-being of CSHCN from parents and caregivers, and was fielded in 2001, 2005/2006, and 2009/2010.^{14,15} For the STAR Kids Pre-implementation Survey, the EQRO included items from several sections of the NS-CSHCN, including questions addressing person-centered care, access to specialist referrals, care coordination, and transition to adult care (see Error! Reference source not found. in **Appendix**). The CSHCN screener, which is now part of the CAHPS® 5.0 survey, was also originally part of NS-CSHCN.

The survey included questions developed by the EQRO regarding the demographic and household characteristics of caregivers and their children. These questions have been used in surveys with more than 100,000 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.^{16,17,18} Caregivers were also asked to report their child's height and weight. These questions allow for calculation of the child's body mass index (BMI), a common population-level indicator of overweight and obesity.

Survey Data Collection

The University of Florida Survey Research Center (UFSRC) conducted the surveys using computer-assisted telephone interviewing (CATI) from August to October 2016. Prior to calling, the EQRO sent letters written in English and Spanish to caregivers of 6,700 sampled STAR Kids-eligible members, requesting their participation in the survey. UFSRC telephoned caregivers of STAR Kids-eligible members seven days a week between 9:00 a.m. and 9:00 p.m. Central Time. If a Spanish-speaking respondent was unable to complete the interview in English, UFSRC referred the respondent to a Spanish-speaking interviewer. Up to 20 attempts were made to reach a member's caregiver before the listed phone number was removed from the calling circuit.

A total of 986 caregivers of STAR Kids-eligible members 20 years old and younger participated in the survey. Attempts were made to contact 6,499 caregivers of STAR Kids-eligible members sampled for the survey. No financial incentives were offered to participate in the surveys. Twenty-three percent of families could not be located. Among those who were located, 6.3 percent indicated that the child was not enrolled in any of the four service groups for this study and 17 percent refused to participate. The cooperation rate was 54 percent, representing the percentage of caregivers who participated out of all caregivers with whom surveyors were able to speak. The overall response rate, which is calculated out of all located, eligible cases that surveyors attempted, was 26 percent.

Data Analysis

Descriptive statistics and statistical tests were performed using IBM SPSS Statistics 23.0 (Armonk, NY). A separate technical appendix provides frequency tables showing descriptive results for each survey question and composite measure by service group. The statistics presented in this report exclude "do not know" and "refused" responses.

To test for participation bias, the distributions of members' age, sex, and race/ethnicity were collected from the enrollment data and compared between members whose caregivers

responded to the survey and members whose caregivers did not respond. Statistically significant differences in participation were found by racial/ethnic group, with caregivers of White, non-Hispanic children and Hispanic children having significantly higher participation rates than caregivers of Black, non-Hispanic children (59.0 percent and 58.0 versus 41.1 percent). Survey results are weighted to account for potential response bias by members' race/ethnicity (weight correction). These weighting schemes allow for more reliable inferences of survey findings to the member populations within each service group quota. Because of fundamental differences in the service group populations, summaries do not include "overall" rates (i.e., results are not pooled across service groups), which precludes the need for base weights.

BMI was calculated by dividing the member's weight in kilograms by their height in meters squared. BMI could be calculated for 728 members in the sample (74 percent) for whom height and weight data were complete. 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:¹⁹

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

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 44 members whose BMI deviated considerably from age- and sex-specific child growth standards provided by the World Health Organization.^{20,21} 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 or caregiver recall.

Lastly, the EQRO obtained information on third-party insurance for all STAR Kids-eligible members on the fiscal year 2014 list and included this information in the survey datasets. Having third-party insurance to supplement public insurance coverage is common among STAR Kids-eligible members – particularly those in the MDCP and DADS IDD waiver programs (59 percent and 38 percent, respectively). However, in the survey data, there were no statistically significant differences in caregiver experience and satisfaction between those with and without third-party insurance. This finding likely is related to the fact that survey data on experiences and satisfaction with health services do not always differentiate among services according to payor. The survey results in this report are not stratified according to third-party insurance.

Administrative Measures

Based on a review of the policy and academic literature, and with input from project stakeholders at HHS, the EQRO compiled a list of administrative measures appropriate to the STAR Kids population. A primary source of measures was the CMS Core Measures Set for CHIPRA Reporting, which includes measures from the Healthcare Effectiveness Data and Information Set (HEDIS) and other agencies to evaluate access to and quality of primary and preventive care, maternal and perinatal health, care for acute and chronic conditions, and

behavioral health care.²² In addition, the EQRO included the AHRQ Pediatric Quality Indicators (PDIs) and 3M measures of potentially preventable hospital admissions (PPAs), readmissions within 30 days (PPRs), and emergency department visits (PPVs).

Table 3 lists the full set of administrative measures assessed in the STAR Kids pre-implementation study, which address utilization, access, and effectiveness of care in four domains: (1) primary and preventive care; (2) care for respiratory conditions; (3) behavioral health care; and (4) potentially preventable events.

Table 3. STAR Kids Pre-implementation Administrative Measures

Measurement domain	Measure name (abbreviation)	Measure steward
Primary and preventive care	Developmental Screening in the First Three Years of Life (DEV) ^a	OHSU ^b
	Well-Child Visits in the First 15 Months of Life (W15) ^a	NCQA
	Well-Child Visits in the 3 rd , 4 th , 5 th , and 6 th Years of Life (W34) ^a	NCQA
	Adolescent Well-Care Visit (AWC) ^a	NCQA
Care for respiratory conditions	Appropriate Testing for Children with Pharyngitis (CWP)	NCQA
	Medication Management for People with Asthma (MMA) ^a	NCQA
Behavioral health care	Follow-Up Care for Children Prescribed Attention-Deficit Hyperactivity Disorder (ADHD) Medication (ADD) ^a	NCQA
	Use of Multiple Concurrent Antipsychotics in Children and Adolescents (APC) ^a	NCQA
	Metabolic Monitoring for Children and Adolescents on Antipsychotics (APM)	NCQA
	Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP) ^a	NCQA
	Follow-Up After Hospitalization for Mental Illness (FUH) ^a	NCQA
	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET)	NCQA
Potentially preventable events	PDI – Asthma (PDI 14)	AHRQ
	PDI – Diabetes Short-Term Complications (PDI 15)	AHRQ
	PDI – Gastroenteritis (PDI 16)	AHRQ
	PDI – Perforated Appendix (PDI 17)	AHRQ
	PDI – Urinary Tract Infection (PDI 18)	AHRQ
	Potentially Preventable Admissions (PPA)	3M
	Potentially Preventable Readmissions (PPR)	3M
	Potentially Preventable Emergency Department Visits (PPV)	3M

^a Measure is part of the 2017 CMS Core Measures Set for CHIPRA Reporting.

^b OHSU = Oregon Health and Science University

The EQRO used member-level enrollment information, health care claims and encounter data, and pharmacy data from calendar years 2014 and 2015 to calculate administrative measures. The enrollment files contain information about each member's age, sex, and months of enrollment. The member-level claims and encounter data contain Current Procedural Terminology (CPT) codes, International Classification of Diseases, 10th Revision (ICD-10-CM) codes, place-of-service codes, and other information necessary to calculate the quality-of-care indicators. The member-level pharmacy data detail filled prescriptions, including drug name, dose, date filled, number of days prescribed, and refill information.

Measure Sources

The NCQA HEDIS measures are the most well-developed and widely used administrative measures in Medicaid quality-of-care evaluation. As of December 2016, 28 states reported results of HEDIS measures to NCQA for their managed care programs, and 7 states with managed care programs did not report HEDIS results to NCQA but used HEDIS measures for other purposes.²³ The EQRO regularly reports results of HEDIS measures for all Texas Medicaid managed care programs; these measures are a fundamental component of MCO performance measurement efforts, including the state's pay-for-quality program. The EQRO calculates rates for HEDIS measures using NCQA-certified software.

The AHRQ PDIs provide population-level rates of inpatient admissions for five different ambulatory care sensitive conditions (ACSCs), which are "conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease."²⁴ These measures, which are derived from hospital inpatient discharge data, show rates of admissions for asthma, diabetes short-term complications, gastroenteritis, perforated appendix, and urinary tract infection. Following CMS guidance on reporting, the EQRO calculates rates per 100,000 member-months for all PDIs except for perforated appendix, which is calculated per 100 admissions for appendicitis.

The EQRO uses 3M Health Information Systems software to calculate rates of potentially preventable events (PPEs) to assess the frequency and cost of visits that might have been prevented with better primary and outpatient care. Rates are expressed as the weighted actual number of visits per 1,000 member-months, with lower rates indicating better performance. The software assigns weights based on resource utilization to account for different PPEs and their health system impacts. Events requiring more health care resources (e.g., hospital bed-hours) are weighted more heavily. This report provides findings on three types of PPEs:²⁵

- *Potentially preventable admissions (PPAs)* are hospital admissions for ACSCs, using a more comprehensive list of conditions than the list maintained by AHRQ. They are identified primarily from the reason for admission as documented using the assigned All Patient Refined Diagnosis-Related Groups (APR-DRGs). Results are risk-adjusted based on the health status of members in the population as defined by Clinical Risk Group (CRG).
- *Potentially preventable readmissions (PPRs)* are return hospitalizations that may have been caused by deficiencies in care during the initial hospital stay or poor coordination of services at the time of discharge or during follow-up. The readmission must be clinically related to the

initial admission (based on APR-DRG) and occur during the defined readmission period. The EQRO used a 30-day readmission interval. Because not all admissions have the same risk of readmission, results are risk-adjusted based on the APR-DRG of the initial admission.

- *Potentially preventable emergency department visits (PPVs)* account for conditions that could otherwise be treated in non-emergency settings. As with PPAs, they involve ACSCs that could be treated effectively with adequate patient monitoring and follow-up. They are identified using the Enhanced Ambulatory Patient Grouping assigned by the 3M software to the emergency department encounter. Results are risk-adjusted based on the health status of members in the population as defined by CRG.

Measure Reporting

The EQRO calculated pre-implementation findings on these measures for all STAR Kids-eligible children, adolescents, and young adults (20 years old or younger) who were enrolled in the four service groups of interest in fiscal year 2014. This report provides results of administrative measures for each service group separately, among only members who did not have third-party insurance. As mentioned in the survey methodology above, having third-party insurance to supplement public insurance coverage is common among STAR Kids-eligible members. Claims paid through third-party insurance are not captured in the electronic claims and encounter data used by the EQRO to calculate administrative rates, which can result in lower rates of access, utilization, and effectiveness of services than were actually rendered. It was therefore necessary to separate the administrative results according to third-party insurance status.

Administrative results for members both with and without third-party insurance are available in a separate technical appendix. To illustrate the impact of third-party insurance on rates for administrative measures, members in MDCP with third-party insurance (who represent 59 percent of the MDCP population in this study) had consistently lower rates than their counterparts without third-party insurance on several important measures, as shown in examples provided on **Table 4** below.

Table 4. Differences in Administrative Rates on Selected HEDIS Measures for MDCP Members With and Without Third-Party Insurance

HEDIS® Measure	Administrative Rate	
	Third-party insurance	No third-party insurance
Well-Child Visits in the 3 rd , 4 th , 5 th , and 6 th Years of Life	10.9%	62.6%
Adolescent Well-Care Visit	13.5%	56.2%
Follow-up Care for Children Prescribed ADHD Medication – Initiation	28.4%	63.2%
Medication Management for People with Asthma - 75% Covered	45.9%	58.9%

The artificially lower rates among MDCP members with third-party insurance are evident both in measures that rely on encounter data (e.g., measures of well-care visits) and measures that rely on pharmacy data (e.g., measures of medications for ADHD and asthma). These patterns also occurred in the DADS waiver group (among whom 38 percent had third-party insurance), as well as the FFS-SSI and STAR+PLUS-SSI groups (among whom 17 percent and 11 percent, respectively, had third-party insurance). The implications of third-party insurance for reporting generally are less significant for the FFS-SSI and STAR+PLUS-SSI populations due to the smaller percentage of members in these service groups with third-party insurance. However, to ensure consistency in reporting and comparability of findings, this report provides administrative rates among only those without third-party insurance for all four service groups.

Findings

This section presents findings of the EQRO's pre-implementation study of STAR Kids-eligible members on both survey and administrative measures. Information provided in this section is important for understanding quality of care and experiences with health services for members in the four largest eligibility groups prior to the November 1, 2016 implementation date, and can be used by Texas Medicaid health plans and other stakeholders to define priorities for quality monitoring and improvement during the first year of implementation.

Survey Measures

The STAR Kids Pre-implementation Survey collected information on caregivers' experiences and satisfaction with the health services received by members enrolled in MDCP (N=247), a DADS IDD waiver (N=236), FFS-SSI (N=255), and STAR+PLUS-SSI (N=248). This report presents survey findings in five sections: (1) Demographics, health status, and service needs; (2) Access and timeliness of care; (3) Person-centered care; (4) Care coordination; and (5) Overall satisfaction with care. Composite and single-item measure rates include members both with and without third-party insurance, based on statistical tests that found no significant differences between these groups on the survey measures.

The EQRO performed statistical tests on survey measure results among the four service groups, where appropriate. Differences among groups were considered statistically significant where $p < 0.05$, using a Bonferroni correction to account for the number of statistical tests conducted. The EQRO also applied a low denominator threshold for reporting, which is based on the low denominator threshold used by NCQA for health plan accreditation.²⁶ Results are listed as "LD" (low denominator) in cases where the denominator for the measure was lower than 60 in MDCP or STAR+PLUS-SSI, lower than 57 in the DADS IDD waiver group, and lower than 62 in FFS-SSI.

To provide a basis for comparison with children and adolescents in the national population, this report provides national averages on single child health indicators from the 2009/2010 National Survey of Children with Special Health Care Needs (NS-CSHCN), as well as CAHPS® national standards for children in Medicaid available from the 2016 CAHPS® Health Plan Survey Database.^{27,28} It should be noted that national results from the NS-CSHCN are based on

children with health care needs, but are not specific to children in Medicaid, while national results from the CAHPS® database are based on children in Medicaid, but are not specific to CSHCN or children with disabilities.

Demographics and Health Status

Table 5 provides demographic information on members in the STAR Kids Pre-implementation Survey with regard to gender, age, and race/ethnicity; information on caregivers with regard to gender, relation to member, race/ethnicity, marital status, and education; and household-level information on number of parents and primary language spoken. **Table 6** provides information on special health care needs and **Table 7** provides body mass index (BMI) classification for members in each of the four service groups.

Demographic characteristics

Differences among the service groups on several demographic factors were statistically significant, particularly for member's age and race, and for caregiver's race, marital status, and education.

- FFS-SSI and STAR+PLUS SSI members were similar on most demographic factors, with one-half to two-thirds being male, from 12 to 20 years old, and of Hispanic race/ethnicity; four in ten living in households with two married parents; and one-third living in Spanish-speaking households. The percentage of caregivers with a high school education or higher was lower in STAR+PLUS-SSI (57 percent) than in FFS-SSI (68 percent).
- MDCP members, in contrast, were typically younger (with 10 percent from 1 to 5 years old), less likely to be Hispanic (36 percent) or live in a Spanish-speaking household (14 percent), more likely to live in a household with two parents (72 percent), and far more likely to have a caregiver with a high school education or greater (90 percent).
- DADS IDD waiver members were similar to MDCP members in some respects, yet were far more likely to be adolescents (90 percent), less likely to live in a household with two married parents (65 percent), and slightly less likely to be Hispanic (44 percent) or live in a Spanish-speaking household (24 percent).

Table 5. STAR Kids Pre-implementation Survey – Member and Caregiver Demographics

Member characteristics	MDCP	DADS IDD	FFS-SSI	STAR+PLUS-SSI
Gender				
Female	45%	37%	33%	33%
Male	55%	63%	67%	67%
Age group ^a				
1 to 5 years old	10%	0%	8%	6%
6 to 11 years old	43%	10%	37%	31%
12 to 20 years old	48%	90%	55%	63%
Race/ethnicity ^a				
Black, non-Hispanic	11%	12%	17%	23%
Hispanic	36%	44%	65%	64%
White, non-Hispanic	43%	37%	13%	9%
Other, non-Hispanic	10%	6%	5%	5%
Caregiver characteristics	MDCP	DADS IDD	FFS-SSI	STAR+PLUS-SSI
Gender				
Female	90%	92%	96%	94%
Male	10%	8%	4%	6%
Relation to member				
Mother or father	95%	91%	89%	92%
Other family	3%	6%	8%	5%
Legal guardian	1%	3%	3%	3%
Race/ethnicity ^a				
Black, non-Hispanic	11%	12%	18%	23%
Hispanic	33%	39%	62%	62%
White, non-Hispanic	48%	44%	15%	11%
Other, non-Hispanic	8%	5%	5%	4%
Marital status ^a				
Married/unmarried partner	73%	65%	41%	40%
Divorced/separated	17%	19%	29%	25%
Single	8%	13%	28%	32%
Education ^a				
High school or greater	90%	83%	68%	57%
Household type ^a				
Two-parent	72%	65%	38%	42%
Language ^a				
English	83%	75%	62%	61%
Spanish	14%	24%	35%	37%

^a Differences among service groups were statistically significant at $p < 0.05$.

Table 6. STAR Kids Pre-implementation Survey – CSHCN Status

Member characteristics	MDCP	DADS IDD	FFS-SSI	STAR+PLUS -SSI	NS-CSHCN ^b
CSHCN					
Any special need ^a	99%	94%	88%	90%	-
Needs medication ^a	88%	75%	64%	64%	76%
Needs more services than usual ^a	89%	85%	62%	65%	42%
Activity limitations ^a	93%	84%	57%	53%	24%
Needs special therapy ^a	88%	76%	48%	38%	22%
Needs counseling ^a	59%	70%	55%	67%	32%

^a Differences among service groups were statistically significant at $p < 0.05$.

^b National averages from the 2009/2010 NS-CSHCN are provided for comparison. The percentage of children with any special need from NS-CSHCN is not shown because it is calculated out of the general population. Percentages of children with specific needs from NS-CSHCN are calculated out of CSHCN only.

Table 7. STAR Kids Pre-implementation Survey – BMI Classification

	MDCP	DADS IDD	FFS-SSI	STAR+PLUS- SSI
BMI classification				
Underweight	13%	12%	9%	10%
Healthy weight	51%	46%	41%	44%
Overweight	13%	20%	19%	13%
Obese	22%	22%	31%	34%

Health characteristics

As expected for the STAR Kids-eligible population, the vast majority had at least one special health care need – from 88 percent in FFS-SSI to 99 percent in MDCP. With regard to the five types of special health care needs, differences among the service groups were statistically significant.

- MDCP had the highest rates in all CSHCN categories except need for counseling for an emotional, behavioral, or developmental condition. They had notably higher rates of activity limitations and need for more services than usual for children of the same age, particularly when compared to members in FFS-SSI or STAR+PLUS-SSI.
- DADS IDD waiver members were the most likely to need counseling (70 percent). When compared to members in FFS-SSI and STAR+PLUS-SSI, they also had higher rates of activity limitations and need for more services than usual, although the differences were not as pronounced as for MDCP members.

- FFS-SSI members had lower rates for most types of special needs, although approximately two-thirds had need for medication and more services than usual for children of the same age. Among FFS-SSI members, the most common special need was for medication.
- STAR+PLUS-SSI members had similar rates of special needs as members in FFS-SSI, with a slightly greater need for emotional, behavioral, or developmental counseling and a slightly lower need for special therapies, such as physical, speech, or occupational therapy.

Classification of members' BMI showed no significant differences among the service groups. The rate of obesity was approximately one in five among members in MDCP and DADS IDD waivers, and one in three among members in FFS-SSI and STAR+PLUS SSI.

Service needs

Several CAHPS® survey items also function as indicators of members' need for different types of health services, which are collected by asking the caregiver whether their child needed a particular type of care, or whether the caregiver tried to get care for their child in the last six months. **Table 8** lists nine types of health services and the percentage of members in each STAR Kids eligibility group who needed each.

Table 8. STAR Kids Pre-implementation Survey – Members' Need for Services

Needed or tried to get...	MDCP	DADS IDD	FFS-SSI	STAR+PLUS-SSI	CAHPS® Child Medicaid 2016 ^d
Routine care ^a	96%	88%	80%	79%	74%
Urgent care ^a	57%	35%	28%	32%	36%
Specialist appointment ^a	86%	66%	44%	39%	23%
Medication prescription or refill ^a	93%	85%	74%	66%	82%
Home health care ^a	88%	56%	17%	15%	N/A ^e
Special medical equipment ^a	59%	29%	13%	12%	12%
Special therapies ^{a, b}	74%	57%	42%	31%	21%
Treatment or counseling ^c	27%	31%	35%	44%	42%
Medical transportation	20%	13%	15%	13%	N/A ^e

^a Differences among STAR Kids eligibility groups were significant at $p < 0.05$.

^b Includes physical, occupational, and speech therapies.

^c Includes treatment or counseling for emotional, developmental, or behavioral problems.

^d CAHPS® national standards for children in Medicaid in 2016 are provided for comparison.

^e Supplemental items from the CAHPS® Health Plan Survey 4.0. No national comparison available.

Members in MDCP had the highest levels of need in all service types except treatment or counseling for an emotional, developmental, or behavioral problem. Members in STAR+PLUS-SSI had the lowest levels of need in all but two service types – urgent care and treatment or

counseling. Differences were statistically significant among STAR Kids eligibility groups for all service types except medical transportation. The most notable differences were observed for services disproportionately needed by MDCP members, including home health care (88 percent); special medical equipment and devices, such as walkers, wheelchairs, and nebulizers (59 percent); specialist appointments (86 percent); and special therapies (74 percent).

Differences in member characteristics highlight the importance of assessing each service group separately and serve as a starting point for developing approaches to quality monitoring and improvement in the STAR Kids population. Demographic differences may be associated with differences in living environment, social support, literacy, and health literacy – all of which must be taken into consideration in developing appropriate outreach and care strategies for CSHCN and children with disabilities. The profile of special health care and service needs for each STAR Kids eligibility group can help in focusing efforts toward ensuring provider network adequacy, developing appropriate disease and care management programs, and identifying and prioritizing quality-of-care measures.

Access and Timeliness of Care

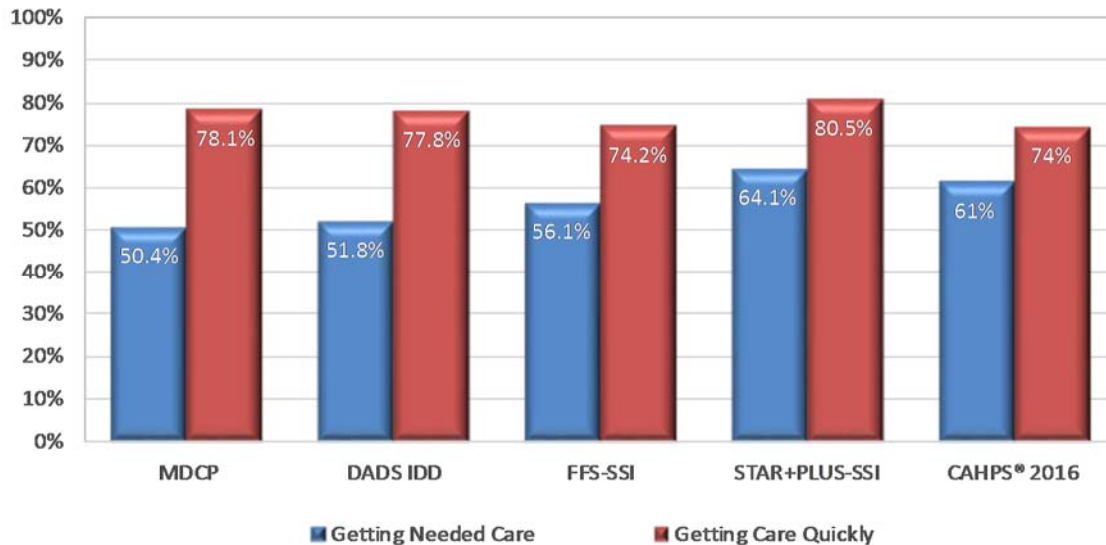
This section presents findings on CAHPS® items regarding access to and timeliness of routine, urgent, and specialist care; prescription medications; and specialized services that are important for children and adolescents with disabilities. It also includes findings on NS-CSHCN items dealing with specialist referrals and items developed by the EQRO to collect caregiver-reported information on potentially avoidable emergency department use.

CAHPS® *Getting Needed Care* and *Getting Care Quickly*

Figure 1 shows results for the CAHPS® *Getting Needed Care* and *Getting Care Quickly* core composites, representing the percentage of caregivers who “always” had good experiences in each domain for each of the four service groups.

- *Getting Needed Care* combines responses to questions about: (1) how often it was easy to get care, tests, or treatment for the child; and (2) how often the child got an appointment to see a specialist as soon as it was needed. Between half and two-thirds of caregivers had positive experiences in this domain. Rates for *Getting Needed Care* were generally lower in higher-need groups such as MDCP (50 percent) and DADS IDD waivers (52 percent).
- *Getting Care Quickly* combines responses to questions about: (1) how often the child received urgent care as soon as it was needed; and (2) how often the child received an appointment for a check-up or routine care as soon as it was needed. Timeliness of urgent and routine care was generally good among members in all service groups, with approximately three-quarters of caregivers saying they “always” had positive experiences.

Figure 1. CAHPS® *Getting Needed Care* and *Getting Care Quickly* – Percentage of Caregivers Who “Always” Had Positive Experiences



CAHPS® *Getting Specialized Services*

As shown in **Table 8**, children, adolescents, and young adults eligible for STAR Kids have a particular need for specialized services, such as special medical equipment and devices, special therapies, and treatment or counseling for emotional, developmental, or behavioral problems. These items comprise the CAHPS® *Getting Specialized Services* composite measure, which is presented in **Table 9**, separately for each STAR Kids eligibility group.

Table 9. CAHPS® *Getting Specialized Services* – Percentage of Caregivers Who Said it Was “Always” Easy to Get Services

“Always” easy to get:	MDCP	DADS IDD	FFS-SSI	STAR+PLUS-SSI	CAHPS® Child Medicaid 2016 ^d
Special medical equipment and devices	33.8%	32.8%	LD ^c	LD ^c	57%
Special therapies ^a	38.5%	44.8%	53.7%	43.4%	56%
Treatment or counseling ^b	29.7%	31.1%	47.1%	48.2%	55%
<i>Getting Specialized Services Composite</i>	<i>34.0%</i>	<i>36.2%</i>	<i>43.7%</i>	<i>46.6%</i>	<i>55%</i>

^a Includes physical, occupational, and speech therapies

^b Includes treatment or counseling for emotional, developmental, or behavioral problems

^c LD = low denominator

^d CAHPS® national standards for children in Medicaid in 2016 are provided for comparison.

Notably, the groups with the highest need for special medical equipment and therapies (MDCP and DADS IDD waiver) had lower rates for *Getting Specialized Services*. Only one-third of caregivers of MDCP and DADS IDD waiver members said it was “always” easy to get specialized services. Among the three types of services, access was lowest for treatment or counseling.

Single-item access measures

To complete the profile of caregiver-reported access to care for STAR Kids-eligible members, the EQRO also summarized single-item measures addressing prescription medications, specialist referrals, and emergency department utilization.

- **Medications.** The CAHPS® *Prescription Medicines* measure asks caregivers how often it was easy to get prescription medications for their child. Among caregivers who got or refilled prescription medicines for their child, approximately three-quarters said it was “always” easy to get these medicines in FFS-SSI (74 percent) and STAR+PLUS (79 percent), while less than two-thirds said it was “always” easy to get medicines in MDCP (63 percent) and DADS IDD waivers (62 percent). These findings compare with the 70 percent reported by CAHPS® for children in Medicaid nationally in 2016. Differences among service groups were statistically significant, and highlight a need to focus on access to prescription medicines among STAR Kids members in MDCP and DADS IDD waivers.
- **Specialist referrals.** One item from NS-CSHCN asks, among caregivers whose children needed a referral to see a specialist physician, how much of a problem it was to get the referral. **Figure 2** shows that the majority of caregivers – between two-thirds and three-quarters – said it was “not a problem” to get needed specialist referrals. Issues with access to specialist referrals was more evident in the FFS-SSI group, where 10 percent of caregivers said getting specialist referrals was a “big problem.” These findings are similar to those reported in the 2009/2010 NS-CSHCN (not shown in figure), in which 76 percent of caregivers said it was not a problem to get a specialist referral for their child.
- **Emergency department use.** A significant minority of caregivers reported their child went to the emergency department (ED) at least once in the last six months, ranging from 19 percent in DADS IDD waivers to 34 percent in MDCP. For caregivers whose children visited the ED, the EQRO asked: (1) whether they contacted the child’s personal doctor before going to the ED; and (2) whether they visited the ED because they could not get an appointment at a doctor’s office or clinic as soon as needed. Findings on these items are shown for members in MDCP, FFS-SSI, and STAR+PLUS-SSI in
- **Figure 3.** The denominator was too low to report these measures for the DADS IDD waiver group. Overall, caregivers of MDCP members were the most likely to have contacted their child’s personal doctor before going to the ED (46 percent), and the least likely to state they went to the ED because they could not get a timely appointment for outpatient care (19 percent). Access to primary and outpatient care, for the purpose of reducing avoidable ED utilization, is an important focus for quality monitoring and improvement in STAR Kids, particularly among members transitioning from FFS or STAR+PLUS.

Figure 2. Percentage of Caregivers Who Said it Was a “Big Problem,” a “Small Problem,” or “Not a Problem” to Get a Specialist Referral for Their Child

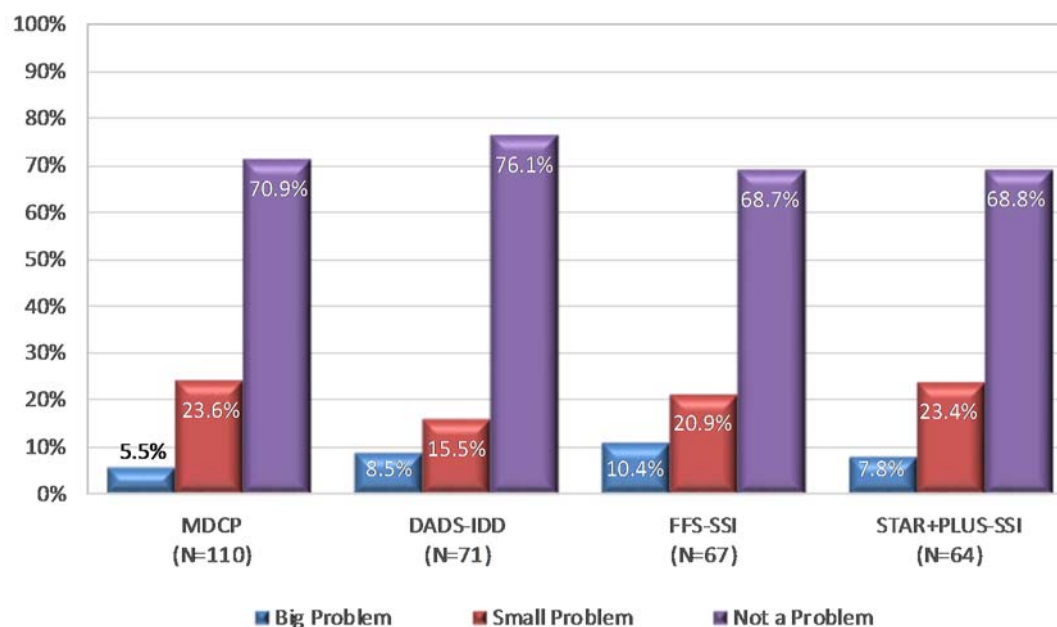
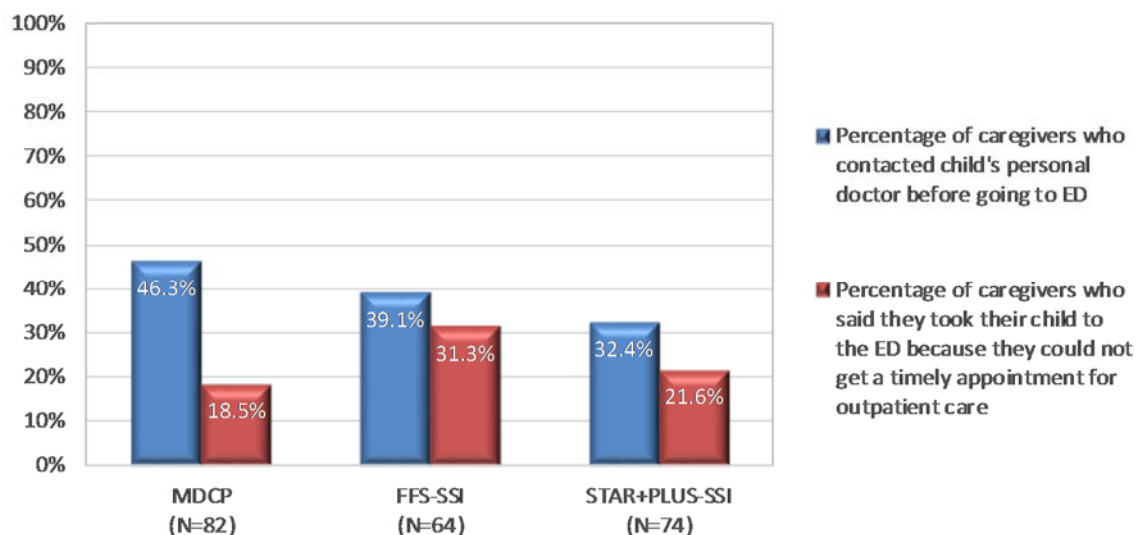


Figure 3. Caregiver-Reported Emergency Department Utilization in MDCP, FFS-SSI, and STAR+PLUS-SSI



Person-centered Care

Person- or patient-centered care refers to health care that is oriented toward the whole person, representing a partnership with patients and families that recognizes the patient's needs, culture, values, and preferences.²⁹ Person-centered practices have become increasingly important in health services and policy, as evident, for example, in the growth and dissemination of the NCQA patient-centered medical home (PCMH) recognition program for primary care practices, and in new CMS rules for person-centered HCBS planning.^{30,31} Survey measures relevant to person-centered care include those that address communication with providers, shared decision-making, and cultural competence.

Usual source of care

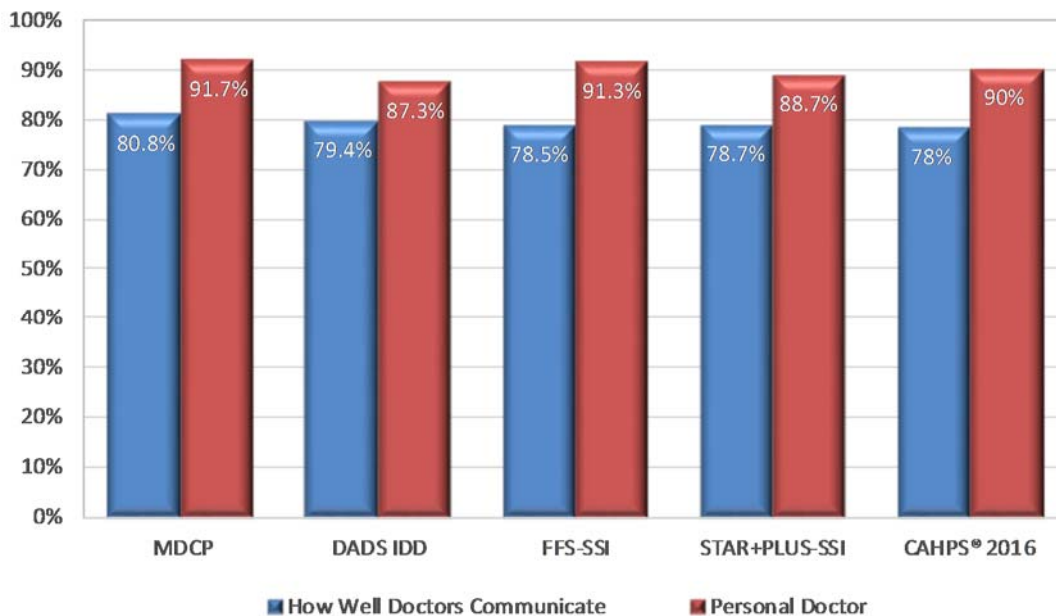
Having a personal doctor is a fundamental component of person-centered care. The vast majority of caregivers participating in the STAR Kids Pre-implementation Survey reported their children had a personal doctor, including 97 percent in MDCP, 99 percent in DADS IDD waivers, 92 percent in FFS-SSI, and 93 percent in STAR+PLUS-SSI. These findings are higher than the 90 percent reported by CAHPS® for children in Medicaid nationally in 2016.

CAHPS® *How Well Doctors Communicate and Personal Doctor*

Several CAHPS® questions address experiences communicating with personal doctors, which can be combined into the composite measures *How Well Doctors Communicate* and *Personal Doctor*. **Figure 4** shows the percentage of caregivers who “always” had positive experiences in these domains for each of the four service groups.

- *How Well Doctors Communicate* combines responses to questions about how often the child's personal doctor: (1) explained things in a way that was easy for the caregiver to understand; (2) listened carefully to the caregiver; (3) showed respect for what the caregiver had to say; (4) explained things in a way that was easy for the child to understand; and (5) spent enough time with the child. More than three-quarters of caregivers in all STAR Kids eligibility groups reported having positive experiences with these aspects of communication. Notably, the percentage of caregivers who reported their child's personal doctor spent enough time with their child was significantly higher in MDCP (77 percent) and DADS IDD waivers (74 percent) than in FFS-SSI (62 percent) and STAR+PLUS-SSI (64 percent).
- *Personal Doctor* combines responses to questions about whether the child's personal doctor: (1) talked with the caregiver about how the child is feeling, growing, or behaving; (2) understood how the child's medical, behavioral, or other health conditions affect the child's day-to-day life; and (3) understood how the child's medical, behavioral, or other health conditions affect the family's day-to-day life. Ratings on this measure were very high for all service groups, with approximately 9 in 10 caregivers reporting positive experiences with their child's personal doctor on these dimensions of care.

Figure 4. CAHPS® *How Well Doctors Communicate* and *Personal Doctor* – Percentage of Caregivers Who “Always” Had Positive Experiences



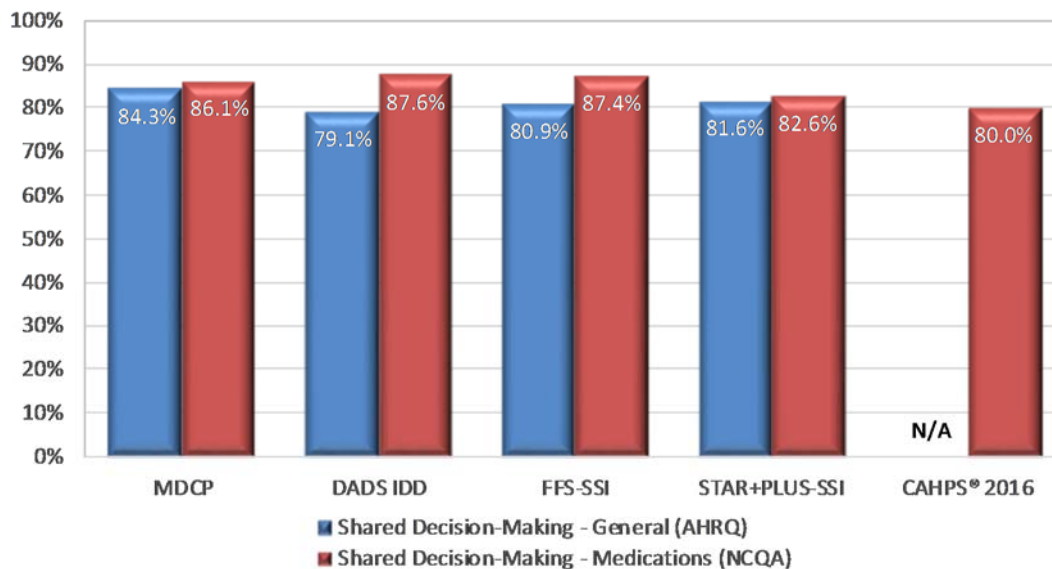
CAHPS® *Shared Decision-Making*

The CAHPS® survey also includes questions that address experiences with shared decision-making. The original *Shared Decision-Making* composite – which is reported by AHRQ – includes items from the CAHPS® 4.0 survey about general choices for the child’s treatment or health care, including choices about medicine, surgery, or other treatment. A more current *Shared Decision-Making* composite – which is reported by NCQA – includes items from the CAHPS® 5.0H survey that are specific to choices regarding prescription medicines. The EQRO included both item sets in the STAR Kids Pre-implementation Survey, as shown on **Figure 5**.

The AHRQ *Shared Decision-Making* composite combines responses to questions about whether the child’s personal doctor or other health providers: (1) told the caregiver there was more than one choice for their child’s treatment; (2) talked with the caregiver about the pros and cons of each choice for their child’s treatment; and (3) asked the caregiver which choice they thought was best for their child. Approximately 8 in 10 caregivers in all service groups reported having positive experiences with shared decision-making for their child’s general treatment.

The NCQA *Shared Decision-Making* composite is calculated in cases where the caregiver reported their child’s health provider talked with them about starting or stopping a prescription medicine for their child. It combines responses to questions about whether the child’s personal doctor: (1) talked with the caregiver about reasons they might want their child to take a medicine; (2) talked with the caregiver about reasons they might *not* want their child to take a medicine; and (3) asked the caregiver what they thought was best for their child. Rates on this measure were slightly higher than the AHRQ version, ranging from 83 percent in STAR+PLUS-SSI to 88 percent in DADS IDD waivers.

Figure 5. CAHPS® Shared Decision-Making for General Care and Prescription Medicines – Percentage of Caregivers Who Had Positive Experiences ^a



Single-item measures of person-centered care

The EQRO also summarized several single-item measures from CAHPS® and NS-CSHCN relevant to person-centered care, including measures addressing getting needed information, discussion with providers about preventing illness, providers' sensitivity to family values and customs, and sense of partnership in decisions about the child's care.

- Getting needed information.** The CAHPS® *Getting Needed Information* measure asks caregivers how often they had their questions answered by their child's doctors or other health providers. Approximately three-quarters of caregivers said they "always" had their questions answered in MDCP (79 percent), DADS IDD waivers (72 percent), FFS-SSI (72 percent), and STAR+PLUS-SSI (79 percent). These findings are similar to the 73 percent reported by CAHPS® for children in Medicaid nationally in 2016.
- Discussions about preventing illness.** The survey also asked caregivers whether their child's doctor or other health providers talked with them about specific things they could do to prevent illness in their child. The percentage of caregivers who said "yes" varied across members in MDCP (82 percent), DADS IDD waivers (74 percent), FFS-SSI (72 percent), and STAR+PLUS-SSI (67 percent), which compares with 71 percent reported by CAHPS® for children in Medicaid nationally in 2016. Although differences were not statistically significant among the STAR Kids eligibility groups, STAR Kids MCOs may consider provider education programs to increase these rates, particularly among members transitioning from STAR+PLUS and FFS.

^a The EQRO calculated the national rate for *Shared Decision-Making* (NCQA) from individual items reported in the CAHPS® 2016 database for children in Medicaid (items 11, 12, and 13). No national rate for the AHRQ version is available, as it is based on CAHPS® 4.0 items that are no longer reported.

- **Sensitivity to family values and customs.** One item from the NS-CSHCN asks caregivers how often their child's doctors and other health providers are sensitive to their family's values and customs. The percentage of caregivers who said "always" was significantly higher in MDCP (76 percent) than in DADS IDD waivers (68 percent), FFS-SSI (67 percent), or STAR+PLUS-SSI (64 percent). These findings are similar to the 70 percent reported by NS-CSHCN for children nationally in 2009/2010, and highlight the importance of continued training in cultural competence for STAR Kids network providers.
- **Sense of partnership in treatment decisions.** The NS-CSHCN also includes an item that asks caregivers how often their child's doctors or other health providers helped them feel like a partner in their child's care. Overall, approximately three-quarters of caregivers said "always" to this question in MDCP (77 percent), DADS IDD waivers (73 percent), FFS-SSI (71 percent), and STAR+PLUS-SSI (71 percent). These findings are similar to or higher than the 67 percent reported by NS-CSHCN for children nationally in 2009/2010.

Transition to adult care

The STAR Kids Pre-implementation Survey included several questions from the NS-CSHCN about assistance from providers in preparing adolescents for transition to adult care. Questions about transition to adult care were asked only of caregivers of members 11 years of age or older with at least one type of special health care need, and whose providers treated only children. The percentage whose providers treated only children varied considerably across service groups, ranging from 66 percent in STAR+PLUS-SSI to 92 percent in MDCP.

Table 10 shows caregivers' responses to questions about: (1) whether their adolescent child's providers prepared them for their child's transition to adult care; and (2) if not, whether a discussion about transition to adult care would have been helpful. In general, one-quarter to one-half of caregivers reported having discussions with their child's doctors about transition to adult care. Differences observed in caregivers' experiences across service groups were not statistically significant due to relatively small sample sizes.

In addition, caregivers of CSHCN were asked how often their child's providers encouraged their children to take responsibility for their own health care needs. Wording for this question was different for caregivers of adolescents ("taking medication, understanding his or her health, or following medical advice") and caregivers of children 5 to 10 years old ("learning about his or her health, and helping with treatments or medications"). For both age groups, differences in the percentage of providers who encouraged members to take responsibility for their own health was significantly different among the four eligibility groups.

- The percentage of caregivers of adolescents with special health care needs who said their child's providers "always" encouraged their child to take responsibility for his or her health was 31 percent in MDCP, 27 percent in DADS IDD waivers, 49 percent in FFS-SSI, and 53 percent in STAR+PLUS-SSI.

- The percentage of caregivers of CSHCN (5 to 10 years old) who said their child's providers "always" encouraged their child to take responsibility for his or her health was 27 percent in MDCP, 47 percent in FFS-SSI, and 48 percent in STAR+PLUS-SSI. The denominator for this measure was too low to report for the DADS IDD waiver group.

Table 10. Provider Assistance with Transition to Adult Care for Adolescents with Special Health Care Needs – Percentage of Caregivers Who Said “Yes”

	MDCP	DADS IDD	FFS- SSI	STAR+PLUS- SSI	NS- CSHCN ^b
Have any of your child's doctors talked to you about having your child eventually see doctors or other health care providers who treat adults?	33.0%	39.6%	29.2%	42.9%	21%
Would a discussion about doctors who treat adults have been helpful to you?	50.0%	55.4%	55.6%	LD ^a	27%
Have your child's doctors or other health care providers talked with you or your child about his/her health care needs as he/she becomes an adult?	52.8%	51.5%	57.0%	53.5%	44%
Would a discussion about your child's health care needs have been helpful?	LD ^a	63.5%	LD ^a	81.9%	31%
Has anyone discussed with you how to obtain or keep some type of health insurance coverage as your child becomes an adult?	32.5%	40.5%	27.9%	28.8%	23%
Would a discussion about health insurance have been helpful to you?	72.9%	81.7%	80.6%	90.1%	43%

^a LD = low denominator

^b National averages from the 2009/2010 NS-CSHCN are provided for comparison. The EQRO recalculated the national results to exclude the “discussion not needed” response option, which is shown in the NS-CSHCN tabulation of national results online, but is not included in the denominator for these measures calculated for the STAR Kids-eligible population groups.

Care Coordination

As noted above, members eligible for STAR Kids have high levels of need for various types of health services, including specialist care and specialized services, which highlights the importance of effective care coordination for this population. In the STAR Kids Pre-implementation Survey, caregiver-reported need for care coordination corresponded with need for different service types and was significantly different among the service groups. The percentage of members who received care from more than one kind of health care provider or who used more than one type of health service was highest among members in MDCP (85 percent), followed by members in DADS IDD waivers (67 percent), FFS-SSI (44 percent), and STAR+PLUS-SSI (30 percent).

Caregivers of these members were asked a series of questions from NS-CSCHN about their experiences receiving care coordination for their children. **Table 11** presents findings on care coordination items for which the service groups had sufficient denominators for reporting. In general, only one-quarter to one-third of members across service groups received care coordination from someone (which could include providers, health plans, or informal supports). The percentage of caregivers who said they could have used extra help with care coordination was consistently higher than the percentage who received help. This difference was greatest among caregivers of members in FFS-SSI, where 21 percent received care coordination and 42 percent stated they could have used extra help.

Nevertheless, caregiver satisfaction with communication among providers was fairly high, with one-half to two-thirds stating they were “very satisfied” with this communication. It is possible that deficiencies in care coordination in this population may be related to factors other than communication among providers, such as changes in the availability of informal supports, changes in usual source of care, or differences in the degree of need for coordination based on specific health conditions.³²

Table 11. Care Coordination Experiences Among Caregivers of STAR Kids-Eligible Members

	MDCP	DADS IDD	FFS- SSI	STAR+PLUS- SSI	NS- CSHCN ^a
Someone helps coordinate child's care	27.1%	34.6%	21.4%	23.3%	21%
Caregiver could have used extra help with care coordination	36.9%	40.5%	42.2%	38.4%	18%
Caregiver was "very satisfied" with communication among child's providers	58.3%	48.7%	67.3%	60.8%	63%

^a National averages from the 2009/2010 NS-CSHCN are provided for comparison.

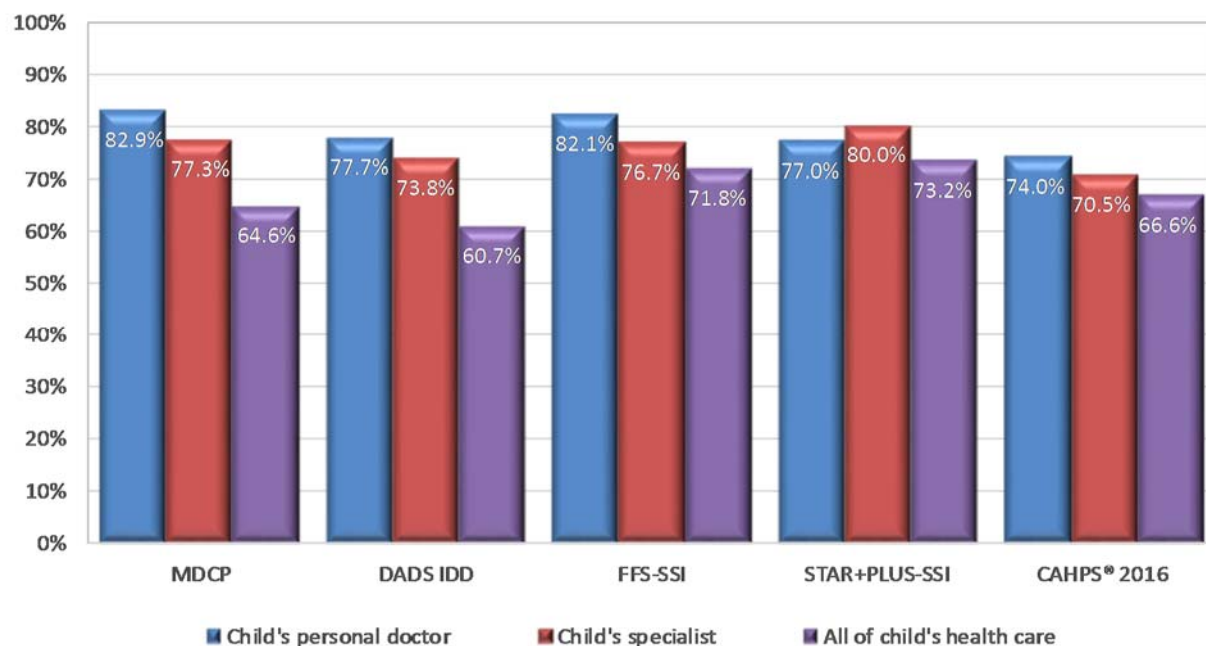
Several NS-CSHCN care coordination items, which were fielded in the STAR Kids Pre-implementation Survey, did not have sufficient denominators for reporting in all service groups. These included items asking whether a doctor or someone in a doctor's office provided help with care coordination; who else specifically helps to arrange care for the child; how often caregivers got as much care coordination help as they wanted; and the extent to which caregivers were satisfied with communication between their child's providers and schools. These items will be fielded again in the post-implementation survey to be conducted in 2018, and considered for aggregate reporting to monitor care coordination at the program level.

Overall Satisfaction

The STAR Kids Pre-implementation Survey also included CAHPS® questions that asked caregivers to rate their child's health care on a scale from 0 to 10 – separately for personal doctors, specialists, and overall health care. These ratings items function as important satisfaction indicators for health plan reporting; AHRQ specifications for ratings produce scores that represent the percentage of members or caregivers who rated care a “9” or “10”.

Figure 6 presents results for caregiver ratings of their child's personal doctors, the specialist their child sees most often, and their child's overall health care in each of the four service groups. Approximately three-quarters of caregivers or more in all service groups rated their child's personal doctors and specialist providers a "9" or "10", indicating a high level of satisfaction with these provider types. Ratings of overall health care were lower, particularly in DADS IDD waivers (61 percent) and MDCP (65 percent), where other types of care – such as specialized services – likely factor into satisfaction with overall health care. Differences among the service groups on ratings measures were not statistically significant.

Figure 6. Satisfaction with Personal Doctors, Specialists, and Health Care - Percentage of Caregivers Rating Their Child's Care a "9" or "10"



Administrative Measures

The administrative measures presented in this section show findings on utilization, access, and effectiveness of primary and preventive care, care for respiratory conditions, behavioral health care, and potentially preventable events. These measures use electronic claims and encounter data, and represent the census of all members in each of the four service groups. As rates for members with third-party insurance do not reflect all services actually rendered, findings in this section are shown only for members without third-party insurance. For HEDIS measures the EQRO followed NCQA specifications for reporting, in which results are not reported for any group with a denominator less than 30 for a measure. Results for the HEDIS® measures calculated by the EQRO were compared to benchmark percentiles gathered and compiled by NCQA from Medicaid managed care plans nationally. These reported rates combine administrative and hybrid results, reflecting a mix of different methodologies. Limited information is available about the health and sociodemographic characteristics of members enrolled in Medicaid plans nationally. Submission of HEDIS® data to NCQA is a voluntary process;

therefore, managed care organizations that submit HEDIS® data may not be fully representative of the industry. NCQA calculates national means and percentiles for HEDIS® measures and licenses the resulting benchmark thresholds through the Quality Compass® database.³³ Tables in this report presenting results on HEDIS® measures include a percentile rating comparing the STAR Kids eligibility group rates with the NCQA national HEDIS® 2016 Medicaid percentiles.

The rating system is as follows:

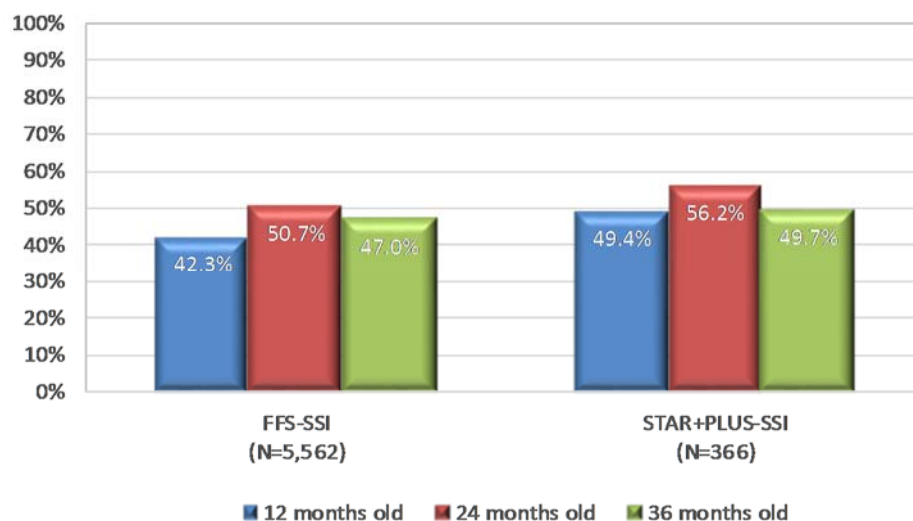
- ★★★★★ = 90th percentile and above
- ★★★★ = 66th to 89th percentile
- ★★★ = 33rd to 65th percentile
- ★★ = 10th to 32nd percentile
- ★ = Below 10th percentile

Primary and Preventive Care

Developmental screening

The OHSU *Developmental Screening in the First Three Years of Life (DVS)* measure provides the percentage of children screened for risk of developmental, behavioral, and social delays using a standardized screening tool in the 12 months preceding their first, second, and third birthday. **Figure 7** shows rates for this measure in FFS-SSI and STAR+PLUS-SSI; denominators for this measure in the MDCP and DADS IDD waiver groups were too low to report. Rates in all three age groups were slightly higher in STAR+PLUS than in FFS. However, for both programs, approximately half of children in these age groups received the recommended developmental screening. As rates of developmental screening can be improved in these groups, this measure should be considered for quality monitoring in STAR Kids.

Figure 7. OHSU Developmental Screening in the First Three Years of Life - FFS-SSI and STAR+PLUS-SSI Members Eligible for STAR Kids



It is possible that low rates may occur due to insufficient documentation of developmental screening procedure codes in the electronic claims and encounter data. The CMS Core Measures Set specifications document recommends that states assess the accuracy of administrative data in comparison with medical records for this measure; in the event that developmental screening codes are not being consistently and reliably populated, a hybrid specification for calculating this measure is available.³⁴

Well-care visits

Three HEDIS measures evaluate utilization of recommended well-care visits for children and adolescents, according to age group.

- HEDIS® *Well-Child Visits in the First 15 Months of Life (W15)* provides the percentage of members who turned 15 months old during the measurement year and who had a certain number of well-child visits with a primary care provider (PCP) during their first 15 months of life. The EQRO calculates W15 rates to show the percentage of members who had six or more well-child visits, as recommended by the American Academy of Pediatrics. For the STAR Kids Pre-implementation Study, only FFS-SSI and STAR+PLUS-SSI had sufficient denominators for this measure, with rates of 22 percent and 24 percent, respectively. The rates for this measure for both FFS and STAR+PLUS groups were below the 5th percentile of rates in Medicaid plans nationally..
- HEDIS® *Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life (W34)* provides the percentage of members three to six years of age who had one or more well-child visits with a PCP during the measurement year. **Figure 8** shows rates for the W34 measure in MDCP, FFS-SSI, and STAR+PLUS-SSI. The DADS IDD waiver group did not have a sufficient denominator for this measure. The proportion of members in this age group who had one or more well-child visits was nearly two-thirds in MDCP and FFS-SSI (63 percent in each) and approximately three-quarters in STAR+PLUS-SSI (74 percent).
- HEDIS® *Adolescent Well-Care (AWC)* provides the percentage of members 12 to 21 years old who had at least one comprehensive well-care visit with a PCP or OB/GYN practitioner during the measurement year. **Figure 9** shows rates for AWC in all four service groups, ranging from 44 percent in FFS-SSI to 58 percent in STAR+PLUS-SSI.

Overall, there is room for improvement on measures of well-care utilization in the STAR Kids-eligible population – particularly for children in the first 15 months of life. STAR Kids MCOs may consider conducting a root cause analysis to determine reasons for under-utilization of well-care visits, and conduct performance improvement projects to address barriers to utilization as appropriate.

Figure 8. HEDIS® Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life – MDCP, FFS-SSI, and STAR+PLUS-SSI Members Eligible for STAR Kids ^b

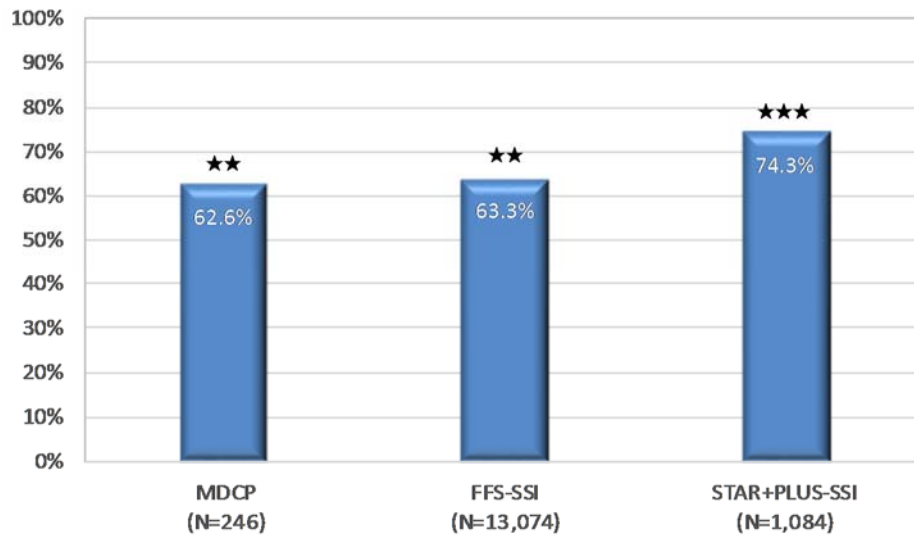
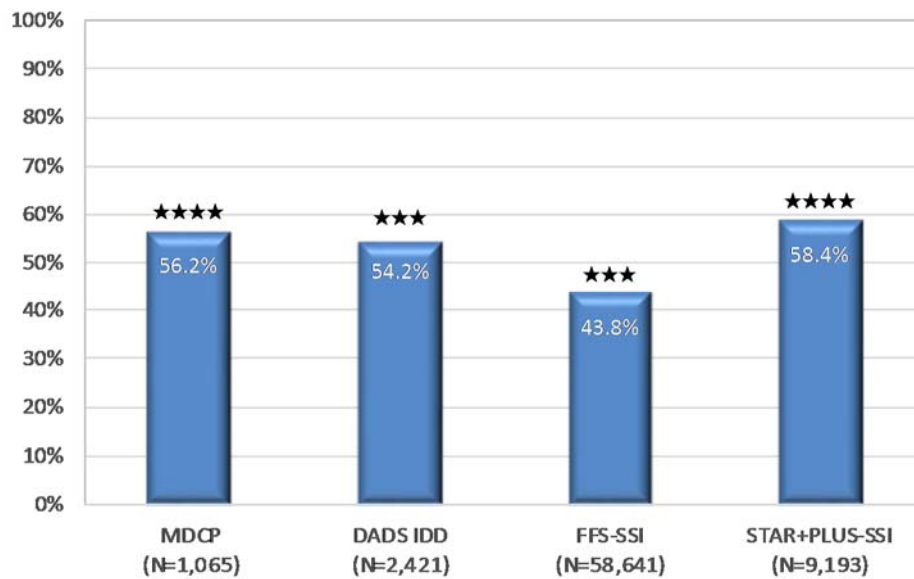


Figure 9. HEDIS® Adolescent Well-Care – Members Eligible for STAR Kids ^a



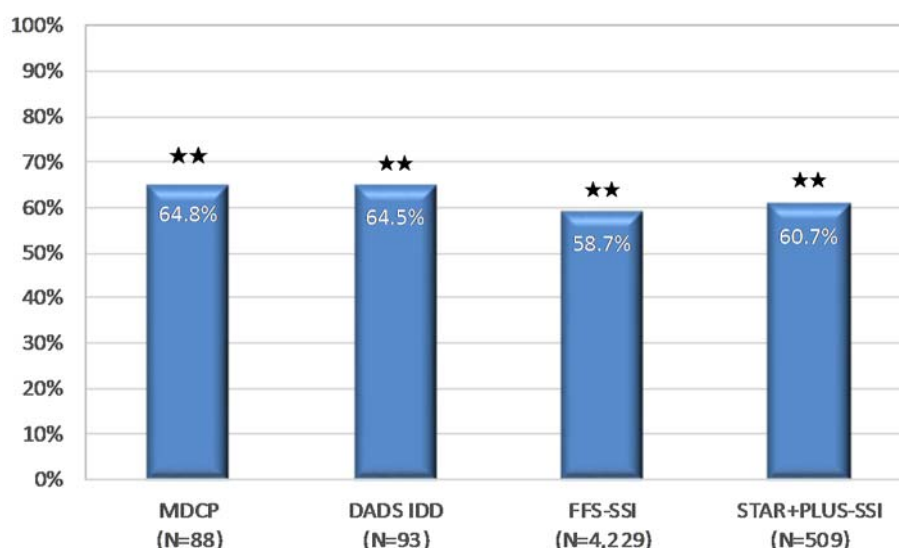
^b Stars (one to five) represent performance relative to national NCQA Medicaid percentiles. More stars indicate higher performance, as described in the introduction to this section.

Care for Respiratory Conditions

Appropriate testing for children with pharyngitis

HEDIS® *Appropriate Testing for Children with Pharyngitis (CWP)* provides the percentage of children 2 to 18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus test for the episode. Higher rates indicate appropriate testing and better performance. **Figure 10** shows rates on the CWP measure for STAR Kids-eligible members, with slightly higher rates in the MDCP and DADS IDD waiver groups (65 percent each) than in FFS-SSI (59 percent) or STAR+PLUS-SSI (61 percent).

Figure 10. HEDIS® Appropriate Testing for Children with Pharyngitis – Members Eligible for STAR Kids^c



Asthma medication management

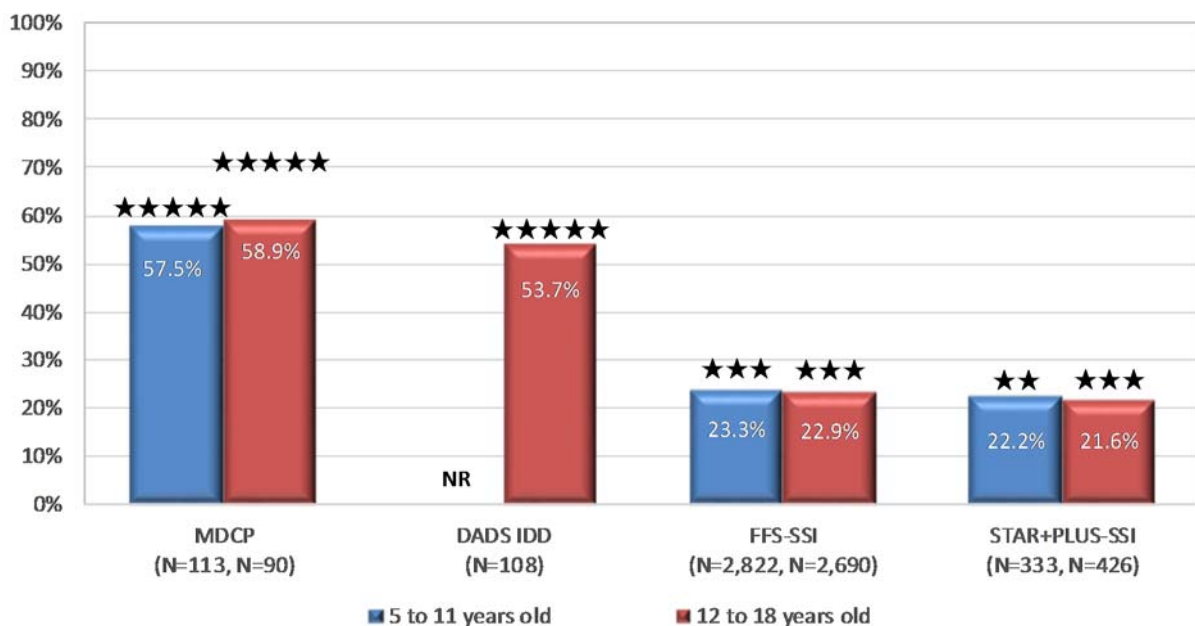
HEDIS® *Medication Management for People With Asthma (MMA)* provides the percentage of members during the measurement year who were identified as having persistent asthma and were dispensed appropriate medications that they remained on during the treatment period. The measure provides rates for the percentage of members who remained on an asthma controller medication for: (1) at least 50 percent of their treatment period; and (2) at least 75 percent of their treatment period. Separate rates are reported for four age bands and an overall age band.

The percentage of all STAR Kids-eligible members with persistent asthma who remained on controller medications for at least 50 percent of their treatment period was notably higher among members in MDCP (84 percent) and a DADS IDD waiver (79 percent) than among members in FFS-SSI (51 percent) and STAR+PLUS-SSI (47 percent).

^c Stars (one to five) represent performance relative to national NCQA Medicaid percentiles. More stars indicate higher performance, as described in the introduction to this section.

National HEDIS® percentiles are available only for discrete age bands of the second sub-measure (*MMA – 75 percent*). **Figure 11** shows rates for MMA (75 percent) in each of the STAR Kids-eligible service groups, separately for members 5 to 11 years old and members 12 to 18 years old. Rates for members remaining on controller medications for at least 75 percent of their treatment period followed a pattern similar to that observed for the 50 percent sub-measure. In particular, fewer than 25 percent of members with persistent asthma in FFS-SSI and STAR+PLUS-SSI remained on controller medications for 75 percent of their treatment period. For STAR Kids members who have transitioned from these programs, efforts to monitor and improve access to and compliance with asthma treatment should be included in MCO quality improvement programs.

Figure 11. HEDIS® Medication Management for People With Asthma – Members Eligible for STAR Kids – 75% Covered ^d



Behavioral Health Care

As shown in the STAR Kids Pre-implementation Survey, many members eligible for STAR Kids need behavioral health treatment. This section presents findings on HEDIS measures that address access to and effectiveness of behavioral health care, including follow-up visits for children with ADHD, follow-up visits after mental illness hospitalization, treatment for alcohol and drug dependence, and care for children and adolescents on antipsychotic medications.

^d Stars (one to five) represent performance relative to national NCQA Medicaid percentiles. More stars indicate higher performance, as described in the introduction to this section.

Follow-up for children on ADHD medication

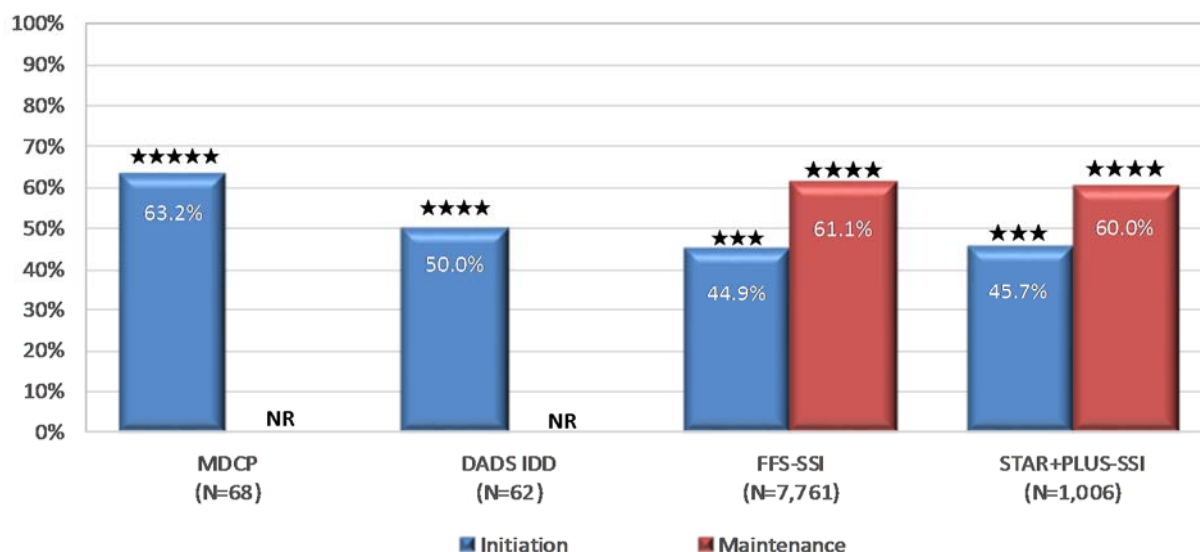
HEDIS® *Follow-Up Care for Children Prescribed ADHD Medication (ADD)* provides the percentage of children 6 to 12 years old who were newly prescribed ADHD medication and had at least three follow-up care visits within a 10-month period – one of which was within 30 days of dispensing the first ADHD medication.

The measure produces rates for two sub-measures:

- 1) *Initiation Phase*, which represents the percentage of children who had a one follow-up visit with a provider with prescribing authority in the first 30 days; and
- 2) *Continuation and Maintenance Phase*, which represents the percentage who remained on the medication for at least 210 days and who, in addition to the initiation phase visit, had at least two follow-up visits with a provider within 9 months after the initiation phase ended.

Figure 12 shows rates for both ADD sub-measures in each of the STAR Kids eligibility groups. The rate for the *Initiation Phase* was highest in MDCP (63 percent), followed by DADS IDD waivers (50 percent), STAR+PLUS-SSI (46 percent), and FFS-SSI (45 percent). Denominators for the *Continuation and Maintenance Phase* tend to be smaller, as the measure is restricted to members who remained on the medication for several months. While nearly two-thirds of members in FFS-SSI and STAR+PLUS-SSI had two additional follow-up visits during the *Continuation and Maintenance Phase*, denominators were too low to report this sub-measure in the MDCP or DADS IDD waiver groups.

Figure 12. HEDIS® Follow-up Care For Children Prescribed ADHD Medication – Members Eligible for STAR Kids ^e



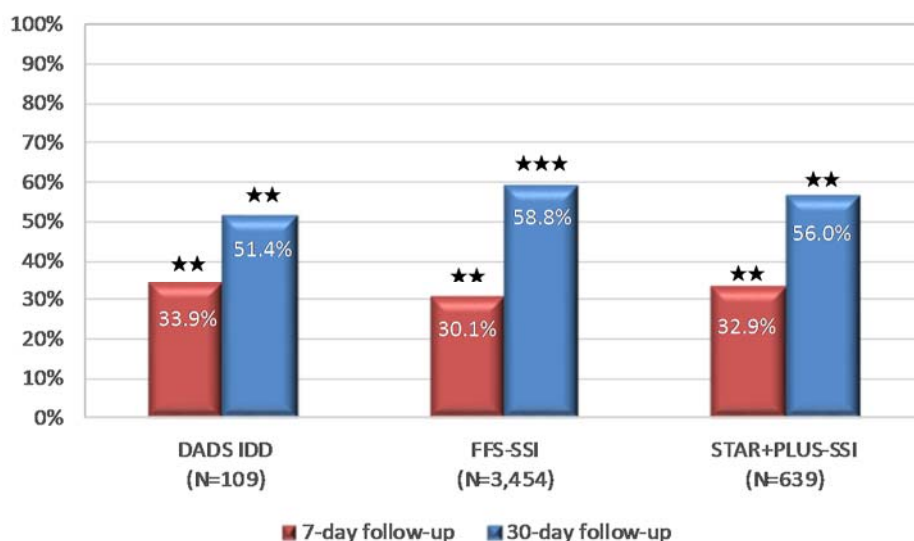
^e Stars (one to five) represent performance relative to national NCQA Medicaid percentiles. More stars indicate higher performance, as described in the introduction to this section.

Follow-up after mental illness hospitalization

HEDIS® *Follow-Up After Hospitalization for Mental Illness (FUH)* provides the percentage of discharges for members 6 years of age and older who were hospitalized for treatment of a mental illness diagnosis and who had an outpatient visit, an intensive outpatient encounter or partial hospitalization with a mental health practitioner. The measure produces two separate rates: (1) *30-day follow-up*, representing the percentage of discharges for which the member received follow-up within 30 days of discharge; and (2) *7-day follow-up*, representing the percentage of discharges for which the member received follow-up within 7 days of discharge.

Figure 13 shows FUH rates for 30-day and 7-day follow up among members in DADS IDD waivers, FFS-SSI, and STAR+PLUS-SSI. The denominator for this measure in MDCP, representing the number of discharges for mental illness hospitalizations, was too low to report. Approximately one-third of discharges in each of the three groups had a follow-up visit within 7 days. Rates for 30-day follow-up varied slightly, from 51 percent in the DADS IDD waiver group to 56 percent in STAR+PLUS-SSI and 59 percent in FFS-SSI. Improving rates of follow-up after mental illness hospitalization – particularly within the critical 7-day follow-up period – should be a priority for STAR Kids members transitioning from all programs.

Figure 13. HEDIS® Follow-up After Hospitalization for Mental Illness in DADS IDD Waivers, FFS-SSI, and STAR+PLUS-SSI ^f



^f Stars (one to five) represent performance relative to national NCQA Medicaid percentiles. More stars indicate higher performance, as described in the introduction to this section.

Alcohol and other drug dependence treatment

HEDIS® *Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET)* provides the percentage of adolescent and adult members with a new episode of alcohol or other drug (AOD) dependence who received: (1) *Initiation of AOD treatment*, representing the percentage of members who initiated treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis; and (2) *Engagement of AOD treatment*, representing the percentage of members who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

This measure provides separate *Initiation* and *Engagement* rates for two age bands – 13 to 17 years old, and 18+ years old. The label used for the 18+ year age band follows HEDIS reporting conventions. However, for the STAR Kids Pre-implementation Study, this age band includes only STAR Kids-eligible members 18 to 20 years old.

Figure 14 and **Figure 15** show IET rates for *Initiation* and *Engagement*, respectively, in FFS-SSI and STAR+PLUS-SSI. Denominators for this measure were too low to report in the MDCP or DADS IDD waiver groups.

For both initiation and engagement, rates are notably higher for members 13 to 17 years old than for members 18 years or older.

- **Initiation of AOD dependence treatment.** Nearly half of members 13 to 17 years old in FFS and STAR+PLUS had initiation of AOD dependence treatment, compared to one-third of members 18 years or older.
- **Engagement of AOD dependence treatment.** Rates of engagement were considerably lower than rates of initiation – at less than 20 percent for members 13 to 17 years old and less than 10 percent for members 18 years or older.

Together, these findings highlight the need for improvement in efforts to initiate and engage treatment for adolescents with AOD dependence transitioning to STAR Kids from FFS and STAR+PLUS. STAR Kids MCOs may consider conducting root cause analyses to determine reasons for low rates on these measures, and developing performance improvement projects that address barriers to AOD dependence treatment accordingly.

Figure 14. HEDIS® Initiation of Alcohol and Other Drug Dependence Treatment in FFS-SSI and STAR+PLUS-SSI ⁹

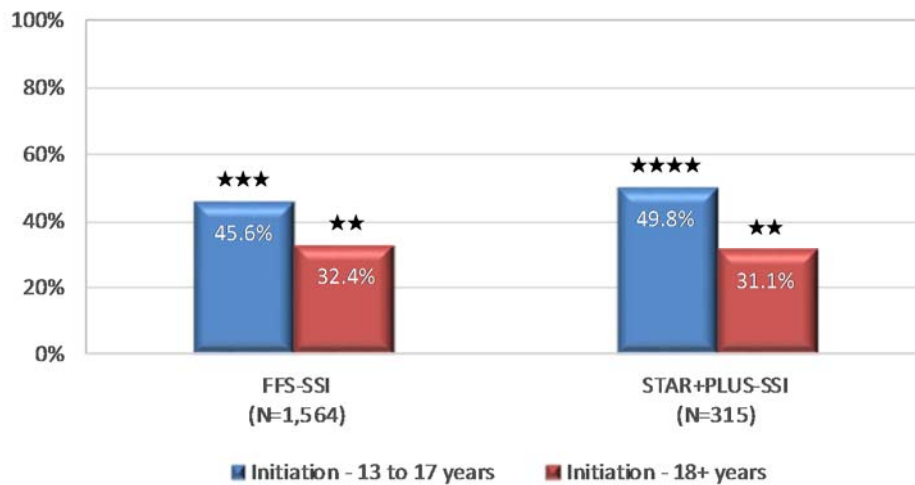
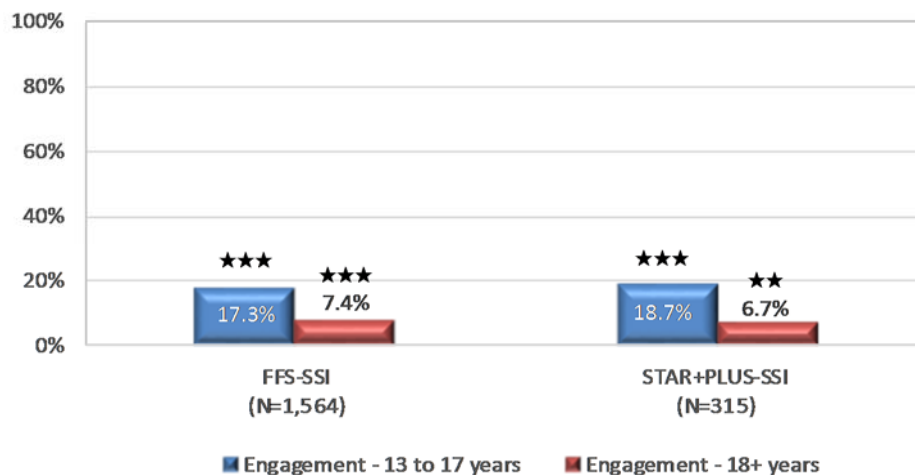


Figure 15. HEDIS® Engagement of Alcohol and Other Drug Dependence Treatment in FFS-SSI and STAR+PLUS-SSI ^a



Antipsychotic use in children and adolescents

Prescription of antipsychotic medications for children has increased considerably in recent decades, despite gaps in knowledge on the safety and effectiveness of antipsychotic prescribing practices such as combining medications, off-label prescribing, and dosing outside of recommended ranges.³⁵ A common pattern involves off-label prescribing of antipsychotics for non-psychotic conditions such as ADHD and disruptive behaviors – conditions for which psychosocial interventions should be considered the first line of treatment.³⁶ Although

⁹ Stars (one to five) represent performance relative to national NCQA Medicaid percentiles. More stars indicate higher performance, as described in the introduction to this section.

antipsychotic medications can be effective in treating psychiatric disorders in children, they also increase the risk for developing serious health concerns, including metabolic health complications.

The American Academy of Child and Adolescent Psychiatry (AACAP) recommends: (1) avoiding the simultaneous use of multiple concurrent antipsychotic medications for children and adolescents; (2) metabolic monitoring for children and adolescents on antipsychotic medications; and (3) psychosocial treatments prior to initiating an antipsychotic medication in this population.³⁷ The three HEDIS measures discussed below address compliance with these AACAP recommendations.

- **HEDIS® Use of Multiple Concurrent Antipsychotics in Children and Adolescents (APC)** provides the percentage of children and adolescents 1 to 17 years of age who were on two or more concurrent antipsychotic medications. Lower rates indicate better performance. The measure calculates rates for three age groups – 1 to 5 years, 6 to 11 years, and 12 to 17 years. **Table 12** shows APC rates for members 6 to 11 years old and 12 to 17 years old in all four service groups. Denominators for the 1- to 5-year-old age group were too small to report for members in MDCP, DADS IDD waivers, and STAR+PLUS-SSI.

Table 12. HEDIS® Use of Multiple Concurrent Antipsychotics in Children and Adolescents – Members Eligible for STAR Kids^{h, i}

	MDCP (N=189)	DADS IDD (N=518)	FFS-SSI (N=8,068)	STAR+PLUS-SSI (N=1,170)
6 to 11 years old	3.5%	9.3%	1.6%	2.0%
HEDIS® 2016 Percentile Rating	★★	★	★★★	★★★
12 to 17 years old	3.9%	7.5%	2.6%	2.9%
HEDIS® 2016 Percentile Rating	★★	★	★★★	★★★

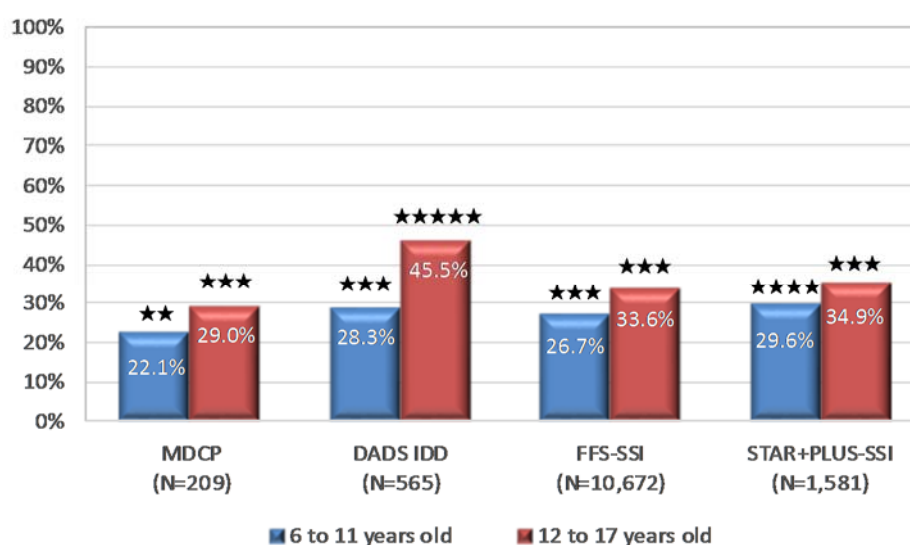
Rates of prescribing multiple concurrent antipsychotics were low in FFS-SSI and STAR+PLUS-SSI, suggesting that providers in these programs are generally following AACAP recommendations. Rates were higher in MDCP and DADS IDD waivers. In particular, nine percent of children 6 to 11 years old, and eight percent of adolescents 12 to 17 years old in DADS IDD waivers had been prescribed multiple concurrent antipsychotics. STAR Kids MCOs should closely monitor antipsychotic prescribing practices for members who are also in a DADS IDD waiver program.

^h Lower values indicate stronger performance.

ⁱ Stars (one to five) represent performance relative to national NCQA Medicaid percentiles. More stars indicate higher performance, as described in the introduction to this section.

- HEDIS® *Metabolic Monitoring for Children and Adolescents on Antipsychotics (APM)* provides the percentage of children and adolescents 1 to 17 years of age who had two or more antipsychotic prescriptions and had metabolic testing. The measure calculates rates for three age groups – 1 to 5 years, 6 to 11 years, and 12 to 17 years. **Figure 16** shows APM rates for members 6 to 11 years old and 12 to 17 years old in all four service groups. Denominators for the 1- to 5-year-old age group were too small to report for members in MDCP, DADS IDD waivers, and STAR+PLUS-SSI.

Figure 16. HEDIS® Metabolic Monitoring for Children and Adolescents on Antipsychotics – Members Eligible for STAR Kids^j

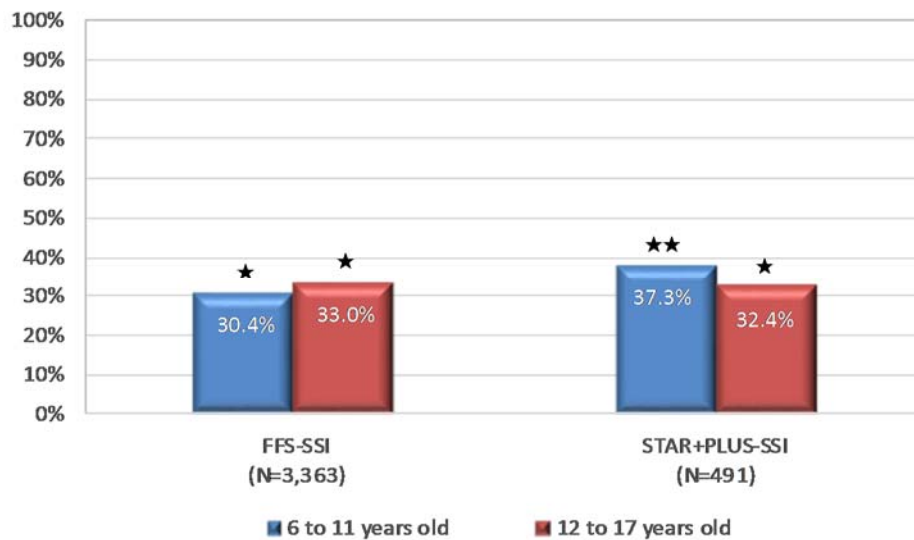


Rates of metabolic monitoring were generally lower for children (22 percent to 30 percent) than for adolescents (29 percent to 46 percent), although findings highlight a need for improvement in both age groups and all service groups. The DADS IDD waiver group, which had the highest rates of concurrent antipsychotic prescribing (lower performance), nevertheless had higher rates for metabolic monitoring (higher performance).

- HEDIS® *Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP)* provides the percentage of children and adolescents 1 to 17 years of age who had a new prescription for an antipsychotic medication and had documentation of psychosocial care as first-line treatment. As with the above measures, APP calculates separate rates for children 1 to 5 years old, children 6 to 11 years old, and adolescents 12 to 17 years old. **Figure 17** shows APP rates for members 6 to 11 years old and 12 to 17 years old in FFS-SSI and STAR+PLUS-SSI. Denominators were too low to report for the 1- to 5-year-old age group, or for members of any age in the MDCP and DADS IDD waiver groups.

^j Stars (one to five) represent performance relative to national NCQA Medicaid percentiles. More stars indicate higher performance, as described in the introduction to this section.

Figure 17. HEDIS® Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics in FFS-SSI and STAR+PLUS-SSI^k



Approximately one-third of children and adolescents in FFS-SSI and STAR+PLUS-SSI who were newly prescribed an antipsychotic medication had documentation of psychosocial care as first-line treatment. These rates, as with the above two measures, suggest that most FFS and STAR+PLUS providers are not following AACAP recommendations for antipsychotic prescribing practices for children and adolescents. Given the general trend of findings on these measures, STAR Kids MCOs should consider implementing updated or expanded provider education programs and studies to better understand reasons for non-compliance.

Potentially Preventable Events

Measures of potentially preventable events, including the AHRQ PDIs and the 3M PPE measures, are utilization measures that also function as indicators of access to and quality of outpatient and ambulatory care. The EQRO regularly calculates measures in both sets for quality review of other Texas Medicaid managed care programs. They are an important complement to the proposed measure set for STAR Kids. In particular, the 3M measures provide both rates and expenditures associated with potentially preventable hospital admissions (PPAs), potentially preventable emergency department visits (PPVs), and potentially preventable readmissions (PPRs), as well as the most common diagnoses or reasons for each type of event.

^k Stars (one to five) represent performance relative to national NCQA Medicaid percentiles. More stars indicate higher performance, as described in the introduction to this section.

AHRQ Pediatric Quality Indicators

Table 13 provides rates of inpatient admissions for four prevalent ambulatory care sensitive conditions (ACSCs) – asthma, diabetes short-term complications, gastroenteritis, and urinary tract infection – in each of the four STAR Kids eligibility groups. All rates are expressed as the number of admissions per 100,000 member-months. The EQRO also routinely calculates a fifth PDI that provides rates of perforated appendix per 100 admissions for appendicitis; this PDI is not shown due to low denominators in all service groups.

Table 13. AHRQ Pediatric Quality Indicators – Inpatient Admissions per 100,000 Member-Months in Members Eligible for STAR Kids

Pediatric Quality Indicator	MDCP	DADS-IDD	FFS-SSI	STAR+PLUS-SSI
Asthma (PDI 14)	32.48	8.00	18.70	14.84
Diabetes Short-Term Complications (PDI 15)	0.00	16.07	6.81	8.89
Gastroenteritis (PDI 16)	88.22	24.00	13.19	14.45
Urinary Tract Infection (PDI 18)	88.22	28.00	8.67	6.26

The profile of ASCSs that lead to hospitalizations in STAR Kids-eligible members varied according to service group. While members in MDCP had the highest rates of admission for asthma (32.5 per 100,000 member-months), gastroenteritis (88.2 per 100,000 member-months), and urinary tract infection (88.2 per 100,000 member-months), they had no admissions for diabetes short-term complications. By comparison, the DADS IDD waiver group had the highest rate of admissions for diabetes short-term complications (16.1 per 100,000 member-months), the second-highest rates for gastroenteritis (24.0 per 100,000 member-months) and urinary tract infection (28.0 per 100,000 member-months), and the lowest rate for asthma (8.0 per 100,000 member-months).

3M Potentially Preventable Events - Rates

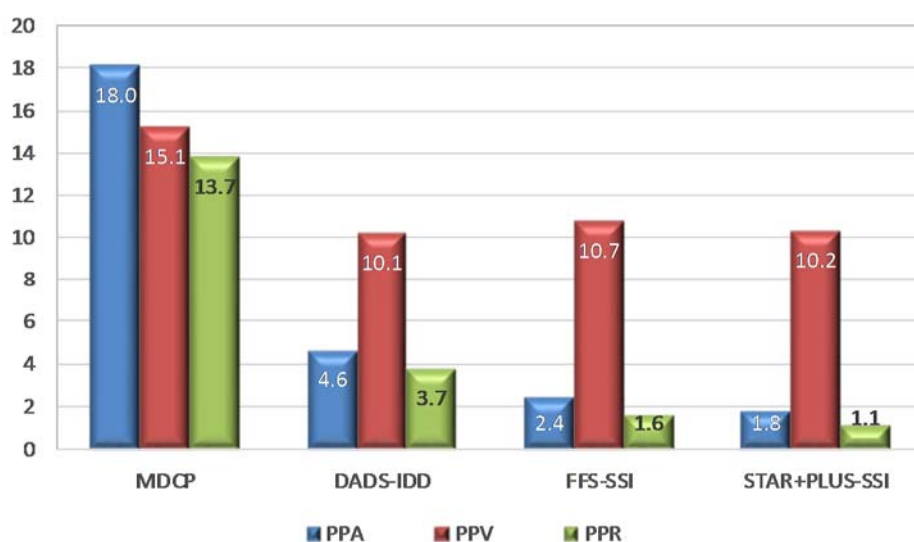
Figure 18 shows the number of weighted admissions per 1,000 member-months for PPAs, PPVs, and PPRs in each of the four service groups.

- **Potentially preventable admissions.** Across all service groups, there were 4,606 PPAs out of 19,130 admissions at risk for a PPA. The PPA rate among MDCP members was considerably higher than the other service groups (at 18 weighted visits per 1,000 member-months), which is consistent with the findings on AHRQ PDIs presented above.
- **Potentially preventable emergency department visits.** Across all groups, there were 66,704 PPVs out of 90,320 visits at risk for a PPV. Potentially preventable ED visits were the most common type of PPE in the DADS IDD, FFS-SSI, and STAR+PLUS-SSI groups, with approximately equal PPV rates in each program (between 10 and 11 weighted visits per 1,000 member-months). MDCP had the highest rate of PPVs; unlike the other service groups, in MDCP the PPV rate was lower than the PPA rate.

- **Potentially preventable readmissions within 30 days.** There were 1,450 PPRs out of 13,525 admissions at risk for a PPR across all service groups. Within each group, PPRs were the least common type of PPE. However, the rate in MDCP was notably higher than in the other service groups (at 14 weighted visits per 1,000 member-months).

While all types of PPEs are important to monitor in quality improvement programs, PPV rates are generally high among all STAR Kids-eligible members, warranting more focused study to assess reasons for potentially preventable ED visits in this population and develop interventions to reduce barriers to outpatient care. Furthermore, STAR Kids members who are also in MDCP should be monitored closely for all types of PPEs; STAR Kids MCOs should consider interventions to reduce all type of PPEs specific to needs of MDCP members.

Figure 18. 3M Potentially Preventable Events in Members Eligible for STAR Kids – Number of Weighted Admissions per 1,000 Member-Months



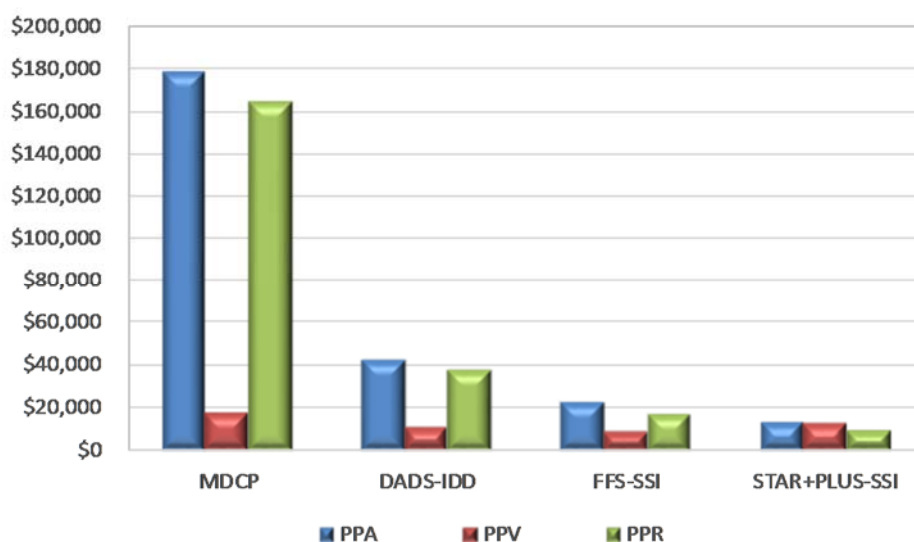
3M Potentially Preventable Events - Expenditures

Figure 19 provides expenditures associated with PPAs, PPVs, and PPRs for each service group, expressed as the cost (\$) per 1,000 member-months.

- **Potentially preventable admissions.** Potentially preventable admissions across all service groups cost over \$39 million. Differences across service groups reflect those observed for PPA rates – with considerably greater cost associated with PPAs in MDCP than in the other groups (at approximately \$178,000 per 1,000 member-months). The next-highest rate of PPA expenditures was in the DADS IDD waiver group, at approximately \$42,000 per 1,000 member-months.

- **Potentially preventable emergency department visits.** Potentially preventable ED visits across all service groups cost over \$14 million. Although PPVs were generally the most common type of PPE among STAR Kids-eligible members, they were associated with the lowest costs overall. Rates of expenditures ranged from approximately \$8,000 per 1,000 member-months in FFS-SSI to \$13,500 per 1,000 member-months in MDCP.
- **Potentially preventable readmissions within 30 days.** The cost of potentially preventable readmissions within 30 days was over \$30 million across all service groups. As for PPAs, the cost of PPRs was considerably greater in MDCP than in the other groups (at approximately \$163,500 per 1,000 member-months). The next-highest rate of PPR expenditures was in the DADS-IDD waiver group, at approximately \$38,000 per 1,000 member-months.

Figure 19. 3M Potentially Preventable Events in Members Eligible for STAR Kids – Expenditures (\$) per 1,000 Member-Months



3M Potentially Preventable Events – Reasons for Admissions/Visits

In addition to admission rates and expenditures, the 3M HIS software shows the distribution of reasons for PPAs using the APR-DRGs, and the distribution of reasons for PPVs using the EAPGs, providing insight regarding the conditions and diagnoses most associated with PPEs. The software also classifies PPRs into eight broad categories, showing reasons for readmission in relation to the index hospital admissions.

Table 14 shows the ten most common reasons for PPAs in all service groups combined, and the percentage of admissions in each service group that are attributed to these reasons. Seizures and pneumonia together accounted for approximately one half of PPAs in MDCP and DADS IDD waivers, and one-third of PPAs in FFS-SSI. Although sickle cell anemia was the third most common reason for all PPAs, this was largely due to a high share of PPAs in FFS-SSI (13 percent), which has the largest population of the four service groups. Potentially preventable

admissions due to gastroenteritis, upper respiratory tract infections, and kidney or urinary tract infections were common in all service groups. MDCP had a lower share of PPAs due to asthma and diabetes, and notably more PPAs due to major respiratory infections and inflammations.

Together, the ten most common reasons account for approximately 90 percent of all reasons for PPAs in MDCP (93 percent), DADS IDD waivers (87 percent), and FFS-SSI (90 percent), but less than half of the reasons for PPAs in STAR+PLUS-SSI (48 percent). STAR+PLUS showed the most distinct distribution of reasons for PPAs, with a considerably higher prevalence of mental and behavioral health disorders. In particular, bipolar disorder – which is not on the list of ten most common reasons – was the most common reason for PPAs in STAR+PLUS, accounting for one-third of PPAs (32 percent). Admissions for major depressive disorders and other psychoses were also common in STAR+PLUS, accounting for 7 percent of PPAs.

Table 14. Ten Most Common Reasons for PPAs in Members Eligible for STAR Kids

PPA Reason (APR-DRG)	MDCP	DADS IDD	FFS-SSI	STAR+PLUS-SSI
Seizure	28.1%	31.5%	19.3%	9.0%
Other pneumonia	28.4%	18.0%	16.1%	4.0%
Sickle cell anemia crisis	0.9%	-	13.2%	7.5%
Asthma	1.8%	3.6%	9.5%	5.5%
Non-bacterial gastroenteritis, nausea, and vomiting	7.0%	4.5%	6.4%	3.5%
Infections of the upper respiratory tract	5.2%	2.7%	6.1%	3.2%
Kidney and urinary tract infections	8.2%	9.0%	5.4%	3.2%
Diabetes	0.9%	4.5%	5.5%	6.7%
Cellulitis and other bacterial skin infections	1.8%	6.3%	4.8%	3.2%
Major respiratory infections and inflammations	10.37%	7.21%	3.18%	1.99%

Table 15 shows the ten most common reasons for PPVs in all service groups combined, and the percentage of visits in each service group that are attributed to these reasons. The reasons for PPVs (determined using EAPGs) are distributed more broadly than reasons for PPAs, consequently making differences in distributions across service groups more difficult to interpret.

The ten most-common reasons for PPVs were prevalent in all service groups, although they largely reflected the distribution in FFS-SSI, which has the largest population among the four service groups. Infections of the upper respiratory tract and otitis media were the most common reasons for PPVs among all STAR Kids-eligible members, accounting for 13 percent of PPVs in MDCP and DADS IDD waivers, 19 percent of PPVs in FFS-SSI, and 18 percent of PPVs in STAR+PLUS-SSI. Several other common reasons for PPVs were also common reasons for PPAs, including non-bacterial gastroenteritis, nausea, and vomiting; cellulitis and other bacterial skin infections; and acute lower urinary tract infections.

Table 15. Ten Most Common Reasons for PPVs in Members Eligible for STAR Kids

PPV Reason (EAPG)	MDCP	DADS IDD	FFS- SSI	STAR+PLUS- SSI
Infections of upper respiratory tract and otitis media	12.8%	13.1%	19.4%	18.4%
Non-bacterial gastroenteritis, nausea and vomiting	4.9%	6.8%	7.0%	6.6%
Level II other musculoskeletal system and connective tissue diagnoses	2.9%	4.0%	6.1%	5.8%
Other skin, subcutaneous tissue and breast disorders	2.7%	3.1%	5.5%	5.2%
Abdominal pain	2.7%	3.8%	4.5%	5.3%
Contusion, open wound and other trauma to skin and subcutaneous tissue	1.9%	4.8%	4.6%	4.6%
Signs, symptoms and other factors influencing health status	6.9%	3.7%	4.2%	3.9%
Level I other ear, nose, mouth, throat and cranial/facial diagnoses	3.0%	3.4%	4.1%	4.2%
Cellulitis and other bacterial skin infections	2.1%	3.0%	3.1%	2.8%
Acute lower urinary tract infections	4.5%	2.6%	2.7%	2.9%

Together, the ten most-common reasons for PPVs account for less than half of PPVs in MDCP (44 percent) and DADS IDD waivers (48 percent) and approximately 6 out of 10 of PPVs in FFS-SSI (61 percent) and STAR+PLUS-SSI (60 percent). In addition, common reasons for PPVs in DADS-IDD waivers (which were not among the top ten reasons across all groups) included seizures (6.6 percent) and bipolar disorders (3.5 percent). In MDCP, other common reasons included malfunction, reaction, and complication of a gastrointestinal device or procedure (10.0 percent), level I gastrointestinal diagnoses (8.5 percent), seizures (6.0 percent), level I other respiratory diagnoses (3.9 percent), and community-acquired pneumonia (3.0 percent). In STAR+PLUS-SSI, another common reason was chest pain (3.1 percent).

Table 16 shows this distribution of reasons for PPRs in MDCP, DADS IDD waivers, FFS-SSI, and STAR+PLUS-SSI, including eight categories of PPR reasons pre-defined by the 3M software. Notably, each service group had a distinct profile of reasons for PPRs.

- In MDCP, nearly all PPRs were due to medical readmissions for *acute conditions* that may be related to care delivered during the initial admission or in the post-discharge period (47 percent), readmissions for a *chronic problem* that may be related to care during or after the initial admission (24 percent), and medical readmissions for a continuation or recurrence of the reason for the initial admission (23 percent).

Table 16. Reasons for PPRs in Members Eligible for STAR Kids

	MDCP	DADS IDD	FFS-SSI	STAR+PLUS-SSI
All other readmissions for a chronic problem that may be related to care either during or after the initial admission	23.9%	8.8%	7.8%	1.2%
Ambulatory care sensitive conditions as designated by AHRQ	2.1%	2.9%	1.0%	3.3%
Medical readmission for a continuation or recurrence of the reason for the initial admission, or for a closely related condition	22.5%	17.7%	24.0%	7.8%
Medical readmission for acute medical condition or complication that may be related to or may have resulted from care during initial admission or in post-discharge period after initial admission	46.5%	20.6%	19.0%	8.2%
Mental health or substance abuse readmission following an initial admission for a substance abuse or mental health diagnosis	1.4%	42.7%	44.0%	76.5%
Readmission for mental health reasons following an initial admission for a non-mental health, non-substance abuse reason	0.0%	0.0%	1.3%	1.7%
Readmission for surgical procedure to address a complication that may be related to or may have resulted from care during the initial admission	2.8%	2.9%	1.3%	0.8%
Readmission for surgical procedure to address a continuation or a recurrence of the problem causing the initial admission	0.7%	4.4%	1.7%	0.4%

- In DADS IDD waivers, 43 percent of PPRs resulted from mental health or substance abuse readmissions (following an initial admission for a mental health or substance abuse diagnosis), and approximately one in five PPRs were due to medical readmissions for a continuation or recurrence of the reason for the initial admission (18 percent) and medical readmissions for *acute conditions* that may be related to care delivered during the initial admission or in the post-discharge period (21 percent).
- In FFS-SSI, the distribution showed a similar pattern as that observed in DADS IDD waivers, with 44 percent of PPRs due to mental health or substance abuse readmissions (following an initial admission for mental health/substance abuse diagnosis), 24 percent due to medical readmissions for a continuation or recurrence of the reason for the initial admission, and 19 percent due to medical readmissions for *acute conditions* that may be related to care delivered during the initial admission or in the post-discharge period.
- In STAR+PLUS-SSI, over three-quarters of PPRs were due to mental health or substance abuse readmissions (following an initial admission for a mental health or substance abuse diagnosis).

Future Directions and Recommendations

The STAR Kids Pre-implementation Focus Study offers a comprehensive review of demographic and health status characteristics, health service needs, caregiver experiences and satisfaction with care, and administrative measures of utilization, access, and effectiveness of care among members in MDCP, DADS IDD waivers, FFS-SSI, and STAR+PLUS-SSI – four important eligibility groups that transitioned to receive managed care through STAR Kids in November 2016. All findings presented in this report show a profile of STAR Kids-eligible members in these health care quality domains prior to the STAR Kids implementation date. In 2018, the EQRO will conduct a post-implementation study to assess whether, and to what extent, performance on the survey and administrative measures may have changed during the first year of implementation of the STAR Kids program. These findings also offer insight into the relevance and feasibility of the selected measures for continued quality monitoring of the STAR Kids program, which the EQRO will assess more thoroughly during the post-implementation study, when findings can be stratified according to STAR Kids MCO.

This study identified several areas that warrant continued or improved quality monitoring for STAR Kids members, and which present opportunities for improvement through STAR Kids MCO quality improvement programs. These areas include:

- **Access to general and specialist care** in MDCP and DADS IDD waiver programs, as well as access to specialist referrals among members transitioning from FFS-SSI.
- **Access to specialized services** in MDCP and DADS IDD waiver programs, which have the highest need for these types of services.
- **Access to prescription medicines** in MDCP and DADS IDD waiver programs.
- **Reducing potentially avoidable ED use** in all service groups – but particularly for members transitioning from FFS and STAR+PLUS, where both caregiver-reported and administrative measures showed need for improvement in this domain.
- **Certain aspects of person-centered care**, including discussions with providers about preventing illness and provider sensitivity to family values and customs.
- **Access to care coordination** in all service groups.
- **Rates of developmental screening** in all service groups.
- **Rates of well-care visits** particularly for members in the first 15 months of life.
- **Compliance with asthma medications** for members transitioning from FFS and STAR+PLUS.
- **Follow-up after hospitalization from mental illness** in all service groups, particularly for the 7-day follow-up period.
- **Alcohol and other drug dependence treatment** for adolescents particularly in members transitioning from FFS and STAR+PLUS.
- **Reducing concurrent prescription of multiple antipsychotics**, particularly in DADS IDD waiver programs.

- **Metabolic monitoring for members on concurrent antipsychotics**, especially among children.
- **Psychosocial care for members on antipsychotics**, particularly for members transitioning from FFS and STAR+PLUS.
- **Potentially preventable events** of all types, particularly in MDCP, and specifically including:
 - **Focus on events related to seizures and pneumonia** in MDCP, DADS IDD waiver, and FFS-SSI members.
 - **Focus on events related to gastroenteritis, upper respiratory infection, and urinary tract infection** for members in all groups.
 - **Focus on events related to mental/behavioral health conditions** for members transitioning from STAR+PLUS and members in DADS IDD waivers.

Based on these findings, the EQRO makes the following recommendations for HHS and the STAR Kids MCOs for ensuring access to and quality of care for STAR Kids members during the first year of implementation:

- *STAR Kids MCOs should tailor outreach, quality monitoring, and improvement programs to the demographics, health status, and health service needs of each service group.* Demographic differences may be associated with differences in living environment, social support, literacy, and health literacy – all of which must be taken into consideration in developing appropriate outreach and care strategies for CSHCN and children with disabilities. The profile of special health care and service needs for each STAR Kids eligibility group can help in focusing efforts toward ensuring provider network adequacy, developing appropriate disease and care management programs, and identifying and prioritizing quality-of-care measures.
- *STAR Kids MCOs should consider expanding on provider education programs to improve experiences with and effectiveness of care in several domains.* In particular, additional training may be needed to encourage discussions with caregivers about strategies for reducing illness in members, to improve cultural competency, and to improve compliance with AACAP recommendations for antipsychotic prescribing practices for children and adolescents.
- *HHS and STAR Kids MCOs should consider further studies to assess reasons for deficiencies in care coordination in the STAR Kids population.* It is possible that issues with care coordination may be related to factors other than communication among providers, such as changes in the availability of informal supports, changes in usual source of care, or differences in the degree or need for coordination based on specific health conditions.
- *HHS and STAR Kids MCOs should consider further studies to understand reasons for low rates of developmental screening in this population.* It is possible that the low rates observed in this study may be due to insufficient documentation of developmental screening

procedure codes in the electronic claims and encounter data. The CMS Core Measures Set specifications document recommends that states assess the accuracy of administrative data in comparison with medical records for this measure; in the event that developmental screening codes are not consistently and reliably populated, a hybrid specification for calculating this measure is available.

- *STAR Kids MCOs should conduct root cause analyses to determine reasons for low rates of initiation and engagement for alcohol and other drug dependence (AOD) treatment among adolescents.* Performance improvement projects may be warranted that address barriers to AOD dependence treatment.
- *STAR Kids MCOs should develop and implement performance improvement projects to reduce potentially preventable events in this population.* In particular, PPV rates are generally high among all STAR Kids-eligible members, warranting more focused study to assess reasons for PPVs and develop interventions to reduce barriers to outpatient care. STAR Kids members who are also in MDCP should be monitored closely for all types of PPEs.

Appendix – Supplementary Table

Table 17. STAR Kids Pre-Implementation Survey: Items from NS-CSHCN

NS-CSHCN Item Number	Question wording	Response options
Person-centered care		
C6Q04	When your child is seen by doctors or other health care providers, how often are they sensitive to your family's values and customs?	Never, Sometimes, Usually, Always
C6Q06 ^a	During the past 6 months how often did your child's doctors or other health care providers help you feel like a partner in [his/her] care?	Never, Sometimes, Usually, Always
Care coordination		
C5Q12	Does anyone help you arrange or coordinate your child's care among the different doctors or services that [he/she] uses?	Yes, No
C5Q13	Does a doctor or someone in a doctor's office provide this help arranging or coordinating your child's care?	Yes, No
C5Q15	Is there anyone else who helps arrange or coordinate your child's care?	Yes, No
C5Q16	Is this person a parent, guardian, other family member, friend, nurse, therapist, social worker, hospital discharge planner, case manager, or someone else?	[As indicated in question wording]
C5Q17 ^a	During the past 6 months, have you felt that you could have used extra help arranging or coordinating your child's care among these different health care providers or services?	Yes, No
C5Q09 ^a	During the past 6 months, how often did you get as much help as you wanted with arranging or coordinating your child's care?	Never, Sometimes, Usually, Always
C5Q10	Overall, are you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with the communication among your child's doctors and other health care providers?	[As indicated in question wording]
C5Q05	Do [child's name]'s doctors or other health care providers need to communicate with [his/her] school, early intervention program, child care providers, vocational education or rehabilitation program?	Yes, No
C5Q06	Overall, are you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with that communication?	[As indicated in question wording]

Table 17. STAR Kids Pre-Implementation Survey: Items from NS-CSHCN (continued)

NS-CSHCN Item Number	Question wording	Response options
Specialist referrals		
C5Q11 ^a	During the past 6 months, did [child's name] need a referral to see any doctors or receive any services?	Yes, No
C5Q07	Was getting referrals a big problem, a small problem, or not a problem?	[As indicated in question wording]
Transition to adult care ^b		
C6Q07	Do any of [child's name]'s doctors or other health providers treat only children?	Yes, No
C6Q0A_B	Have of [child's name]'s doctors talked to you about having [child's name] eventually see doctors or other health care providers who treat adults?	Yes, No
C6Q0A_C	Would a discussion about doctors who treat adults have been helpful to you?	Yes, No
C6Q0A	Have [child's name]'s doctors or other health care providers talked with you or [child's name] about [his/her] health care needs as [he/she] becomes an adult?	Yes, No
C6Q0A_D	Would a discussion about [child's name]'s health care needs been helpful?	Yes, No
C6Q0A_E	Eligibility for health insurance often changes as children reach adulthood. Has anyone discussed with you how to obtain or keep some type of health insurance coverage as [child's name] becomes an adult?	Yes, No
C6Q0A_F	Would a discussion about health insurance have been helpful to you?	Yes, No
C6Q08	How often do [child's name]'s doctors or other health care providers encourage [him/her] to take responsibility for [his/her] health care needs, such as:	
	<i>Child is 5-11 years old:</i> learning about [his/her] health or helping with treatments and medications?	Never, Sometimes, Usually, Always
	<i>Child is 12+ years old:</i> taking medication, understanding [his/her] health, or following medical advice?	Never, Sometimes, Usually, Always

Endnotes

¹ NCD (National Council on Disability). 2013. *Medicaid Managed Care for People with Disabilities*. Available at: <https://www.ncd.gov/publications/2013/20130315>.

² KFF (Kaiser Family Foundation). 2011. *A Profile of Medicaid Managed Care Programs in 2010: Findings from a 50-State Survey*. Washington, D.C.: Kaiser Family Foundation. Available at: <https://kaiserfamilyfoundation.files.wordpress.com/2013/01/8220.pdf>.

³ The term *children with special health care needs (CSHCN)* is defined by the federal Maternal and Child Health Bureau as children “who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.”

⁴ KFF. 2015. *Medicaid Reforms to Expand Coverage, Control Costs and Improve Care: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2015 and 2016*. Washington, D.C.: Kaiser Family Foundation. Available at: <http://files.kff.org/attachment/report-medicare-reforms-to-expand-coverage-control-costs-and-improve-care-results-from-a-50-state-medicare-budget-survey-for-state-fiscal-years-2015-and-2016>.

⁵ HHS (Texas Health and Human Services). 2016a. STAR Kids. Available at: <https://hhs.texas.gov/services/health/medicaid-and-chip/programs/star-kids>.

⁶ This follow-up date occurs 18 months after the November 1, 2016 implementation date, and allows for assessment of caregiver experiences and satisfaction with care after continuity of care provisions expire in November 2017. The continuity of care provisions allow STAR Kids members to retain their physician providers with whom they had an established relationship prior to enrollment in STAR Kids, even if these providers are not in their STAR Kids MCO network. The 18-month follow-up period ensures that experiences and satisfaction can be attributed to care provided through STAR Kids MCO.

⁷ AHRQ (Agency for Healthcare Research and Quality). 2016a. Available at: <http://www.ahrq.gov/cahps/surveys-guidance/hp/index.html>.

⁸ CAHMI (Child and Adolescent Health Measurement Initiative). 2017. *National Survey of Children with Special Health Care Needs*. Available at: <http://www.childhealthdata.org/learn/NS-CSHCN>.

⁹ CMS (Centers for Medicare and Medicaid Services). 2012. *Guidance for Conducting the Consumer Assessment of Healthcare Providers and Systems (CAHPS) 5.0H Child Survey*. Initial Core Set of Children’s Health Care Quality Measures – Technical Assistance Brief, No. 3. Available at: <https://www.medicare.gov/medicaid/quality-of-care/downloads/cahpsbrief.pdf>.

¹⁰ AHRQ. 2016b. Download CAHPS Health Plan Survey 4.0 and Instructions. Available at: <https://www.ahrq.gov/cahps/surveys-guidance/hp/instructions/version4.html>.

¹¹ AHRQ. 2016c. CAHPS (Consumer Assessment of Healthcare Providers and Systems). CAHPS Database – Comparative Data. Available at: <https://cahpsdatabase.ahrq.gov/cahpsidb/>.

¹² The CAHPS® *Prescription Medicines* item asks: “In the last 6 months, how often was it easy to get prescription medicines for your child through his or her health plan?” For many members in the STAR Kids Pre-implementation Survey, including those in fee-for-service or those with third-party insurance, prescription medications are not provided through a health plan. To ensure responses were available for all service groups, the EQRO modified this question to exclude the clause: “through his or her health plan.”

¹³ MCHB (U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau). 2013. *The National Survey of Children with Special Health Care Needs Chartbook 2009–2010*. Rockville, Maryland: U.S. Department of Health and Human Services.

¹⁴ CAHMI. 2017.

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¹⁷ U.S. Census Bureau. 2008. *Current Population Survey*. Available at: <http://www.census.gov/cps>.

¹⁸ Urban Institute. 2008. *National Survey of America's Families*. Available at: <http://www.urban.org/center/anf/nsaf.cfm>.

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²² CMS. 2016a. *2017 Core Set of Children's Health Care Quality Measures for Medicaid and CHIP (Child Core Set)*. Available at: <https://www.medicaid.gov/medicaid/quality-of-care/downloads/2017-child-core-set.pdf>.

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²⁶ The NCQA low denominator threshold is 100, based on a survey of 411 individuals. The EQRO applied the corresponding item response rate (24.3 percent) to each of the four service group quotas to establish low denominator thresholds for this study.

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²⁸ AHRQ. 2016c.

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³⁰ NCQA. 2017. Patient-Centered Medical Home (PCMH) Recognition. Available at: <http://www.ncqa.org/programs/recognition/practices/patient-centered-medical-home-pcmh>.

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³³ Quality Compass is a registered trademark of NCQA.

³⁴ CMS. 2016b. *Core Set of Children's Health Care Quality Measures for Medicaid and CHIP (Child Core Set) – Technical Specifications and Resource Manual for Federal Fiscal Year 2016 Reporting*. Available at: <https://www.medicaid.gov/medicaid/quality-of-care/downloads/medicaid-and-chip-child-core-set-manual.pdf>.

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³⁶ AHRQ. 2015. *National Quality Measures Clearinghouse*. Available at: <https://www.qualitymeasures.ahrq.gov/>.

³⁷ AACAP (American Academy of Child and Adolescent Psychiatry). 2011. *Practice parameter for the use of atypical antipsychotic medications in children and adolescents*. Washington, D.C.: American Academy of Child and Adolescent Psychiatry.