

Summary of Activities and Value-Added Services



State Fiscal Year 2018

Quality, Timeliness, and Access
to Health Care for Texas Medicaid and CHIP Recipients
May 2019

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ACRONYMS

Aetna	Aetna Better Health
AAB	Avoidance of Antibiotic Therapy for Adults with Acute Bronchitis
AAP	Adults' Access to Preventive/ Ambulatory Health Services
ABA	Adult Body Mass Index Assessment
ACSC	Ambulatory Care Sensitive Condition
ADA	American Dental Association
ADD	Follow-Up Care for Children Prescribed ADHD Medication
ADHD	Attention Deficit Hyperactivity Disorder
ADV	Annual Dental Visits
AHRQ	Agency for Healthcare Research and Quality
AI	Administrative Interview
AIM	Alliance for Innovation on Maternal Health
AMB	Ambulatory Care
AMM	Antidepressant Medication Management
AMR	Asthma Medication Ratio
APC	Use of Multiple Concurrent Antipsychotics in Children and Adolescents
APM	Metabolic Monitoring for Children and Adolescents on Antipsychotics
APP	Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics
APR-DRG	All Patient Refined Diagnosis-Related Groups
AWC	Adolescent Well-Care Visits
BCBSTX	Blue Cross and Blue Shield of Texas
BCS	Breast Cancer Screening
BHO	Behavioral Health Organization
CAHPS®	Consumer Assessment of Healthcare Providers and Systems®
CAP	Children and Adolescents' Access to Primary Care Practitioners
CATI	Computer-Assisted Telephone Interviewing
CBP	Controlling High Blood Pressure
CCC	Children with Chronic Conditions
CCHP	Cook Children's Health Plan

CCS	Cervical Cancer Screening
CDC	Comprehensive Diabetes Care
CFHP	Community First Health Plans
CFR	Code of Federal Regulations
CHC	Community Health Choice
CHIP	Children's Health Insurance Program
CHL	Chlamydia Screening in Women
CIS	Childhood Immunization Status
CMCHP	Children's Medical Center Health Plan
CMS	Centers for Medicare and Medicaid Services
COPD	Chronic Obstructive Pulmonary Disorder
CRA	Caries Risk Assessment
CRG	Clinical Risk Group
CSHCN	Children with Special Healthcare Needs
CWP	Appropriate Testing for Children with Pharyngitis
CY	Calendar Year
DCHP	Dell Children's Health Plan
DHHS	U.S. Department of Health and Human Services
DHP	Driscoll Health Plan
DM	Disease Management
DMO	Dental Maintenance Organization
DOS	Date of Service
DQA	Dental Quality Alliance
DSRIP	Delivery System Reform Incentive Payment program
DVS	Developmental Screening in the First Three Years of Life
EAPG	Enhanced Ambulatory Patient Groups
ED	Emergency Department
EDVDRR	Encounter Data Validation - Dental Record Review
El Paso	El Paso Health
EQR	External Quality Review
EQRO	External Quality Review Organization
ERS	Emergency Response Services
FFS	Fee-for-Service
FirstCare	FirstCare Health Plans
FQHC	Federally Qualified Health Centers

FPC	Frequency of Prenatal Care
FSR	Financial Summary Reports
FUA	Follow-Up after ED Visits for Alcohol and Other Drug Dependence
FUH	Follow-Up after Hospitalization for Mental Illness
FUM	Follow-Up after ED Visits for Mental Illness
GAO	Government Accountability Office
HAC	Hospital-Acquired Condition
HCBS	Home and Community-Based Services
HCPCS	Healthcare Common Procedure Coding System
HCUP	Healthcare Cost and Utilization Project
HEDIS®	Healthcare Effectiveness Data and Information Set®
HHSC	Health and Human Services Commission
HPV	Human Papilloma Virus
HS	Cigna-HealthSpring
HSRI	Human Services Research Institute
IAD	Identification of Alcohol and Other Drug Services
IDD	Intellectual and Development Disability
IET	Identification of Alcohol and Other Drug Services
IET	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
IMA	Immunizations for Adolescents
IPU	Inpatient Utilization-General Hospital/Acute Care
ISP	Individual Service Plan
LTSS	Long-Term Services and Support
MCO	Managed Care Organization
MDCP	Medically Dependent Children Program
MH/SA	Mental Health and Substance Abuse
MMA	Medication Management for People with Asthma
MPM	Monitoring for Patients on Persistent Medications Measure
MPT	Mental Health Utilization
Molina	Molina Healthcare of Texas, Inc.

NASUAD	National Association of States United for Aging and Disabilities
NCI-AD	National Core Indicators – Aging and Disabilities
NCQA	National Committee for Quality Assurance
NORC	National Opinion Research Center
NPI	National Provider Identifier
NQMC	National Quality Measure Clearinghouse
NSCH	National Survey of Children’s Health
NS-CHSCN	National Survey of Children with Special Health Care Needs
ODESA	Online Data Entry System Application
P4Q	Pay for Quality
PACE	Program of All-Inclusive Care for the Elderly
PCE	Pharmacotherapy Management of COPD Exacerbation
PCHP	Parkland Community Health Plan
PCP	Primary Care Provider
PDI	Pediatric Quality Indicators
PDx	Primary Diagnosis Code
PIP	Performance Improvement Project
POA	Present on Admission
POS	Place of Service
PPA	Potentially Preventable Admissions
PPC	Potentially Preventable Complications
PPC pre/post	Prenatal and Postpartum Care
PPE	Potentially Preventable Event
PPR	Potentially Preventable Readmissions
PPV	Potentially Preventable Emergency Department Visits
PQI	Prevention Quality Indicators
PSI	Patient Safety Indicators
PX	Procedure
QA	Quality Assurance
QAPI	Quality Assessment and Performance Improvement
QI	Quality Improvement
QOC	Quality of Care
RCA	Root Cause Analysis
RHC	Rural Health Clinic
RSA	Rural Service Area
SA	Service Area

SAA	Adherence to Antipsychotic Medications for Individuals with Schizophrenia
SDoH	Social Determinants of Health
Sendero	Sendero Health Plans
SFY	State Fiscal Year
SHP	Superior HealthPlan
SMC	Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia
SMD	Diabetes Monitoring for People with Diabetes and Schizophrenia
SMI	Severe Mental Illness
SPC	Statin Therapy for Patients with Cardiovascular Disease
SPD	Statin Therapy for Patients with Diabetes
SPR	Use of Spirometry Test in Assessment and Diagnosis of COPD
SSD	Diabetes Screening for People with Schizophrenia or Bipolar Disorder Using Antipsychotic Medications
STAR	State of Texas Access Reform

STI	Sexually-Transmitted Infection
SWHP	RightCare from Scott & White Health Plan
TAC	Texas Administrative Code
TCHP	Texas Children's Health Plan
THSteps	Texas Health Steps
TMHP	Texas Medicaid and Health Partnership
UFSRC	University of Florida Survey Research Center
UHC	UnitedHealthcare Community Plan
UMCC	Uniform Managed Care Contract
UMCM	Uniform Managed Care Manual
URI	Upper Respiratory Infection
URTI	Upper Respiratory Tract Infection
W15	Well-Child Visits in the First 15 Months of Life
W34	Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life
WCC	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents

EXECUTIVE SUMMARY

Introduction

More than 80 million Americans receive healthcare coverage through Medicaid and the Children’s Health Insurance Program (CHIP), programs funded jointly by states and the U.S. Department of Health and Human Services (DHHS). Texas has the third-largest Medicaid program in the country, serving nearly 5 million people, over 95 percent of whom receive care through a managed care delivery model. Participation in federal funding for managed care programs requires compliance with the Centers for Medicare and Medicaid Services’ (CMS’) guidelines and protocols, including the provision for external quality review (EQR) by an organization independent from the state. Since 2002, the Institute for Child Health Policy (ICHP) at the University of Florida has served as the external quality review organization (EQRO) for Texas Medicaid and CHIP. This report presents findings by the Texas EQRO on activities for state fiscal year (SFY) 2018, which address quality of care in Texas Medicaid and CHIP and follow CMS guidelines and protocols.

As **Table 1** shows, Texas provides Medicaid medical services through four Medicaid managed care programs serving specific populations, and traditional Medicaid fee-for-service (FFS), which provides mostly transitional coverage for members moving into or between managed care programs. Texas provides medical services in CHIP entirely through managed care. The [Texas Health and Human Services Commission \(HHSC\)](#) website contains complete information about these programs.

Table 1. Texas Medicaid and CHIP Managed Care Programs

Program	Description
STAR	Manages care for the majority of Texas Medicaid beneficiaries. This program covers low-income families including adults and children, pregnant women, and newborns.
STAR+PLUS	Integrates acute health services with long-term services and supports (LTSS) for adults who have a disability and people who are 65 or older, including many dually eligible for Medicare.
STAR Kids	Manages care, including Medically Dependent Children Program (MDCP) services, for children and adults ages 20 and younger who have disabilities. This program began on November 1, 2016.
STAR Health	Superior Healthplan provides Medicaid-covered capitated benefits to children and young adults in state conservatorship, young adults aged 18 through the month of their 22nd birthday who voluntarily agree to continue in a foster care placement, and young adults aged 18 through the month of their 21st birthday, who are former foster care children members or who are participating in the Medicaid for transitioning foster care youth program.
CHIP	Manages care for children in families whose income is too high to qualify for Medicaid but too low to afford private insurance for their children. The CHIP Perinatal program extends this coverage to unborn children.

Twenty managed care organizations (MCOs) and two dental maintenance organizations (DMOs) provide services to Texas Medicaid and CHIP enrollees. Texas administers services in STAR, STAR+PLUS, STAR Kids, and CHIP in [13 service areas \(SAs\)](#) across the state. The STAR program covers a majority of Texans receiving Medicaid with more than 3 million members (**Table 2**) while about 400,000 children receive benefits through CHIP.

Table 2. Enrollment by MCO and Program, December 2017

Managed Care Organization	STAR	STAR+PLUS ^a	STAR Health	STAR Kids	CHIP
Aetna Better Health of Texas	76,265			4,891	10,109
Amerigroup	554,772	59,117		27,396	68,788
Blue Cross and Blue Shield of Texas	27,543			7,733	5,529
Children's Medical Center Health Plan				9,483	
CHRISTUS Health Plan ^b	5,301				487
Cigna-HealthSpring		19,962			
Community First Health Plans	108,569			7,914	18,021
Community Health Choice	258,923				33,229
Cook Children's Health Plan	110,024			9,209	21,953
Dell Children's Health Plan	18,178				6,949
Driscoll Health Plan	155,926			10,340	8,039
El Paso Health	66,607				10,335
FirstCare Health Plans	88,942				5,190
Molina Healthcare of Texas	100,627	35,588			27,137
Parkland Community Health Plan	171,025				25,769
RightCare from Scott & White Health Plan	45,968				
Sendero Health Plans ^b	15,303				2,313
Superior HealthPlan	746,864	66,112	35,007	28,574	98,998
Texas Children's Health Plan	372,980			25,753	68,433
UnitedHealthcare Community Plan	139,958	54,820		30,496	11,087
Total	3,063,775	235,599	35,007	161,789	422,366

^a Enrollment for STAR+PLUS Medicaid-only members

^b CHRISTUS terminated their services with Medicaid and CHIP effective February 1, 2018, and Sendero exited the market on May 1, 2018.

The Medicaid Children's Dental program and CHIP Dental program provide dental services to children (**Table 3**). Most children and young adults age 20 and younger with Medicaid or CHIP coverage receive dental services through the two DMOs. Superior Health Plan (Superior) provides dental services for STAR Health members.

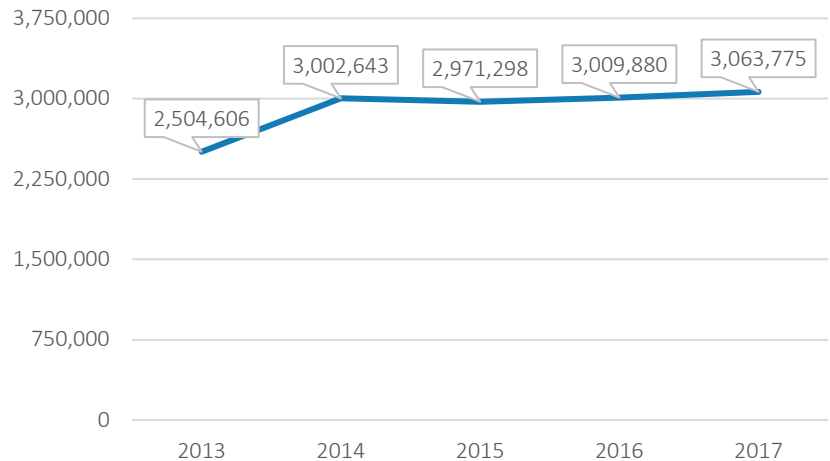
Table 3. Enrollment in Dental Programs by DMO

Dental Maintenance Organization	Medicaid Children's Dental	CHIP Dental
DentaQuest	1,702,296	267,745
MCNA Dental	1,274,596	154,754
Total	2,976,892	422,499

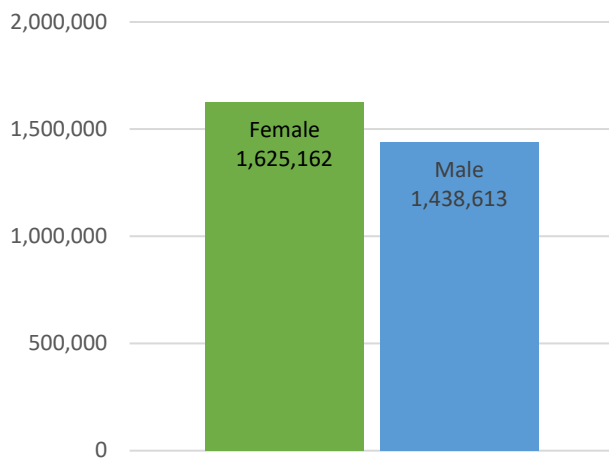
STAR Program Membership as of 2017

STAR is the program through which most people in Texas get their Medicaid coverage. People in STAR Medicaid get their services through medical plans, also known as managed care plans, which they choose. Eighteen MCOs serve the STAR program.

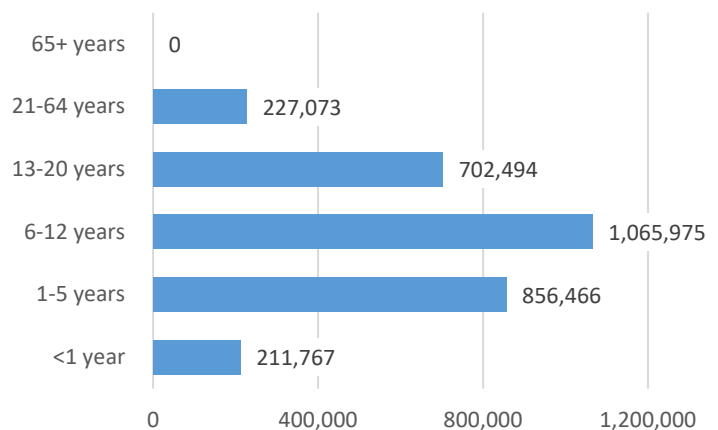
Enrollment



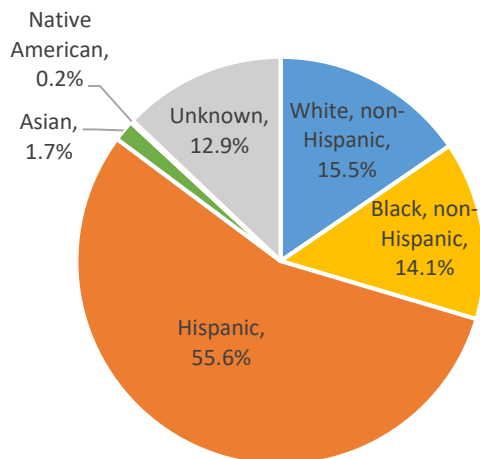
Sex



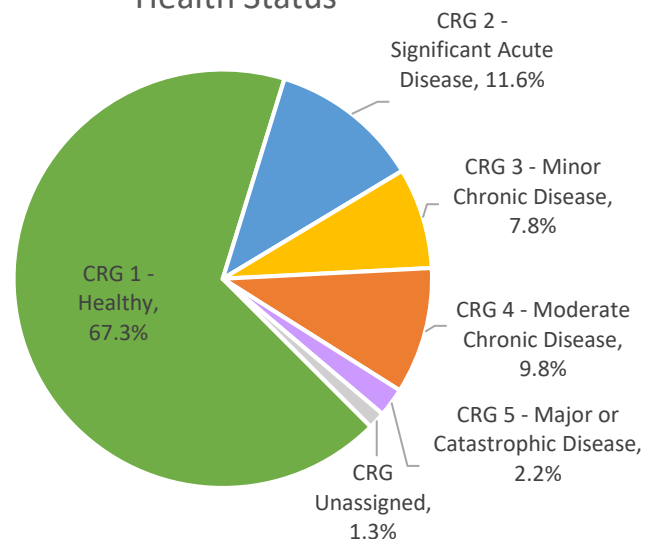
Age



Race/Ethnicity



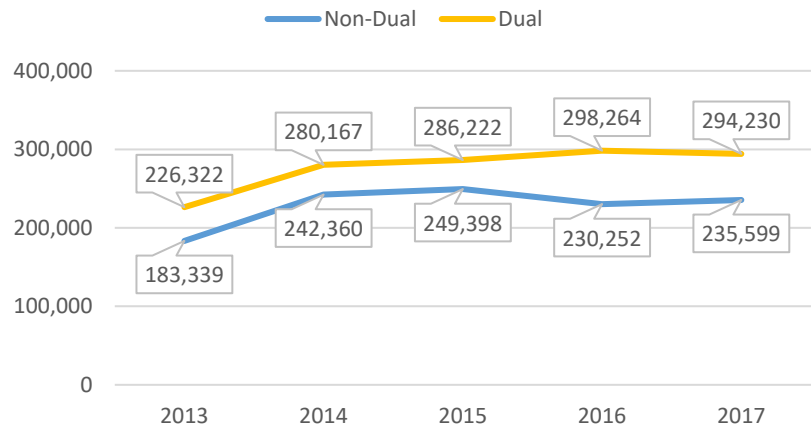
Health Status



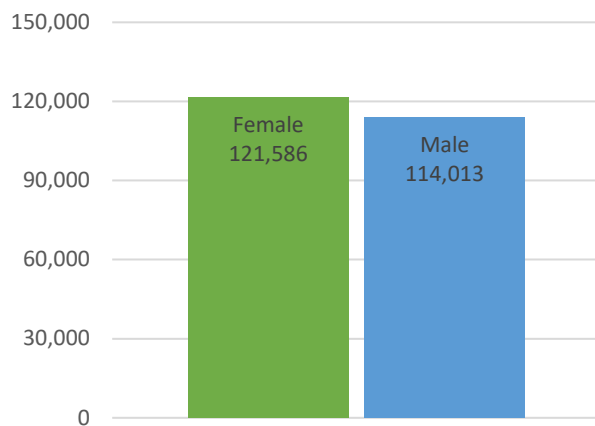
STAR+PLUS (Medicaid Only) Program Membership as of 2017

STAR+PLUS is a Texas Medicaid managed care program for people who have disabilities or are age 65 or older. People in STAR+PLUS get Medicaid health care and long-term services and support through a medical plan that they choose. STAR+PLUS members who have both Medicare and Medicaid, also called dual eligible, get only their long-term services and supports through STAR+PLUS. Five MCOs serve the STAR+PLUS program. Please note this page presents information from the Medicaid only population.

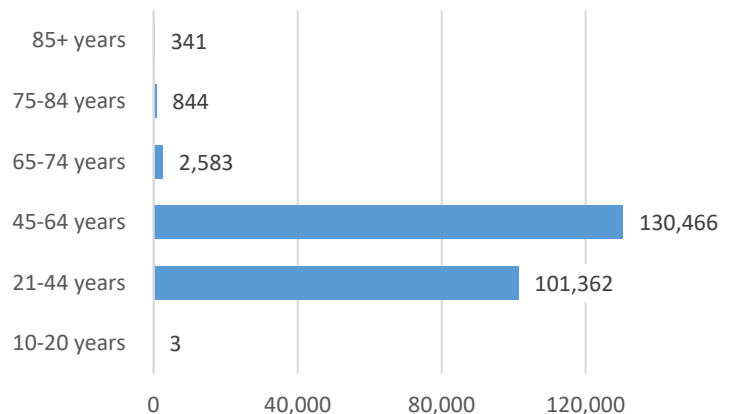
Enrollment



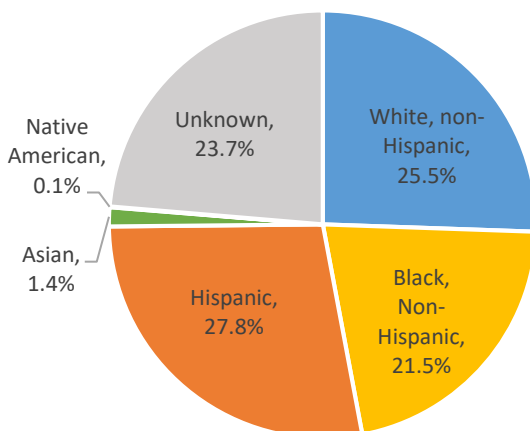
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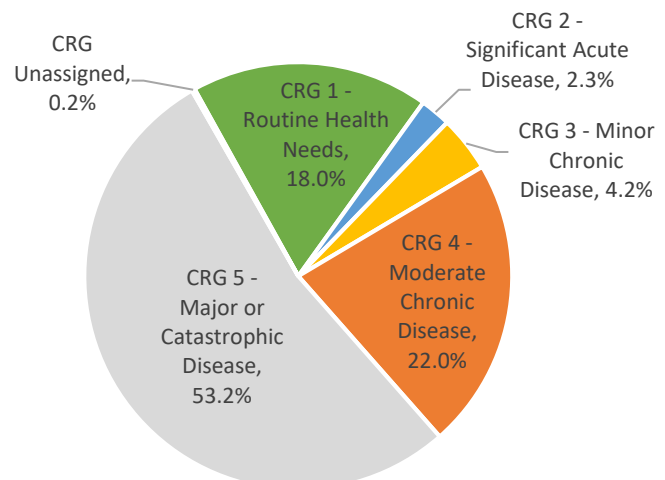
Age



Race/Ethnicity



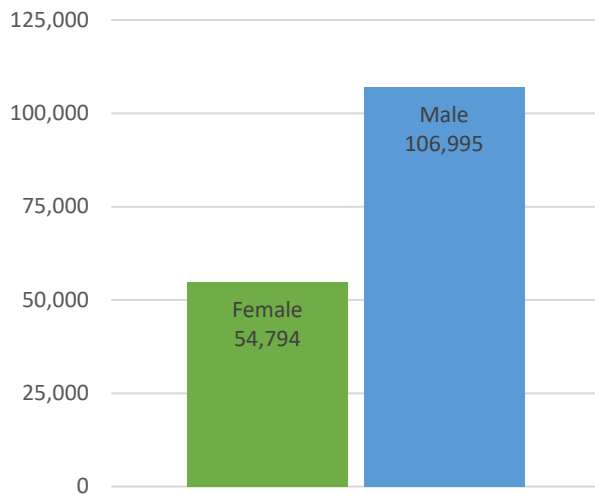
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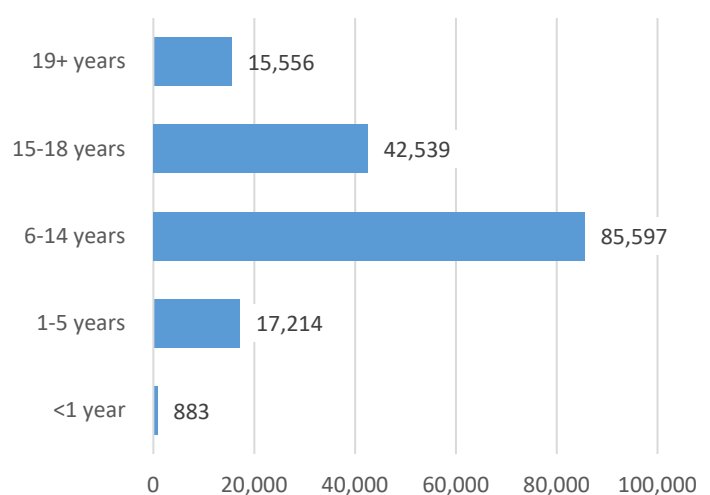
STAR Kids Program Membership as of 2017

STAR Kids is a new Texas Medicaid managed care program that began providing Medicaid benefits on November 1, 2016 to children and adults age 20 and younger who have disabilities. Ten MCOs serve the STAR Kids program.

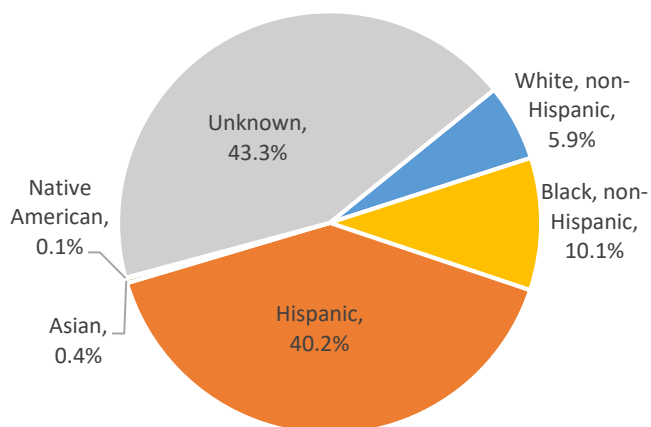
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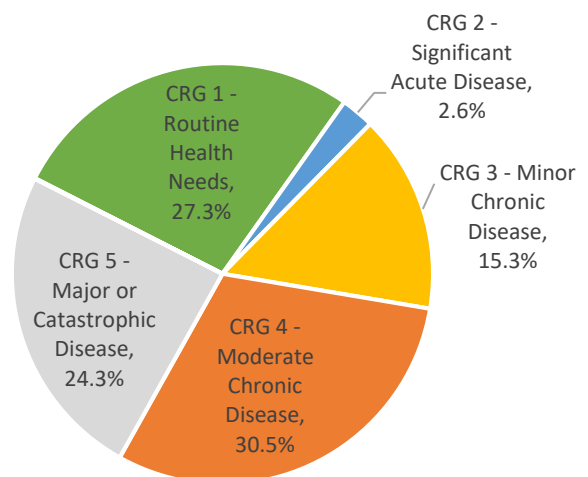
Age



Race/Ethnicity



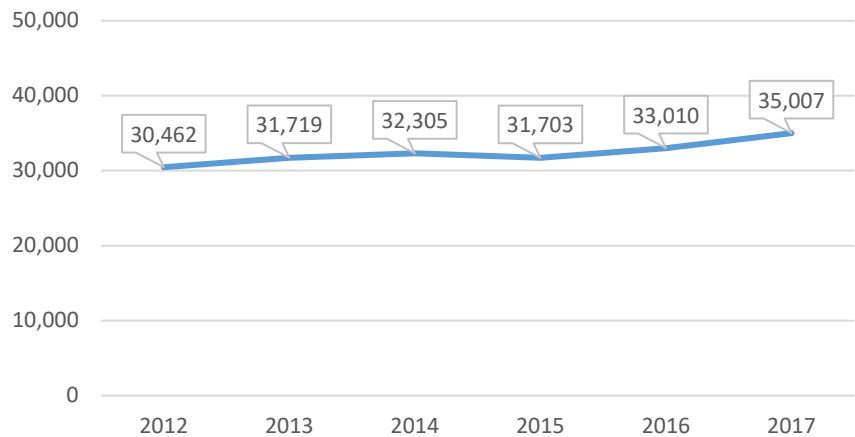
Health Status



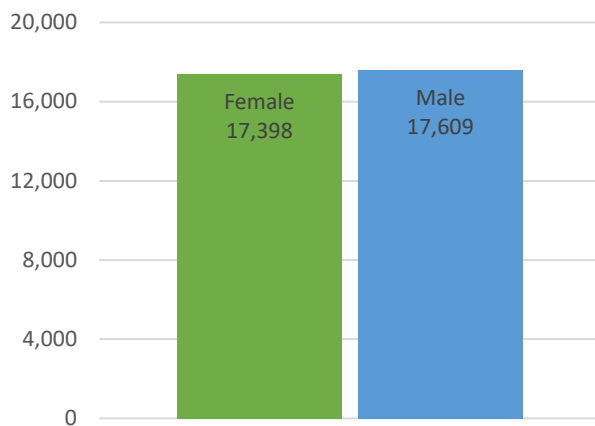
STAR Health Program Membership as of 2017

STAR Health is a Medicaid managed care program serving children and youth in foster care. The main goal of STAR Health is to quickly give children in state care the coordinated medical and behavioral health care services they need. Superior is the only health plan to offer STAR Health and covers children and youth in foster care in all 254 counties in Texas.

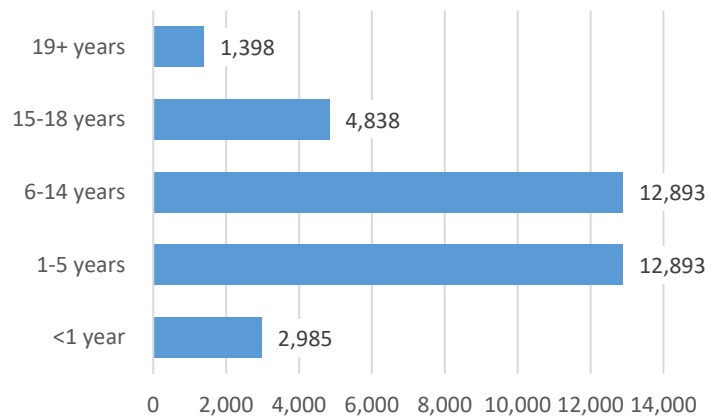
Enrollment



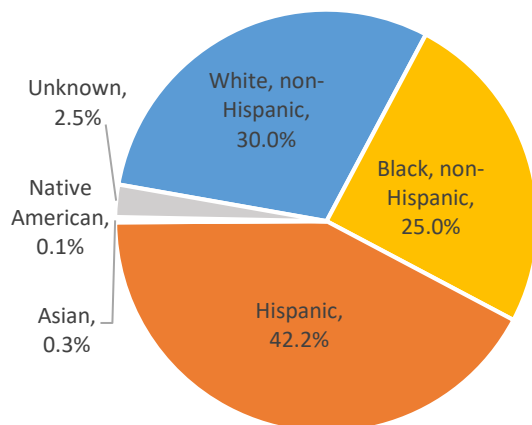
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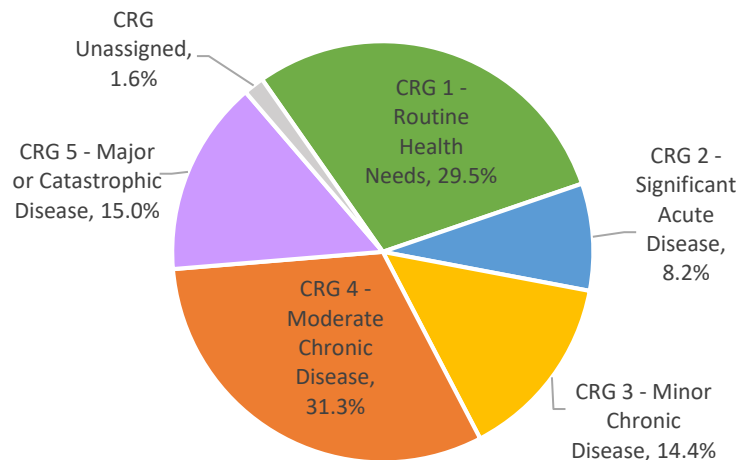
Age



Race/Ethnicity



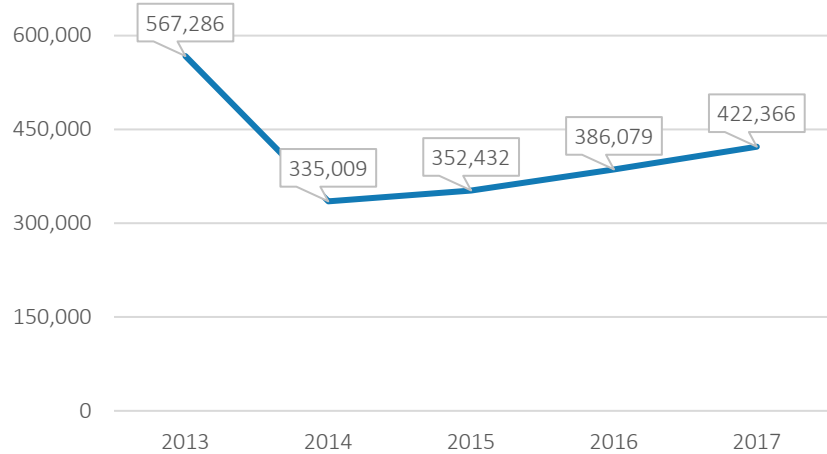
Health Status



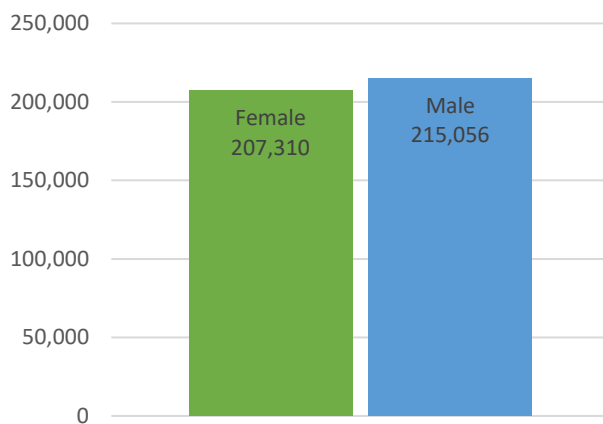
CHIP Program Membership as of 2017

CHIP offers low-cost health coverage for children from conception through age 18. CHIP targets families who earn too much money to qualify for Medicaid but cannot afford to buy private health coverage. Seventeen MCOs serve the CHIP program.

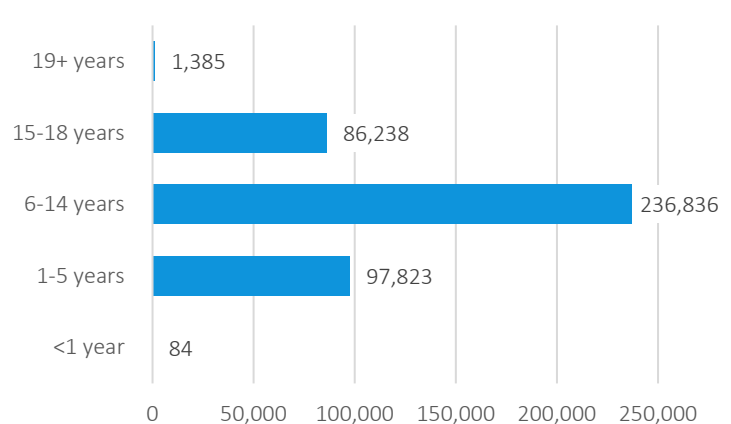
Enrollment



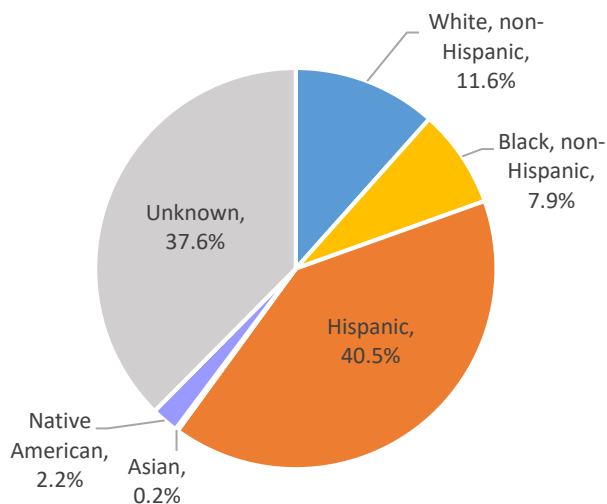
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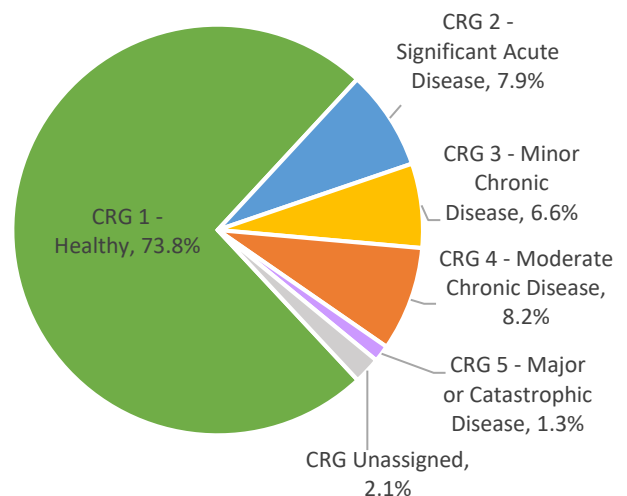
Age



Race/Ethnicity



Health Status



EQR-Related Activities

Overview of Texas EQRO Responsibilities

Following the guidance of the [CMS EQR toolkit](#), the EQRO has summarized activities for SFY2018, covering the period from September 1, 2017, through August 31, 2018 (1). The report includes a summary of all activities the EQRO conducted during SFY2018. This report includes evaluations of MCO activities, quality improvement programs, and administrative performance measures using calendar year (CY) 2017 data. It also summarizes findings from member surveys the EQRO conducted in 2018. This report covers the following seven CMS protocols for SFY2018. Notably, while there have been changes in mandatory EQR activities, such as new activities to validate compliance with network adequacy and assist with quality rating systems, no new protocols have been issued. Therefore, the EQR protocols in place during the reporting year provide the structural basis for this report:

Mandatory Protocols:

- Protocol 1: Compliance with federal and state Medicaid managed care regulations, including standards for access, structure and operations, and quality measurement and improvement
- Protocol 2: Validation of performance measures reported by MCOs
- Protocol 3: Validation of performance improvement projects (PIPs) conducted by the MCOs

Optional Protocols:

- Protocol 4: Validation of encounter data reported by the MCOs
- Protocol 5: Consumer and provider survey administration or review
- Protocol 6: Calculation of performance measures
- Protocol 8: Focused studies of clinical or non-clinical services

The following summary provides an overview of activities the EQRO conducted under each protocol during SFY2018. For some activities, the evaluation period extended past the end of SFY2018, up through the date of this report. The EQRO included detailed information on these activities in the full report.

Protocol 1: Assessment of Compliance with Medicaid Managed Care Regulations

Managed Care Organization Administrative Interviews

The EQRO fulfills the requirements of the CMS EQR Protocol 1 through the Administrative Interview (AI) deliverables, which include a web-based AI tool, AI evaluations, AI extracts, on-site visits, and site visit reports. In SFY2018, the EQRO evaluated responses on the web-based AI tool for six MCOs and one DMO, and conducted site visits with the selected health plans between August and November 2018.

The EQRO assessed MCO and DMO compliance with federal regulations in the following categories: General Provisions, State Responsibilities, Member Rights and Protection, Quality Assessment and Improvement, and the Grievance and Appeal System.

Overall, the MCOs/DMO had an average compliance rate of greater than 80 percent in each regulation category, which is less than that of the 2016 AI Evaluations, where most plans had a compliance rate greater than 93 percent in each category. In July 2017, CMS implemented updates to Medicaid and CHIP managed care regulations, which may have helped decrease the compliance rates. The updated regulations address the availability of information to and greater protections for Medicaid and CHIP beneficiaries, including timeframes for submitting grievances and appeals, information about accessibility in provider directories, and presentation of information in member materials. In CY2018, the EQRO found that health plans had not updated the necessary documents to account for these changes, which affected their performance in several evaluation categories.

The two AI categories that these changes most affect were the *General Provisions* and *Grievance and Appeal Systems* categories, which had the lowest average scores in the 2018 AI Evaluations. The 2016 average rates of compliance for *General Provisions* ranged from 97.7 percent to 100 percent, whereas the 2018 average rates of compliance for this category ranged from 85.7 percent to 90.8 percent. Likewise, the 2016 average rates of compliance for *Grievance and Appeal Systems* ranged from 85.4 percent to 89.7 percent, while in 2018 these rates ranged from 62 percent to 89.2 percent. The updates CMS made to the regulations may have influenced this variance between years, which is explained in more detail in **Protocol 1** in the body of the report.

Als also cover MCOs' disease management (DM) and health promotion programs. MCOs base participation rates on the number of members who are eligible for a particular disease management program relative to those who actively participate in it, and define active participation as one or more encounters (either by phone or face-to-face) between DM staff and the member or member's representative. Active participation rates for DM programs varied by condition and Texas program.

Participation rates for STAR were below 30 percent for all DM programs, ranging from a low of 4.3 percent for obesity in children to 27.8 percent for high-risk obstetrics. Five disease management programs (asthma, congestive heart failure, depression, general disease management, and obesity in children) had participation rates below 40 percent across STAR, STAR Kids, STAR+PLUS, and CHIP. Notably, none of the STAR+PLUS health plans reported participation rates for a child obesity DM program. Therefore, participation rates for this DM program are not applicable to STAR+PLUS.

DM participation rates were low across all Texas programs, although DM participation rates have varied across years. For example, participation rates for asthma DM programs decreased across all lines of business from 2016 to 2017—from 33.9 percent to 19.1 percent in STAR, from 38.3 percent to 20.4 percent in STAR+PLUS, and from 27.5 percent to 9.3 percent in CHIP. With regard to adult obesity DM programs, the EQRO noted increases in participation rates from 2016 to 2017—from 0.5 to 5.4 percent in STAR and from 9.2 to 80.3 percent in STAR+PLUS.

The health plans self-report DM participation rates, and the 2016 rates excluded some health plans due to incorrectly reported data, which could explain some of the variation across years. In addition, the criteria for determining eligibility for a DM program differ between health plans, which can influence program-level participation rates. For example, the EQRO noted that program-level rates for programs that include Blue Cross Blue Shield of Texas (BCBSTX) were lower due to the MCO's method of determining eligibility for DM generally. BCBSTX considers all members as eligible for DM programs, regardless of whether a member has the condition the DM program targeted (with the exception of its high-risk obstetrics DM programs in STAR and CHIP). Given this information, the EQRO recommends that the state examine variations in eligibility criteria for DM programs and participation rates between health plans, programs, and years in order to identify factors that influence active participation in DM programs.

Evaluation of MCO and DMO Quality Assessment and Performance Improvement Programs

To maintain compliance with state and federal regulations, Texas Medicaid and CHIP MCOs must develop and implement Quality Assessment and Performance Improvement (QAPI) programs. The EQRO annually reviews the Texas Medicaid MCO and DMO QAPI programs to evaluate aspects of structure and process that contribute to their success and to assess compliance according to the Code of Federal Regulations (CFR). The EQRO's QAPI program evaluations include an assessment of the presence and strength of the CMS-defined elements of a QAPI

program, and use the MCOs' and DMOs' QAPI summary reports to review their performance-improvement structures and program assessments, and score each plan's QAPI program on 17 activities.

The average score across all MCOs/DMOs combined was 98.2 percent, which is slightly better than the average score of 97.5 percent in 2017. The range of scores by health plan also improved slightly between 2017 (from 87.6 to 100 percent) and 2018 (from 90.9 to 100 percent). The most improvement between these years was in Activity B1 (*Program Description*), with seven health plans incorporating previous recommendations to: establish long-term goals for the vision and mission of their quality improvement programs; develop actionable and measurable objectives to meet their long-term goals; and evaluate their progress toward meeting their goals and objectives. Overall, the EQRO found that MCO/DMO compliance with prior year recommendations was 71.6 percent.

Protocol 2: Validation of Performance Measures Reported by the MCOs

CMS EQR Protocol 2 validates all performance measures the MCOs report. In Texas, the Medicaid and CHIP delivery system involves five managed care programs, 13 geographic service areas (SAs), and 20 MCOs. To ensure consistency in quality assessment, Texas relies on the EQRO to calculate most quality measures across the many components of the delivery system, following the guidance for CMS EQR Protocol 6. An exception is the selection of Healthcare Effectiveness Data and Information Set (HEDIS®) measures that Texas identified for hybrid method reporting. For these measures, the state requires MCOs to submit their results by program, along with an audit report from a National Committee for Quality Assurance (NCQA) certified auditor attesting that the measure met reporting requirements, as well as the member-level results supporting each reported rate.

By requiring the approval of NCQA-certified auditors, the EQRO can ensure that MCOs meet reporting requirements following the principles in CMS EQR Protocol 2. In addition to reviewing the audit reports, the EQRO reviews the results and member-level data for consistency. After determining that MCO submissions meet the quality requirements, the EQRO integrates the MCO-reported results into overall quality-of-care reporting and accepts NCQA-certified auditor approved supplemental data from the MCOs, which it includes in calculating HEDIS measures under CMS EQR Protocol 6.

Protocol 3: Validation of Performance Improvement Projects

The EQRO evaluates the design, methodological approach, implementation, and validity of results for the mandatory performance improvement projects (PIPs) that the MCOs and DMOs carry out. Texas requires health plans to conduct PIPs over two years to provide sufficient time for project implementation and increase the likelihood of reporting meaningful outcomes. The overall PIP score includes both the PIP Plan score, reflecting the strength of design, and the Final PIP score, reflecting the analysis, results, and interpretation by the MCO. The EQRO uses progress reports to evaluate the implementation of the PIPs every July.

PIP Evaluations

The EQRO evaluates MCO/DMO PIPs according to the 11 activities that the CMS EQR Protocol 3 outlines, with each activity comprised of one or more components. The evaluation scores each component based on a three-point scale: component "met" (100 percent), component "partially met" (50 percent) or component "not met" (zero percent). The EQRO averages these scores across all components in an activity to generate the overall score for an activity. In addition, the EQRO calculates an overall PIP score that represents the average of all components across the 11 activities. The EQRO conducts this evaluation in two phases: (a) the PIP Plan (Activities 1 through 7) and (b) the Final PIP (Activities 8 through 11).

The MCO topics for the 2016 two-year PIPs included potentially preventable emergency department (ED) visits (PPVs) related to upper respiratory tract infection (URTI) in all STAR and CHIP MCOs, potentially preventable admissions (PPAs) and potentially preventable readmissions (PPRs) related to behavioral health in four STAR+PLUS MCOs and STAR Health, and PPAs related to chronic obstructive pulmonary disease (COPD) in one STAR+PLUS MCO. Each DMO conducted dental PIPs focused on preventive dental services.

The average overall PIP scores exceeded 80 percent in all programs, although scores varied considerably across MCOs. Across all PIP evaluations, 12 STAR PIPs and three CHIP PIPs achieved a statistically significant improvement in URTI-related PPVs. Furthermore, two STAR MCOs—Aetna Better Health (Aetna) and FirstCare Health Plans (FirstCare)—achieved a sustained statistically significant improvement for two consecutive data years. Although the EQRO does not consider PIP interventions causative without further investigation, each MCO cited several promising practices that potentially led to sustained improvement:

- Aetna noted using multiple outreach methods, including a text- and mobile-based message delivery program that reached 1,500 members. The text messages provided information in English or Spanish (based on the member's language preference obtained during enrollment), encouraging the use of a 24-hour nurse line in an effort to redirect care to appropriate settings. Aetna supplemented this effort with flyer mail-outs and a survey with members who frequented the ED for URTI to determine their preference on receiving informational materials. Notably, Aetna carried out the same interventions for CHIP and saw an overall decrease in URTI-related PPVs, although they did not sustain significant improvements for two years. The EQRO recommends that the MCO examine population differences between STAR and CHIP in order to identify factors that may have influenced these differences in outcomes.
- FirstCare implemented a multi-level intervention, collaborating with Texas Tech University Health Science Center – Lubbock on a delivery system reform incentive payment (DSRIP) project to increase use of an after-hours nurse advice line to first-available clinic appointments. FirstCare's approach also included interventions to increase the number of contracts with walk-in and urgent care clinics, notify members' primary care providers (PCPs) when they visited the ED, and educate members about use of emergency services and other resources.

Health plans in both STAR and CHIP reported statistically significant improvements using many of the same PIP intervention efforts for reducing URTI-related PPVs, including distribution of cold and flu kits, follow-up after a URTI-related ED visit, notifications to providers about ED utilization trends, provider incentives to increase flu vaccination rates, and intervening with members who are diagnosed with URTI in a PCP office and later seen in the ED for URTI.

For PIPs addressing BH-related PPAs and PPRs in STAR+PLUS, three STAR+PLUS MCOs achieved a statistically significant improvement in rates of HEDIS *Antidepressant Medication Management* (AMM), and two STAR+PLUS MCOs achieved significant improvement in PPAs. Two STAR+PLUS MCOs – Amerigroup and Superior – achieved a sustained improvement in HEDIS AMM for two consecutive data years.

- Amerigroup implemented a multi-level intervention, which included a physician pharmacy alliance to coordinate pharmacy benefits and analytics, provider education, and member outreach when members who were eligible for HEDIS AMM were non-compliant or likely to become non-compliant.
- Superior implemented an integrated care program in collaboration with the Center for Health Care Services and the University of Texas Health Science Center at San Antonio to identify members with high utilization and create discharge plans to include community treatment, primary care, and behavioral health treatment with weekly face-to-face visits and transportation.

A majority of the STAR+PLUS MCOs reported using intervention approaches for integrated care management that target behavioral, medical, and social factors in order to effectively assist members with coordination of healthcare services. All MCOs reported that ongoing communication with the member is essential to deliver the needed services. Additionally, one health plan carried out a medication therapy management intervention with a third-party vendor to analyze prescription drug claims and help members understand their medications to improve safety and health outcomes. Although none of the STAR+PLUS MCOs achieved sustained improvement in reducing BH-related PPAs and PPRs, they did utilize robust interventions. The EQRO recommends that the STAR+PLUS MCOs conduct additional studies to examine factors influencing outcomes for this population.

The MCOs performed well on most PIP activities, although the EQRO reported common challenges, including achieving measurement goals, analyzing and interpreting statistically significant study results, and demonstrating sustained improvement. Furthermore, in all programs MCOs did not meet more than half of all the components in the activity related to sampling methods. The high rates of unmet components occurred because MCOs did not describe their sampling approach, and/or did not describe how the samples for their interventions represented the populations the PIP addressed.

PIP Progress Reports

The EQRO's PIP progress reports assess the implementation status of the PIPs and whether MCOs have implemented recommendations from the previous PIP report. The health plans that did not incorporate the previous recommendations from the last PIP reports received a score of zero percent per state requirements. For the first progress report, seven PIPs earned scores of zero percent: CHRISTUS (STAR and CHIP), Community Health Choice [CHC] (STAR and CHIP), and Molina Healthcare of Texas, Inc. [Molina] (STAR, CHIP, STAR+PLUS). For the second progress report, three PIPs earned scores of zero percent: CHRISTUS (STAR and CHIP) and Cigna-HealthSpring (STAR+PLUS).

Protocol 4: Validation of Encounter Data Reported by MCOs

Encounter Data Validation: Medical Record Review

The EQRO annually validates encounter data for accuracy and completeness by comparing claims against a representative sample of dental or medical records. In SFY2018, the EQRO conducted an encounter data validation (EDV) study of physical health encounters and records from CY2017 for members in STAR, STAR Health, STAR Kids, STAR+PLUS, and CHIP. The EDV study validated fields for date of service (DOS), place of service (POS), primary diagnosis (PDx), and procedures (PX). The EQRO conducted the study on random samples of MCO outpatient office or clinic visit encounters in each program, with each claim in the random sample associated with one member-provider pair. The EQRO requested medical records from providers for one year's worth of records for the specified member. Certified medical record reviewers conducted the validation study, calculating match rates (correspondence between encounter and medical record data) for all data elements.

The match rates varied among health plans and programs. Across programs, STAR Health had the highest match rates for all review categories and STAR Kids had the lowest rates. In addition, of the 10 MCOs covering STAR Kids, Children's Medical Center Health Plan (CMCHP) consistently had the lowest match rates.

- For DOS, match rates across programs were 90 percent or higher, with the exception of STAR Kids (84 percent) and STAR+PLUS (86.2 percent). STAR Health had the highest DOS match rate at 93.3 percent.
- For POS, match rates were approximately the same as the DOS rates for all health plans and programs.

- For PDx, CHIP and STAR Health were the only two programs that achieved a match rate higher than 90 percent. Across programs, STAR Kids had the lowest rate (83.1 percent), while STAR+PLUS had the second lowest rate (84.7 percent). STAR Health had the highest PDx match rate, at 91.7 percent.
- For PX, match rates across programs were 85 percent or higher, with the exception of STAR Kids (84.5 percent). STAR Health had the highest PX match rate, at 94.3 percent.

Among CHIP MCOs, Driscoll Health Plan (Driscoll) consistently had the lowest match rates for all review categories. However, Driscoll was one of 10 health plans for which the EQRO did not obtain a sufficient number of records to meet the study's sample size requirements. The primary reasons for not receiving needed records were bad provider addresses, providers indicating that the listed member was not their patient, and providers indicating that they had not seen the listed member during the measurement year. To improve response rates for the EDV study, the EQRO recommends additional research to examine the accuracy of CHIP provider directories.

Encounter Data Validation: Data Certification

Following the guidance in the CMS Encounter Data Toolkit and EQR Protocols, as well as Texas Government Code §533.0131, the EQRO developed procedures for annually certifying the quality of Texas Medicaid and CHIP encounters. The EQRO certifies data for each MCO and DMO six months after the end of the fiscal year to allow for claims submission and adjudication. The data certification completed during SFY2018 was for the SFY2017 service period.

Volume Analysis

The EQRO evaluated the volume and distributions of claims for unexpected or unexplained changes and consistency across programs, months, and MCOs/DMOs. The EQRO found no unexpected changes or variations in the encounter volume analyses. Overall, volume was relatively constant with some declines across the year. The ratio of professional to institutional claims was higher in Hidalgo than in other SAs. For STAR+PLUS, professional claims represented more than 90 percent of all claims in Hidalgo, while the average percentage of professional claims across other SAs was about 70 percent. This difference in utilization patterns may affect quality measures and warrants further investigation. Additional studies may reveal the factors driving the overutilization of outpatient services as well as factors, such as availability and access to preventive services, which may help control inpatient utilization.

Data Validity and Completeness

The EQRO examined the encounters for the presence and validity of critical data elements, including:

- Percentages of encounter records in which key fields were either missing or did not meet validity standards
- Present on admission (POA) indicators (to calculate PPCs)
- Provider information, including the classification of the submitted National Provider Identifier (NPI), and taxonomies
- T1015 claim modifiers that Federally Qualified Health Centers (FQHCs) and Rural Health Clinics (RHCs) use
- Dental specific coding

Key Fields

For SFY2017 data, the EQRO included 18 encounter fields in the review, considering passing rates of less than 99 percent as areas of concern. In most cases, 100 percent of the data pass validity checks; however, continued annual review of data is critical to ensuring that the data used in quality-of-care assessment and rate setting meet quality standards. Among the key fields evaluated for SFY2017 data, admission dates for Amerigroup, CMCHP, Dell Children's Health Plan (DCHP), Texas Children's Health Plan (TCHP), and UnitedHealthcare Community Plan

(UHC) were missing in slightly more than 1 percent of institutional inpatient encounters for a few SAs in certain programs. The EQRO recommends following up with these MCOs to identify the root cause of missing data. An increase in missing data would be cause for concern. In past years when the EQRO identified data issues resulting from recent processing changes, it worked with HHSC and the MCOs to identify root causes and make corrections to ensure that final data passed certification testing.

POA Indicators

Valid coding of POA for reported diagnoses is critical to the EQRO's efforts to calculate the 3M™ potentially preventable complications (PPC) measure. When POA codes are missing or invalid, the PPC rate calculations may misclassify or exclude these encounters, hindering the EQRO in its ability to provide HHSC with accurate and complete information about Texas Medicaid and CHIP. Thus, to avoid bias in PPC calculations and risk adjustment, 3M recommends screening POA distributions at the hospital level and excluding all data from hospitals that fail to pass screening tests. The EQRO applied these four screening criteria to all data by program, aggregated by MCO and SA, and found that data for most MCOs/SAs in [CHIP Perinatal](#) and STAR would not pass the hospital data screening checks. In these cases, it is likely that hospital-level PPC calculations will exclude a substantial portion of the MCO/SA data. The EQRO recommends that MCOs work with the hospitals in their networks that have failed POA data quality checks to improve submissions.

Provider Information

Adequate provider identification is critical to the EQRO's efforts to calculate HEDIS measures, conduct provider surveys, and obtain medical records for validating encounter data. The National Provider Identifier (NPI) for rendering provider in professional encounters should represent the individual that performed the service. Across programs, the rendering NPI identified an individual between 80 and 90 percent of the time. However, for some MCOs/SAs, the primary NPI identified an individual in less than 70 percent of cases. HEDIS measure calculations use taxonomy data to assign provider specialty and to identify provider specialties for quality and clinical analyses. Across programs, professional encounters included taxonomy data for a rendering individual less than 75 percent of the time. Based on this reporting, Texas will change encounter data requirements to include taxonomy.

Dental Data

Tooth and tooth surface identification reporting has improved to nearly 100 percent since the EQRO began evaluating these fields in the data certification process. For SFY2017, the EQRO added evaluation of caries risk indicator codes. Caries risk assessment (CRA) is a required part of a complete dental exam, yet the EQRO found that CRA codes were missing in up to four percent of dental exam encounters across programs and dental maintenance organizations (DMOs). As a requirement for dental exams, absence of the CRA codes should result in denial of the exam claim. The EQRO recommends that HHSC work with the DMOs to enforce this requirement, thus ensuring complete CRA data.

FSR Analysis

The EQRO compared payment dollars documented in the encounter data to payment dollars in the MCO self-reported FSR. According to the standard set by HHSC for SFY2017, the encounter data and the FSR must agree within three percent for the EQRO to certify data (seven percent in the STAR Kids program). All MCO/SA combinations across all programs met this standard.

Protocol 5: Validation and Implementation of Surveys

Consumer Quality of Care Surveys

The EQRO conducts biennial surveys to measure experiences and satisfaction of adult members and caregivers of child and adolescent members in Texas Medicaid and CHIP. The EQRO conducts the consumer quality of care surveys to monitor and evaluate the quality of care provided to the members, assist members in choosing among health plans, inform HHSC on quality improvement initiatives, and help health plans identify areas of strengths and weaknesses so they can better target their quality improvement efforts. During SFY2018, the EQRO conducted biennial member surveys for four programs – STAR Adult, STAR+PLUS, STAR Health, and STAR Kids – using the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey and items from other standardized, nationally validated surveys such as the National Survey of Children’s Health (NSCH).

The EQRO follows AHRQ specifications for reporting experiences and satisfaction with care on CAHPS composite measures (which combine responses to closely related items) and rating measures (which ask respondents to rate their care on a scale from 0 to 10). For most measures, findings represent the percentage of respondents who report “always” to a particular item or set of items. For rating measures, findings represent the percentage who rate their care a “9” or “10.”

STAR Adult and STAR+PLUS Surveys

Mean ratings on many of the adult CAHPS survey items for MCOs in Texas were higher than the 2018 Nationwide Adult Medicaid CAHPS rates. In 2018, *How Well Doctors Communicate*, and *Health Plan Information and Customer Service* received high ratings from both STAR and STAR+PLUS members, indicating that providers and plans are doing well at communicating information to members. Overall *Health Plan Rating* scores were also high among adult STAR and STAR+PLUS members.

When compared to 2016 biennial survey results, most composites and ratings have improved for STAR and STAR+PLUS, with the exception of *Shared Decision Making* and *Personal Doctor Rating* measures. The *Personal Doctor Rating* for STAR is in line with the 2018 Nationwide CAHPS Adult Medicaid ratings. Of all the reportable rates, only *Getting Care Quickly* for the STAR program was lower than the national rate, indicating that improvement efforts should focus on reducing the time it takes for providers to see members.

STAR Health and STAR Kids Surveys

Superior has been the exclusive provider for the STAR Health program for several years, which allows for consistent trending. *Getting Care Quickly* and *Coordination of Care* saw marked increases in 2018. The percentage of STAR Health members who qualify as having chronic conditions, using the *Children with Special Health Care Needs* (CSHCN) screener, has remained steady over the years, with an average of approximately 50 percent of STAR Health members meeting one or more CSHCN criteria. However, in 2018, scores for the *Specialist Rating* and *Health Plan Rating* were lower than national rates. Ratings and composites for STAR Health have shown improvements in some measures, but slight declines have occurred for *Getting Needed Care*, *How Well Doctors Communicate*, *Coordination of Care*, *Shared Decision Making* and *Specialist Rating* measures.

The EQRO added the STAR Kids Caregiver Survey to the biennial member survey rotation in 2018. In addition to the full CAHPS 5.0H surveys with the *Children with Chronic Conditions* (CCC) set, the EQRO added items from the NSCH focusing on care coordination and transition to adult care. The EQRO selected these items following recommendations from the STAR Kids Focused Study. The EQRO also included CAHPS 4.0 supplemental items to capture member experiences related to medical supply access and health literacy.

Overall, STAR Kids CAHPS rates were similar to national CAHPS rates. Caregivers reported above average rates for access to urgent care, specialist appointments, and routine care. The STAR Kids population has greater needs related to chronic conditions, and findings for the *Specialist Rating* and the *Coordination of Care* composite for STAR Kids caregivers were markedly higher than the national averages. However, findings on access to behavioral health treatment and counseling and ease of getting medical equipment were lower than those reported nationally.

Results for the *Health Plan Information and Customer Service* composite were high among caregivers in both programs, indicating that the plans in STAR Health and STAR Kids are doing well communicating information to members.

Together, findings from the EQRO's biennial surveys with Texas Medicaid members and caregivers show that ratings have either surpassed or matched the 2018 National Child and Adult Medicaid ratings, indicating that members are generally satisfied with care when compared to the rest of the country. However, certain measures do show room for improvement in particular programs. STAR Adult members have reported low rates for the *Getting Care Quickly* composite, which can be addressed through improvement efforts that focus on reducing wait times for care. Based on findings from the first biennial survey of STAR Kids caregivers, the EQRO recommends continued monitoring and efforts to improve access to behavioral health services and medical equipment, given the chronic and complex healthcare needs of STAR Kids members and the high levels of stress faced by caregivers. Improvement efforts in STAR Health should aim to enhance access to specialist providers.

Protocol 6: Calculation of Performance Measures

As noted in reference to Protocol 2, Texas has contracted with the EQRO to conduct quality evaluations across all programs, including FFS, Medicaid, and CHIP managed care. Texas uses more than 50 quality measures to facilitate CMS reporting, quality incentive programs, initiative planning, and other program administration objectives.

The EQRO uses quality measures from nationally recognized quality assessment programs including:

- HEDIS, maintained by NCQA for more than 20 years;
- AHRQ Prevention Quality Indicators (PQI) and Pediatric Quality Indicators (PDI);
- Dental Quality Alliance (DQA) performance measures for oral healthcare; and
- Potentially preventable events measures developed by 3M Health Information Systems.

HHSC also specifies additional measures to address specific state requirements and initiatives. The following section summarizes Texas Medicaid and CHIP performance on the aforementioned measures for CY2017. A complete list of the quality measures for SFY2018 is included in the full report under **Appendix A: Summary of Quality Measures Calculated and Reported by the EQRO for the 2017 Measurement Year by Program**.

HEDIS Measures

The EQRO reports annual HEDIS results stratified by program, MCO, and SA. These reports include overall results for all Medicaid programs and results categorized by race, sex, and health status. The EQRO reports HEDIS results directly to HHSC and makes them publicly available on the [Texas Healthcare Learning Collaborative \(THLC\) portal](#).

The EQRO compared HEDIS results to the CY2017 national percentiles compiled by NCQA from Medicaid Health Maintenance Organization (HMO) data and to a select set of 2017 HHSC performance dashboard standards. Details on these standards are available in the Uniform Managed Care Manual (UMCM), Performance Indicator Dashboards for Quality Measures.

The AHRQ National Quality Measure Clearinghouse (NQMC), a joint initiative of AHRQ and DHHS, previously provided detailed information on quality measures, promoting further dissemination, implementation, and discussion, and leading to a more informed healthcare decision-making process. After funding ended in 2018, the AHRQ NQMC became unavailable. Currently, the EQRO draws information on quality measures from other AHRQ resources, the NCQA State of Health Care Quality Report, and other measure-specific sources.

Prevention and Screening

Measures of preventive care assess rates of primary care visits, screenings, and vaccinations that aim to prevent the onset of disease and adverse health outcomes. Screening tests include standard evaluations for normal development or function as recommended for all patients in specific age or sex groups (e.g., developmental screening or hearing tests, or regular blood pressure testing) and tests for specific diseases or conditions, which may be recommended based on age, sex, or other risk factors (e.g., cancer or chlamydia screening). Screening is important because it can help identify diseases or conditions at an early stage and treatment can begin before they lead to irreversible consequences.

Of note, all STAR+PLUS MCOs performed at or below the 10th national percentile for the percentage of women who were screened for cervical cancer. Performance on the chlamydia screening measure was below the 10th national percentile in CHIP and STAR+PLUS. All of the STAR+PLUS MCOs and almost half of the STAR MCOs performed below the state minimum standard for the percentage of sexually active women with at least one test for chlamydia. Improving the rate of chlamydia screening helps improve maternal and child health in Texas by increasing the probability of early identification and treatment as well as reducing the risk of pre-term delivery and newborn pneumonia associated with untreated chlamydia (2).

- *Adult Body Mass Index (BMI) Assessment* in STAR+PLUS: On average, 80 percent of STAR+PLUS members had their BMI documented in an outpatient visit, which equals the Texas state minimum standard (80 percent) and below the Texas state target (85 percent).
- *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents* in CHIP: Most CHIP MCOs performed below the national average on nutrition and physical activity counseling. However, two MCOs performed above the 75th percentile.
- *Childhood Immunization Status* in CHIP: Only five CHIP MCOs performed above the 75th national percentile for percentage of children two years of age who received 10 recommended vaccinations by their second birthday.
- *Developmental Screening*: Although Texas programs performed better than the national average, rates for developmental screening are substantially lower than well-child care measure rates, despite its requirement in THSteps.

Respiratory Conditions, Cardiovascular Conditions, and Diabetes

The HEDIS measure set includes several measures targeting chronic physical conditions that affect the respiratory, cardiovascular, and endocrine systems. Controlling chronic conditions in this area is particularly important for the STAR+PLUS population, many of whom struggle with significant or multiple persistent health issues. Measures for high blood pressure and diabetes care are included in the STAR+PLUS Pay-for-Quality (P4Q) program. High-quality care for chronic and acute conditions promotes the most appropriate treatments and minimizes the need for emergency care.

Performance on measures of effective treatment for respiratory conditions varied across conditions and programs:

- *Appropriate Testing for Children with Pharyngitis* in STAR and CHIP: The percentage of children who were diagnosed with pharyngitis, dispensed an antibiotic, and received a strep test was 72 percent in STAR and 75 percent in CHIP—meeting both the Texas state minimum standards and Texas state targets for both programs.
- *Use of Spirometry Testing in the Assessment and Diagnosis of COPD* in STAR+PLUS: Overall, the percentage of STAR+PLUS members (40 years or older) with newly diagnosed or newly active COPD who received appropriate spirometry testing was below the 25th national percentile. However, performance in the Hidalgo and El Paso SAs were above the 75th national percentile.
- *Asthma Medication Ratio* in CHIP and STAR: Texas CHIP MCOs performed uniformly well on the percentage of members with asthma whose ratio of controller medications to total asthma medications was 0.5 or greater, with the program overall exceeding the 90th national percentile. In contrast, the majority of STAR MCOs fell below the 50th percentile, with rates decreasing compared to the previous year.
- *Medication Management for Asthma* in CHIP and STAR: Both CHIP and STAR had very low rates for the percentage of members with asthma who remained on their asthma controller medication for at least 50 percent of their treatment period, falling below the 10th national percentile in both programs.

For adults in STAR and STAR+PLUS, the EQRO found that performance on measures of effective treatment for cardiovascular conditions needed improvement:

- *Controlling Blood Pressure* in STAR and STAR+PLUS: In both STAR and STAR+PLUS, the percentage of members with hypertension whose blood pressure was adequately controlled fell below the 25th national percentile.
- *Statin Therapy for Patients with Cardiovascular Disease* in STAR+PLUS: In STAR+PLUS, rates for the percentage of members with cardiovascular disease who received statin therapy and who remained on statin medication for at least 80 percent of their treatment period fell below the 50th national percentile for both measures.

The EQRO measures performance on the effectiveness of diabetes care for adults in STAR and STAR+PLUS. The HEDIS *Comprehensive Diabetes Care* measure includes sub-measures that address monitoring and control of hemoglobin A1c (HbA1c), screening for diabetic retinal disease, and screening or treatment for diabetic nephropathy. In STAR, performance on these sub-measures was low overall, with most falling below the 25th national percentiles, although rates varied widely by MCO. In STAR+PLUS, adequate HbA1c control (< 8 percent) is a P4Q measure for which all STAR+PLUS MCOs fell below the 50th national percentile. The STAR and STAR+PLUS MCOs also varied in performance against state-specified standards for diabetes measures:

- *HbA1c Testing and Control*: Overall, both STAR and STAR+PLUS met the Texas state minimum standards for the percentage of members with diabetes who had HbA1c testing and the percentage who had adequate HbA1c control. However, performance on adequate HbA1c control in STAR was well below the Texas state target.
- *Eye Exam*: In both STAR and STAR+PLUS, the percentage of members with diabetes who received an eye exam met the Texas state minimum standard, but fell below the Texas state target for this sub-measure.
- *Monitoring for Diabetic Nephropathy*: The percentage of members with diabetes who received monitoring for diabetic nephropathy was 88.5 percent in STAR and 91.3 percent in STAR+PLUS, with both rates meeting the Texas state minimum standards. Rates for this sub-measure in STAR+PLUS met the Texas state target and performance scores were high for all STAR+PLUS MCOs.

- Most diabetic members in STAR and STAR+PLUS had co-occurring behavioral health and/or other chronic physical health conditions, which can make it hard to manage diabetes effectively.

Behavioral Health

Currently, more than one-quarter of the United States population currently is diagnosed with a mental disorder. In the future, the portion diagnosed with behavioral health disorders may surpass the portion with physical disabilities. In addition, healthcare spending for mental health treatment exceeds \$100 million per year in the U.S., with Medicaid as the single largest payer for mental health services. Medicaid beneficiaries with behavioral health diagnoses account for a significantly disproportionate amount of overall healthcare spending. Access to behavioral health services, including substance use treatment and integration of behavioral and physical health services, are national priorities. The HEDIS measures in this domain address follow-up care, medication management, and screening and monitoring for members with co-occurring behavioral and physical health conditions.

The EQRO's findings on behavioral health measures revealed several areas needing improvement:

- *Antidepressant Medication Management* in STAR and STAR+PLUS. In STAR and STAR+PLUS performance on the percentage of members with major depression who remained on antidepressant medication treatment was poor in relation to national benchmarks.
- *Follow-up Care for Children Prescribed Attention Deficit Hyperactivity Disorder (ADHD) Medication* in CHIP and STAR. Overall, for children who received ADHD medication in CHIP and STAR, the percentage who had one follow-up visit during the 30-day initiation phase fell below both the Texas state minimum standards and the Texas state targets.
- *Follow-up after Hospitalization for Mental Illness* in all programs. In all programs, the rates of members who were hospitalized for mental illness and received follow-up visits (within 30 days and within 7 days) were generally low compared to national benchmarks and state standards. Overall, in CHIP, STAR, and STAR+PLUS, rates for both follow-up periods fell below the Texas state minimum standards and targets. Performance on this measure was better in STAR Health, where it met the Texas state minimum standards but fell below the Texas state targets. Differences across MCOs and SAs demonstrate that higher rates are attainable.
- For STAR and STAR+PLUS, the EQRO calculates two HEDIS measures that address monitoring for adults with schizophrenia and co-occurring diabetes (*Diabetes Monitoring for People with Diabetes and Schizophrenia*) and cardiovascular disease (*Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia*). In addition, the EQRO calculates *Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications*. For all three measures, the EQRO reported low performance in STAR and performance close to the 50th national percentiles in STAR+PLUS. In STAR+PLUS, the percentage of members with schizophrenia or bipolar disorder who were using antipsychotic medications and received diabetes screening varied by SA, with Tarrant and Hidalgo exceeding the 75th national percentile and Travis falling below the 25th national percentile.

Overuse/Appropriateness

Measures of overuse and appropriateness consider common treatments or screening tests that are often misdirected and can result in poor outcomes. The EQRO reported on three HEDIS measures of overuse that are included in HHSC performance dashboards. The EQRO added two new measures addressing opioid use for 2017.

Findings generally showed good performance in Texas Medicaid and CHIP on measures of overuse and appropriateness.

- *Appropriate Treatment for Children with Upper Respiratory Infection* in CHIP and STAR. Performance in CHIP and STAR was good for the percentage of children who had a diagnosis of upper respiratory infection and were *not* dispensed an antibiotic prescription, meeting Texas state minimum standards in both programs and meeting the Texas state target in STAR.
- *Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis* in STAR and STAR+PLUS. The EQRO found good performance in STAR and STAR+PLUS for the percentage of adults who had a diagnosis of acute bronchitis and were *not* dispensed an antibiotic prescription, meeting the Texas state minimum standards and Texas state targets in both programs.
- *Use of Multiple Concurrent Antipsychotics in Children and Adolescents* in CHIP, STAR, STAR Health, and STAR Kids. For all programs, performance for the percentage of children and adolescents who were on two or more concurrent antipsychotic medications was above the 50th percentile nationally.

Access and Availability of Care

The measures in the domain of access and availability address access to primary care, maternal care, substance use treatment, and psychosocial care for both children and teens. Access is measured as the percentage of eligible members utilizing preventive or routine treatment and services. The EQRO reported on five HEDIS measures addressing access and availability.

Performance on these measures varied across programs, MCOs, and SAs, with some findings showing good performance relative to national and state benchmarks, and others revealing areas in need of improvement.

- The EQRO measures access to primary care for adults in STAR and STAR+PLUS (*Adults' Access to Preventive/Ambulatory Health Services*) and children in CHIP, STAR, STAR Health, and STAR Kids (*Children and Adolescents' Access to Primary Care Practitioners*). Performance on these measures was generally good relative to national benchmarks. Findings revealed some differences by MCO and SA, with above-average rates in the Medicaid Rural Service Areas (RSAs).
- *Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment* in STAR and STAR+PLUS. In STAR, performance on the percentage of adolescent and adult members who had a new episode of alcohol or other substance use or dependence and who initiated *and* engaged in treatment was good, with many MCOs exceeding the 75th national percentile. In STAR+PLUS, performance on this measure was considerably lower, with all MCOs in all service areas except Bexar performing below the 50th national percentile.
- *Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics* in STAR, CHIP, STAR Kids, and STAR Health. In STAR, CHIP, and STAR Kids, performance on the percentage of children and adolescents who had a new prescription for antipsychotic medication and who received psychosocial care was poor, with almost all STAR MCOs and SAs below the 25th national percentile, and almost all CHIP and STAR Kids MCOs and SAs below the 10th national percentile. In contrast, performance on this measure in STAR Health was above 90th national percentile. Performance in STAR Health demonstrates that psychosocial treatment options are available and used by providers; thus, improvement in other programs is possible by understanding and addressing the reasons for lower performance.
- *Timeliness of Prenatal Care* in STAR and STAR+PLUS. Among women in STAR who delivered a live birth, the percentage who had a prenatal visit within the first trimester met the Texas state minimum standard. Performance on this measure in STAR+PLUS fell below both the Texas state minimum standard and the Texas state target.

Utilization

The utilization measure domain includes measures that count the timely occurrence of certain beneficial services (such as well-child care) and the overall utilization rates for several types of services, including ambulatory care, inpatient care, alcohol and other drug services, and mental healthcare. The measures of overall utilization do not necessarily indicate good or poor performance, but when compared to national standards or within the Texas Medicaid system, they can provide information on differences in resource use in the care delivery system across programs, MCOs, and SAs.

The EQRO found generally good performance on measures of timely well-care for infants, children, and adolescents.

- *Well-Child Visits in the First 15 Months of Life* in STAR. The percentage of STAR members who turned 15 months old during fiscal year 2017 and who had six or more well-child visits was below the national average. Two STAR MCOs fell below the 10th national percentile for this measure.
- Performance on measures of well-care visits for children (*Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life*) and adolescents (*Adolescent Well-Care Visits*) in CHIP, STAR, STAR Kids, and STAR Health continues to be above the national average across STAR, STAR Kids, STAR Health, and CHIP. Although performance has generally improved over the last five years, rates for CHIP and STAR declined slightly this year. Performance on both measures continues to be best in STAR Health.

AHRQ Area Measures

The population-based PQI and PDI measures identify hospital use for ambulatory care-sensitive conditions. They can flag potential healthcare quality problem areas that need further investigation. The EQRO reports Texas Medicaid population-specific results for these measures (rather than using population standards). These reports have served as a useful monitoring tool for Texas. The EQRO also uses a composite of the PQI measures to assess overall hospital utilization for ambulatory care-sensitive conditions.

The EQRO reported results for 14 PQI and five PDI area measures in SFY2018. The PQI measures apply to adult populations and are performance dashboard indicators for STAR and STAR+PLUS. The PDI measures apply to children and are performance dashboard indicators for CHIP, STAR, STAR+PLUS, and STAR Health. The results for individual PDI and PQI admission types and the composites rates are also available on the [THLC portal](#). The EQRO provided results to HHSC that were specific to the Texas Medicaid populations (rather than the AHRQ general population standards), allowing Texas to monitor admissions for these conditions over time within programs.

Texas includes the PQI composite in the STAR+PLUS P4Q program. The overall composite performance for STAR+PLUS varied by more than 35 percentage points across MCOs. The MCOs have an opportunity to work with providers in their networks to improve access to ambulatory services and preventive healthcare and reduce the impact of these types of admissions among STAR+PLUS members.

Similar to the STAR+PLUS program, the STAR Kids program serves children with complex healthcare needs. As expected, the STAR Kids program has higher rates for PDI composite measures than other programs serving generally healthy children. However, variation across MCOs for STAR Kids suggests that rates could be improved.

Dental Measures

Dental care is required in federally funded CHIP and Medicaid programs for children. Texas HHSC promotes overall oral health, not only through services provided by the DMOs, but also through state-level initiatives in policy development, education, and population-based preventive services.

Through their commitment to quality in dental care, HHSC has achieved results above the NCQA national Medicaid 95th percentile for the HEDIS *Annual Dental Visit* measure. Additionally, while national benchmarks for children ages 2 to 3 years are lower than the overall benchmark, Texas achieved consistently high rates (greater than 70 percent) for this age group.

Potentially Preventable Events

In 2011, the Texas Legislature passed Senate Bill (S.B.) 7, which required a quality-based outcomes payment program for Texas Medicaid. The program incentivizes providers to reduce potentially preventable events (PPEs), using quality measures that have the greatest effect on improving quality of care and the efficient use of services.

Using the 3M core grouping software, the EQRO calculates four types of PPE rates across all Texas Medicaid programs and CHIP:

- Potentially preventable ED visits (PPVs) are ED visits that may have been caused by a lack of adequate access to care or ambulatory care coordination.
- Potentially preventable admissions (PPAs) reflect the occurrence of serious health events that may have been avoided through improved care coordination, effective primary care, and improved population health.
- Potentially preventable re-admissions (PPRs) are return hospitalizations that may have been caused by deficiencies in the care during the initial hospital stay or poor coordination of services at the time of discharge or during follow-up.
- Potentially preventable complications (PPCs) are complications that arise after hospitalization because of poor clinical care or poor coordination of services during the inpatient stay.

The EQRO evaluates reported rates within each program after accounting for the health status of the population (PPVs and PPAs) or the case mix of the admissions (PPRs and PPCs). The EQRO compares MCO performance by calculating actual-to-expected (A/E) ratios, where an A/E ratio greater than one signifies more PPEs than expected and poorer performance.

The EQRO provides PPE results by calendar year, as monthly reports for each program/MCO. These reports include the summary of data and rates, as well as a registry of events identified as potentially preventable. This reporting provides a valuable resource to the MCOs that they can use to identify network providers or member cohorts for targeted intervention. PPE results are additionally available on the [THLC portal](#). Statewide results are available publicly, and detailed MCO-specific results are available to authorized MCO users. The portal provides information on the demographic and health status of members at risk for and experiencing PPEs, as well as the providers and the reasons associated with these PPEs. Technical notes on all PPE calculations are also available in the resources section of the portal.

Potentially Preventable Emergency Department Visits (PPVs)

Of the approximately 2.2 million ED visits in Medicaid and CHIP at risk for PPVs in 2017, the EQRO identified 1.4 million ED visits (63.3 percent) as PPVs. These PPVs account for approximately \$405.8 million in costs. The PPV rate was highest in the STAR+PLUS program and lowest in CHIP. This difference is understandable given the differences in populations served: STAR+PLUS manages care for a population with complex healthcare needs, while CHIP manages care for a relatively young and healthy population.

Upper respiratory tract infection contributed to PPVs in 2017 much more than any other condition in terms of not only weights, which represents resource utilization, but also in terms of counts and expenditures for Texas Medicaid and CHIP PPVs overall. This finding is similar to the results reported for 2016, indicating that upper respiratory tract infection continues to be a major contributor to overall PPVs. These PPVs represent over-

utilization of hospital resources; moreover, primary care settings can provide better treatment of these conditions.

It is important to note that although upper respiratory tract infection contributed to more PPVs overall, other conditions, such as abdominal pain, have higher relative weights and costs. The prevalence and relative cost for the target population should be primary factors in the selection of conditions to target for interventions. Offering more prevention-focused care, such as vaccinations, and promoting the use of primary care providers for common acute illnesses, such as upper respiratory infections, could reduce the occurrence of costly PPVs.

Potentially Preventable Admissions (PPAs)

Ambulatory care sensitive conditions (e.g., diabetes) are the primary contributor to PPAs, which healthcare providers can prevent with adequate patient monitoring and follow-up. The EQRO identified approximately 260,000 inpatient admissions in Texas Medicaid and CHIP as being at risk for PPAs in 2017. Of these, over 38,000 admissions (14.8 percent) were PPAs that account for approximately \$241.5 million in costs. As with PPVs, the PPA rate was highest for STAR+PLUS and lowest for CHIP.

Heart failure accounted for the greatest percentage of PPA resource utilization overall; however, pneumonia accounted for a greater percentage of PPA counts and expenditures. Asthma and bipolar disorders also occurred more frequently as PPA conditions than heart failure. Promoting vaccinations, counseling, and resources to help reduce tobacco use in patient households, and better management of patient medications can reduce PPAs for conditions such as pneumonia and asthma. Heart failure accounted for the greatest percentage of PPA resource utilization in both STAR+PLUS and FFS but was not among the top ten conditions for any other program. Some form of mental health disorder was among the top ten PPA conditions for all programs except FFS. Co-occurring behavioral health conditions can also increase the number of PPEs for physical health reasons.

Potentially Preventable Readmissions (PPRs)

A PPR is a readmission that is clinically related to (and occurs within a specified time interval from) the initial hospital admission. The underlying reason for readmission must be related to the care rendered during or immediately following a prior admission. The EQRO used a 30-day readmission window to evaluate PPRs in the Texas Medicaid and CHIP population. Of the approximately 530,000 admissions in Medicaid and CHIP that were at risk for PPRs in 2017, the EQRO identified over 20,000 (3.8 percent) as PPRs. These PPRs account for approximately \$226.1 million in costs. As with other PPEs, the PPR rates were highest for STAR+PLUS, STAR Kids, and STAR Health; however, unlike other PPEs, the rate was lowest for STAR. Although the higher rate for STAR+PLUS is understandable because the program serves a population with complex healthcare needs, it also highlights the need to improve care coordination for this population to reduce readmission rates.

Bipolar disorders accounted for the greatest percentage of PPR resource utilization overall in 2017, followed by schizophrenia. Notably, readmissions for mental health conditions are considered clinically related, regardless of the diagnoses for the initial admission; thus, some mental health readmissions follow an initial admission for a non-mental health reason. Only bipolar disorders appeared among the top ten conditions for all programs. Major depressive disorders appeared among the top ten for all programs except FFS. Septicemia and disseminated infections appeared among the top ten for all programs except STAR Health. Similar to 2016, three of the top ten PPR conditions overall in 2017 were related to mental health (bipolar disorders, schizophrenia, and major depressive disorders), suggesting a need to improve the management of mental health conditions.

Potentially Preventable Complications (PPCs)

PPCs are complications that arise during the inpatient stay because of improper care or treatment and do not represent the progression of the underlying disease. Admissions may be at risk for some PPC categories, but not others, and each admission can have multiple complications. The EQRO evaluated over 280,000 admissions in Texas Medicaid and CHIP that were at risk for PPCs in 2017. The analysis identified almost 4,000 admissions (1.4 percent) as having PPCs. Similar to other PPEs, the PPC rate was highest for STAR+PLUS; however, unlike other PPEs, the PPC rate was lowest for STAR Health.

Shock accounted for the greatest percentage of PPC resource utilization (weights) in Texas Medicaid and CHIP overall. Although shock contributed to PPCs more than any other condition in terms of weights, two PPC conditions occurred more frequently: renal failure without dialysis, and acute pulmonary edema and respiratory failure without ventilation. Only shock appeared among the top ten PPC conditions for all programs; however, it is important to note that most PPC categories do not apply to children, so some conditions that were included for STAR, STAR+PLUS, and FFS were not included for STAR Kids, STAR Health, or CHIP.

Protocol 8: Focused Studies

MCO Report Cards

The EQRO began producing annual MCO report cards in 2013 to support the state's ongoing efforts to improve consumer choice in Texas Medicaid and CHIP. The state includes MCO report cards for each service area in enrollment packets for new members in CHIP, STAR Adult, STAR Child, STAR Kids, and STAR+PLUS. In SFY2018, the EQRO produced unique report cards for each service area/plan and program as well as instruction sheets in English and Spanish for print and online publication.

The MCO report cards show comparative health plan performance on selected CAHPS measures of member experience and satisfaction and administrative/hybrid HEDIS measures. The report cards present measures in a tiered format that shows individual measure ratings grouped by healthcare domain, and an overall rating using a five-star, cluster-based rating system.

Driscoll had the highest ratings in SFY2018, with consistent five-star ratings on the overall quality composite in at least one service area in CHIP, STAR Kids, STAR Adult, and STAR Child. Superior also did well, with five-star ratings in at least one service area in all programs, except STAR Kids. Amerigroup and Molina consistently had the lowest scores, with one-star ratings on the overall quality composite in at least one service area for four different programs. Among SAs, El Paso and Hidalgo had the highest frequency of five-star ratings on the overall quality composite, while the Dallas service area had the highest frequency of one-star ratings on the overall quality composite.

Appointment Availability Studies

The EQRO completed two appointment availability studies in SFY2018, the Behavioral Health Care Appointment Availability sub-study and the Prenatal Care Appointment Availability sub-study. The Texas Medicaid and CHIP Managed Care Appointment Availability studies focus on provider compliance with timeliness of appointments for primary care, behavioral health care, vision care, and prenatal care as outlined in the Uniform Managed Care Contract (UMCC) between HHSC and the MCOs. This protocol assesses appointment standards listed in Section 8.1.3 of the UMCC, which specifies maximum waiting times for numerous levels and types of care. For behavioral health care, members must receive appointments for initial outpatient behavioral health visits within 14 calendar days of making a request. The appointment availability standard for an initial prenatal care visit is 14 calendar

days, while the standard for high-risk pregnancies and for new members in the third trimester of pregnancy is five calendar days.

The appointment availability study used a “secret shopper” method to assess the availability of appointments and responsiveness of staff at sampled provider offices. First, the EQRO drew study samples from the member-facing provider directories submitted by the MCOs. Then EQRO staff posed as potential new members who needed to schedule an appointment, and they used scripts to elicit and record data to assess MCO compliance with appointment standards. Finally, the EQRO used the data to calculate compliance rates (percentage of providers who offered appointment times within the UMCC-specified standards) as well as median, minimum, and maximum wait times when an appointment was available.

The majority of calls in both studies did not result in available appointments. The percentage of providers excluded based on call dispositions of either “no answer after three attempts” or “wrong number/unreachable provider” in the Behavioral Health Care study ranged from 48 percent in STAR to 61.1 percent in STAR+PLUS. The percentage of excluded providers in the Prenatal Care study ranged from 43.2 percent of calls in the low-risk provider sample to 45 percent in the third-trimester sample.

For providers that EQRO callers could reach for an appointment, the overall program-level compliance rate for the Behavioral Health study was 76 percent for STAR providers that saw adults, 77.4 percent for STAR providers that saw children, 79.2 percent for CHIP providers, and 81.7 percent for STAR+PLUS providers. Across the programs, the median wait time for an appointment was less than seven days.

The overall program-level compliance rates for prenatal care providers were 72.5 percent in the low-risk provider sample, 27.9 percent for the high-risk provider sample, and 57.9 percent for the third-trimester sample. Fewer than five percent of all attempted high-risk and third trimester calls resulted in appointments that met UMCC compliance standards.

Overall, the EQRO recommends further research on constraints to appointment availability for Texas Medicaid and CHIP members. Comparing results from the Appointment Availability studies to data collected during other EQR-related activities would create a more holistic understanding of the constraints to appointment availability for members enrolled in different programs. This research could draw on the data collected from providers in the PCP Referral study regarding barriers to getting specialist appointments and the CAHPS survey results about member experience trying to schedule appointments.

The EQRO also recommends that HHSC continue to assess the procedures MCOs use to update their provider directories and establish ways to monitor and hold MCOs and providers accountable for errors with provider directory information. Improving the quality and reliability of provider information will increase the robustness of the Appointment Availability studies by increasing the number of providers included when calculating compliance.

PCP Referral Study

The PCP specialty referral study is a statewide study that aims to examine PCP experiences when making referrals for specialty care for adults and children in Texas Medicaid managed care and children in CHIP. The purpose of the study is to identify the barriers that PCPs encounter when making specialty referrals and use these findings to develop targeted strategies to improve access to care for Medicaid and CHIP beneficiaries.

In SFY2018, the EQRO used standard encounter data to sample 5,000 eligible providers stratified by program (CHIP, STAR Health, STAR+PLUS, STAR Kids, and STAR) and county-level rurality following CMS-defined categories (Metropolitan areas and combined Micropolitan/Rural areas).

The EQRO used a mixed-mode model for data collection, including a regular mail survey and an online version of the survey tool. The tool collected information about the respondent's practice, the difficulties providers encounter when making referrals, and overall provider satisfaction in interactions with Medicaid and CHIP MCOs. The EQRO also collected specialty referral network information for PCPs, asking providers to identify five physician specialists to whom they commonly referred members in the past two years and provide specific information about their interactions with these specialists, including the reasons they choose them for referrals.

The initial response rate for the mail survey was low (6.3 percent). The EQRO made follow-up calls to non-responsive providers to validate provider information and identify reasons for the low response rate. The result of these calls indicated that inaccuracies in provider directory information were a contributing factor. Approximately one-third of the follow-up calls could not validate provider information because of errors in critical directory information.

Providers identified psychiatric care as the most difficult referral type for both pediatric and adult patients, with psychiatry referrals for both children and adults frequently taking longer than one month. For adult patients, providers considered referrals to psychiatry as well as outpatient behavioral health to be "very difficult." Among pediatric patients, providers identified pediatric otolaryngology (ENT) as the least difficult type of referral. Finally, providers indicated that obstetric referrals were the least difficult referral type for adults.

Timely appointments and location were the most common considerations that PCPs made when referring members to a specific type of specialist, although reasons for making specific referrals varied by population density. Providers in Micropolitan and Rural counties most frequently cited location as the primary reason for referral to a particular specialist, whereas providers in Metropolitan areas most frequently cited the quality of care and timeliness of appointments as a primary reason for referral.

Based on these findings, the EQRO recommends that HHSC continue to coordinate and integrate information from network adequacy initiatives to improve the quality of provider directory information. Telehealth resources may also be beneficial to bridge gaps in provider networks and improve access to healthcare. The EQRO recommends incorporating telehealth utilization services in the SFY2019 PCP Referral study to understand how these tools can overcome specialty care barriers.

STAR Kids Focus Study

Since its implementation in November 2016, the STAR Kids program has provided managed care services to Medicaid members 20 years of age and younger who receive Supplemental Security Income (SSI) benefits or benefits through state programs for children with disabilities, such as waiver programs for home and community-based services (HCBS). Currently, the EQRO is conducting a multi-year focus study to evaluate the implementation of STAR Kids and recommend a performance measure set that is appropriate to the STAR Kids population.

The study uses multiple data sources and methods of data collection and analysis, including administrative claims and encounter data, telephone surveys with caregivers of STAR Kids members, qualitative interviews with key personnel at the STAR Kids MCOs, secondary analysis of existing survey datasets, and quality review of samples of STAR Kids Screening and Assessment Interview (SK-SAI) data collected by the MCOs.

During SFY2018, work on the STAR Kids Focus study included qualitative interviews with STAR Kids MCOs about their experiences with STAR Kids implementation, and a follow-up (post-implementation) telephone survey of caregivers who had participated in the baseline (pre-implementation) survey conducted in SFY2016.

The qualitative interviews with STAR Kids MCOs yielded several common areas of concern regarding program implementation and quality assurance, including changes to or reductions in services, medical necessity denials for MDCP eligibility, and issues with scheduling and completing the SK-SAI. The STAR Kids MCOs also revealed several promising strategies to ensure effective care coordination and service delivery, including stakeholder engagement, use of transition specialists and education, and reducing administrative burden to improve provider recruitment.

The EQRO conducted the post-implementation telephone surveys with caregivers of STAR Kids members approximately 18 months following program implementation (May to July 2018). This fielding period allowed the survey to capture experiences and satisfaction with care delivered after the continuity of care provisions had ended, ensuring that findings were relevant to STAR Kids network providers. Among the 986 caregivers who had participated in the baseline survey, 400 completed the follow-up survey (for a response rate of 58 percent). The preliminary findings comparing pre- and post-implementation survey results revealed areas of service delivery that have likely improved such implementation, including access to specialized services, such as special medical equipment and devices; physical, occupational, and speech therapies; and treatment for behavioral health conditions. The study also revealed significant changes in utilization for specific subgroups. Caregivers of MDCP members reported decreases in the use of routine care and special therapies. Caregivers of members who were not in a waiver program reported increases in the use of specialist appointments, prescription medicines, and home healthcare (18 percent to 25 percent), and a decrease in the use of behavioral health counseling or treatment.

While more caregivers in the post-implementation study reported having someone to help with care coordination, fewer said they “usually” or “always” got as much help as they wanted. This finding suggests that access to care coordination may be improving, while the ability of care coordination to meet caregivers' needs may not. Nearly one-third of caregivers in the post-implementation period said they had someone to help arrange or coordinate their child's care. Although this was a significant increase from the pre-implementation period, the post-implementation rate is still considerably lower than expected given that MCOs assign all STAR Kids members a service coordinator.

The EQRO continues to build upon this work by incorporating analyses that control for other factors (including individual, geographic, and/or health system factors), refining a framework for performance measurement in STAR Kids, and developing STAR Kids MCO profiles that synthesize findings from studies of survey and administrative measures.

National Core Indicators – Aging and Disabilities

The National Core Indicators – Aging and Disabilities (NCI-AD) study is an initiative designed to support performance assessment of state programs for LTSS for older adults, individuals with physical disabilities, and their caregivers. The primary aim of NCI-AD is to collect and maintain valid and reliable data that give states a broad view of how their publicly funded LTSS programs affect the quality of life and outcomes of service participants. Since 2015, Texas has been one of the 16 states participating in the NCI-AD study, and the number of participating states has increased to 23. Texas participates biennially, and the EQRO provides technical assistance to HHSC in the design and administration of the state's NCI-AD study.

For 2017 to 2018, the Texas NCI-AD Adult Consumer Survey study focused on: (a) Members in the STAR+PLUS HCBS program enrolled in the same STAR+PLUS MCO continuously from April 1, 2016, through March 31, 2017; and (b) Individuals enrolled in the Program of All-Inclusive Care for the Elderly (PACE) at the time of sampling.

The study targeted 1,800 completed surveys, representing 300 in each of the five STAR+PLUS MCOs and 300 in PACE. The EQRO contracted with an external survey vendor, NORC, to collect the NCI-AD data over a 40-week fielding period that began in July 2017 and ended in April 2018. Twelve trained field interviewers collected the data in-person using the NCI-AD Adult Consumer Survey instrument. Interviewers entered survey data into an online data entry system application (ODESA), which allowed data to be stored in an electronic format that is accessible to HHSC and collaborating agencies. The EQRO functioned primarily as a liaison between HHSC, the National Association of States United for Aging and Disabilities (NASUAD), the Human Services Research Institute (HSRI) and NORC, and provided assistance with interviewer training, development and coordination of interview protocols, sample preparation and management, and continuous progress and quality monitoring of data collection. The data collected through NCI-AD helps demonstrate performance in managed LTSS delivery to external parties, including state and federal stakeholders. The Texas NCI-AD report and national NCI-AD report (for the 2017 to 2018 data collection period) are still in development by NASUAD and HSRI and will be posted online in 2019.

Quarterly Topic Reports

In 2018, the EQRO also conducted four in-depth quarterly topic reports (QTRs) on topics of special concern to HHSC, including co-occurring behavioral health and physical health conditions (QTRs 1 and 4); overutilization of opioid medication (QTR 2); and methods for estimating severe maternal morbidity (QTR 3). Selection of topics for this series followed a discussion with HHSC about Texas Medicaid quality improvement priorities and leveraged the topical and methodological expertise of experienced faculty members working in the EQRO.

Co-Occurring Behavioral Health and Physical Health Conditions

The EQRO produced two QTRs addressing service utilization of Texas Medicaid members with co-occurring behavioral health (BH) and physical health (PH) conditions, with an emphasis on findings applicable to developing and improving upon practices for BH/PH integration. For QTR 1, the EQRO explored where successfully integrated BH/PH services could potentially reduce expenditures and improve outcomes for Medicaid enrollees with co-occurring BH/PH conditions. The study used exploratory analyses of Medicaid encounter data from SFY2016 to: (a) estimate the proportion of PPEs associated with co-occurring BH/PH conditions; (b) identify the specific pairs of BH/PH diagnoses with the highest PPE rates; (c) determine whether the proportions of PPEs associated with BH/PH conditions and the BH/PH diagnostic pairs varied across MCOs and SAs; and (d) assess how key HEDIS measures differed between enrollees with co-occurring BH/PH conditions and those without co-occurring conditions.

For the first report, the EQRO found that co-occurring BH/PH conditions accounted for the vast majority of all PPEs in STAR+PLUS, in terms of both frequency and total PPE dollar volumes. In STAR, co-occurring BH/PH conditions were not strongly associated with PPEs; however, among these PPEs, the highest proportions occurred in MRSA Central, MRSA Northeast, Nueces, and Tarrant. Focusing on co-occurring conditions captured 73 percent of total PPE expenditures in STAR+PLUS, compared to only 15 percent of total PPE expenditures in STAR. The study also found that enrollees with co-occurring conditions were dispersed across many BH/PH diagnostic pairs, although a relatively small number of individual BH diagnoses (e.g., schizophrenia, depression, alcohol/substance use disorders) and individual PH diagnoses (e.g., congestive heart failure, COPD, asthma) were the primary diagnostic causes of PPEs in this population. With regard to HEDIS measures, the study found that members in STAR+PLUS and STAR with co-occurring BH/PH conditions tended to have higher rates on average, which is consistent with higher utilization rates and more opportunities to receive appropriate care. Based on this work, the EQRO recommended that care integration efforts for members with co-occurring conditions should focus on: (a) STAR+PLUS members; (b) the specific co-occurring BH and PH diagnoses that emerged as major contributors

to PPEs; and (c) determining the causes of high PPE rates in MCOs and SAs that had unusually high rates of PPEs for members with co-occurring conditions.

The EQRO built upon this work in QTR 4, which focused on the population of STAR+PLUS members with co-occurring conditions and explored the potential influence of members' PCPs and MCO integration practices on the prevalence of PPAs and PPVs. The study used analyses of SFY2017 claims data, as well as information on STAR+PLUS MCO BH/PH integration practices identified from a survey with MCOs (conducted by HHSC in December 2017) to determine whether A/E ratios for PPAs and PPVs among STAR+PLUS members with co-occurring BH/PH conditions were: (a) disproportionately higher for members seen by certain PCPs; (b) disproportionately higher for members who did not see any PCP; (c) disproportionately higher among members with PCPs in specific provider categories; and (d) disproportionately lower among members in MCOs that had adopted certain BH/PH integration practices.

The study found that 145 high-volume PCPs (defined as those who provided the majority of care to 50 or more STAR+PLUS members in the study population) accounted for 1.3 percent of all PCPs in the study, over one-fifth of all PPAs, and over one-quarter of all PPVs. Both PPAs and PPVs were concentrated in more highly populated, urban service areas. Members who had not seen any PCP during the study period (who represented 1.8 percent of the study population) accounted for 2.2 percent of all PPAs and 2.3 percent of all PPVs. With regard to provider type, those practicing in internal medicine and family practice together accounted for 45 percent of all providers, which was approximately the same as their proportion of PPAs (47 percent) and PPVs (44 percent). Behavioral health providers accounted for 17 percent of all providers in the study, but slightly lower proportions of PPAs (14 percent) and PPVs (13 percent); compared to other provider types, BH providers also had relatively lower A/E ratios for PPAs (0.96) and PPVs (1.16). With regard to MCO BH/PH integration practices, certain practices showed a potential for reducing PPAs, including having case management or utilization management staff participate in integration activities, holding regular workgroups with clinical staff to discuss integration, having provider guidelines for BH/PH care coordination, and facilitating continuous quality improvement for members with co-occurring conditions using clinical monitoring indicators and referral tracking. Based on this study, the EQRO recommended focusing on a small number of high-volume PCPs to address higher-than-expected PPEs; interventions that focus on more highly-populated, urban SAs; promoting integration practices that focus on BH providers (e.g., screening and monitoring for chronic PH conditions); and further study to better understand the potential for certain BH/PH integration strategies in reducing PPEs.

Over-Utilization of Opioid Medication

For QTR 2, the EQRO used Texas Medicaid administrative and pharmacy claims data for SFY2016 to explore new HEDIS measures for problematic use of prescription opioids, and to understand the context of the opioid epidemic in Texas and the use and misuse of prescription opioids in the state. The study calculated rates for two new HEDIS measures:

- *Use of Opioids at High Dosage*, which provides the rate of adult enrollees receiving prescription opioids for 15 or more cumulative days at a morphine equivalent dose (MED) greater than 120 mg;
- *Use of Opioids from Multiple Providers*, which provides the rate of adult enrollees receiving prescription opioids for 15 or more days from multiple prescribers only, multiple pharmacies only, or both.

The study found that, among Medicaid members who were prescribed an opioid for 15 or more cumulative days during the measurement year, 3.4 percent received high dosages of opioids (120 MED or higher); 24 percent received a prescription opioid from four or more different prescribers; 7.4 percent received a prescription opioid from four or more different pharmacies; and 4.9 percent received a prescription opioid from both four or more

different prescribers *and* four or more different pharmacies. The EQRO also assessed these measures according to demographic factors, finding that a higher proportion of women than men in Texas Medicaid were exposed to high doses of prescription opioids for 15 or more cumulative days during the measurement year (59 percent vs. 41 percent). The mean age of those receiving high doses was 49 years old, compared to 47 years old among those receiving lower doses. Nearly half of members receiving high doses were White, non-Hispanic (48 percent). With regard to multiple prescribers, the analysis found that women also had higher rates of multiple provider episodes (MPEs) than men (70 percent vs. 30 percent), and the mean age of members with high MPEs was 44 years old (compared to 48 years old for members with lower MPEs). The EQRO also assessed opioid- and service utilization-related outcomes, finding that among members exposed to high doses of opioids, 2.5 percent had an opioid-related overdose, 10 percent had five or more ED visits, and slightly less than one percent had five or more inpatient stays. With regard to payments for opioids, the analysis found that, from 2016 (3rd quarter) through 2017, Texas Medicaid paid for approximately four percent of all controlled opioids in the state, private insurance paid for 60 percent, Medicare paid for 25 percent, and cash paid for three percent. Based on these findings, the EQRO recommended accessing more indicators from the Texas Prescription Drug Monitoring Program to enhance knowledge regarding Texas Medicaid's scope in the opioid epidemic, adding prescription opioid-related information to the [THLC portal](#), examining outcomes associated with medical and non-medical sources of opioids in Texas and across payers, increasing coordination to adopt the MED thresholds promoted by CMS and the CDC, and increasing engagement with state agencies that address the opioid epidemic in Texas.

Estimating Severe Maternal Morbidity

For QTR 3, the EQRO conducted a study to explore the feasibility of using the Alliance on Innovation in Maternal Health (AIM) Hospital Discharge Data (HDD) outcome measures for identifying severe maternal morbidity (SMM) patterns and associated delivery costs. The study examined the potential for augmenting the HDD data by using all available related encounters and combining the AIM HDD outcome measures with data collected using other quality measures. The EQRO identified births between January 2015 and December 2016 using encounter data in Texas Medicaid managed care programs, FFS, CHIP, and CHIP Perinatal. The EQRO identified deliveries, morbidities, and complications, including hemorrhage and eclampsia, using two methods: following the hospital discharge based approach defined by AIM and defining birth events by including professional and institutional encounters within a defined period around a delivery. The EQRO also collected sociodemographic and geographic information for all women (age, race/ethnicity, county of residence), information on eligibility for and compliance with HEDIS *Timeliness of Prenatal Care*, and expenditure data from paid institutional claims.

The study found that it is possible to use the AIM HDD outcome measures to identify delivery events and monitor changes in SMM rates. However, augmenting the data collected using this method with other sources of information, or modifying the method to include additional delivery events and SMM cases would provide important information on maternal health and maternal care that can enhance efforts to improve the quality of care. The analysis confirmed findings from the Maternal Mortality and Morbidity Task Force, including higher rates of severe maternal morbidity and hemorrhage among Black women, and identified a higher rate of severe morbidity among older women. There were significant differences in rates of hemorrhage and preeclampsia based on compliance with HEDIS *Timeliness of Prenatal and Postpartum Care* suggests that these measures may be useful for monitoring the effect of initiatives to prevent SMM and improve the quality of maternal care.

Paid institutional claims also varied with morbidity status, with higher expenditures among SMM cases compared to uncomplicated deliveries. Based on these findings, the EQRO recommended a more in-depth examination of possible relationships between SMM rates and other HEDIS and AHRQ measures; building institutional capacity to link encounter data, birth records, and vital statistics to provide comprehensive data on maternal health and its

relationship to newborn and infant health; and developing specific benchmarks for morbidity rates based on the AIM outcome measures.

Recommendation Summary

Areas for Improvement and Continued Study

The EQRO suggests the following topics for HHSC quality improvement initiatives in 2019:

Quality of Care

Low participation in DM programs: A number of disease management programs had participation rates below 40 percent. Low participation limits the number of members who benefit from these programs and receive specialized services for their condition, such as assistance with care coordination and resources that help members make well-informed decisions about their care. This is particularly important for high-risk members. HHSC and the EQRO have addressed low DM participation rates with select MCOs during the AI site visits; in response, the MCOs reported that a number of factors affect participation rates. For example, one health plan reported that the location of the vendor offering the classes contributed to low participation rates in their obesity DM programs. As a result, the EQRO recommends that HHSC expand DM program-related questions to all MCOs and include specialized questions that address barriers as well as opportunities to improve member participation.

Limited access to appointments: Members continue to have limited access to after-hours and weekend appointments. Limited access to care can negatively affect the rate of emergency department use, the coordination of care for members, and overall health care costs. Furthermore, the prenatal care study noted that providers in the high-risk pregnancy sample had the lowest rates of compliance with the HHSC standards for appointment wait times (27.9 percent of eligible providers). This indicates that high-risk pregnant women were the least likely to receive a timely appointment for prenatal care. Thus, the EQRO recommends that MCOs identify barriers to timely care and develop ways to increase appointment availability for both high-risk patients and those that require appointments outside of normal office hours.

Social Determinants of Health

Social determinants of health (SDoH) are the structural determinants and non-medical factors, such as the conditions in which people live, work, and play, that affect a person's overall health and wellbeing. Although health policy and health systems influence social determinants, the latter play a vital role in patient outcomes, the overall cost of health care, and the effectiveness of value-based payment models because they directly affect access to and quality of health care (3; 4). Currently, Texas Medicaid and CHIP provide and coordinate care for people with complex clinical, behavioral health, and social needs; this places HHSC in a unique position to identify and address the behavioral health and social needs of members. Thus, in order to reduce the negative effects of SDOH, the EQRO recommends that HHSC focus on the following:

Identifying members who benefit the most from addressing SDOH: HHSC can use health and performance outcome measures to identify populations at risk of poor health outcomes as well as the mechanisms that shape patterns of vulnerability among Texas Medicaid and CHIP members. For example, in 2017, the EQRO identified disparities in performance outcomes on screening measures, and found that women with complex health needs did not receive adequate preventive care. In fact, all MCOs were at or below the 10th percentile for cervical cancer screening for STAR+PLUS, and performance on the chlamydia screening measure for women was below the 10th national percentile for CHIP and STAR+PLUS.

Collectively, these findings indicate that HHSC should identify the social determinants that limit preventive care and collaborate with MCOs to address barriers to recommended screenings and timely care. The upcoming SFY2019 issue brief examining patterns of adult cirrhosis, hepatitis C virus (hep C), and liver cancer in Texas Medicaid is a promising example of this approach. This issue brief found that cirrhosis rates are highest in southern and western counties and revealed underdiagnoses of hep C among Hispanics in South Texas. Thus, in order to reduce the prevalence of cirrhosis, stakeholders in public health will need to improve access to care for border populations and increase screening for hep C among Hispanic members.

Choosing the social determinants to address and monitoring SDoH-related change in health outcomes: HHSC should leverage the big data it collects for target populations to understand the health-related social needs of members and develop effective intervention strategies that improve public health. More specifically, HHSC should first identify the social determinants with the largest impact on Texas Medicaid and CHIP members and then measure their effects on health disparities among target populations. For example, the EQRO identified service area differences in screening and treatment measures for COPD and asthma control, particularly in Hidalgo and El Paso. Because failure to adhere to treatment increases the possibility of asthma-related admissions, HHSC should focus on increasing screening and treatment adherence in these service areas.

The upcoming SFY2019 QTR report on identifying the social determinants associated with disparities in asthma, ADHD, and Type II Diabetes will help towards this goal, but HHSC and the MCOs should focus on finding additional ways to collect and refine the use of SDoH indicators for targeted member-level interventions and population-level strategies to improve health outcomes. For example, asthma measures were the focus of several recent PIPs. HHSC could use these PIP results to develop SDoH-sensitive interventions and strategies to improve asthma medication management. HHSC should also identify factors that contribute to variation in performance outcomes in Hidalgo and El Paso SAs for COPD and asthma control measures.

Provider Directory Information

The EQRO found that the quality of provider directory information was poor in several areas, limiting HHSC's ability to monitor MCO compliance with CMS regulations for network adequacy and medical record validation. Indeed, the EQRO excluded over 40 percent of the providers in the 2018 Appointment Availability study samples because the providers were unreachable or the numbers were wrong. Furthermore, the EQRO could not obtain a sufficient study sample for 10 of the 17 CHIP MCOs in the medical record review, primarily because of incorrect address information.

HHSC is planning a number of initiatives for 2019 to improve the quality of provider directory information, but several significant challenges remain. One of the primary challenges for HHSC in 2019 will be the development and rollout of the new centralized provider management and enrollment (PMES) system. During this process, HHSC will need to maintain communication among all of the stakeholders that manage and use directory information. This issue is not limited to Quality Assurance at HHSC; it will also affect the quality of information that members receive and the information that HHSC uses to monitor quality assurance activities. Other challenges for Texas include establishing a system to monitor directory quality, ensuring that all stakeholders adhere to existing rules for maintaining directory quality, and ensuring that members have access to timely and accurate directory information. Thus, the EQRO recommends that HHSC and the MCOs continue to standardize and validate provider addresses, and maintain up-to-date provider contract information for the entities that use this information.

Access to Behavioral Health Care

Behavioral health is an area where HHSC has done significant work to improve the quality of care. For example, HHSC asked the EQRO to complete quarterly topic reports that examine factors leading to potentially preventable service use among Medicaid members with co-occurring BH and PH conditions as well as ways to integrate BH and PH services and investigate measures of opioid prescribing. They also implemented a statewide PIP for 2019 that includes multiple ways to reduce and prevent high utilization among members with anxiety and depression across all programs.

The EQRO identified several areas where HHSC could improve access to behavioral health care and help maintain the state's established momentum in behavioral health care quality assurance. For example, the relatively high proportion of potentially preventable events (PPEs) in both event frequencies and total amounts paid among STAR+PLUS members with co-occurring BH/PH conditions suggest that the STAR+PLUS program should continue to receive considerable attention in efforts to establish, improve, and monitor BH/PH care integration practices. These initiatives should also focus on determining the causes of high PPE rates (including issues related to network adequacy) among those MCOs and SAs that have unusually high rates of PPEs for enrollees with co-occurring conditions. Interventions that target specific provider practices (e.g., BH/MH screening, BH/PH care coordination) should focus on a small number of high-volume PCPs, particularly those found to have higher-than-expected PPEs. The proposed PIPs for 2020 that aim to improve BH/PH integration may help reduce PPEs among these providers. Finally, HHSC should consider additional studies aimed at identifying potential BH/PH integration strategies to reduce PPEs in this population. Strategies such as holding regular workgroups with clinical staff to discuss integration and having provider guidelines for BH/PH integration that are promising and may be straightforward to implement.

SECTION 1: MANDATORY EQRO ACTIVITIES & PROTOCOLS

[Protocol 1](#) | Assessment of Compliance with Medicaid
Managed Care Regulations

[Protocol 2](#) | Validation of Performance Measures
Reported by the MCOs

[Protocol 3](#) | Validation of Performance Improvement
Projects



On Target Performance

Research has shown that managed care organizations can effectively and efficiently deliver health care that meets the needs of Medicaid and CHIP recipients. Because CMS requires that an EQRO evaluate all states receiving federal funding, the EQRO for Texas provides comprehensive, expert-level analyses for each of the three protocols that CMS deems mandatory. This section describes the EQRO's findings, which show that Texas met, and in several instances, exceeded, the requirements for each protocol.

Protocol 1: Assessment of Compliance with Medicaid Managed Care Regulations

MCO and DMO Administrative Interviews

The External Quality Review Organization (EQRO) fulfills the requirements of the Centers for Medicare and Medicaid Services (CMS) External Quality Review (EQR) Protocol 1 through the Administrative Interview (AI) deliverables, which include the web-based AI tool, AI evaluations, AI extracts, on-site visits, and site visit reports.¹ Through these deliverables, the EQRO assesses health plan compliance with state and federal regulations for the Medicaid and Children's Health Insurance Program (CHIP) managed care program. Health plan compliance with state and federal regulations reveals the strength of the structure of Managed Care Organizations' (MCOs') and Dental Maintenance Organizations' (DMOs') quality improvement (QI) programs, which ensure appropriate processes are in place to affect member outcomes. The EQRO rotates the selection of health plans for review and evaluates AI activities for all health plans once every three years.

Health plan compliance with state and federal regulations reveals the strength of MCOs' and DMOs' structures and ensures appropriate processes are in place to affect member outcomes.

In calendar year (CY) 2018, the EQRO evaluated responses on the web-based AI tool for six MCOs and one DMO and conducted site visits with the selected health plans between August and November 2018. The EQRO evaluated health plan responses, including a review of each plan's policies and procedures, to assess compliance with state and federal regulations. Each health plan received a final score and a set of recommendations based on overall findings.

In 2018, the EQRO conducted AIs that addressed:

- Organizational structure of the health plan
- Member enrollment and disenrollment
- Children's programs and preventive care
- Care coordination and disease management programs
- Member services
- Member complaints and appeals
- Provider network and reimbursement
- Authorizations and utilization management
- Health plan information systems
- Data acquisition

MCO and DMO Compliance with State and Federal Regulations

The EQRO assessed MCO and DMO compliance with the regulations that appear in and cover the following categories:

General Provisions

- Provision of required Information about enrollment, benefits, and access to care to members
- Type and timeframe for communication of the required information to members

¹ CMS: Quality Measurement and Improvement: External Quality Review, 42 C.F.R. § 438 (2018).

State Responsibilities

- State timeframe requirements for disenrollment from the health plan

Member Rights and Protections

- Members' rights to access care and participate in treatment
- Required coverage and payment of emergency and post-stabilization services

Quality Assessment and Performance Improvement (QAPI)

- Provider network requirements and member access to out-of-network providers
- Requirements for identification and assessment of members with special healthcare needs and the development of treatment plans for these members
- Process and timeframes for standard and expedited authorization of services
- Provider selection and credentialing
- Requirements for health plan verification of the accuracy and timeliness of provider-reported data

Grievance and Appeal System:

- Establishment of a grievance system, which includes the processes by which a provider or member may file a complaint or appeal at the MCO and DMO or state level in accordance with federal and state regulations
- Timeframes for grievances and appeals and information included in the health plan response to a complaint or appeal

Figure 1 presents the average score for each of the federal regulation categories listed above. Overall, the MCOs/DMO had an average compliance rate of greater than 80 percent in each category. This is lower than the compliance rate for the 2016 AI Evaluations, in which all health plans had a compliance rate greater than 93 percent in each category, with the exception of Sendero Health Plans (Sendero), which had a compliance rate below 93 percent (85.4 percent) in the *Grievance and Appeal System* category. This decrease in compliance may be a result of CMS's update to the regulations for Medicaid and CHIP managed care and implementation of the revisions in July 2017. The updated regulations were related to ensuring availability of information and protection for Medicaid and CHIP beneficiaries, such as timeframes for submitting grievances and appeals, information available in provider directories related to accessibility, and presentation of information in materials provided to members. Because health plans did not update the necessary documents to account for all of these changes, they did not perform as well in several of the evaluation categories. These revisions affected two AI categories the most—*General Provisions* and *Grievance and Appeal System*. The 2016 average rate of compliance for *General Provisions* and *Grievance and Appeal System* ranged from 97.7 to 100 percent and 85.4 to 98.7 percent, respectively. In contrast, the 2018 average rate of compliance for these two categories ranged from 85.7 to 90.8 percent and 62 to 89.2 percent, respectively. These two categories had the lowest average scores for the 2018 AI evaluations. During on-site visits, the EQRO addressed areas where the MCOs and DMO were non-compliant and asked the plans to provide additional documentation supporting compliance or to revise their policies and procedures to address the deficiencies. The on-site visits also provided the MCOs and DMO an opportunity to discuss specific AI and QAPI initiatives and elaborate on areas that needed further clarification.

The average rate of compliance with regulations related to General Provisions and Grievance and Appeal System decreased from 2016 to 2018, which was most likely due to the health plans' delayed implementation of the new and revised CMS regulations.

Figure 1. 2018 Overall Administrative Interview Scores by Federal Regulation Category

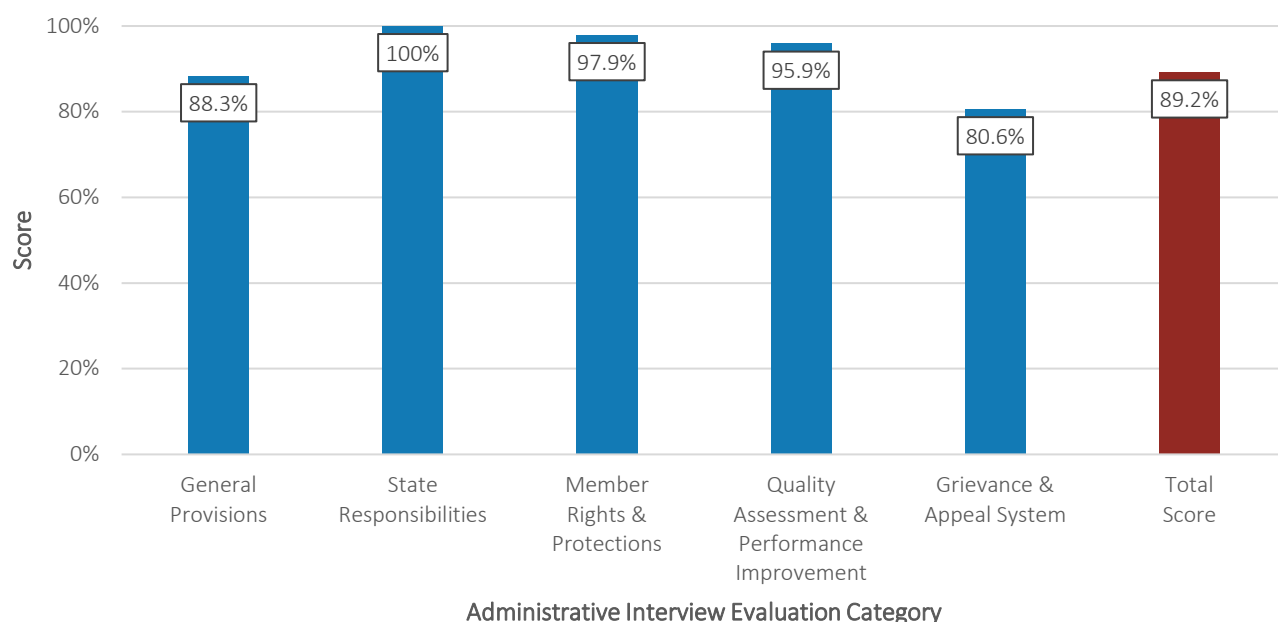


Table 4 summarizes the overall evaluation scores for the 2018 AI tool for six MCOs and one DMO. The scores ranged from a low of 80.9 percent for DentaQuest to a high of 92.6 percent for El Paso Health. Three MCOs scored above the MCO/DMO average score of 89.2 percent. Compliance with federal regulations and state standards increases the likelihood that MCOs and DMOs have strong structures, operations, and processes in place to provide quality care and services to members. The EQRO's initial review of the policies and procedures submitted by the MCOs and DMO indicated non-compliance with several of the federal regulations for all of the MCOs and the DMO. However, during follow-up discussions during on-site visits, the MCOs and DMO agreed to provide revised policies and procedures to address the deficiencies.

Table 4. 2018 Administrative Interview Scores

MCO	Evaluation Scores
Children's Medical Center Health Plan	90.8%
Community First Health Plans	87.8%
Cook Children's Health Plan	86.8%
DentaQuest	80.9%
El Paso Health	92.6%
FirstCare Health Plans	90.6%
Sendero Health Plans	87.1%
MCO/DMO Average	89.2%

The findings from the 2018 AIs cover the health plan disease management (DM) and health promotion programs. HHSC requires all MCOs participating in STAR, STAR+PLUS, STAR Kids, and CHIP to provide disease management services covering asthma, diabetes, and other chronic diseases based on disease prevalence within each MCO's

membership. HHSC also requires MCOs participating in STAR+PLUS to offer disease management for chronic obstructive pulmonary disease, congestive heart failure, and coronary artery disease.

The EQRO bases participation rates on the number of members who are eligible for a particular disease management program relative to those who actively participate in it. The definition of active participation is one or more encounters (either by phone or face-to-face) between DM staff and the member or member's representative. The MCO defines eligibility for each DM program. However, members should be eligible for a DM program if they have a qualifying condition (i.e., asthma, diabetes), and they should be eligible for active engagement if they are high-risk (i.e., identified as non-adherent to recommended care, have multiple chronic conditions, or provide evidence that their condition is uncontrolled).

To comply with HHSC requirements, MCOs must actively engage high-risk members in the applicable DM program to identify gaps in care, coordinate care, address social needs, and educate members about their health condition. However, to date, member active participation rates remain low.

As seen in **Table 5**, active participation rates for DM programs varied by condition and line of business (STAR, STAR Kids, STAR+PLUS, and CHIP), with the lowest participation rate at 0.7 percent for DM programs targeting high-risk obstetrics for STAR Kids and the highest participation rate at 80.3 percent for DM programs targeting obesity in adults for STAR+PLUS. However, the STAR Kids high-risk obstetrics DM program active participation rate was low due to the way in which Blue Cross Blue Shield of Texas (BCBSTX) reportedly assigns members to a DM program in that it considers all members as eligible for all DM programs regardless of whether or not the member has the condition targeted by the DM program, with exception to its high-risk obstetrics DM program for STAR and CHIP. The active participation rate for high-risk obstetrics for STAR Kids would be 66.7 percent if only including the active participation rates for the three other health plans that cover STAR Kids. BCBSTX's method of determining eligibility for a DM program affected the overall participation rates for the asthma and diabetes DM programs for STAR, STAR Kids, and CHIP as well.

Table 5. Member Participation Rate in Disease Management by Program, 2017

DM Type	STAR	STAR Kids ^a	STAR+PLUS ^b	CHIP
Asthma	19.1%	33.3%	20.4%	9.3%
Attention Deficit Hyperactivity Disorder	12.2%	10.5%	54.1%	12.1%
Behavioral and Mental Health	16.8%	23.0%	51.2%	15.9%
Chronic Obstructive Pulmonary Disease	7.3%	20.0%	44.6%	6.2%
Congestive Heart Failure	9.6%	0.0%	25.3%	3.1%
Coronary Artery Disease	15.0%	0.0%	51.7%	0.0%
Depression	14.5%	18.9%	35.4%	17.3%
Diabetes	7.7%	3.0%	41.4%	2.2%
General Disease Management	26.0%	9.1%	2.1%	38.8%
High-Risk Obstetrics	27.8%	0.7%	42.2%	18.6%
Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome	11.8%	0.0%	49.0%	0.0%
Obesity-Adults	5.4%	0.0%	80.3%	10.0%

DM Type	STAR	STAR Kids ^a	STAR+PLUS ^b	CHIP
Obesity-Children	4.3%	0.0%	N/A	5.4%
Oncology	16.7%	0.0%	69.4%	0.0%

^a Driscoll Health Plan and Superior HealthPlan did not provide responses for STAR Kids.

^b Cigna-HealthSpring did not provide rates for its General Disease Management Program in format requested.

Participation rates for STAR were below 30 percent for all DM programs, ranging from a low of 4.3 percent for DM programs targeting obesity in children to a high of 27.8 percent for DM programs targeting high-risk obstetrics. After excluding BCBSTX, the participation rates for STAR increased for asthma and diabetes to 25 percent and 25.1 percent, respectively. Even after this adjustment, however, participation rates remained below 30 percent for STAR.

All STAR+PLUS DM participation rates were greater than 25 percent with the exception of asthma (20.4 percent) and general disease management (2.1 percent). General disease management participation rates in the STAR+PLUS population, however, may be due to the fact that most members in STAR+PLUS have a chronic condition for which participation in the condition-specific DM program would take precedence over participation in general disease management. Five disease management programs (asthma, congestive heart failure, depression, general disease management, and obesity in children) had participation rates below 40 percent across STAR, STAR Kids, STAR+PLUS, and CHIP; however, STAR+PLUS participation rates are generally higher than those for STAR, STAR Kids, and CHIP. To note, none of the STAR+PLUS health plans reported participation rates for the child obesity DM program. Therefore, the low participation rates for the child obesity DM programs are not applicable to STAR+PLUS.

Overall, the data indicate that participation rates were low across all programs for the DM programs and that DM participation rates have varied across years. For example, the participation rates for asthma DM programs have decreased across all programs from 2016 to 2017: 33.9 to 19.1 percent for STAR (or 33.9 to 25 percent if the analysis excludes BCBSTX because of how it defines eligibility for its DM programs), 38.3 to 20.4 percent for STAR+PLUS, and 27.5 to 9.3 percent for CHIP (or 27.5 to 16.3 percent if the analysis excludes Blue Cross Blue Shield of Texas). Alternatively, 2017 participation rates in adult obesity DM programs have increased from 0.5 to 5.4 percent in STAR, 9.2 to 80.3 percent in STAR+PLUS, and 0 to 10 percent in CHIP since 2016. The 2016 and 2017 participation rates for the STAR+PLUS adult obesity DM program were based on one health plan's self-reported rates. As a result, the change in rate could be based on multiple factors, such as the health plan's eligibility criteria for inclusion in the program or an error in the reporting, among other factors. The EQRO recommends additional communication with the health plan in order to identify the reason for the change in active participation in its adult obesity DM program. All DM participation rates are self-reported by the health plans and the 2016 program-level rates excluded some health plans due to incorrectly reported data; therefore, this could explain the variation seen in all programs across years. In addition, the criteria for determining eligibility for a DM program differs between health plans, which also influences the program-level participation rates. Therefore, the EQRO recommends that the state examine the variations in eligibility criteria for DM programs as well as participation rates between health plans, programs, and years in order to identify factors influencing active participation in DM programs. STAR Kids DM participation rates are not available for 2016 because the program did not begin until November 2016.

Findings from MCO and DMO Compliance with Federal Regulations:

- *Health plans' compliance with regulations related to General Provisions and Grievances and Appeal System decreased from 2016 to 2018 due to their delay in implementing required changes in policies and procedures to account for the 2017 CMS revisions to the regulations.*
- *Health plans utilize different criteria to determine eligibility for a disease management program, which affected overall participation rates by program.*
- *Five disease management programs (asthma, congestive heart failure, depression, general disease management, and obesity in children) had participation rates below 40 percent across STAR, STAR Kids, STAR+PLUS, and CHIP. In addition, DM participation rates varied across programs and years.*

Recommendation:

- *Health plans should review and monitor CMS revisions to the regulations and update their policies and procedures within the specified timeframe.*
- *HHSC should examine the variations in eligibility criteria for DM programs and participation rates between health plans, programs, and years in order to identify factors influencing active participation in DM programs.*
- *MCOs should identify the reason for low active participation rates and develop an approach to increase active participation in DM programs for high-risk members.*

Evaluation of MCO and DMO Quality Assessment and Performance Improvement Programs

The EQRO annually reviews the Texas Medicaid MCO and DMO Quality Improvement (QI) programs to evaluate aspects of structure and processes that contribute to their success and to assess compliance as specified in the Code of Federal Regulations (CFR). The EQRO evaluates the structure and processes of the QI programs through the Quality Assessment and Performance Improvement (QAPI) program evaluations, which include an assessment of the presence and strength of the [CMS-defined five essential elements](#) of a QAPI program and assessment of compliance with federal regulations and state standards.

Each section of the QAPI includes different components that target key elements of QI. The overall evaluation of health plan responses focuses on whether the MCO satisfied the requirements of a strong, comprehensive QI program and specific federal regulations.

The CMS-defined five essential elements of a QAPI program are:

1. Design and scope;
2. Governance and leadership;
3. Feedback, data systems, and monitoring;
4. Performance improvement projects; and
5. Systematic analysis.

The average QAPI score across all health plans increased from the previous year from 97.5 to 98.2 percent. In addition, the range in the overall score by health plan improved from 2017 to 2018, with scores ranging from 87.6 to 100 percent and from 90.9 to 100 percent, respectively.

The scoring system rates each MCO and DMO on a scale of zero - 100 based on its QAPI summary report. The QAPI program evaluation includes 17 activities. The EQRO calculated the scores for each and then weighted the activity scores to assign more importance to those activities representing the five essential components of a successful QI program. The only exception was element 4—Performance improvement projects (PIPs), which the EQRO evaluates separately due to the complexity of the projects (see **Protocol 3: Validation of Performance Improvement Projects (PIPs)** for more information).

The EQRO applied more weight to the following activities, and together these activities represented 70 percent of the score:

- A1: *Role of Governing Body* (CMS Element 2)
- A3: *Adequate Resources* (CMS Element 2)
- A4: *Improvement Opportunities* (CMS Elements 3 and 5)
- B1: *Program Description* (CMS Elements 1 and 3)
- B5: *Availability and Access to Care Monitoring and Results* (CMS Elements 3 and 5)
- B6a: *Clinical Indicator Monitoring* (CMS Elements 3 and 5)
- B6b: *Service Indicator Monitoring* (CMS Elements 3 and 5)

The remaining ten activities represented 30 percent of the final score:

- Required Documentation
- A2: *Structure of QI Committee(s)*
- B2: *Overall Effectiveness*
- B3: *Effectiveness of Long-Term Services and Supports (LTSS)*
- B4: *Clinical Practice Guidelines*
- B7: *Credentialing and Re-Credentialing*
- B8: *MDCP Qualified Providers*
- B9: *Delegation of QAPI Program Activities*
- B10: *Corrective Action Plans*
- B11: *Previous Year's Recommendations*

For any activity that did not apply to a plan, the EQRO scored the activity as “N/A” and redistributed the points to all remaining activities. Overall, the final weighted scores enabled a more accurate analysis of the MCOs’ QI programs. In addition, the EQRO made recommendations on evaluation components where the MCO or DMO received a “partially met” or “not met” score. The EQRO also assessed health plan compliance with the previous year’s recommendations and assigned a “met”, “partially met”, or “not met” score depending on whether or not the MCO or DMO fully incorporated the previous year’s recommendation into its QAPI program. The EQRO does not factor in the percentage of the “met” recommendations from the previous year into the total QAPI scores. The evaluations of the 2018 QAPI programs are the basis for the results below.

Table 6 shows the overall score for each MCO and DMO. The average score of all MCOs/DMOs was 98.2 percent, which is slightly better than the average score (97.5 percent) on the 2017 QAPIs. While the improvement in the average QAPI score from 2017 to 2018 was less than a percentage point, the range of scores improved. For example, in 2017, the overall scores by health plan ranged from 87.6 to 100 percent, while the range in 2018 was 90.9 to 100 percent.

Fifteen of 22 MCOs or DMOs scored above the average score. Sendero Health Plans received the lowest score (90.9 percent) on the QAPI, which was primarily due to the MCO not submitting required documentation or not having updated information and data in several sections.

Table 6. Quality Assessment and Performance Improvement Scores by MCO, 2018

MCO	Score
Aetna Better Health	98.5%
Amerigroup	98.5%
Blue Cross and Blue Shield of Texas	97.7%
Children's Medical Center Health Plan	92.1%
CHRISTUS	98.5%
Cigna-HealthSpring	98.1%
Community First Health Plans	100%
Community Health Choice	100%
Cook Children's Health Plan	100%
Dell Children's Health Plan	99.4%
DentaQuest	100%
Driscoll Health Plan	97.6%
El Paso Health	100%
FirstCare Health Plans	99.1%
MCNA Dental	99.2%
Molina Healthcare of Texas	93.3%
Parkland Community Health Plan	99.1%
RightCare from Scott & White Health Plan	100%
Sendero Health Plans	90.9%
Superior HealthPlan	99.4%
Texas Children's Health Plan	97.9%
UnitedHealthcare Community Plan	100%
MCO Average	98.2%

The EQRO also evaluated the plans' QAPI program summary reports by section to identify areas of high performance and opportunities for both systematic and individual improvement. **Table 7** presents the average QAPI program summary report activity score, which utilizes the average weighted score across all MCOs for each activity. Overall, the MCOs performed well on all areas of the QAPI. The average activity scores ranged from 90 percent to 100 percent. Nine of 22 MCOs "partially met" compliance with the criteria for listing written QI objectives associated with the *Program Description* Activity (average activity score was 80 percent). However, the most improvement from 2017 to 2018 was in Activity B1, *Program Description*, with seven health plans incorporating previous recommendations into their QI programs in order to: establish long term goals that represent the vision and mission of their QI program; develop actionable and measurable objectives to meet their long-term goals; and evaluate their progress toward meeting their goals and objectives. The average score for Section B11 on the QAPI was 90 percent, indicating that most health plans addressed some or all of the previous

year's recommendations. However, EQRO assessment of MCO/DMO compliance with the previous year's recommendation revealed that the average level of compliance with the previous recommendations was 71.6 percent.

Table 7. Quality Assessment and Performance Improvement Scores by Activity, 2018

Activity	Score
Required Documentation Overall	97.7%
A1: Role of Governing Body	99.4%
A2: Structure of Quality Improvement Committee(s)	98.7%
A3: Adequate Resources	100%
A4: Improvement Opportunities	97.3%
B1: Program Description	95.7%
B2: Overall Effectiveness	99.2%
B3: Effectiveness of Long-Term Services and Supports (LTSS)	100%
B4: Clinical Practice Guidelines	99.6%
B5: Availability and Access to Care Monitoring and Results	98.9%
B6a: Clinical Indicator Monitoring	96.6%
B6b: Service Indicator Monitoring	98.9%
B7: Credentialing and Re-Credentialing	100%
B8: MDCP Qualified Providers	100%
B9: Delegation of QAPI Program Activities	100%
B10: Corrective Action Plans	100%
B11: Previous Year's Recommendations	90.0%

Findings from MCO and DMO QAPI Evaluations:

- *Health plans that incorporated the EQRO's recommendations from the previous year improved their performance in Activity B1—Program Description—from 2017 to 2018.*

Recommendation:

- *Health plans should address and incorporate all of the EQRO's recommendations from the previous year in an effort to achieve continuous quality improvement.*

Protocol 2: Validation of Performance Measures Reported by MCOs

Following CMS EQR Protocol 2, the EQRO validates Medicaid and CHIP performance measures reported by the MCOs. The MCOs report their results for the Healthcare Effectiveness Data and Information Set (HEDIS) hybrid measure set and programs listed in **Table 8**.

Table 8. HEDIS Measures Selected for Hybrid Reporting

Abbreviation	Description	Programs
ABA	Adult Body Mass Index (BMI) Assessment	STAR+PLUS
WCC	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents	CHIP, STAR, STAR Kids
CIS	Childhood Immunization Status	CHIP, STAR, STAR Kids
CCS	Cervical Cancer Screening	STAR+PLUS
CBP	Controlling High Blood Pressure	STAR, STAR+PLUS
CDC	Comprehensive Diabetes Care	STAR, STAR+PLUS
PPC	Prenatal and Postpartum Care	STAR
W15	Well-Child Visits in the First 15 Months of Life	STAR
W34	Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	CHIP, STAR, STAR Kids
AWC	Adolescent Well-Care Visits	CHIP, STAR, STAR Kids

The EQRO integrates measure results into the overall quality of care reporting described in **Protocol 6: Calculation of Performance Measures**. For a complete list of measure reporting by program, please see **Appendix A: Summary of Quality Measures Calculated and Reported by the EQRO for the 2017 Measurement Year by Program**. Since all of these are National Committee for Quality Assurance (NCQA) certified measures with nationally established reporting procedures, the EQRO requires each MCO to provide an NCQA-certified audit report for all submitted hybrid measure results. In addition, the EQRO requires each MCO to provide the member-level data used to support the measure calculations, which are reviewed directly by the EQRO.

The MCO may also submit supplemental data for use in HEDIS measure calculations described in **Table 8**, per the NCQA definitions and specifications. NCQA-certified audit approval must accompany data that the EQRO includes in all quality measure calculations. First, the EQRO validates the measures by verifying that each submitted rate is consistent with the submitted member data; then it compares submitted rates with EQRO-calculated administrative rates and with prior years' results to identify trends. Next, the EQRO identifies and traces any inconsistencies in: (a) the measure's eligible population, (b) denominator, and (c) numerator through data analysis and communication with HHSC and the submitting MCO. For example, the EQRO identified inconsistencies in how MCOs count exceptions and contraindications and found discrepancies in administrative rates that led to the discovery of differences in provider specialty identification.

Protocol 3: Validation of Performance Improvement Projects (PIPs)

PIP Evaluations

PIP validation is a mandatory EQRO activity per 42 CFR §438.358(b).² The purpose of the PIPs is to improve health outcomes in the Medicaid and CHIP populations. The EQRO determines the quality of the PIP's design and implementation plans and ensures the health plans use a sound methodological approach. The EQRO also carefully assesses the study methodology, verifies PIP findings, and evaluates the validity and reliability of the PIP.³ This section presents results of EQRO evaluations of PIP Plans, PIP progress reports, and Final PIP Reports, which follow CMS guidance for EQRO validation of PIPs, a required EQRO activity.

HHSC requires that the health plans participating in Medicaid or CHIP in Texas conduct PIPs on a two-year cycle. The overall PIP score includes both the PIP Plan score, reflecting the strength of design, and the Final PIP score, reflecting the analysis, results, and interpretation by the health plans.

The EQRO evaluates the status of the implementation of the PIPs every July using the progress reports, resulting in two progress report scores during the PIP process.

The MCO topics for the 2016 two-year PIPs included potentially preventable emergency room visits (PPVs) related to upper respiratory tract infection (URTI) (18 STAR MCOs, 17 CHIP MCOs), potentially preventable admissions (PPAs) and potentially preventable readmissions (PPRs) related to behavioral health (BH) (four STAR+PLUS MCOs, one STAR Health MCO), and PPAs related to chronic obstructive pulmonary disease (COPD) (one STAR+PLUS MCO). Each dental maintenance organization (DMO) conducted dental PIPs for Medicaid and CHIP that focused on preventive dental services.

The 2016 PIPs addressed URTI-related PPVs, BH-related PPAs and PPRs, COPD-related PPAs and PPRs, and Preventive Dental Services.

Methods/Process

Following CMS guidance, the EQRO systematically evaluates PIPs on several activities, with each activity including one or more evaluation components. Activities are different for the PIP Plan Report, progress report, and Final PIP Report. Scoring for each component of each activity is based on a three-point scale: Component "met" (100 percent), component "partially met" (50 percent), or component "not met" (zero percent). The score for each activity is the average of component scores.

The overall PIP score is the average of all components in Activities 1 through 11. In addition, the overall score includes whether or not the health plan provided all required documentation and reported how it addressed EQRO recommendations from the previous PIP report. **Table 9** provides a summary of each activity. The EQRO evaluates Activities 1-7 for the PIP Plan, which provides insight into how the MCOs performed in the development and design of the PIP. The Final PIP includes Activities 8-11, which assess the outcomes of the PIP. The results in the following section focus on MCO and DMO performance for each of these categories.

² 42 CFR §438.358(b) - Centers for Medicare and Medicaid Services. Quality of Care External Quality Review (EQR). [Online] 2018. [Cited: December 11, 2018.] <https://www.medicaid.gov/medicaid/quality-of-care/medicaid-managedcare/external-quality-review/index.html>

³ Centers for Medicare and Medicaid Services. EQR Protocol 3: Validating Performance Improvement Projects (PIPs). 2012. [Cited: December 11, 2018.] <https://www.medicaid.gov/medicaid/quality-of-care/downloads/eqr-protocol-3.pdf>

Table 9. Summary of Activities Evaluated for the PIP Plan and Final PIP Reports

Activities	Components Per Activity	Summary of Activity
Activity 1. <i>Study Topic</i>	5	Assesses the characteristics of members targeted by the PIP, as well as prevalence of the problem.
Activity 2. <i>Study Question</i>	1	Assesses the study question(s) in the required, “Does doing X result in Y?” format.
Activity 3. <i>Study Population</i>	3	Includes components that evaluate the defined target population and data collection approach for the entire population or sample population.
Activity 4. <i>Study Indicators</i>	6	Includes components that evaluate the defined study indicators for reliable measures of change, goals for improvement, baseline and repeat measurement rates, and measure timeframes.
Activity 5. <i>Sampling Methods</i>	6	Assesses whether a sample for measures and interventions are used and described in detail.
Activity 6. <i>Data Collection Plan</i>	5	Assesses the data collection and analysis plan for the data collected and from which sources.
Activity 7. <i>Root Cause Analysis (RCA) and Interventions</i>	11	Includes components that evaluate the root cause analysis, how the RCA was used to develop interventions, and the implementation strategy.
Activity 8. <i>Analyzing Data and Interpreting Results</i>	6	Includes components that evaluate the analysis of findings, numerical results for baseline and repeat measurements, statistically significant results, factors that influenced results, and interpretation as to whether the PIP was or was not successful.
Activity 9. <i>Intervention Follow-up</i>	9	Includes components that evaluate all interventions for follow-up information such as number and percentage of members/providers targeted and reached, tracking and monitoring efforts, modifications made to the PIP to overcome barriers, communication methods, and engagement and feedback from providers involved in the interventions.
Activity 10. <i>Real Improvement</i>	2	Assesses if statistically significant improvement over baseline is achieved for at least one indicator. Identifies future plans for the PIP topic.
Activity 11. <i>Sustained Improvement</i>	2	Assesses if statistically significant improvement over baseline is sustained for at least two reporting periods and how health plans will use the results to maintain or achieve sustained improvement.

In addition to evaluating the PIP Plans and Final PIPs, the EQRO assesses MCO and DMO progress throughout the implementation period and evaluates PIP progress reports every July. For the two-year PIPs, there were two PIP progress reports, discussed below. As with the PIP Plans and Final PIPs, the EQRO scores progress reports using the same three-point scale as the PIP Plans and Final PIP Reports. The score for each activity is the average of component scores. The PIP progress reports assess whether or not the health plan implemented the interventions as planned (i.e., started on the planned start date, modified interventions, etc.) in addition to the tracking and monitoring efforts made for each intervention.

HHSC requires health plans to incorporate all EQRO recommendations in PIP reports and note any changes to the PIP in a revised PIP Plan that is included in all PIP reports. To comply with guidelines in Chapter 10.2.8 on the HHSC Uniform Managed Care Manual, the EQRO gave health plans that did not incorporate all previous PIP report

recommendations into the progress reports a score of zero.⁴ The zero scores for not implementing previous evaluation recommendations started with the 2016 PIPs.

Findings and Results

This section provides the 2016 two-year PIP Plan, Final PIP, and overall PIP scores by program and topic, in addition to a brief report of the results of the PIP progress reports. Additionally, the results of health plan performance by activity for the topics addressed by a majority of the health plans are summarized in this section (i.e., summaries are provided for the four out of five STAR+PLUS MCOs focused on BH-related PPAs and PPRs). Health plans report details of their sampling plan for the measures and/or interventions in Activity 5 (*Sampling Methods*) of the PIP Plan. The EQRO scored components in this activity as “not applicable” (“N/A”) when the health plans’ measures and interventions targeted the entire study population and thus did not need to develop a sampling plan.

Across all PIP evaluations, 12 STAR PIPs and three CHIP PIPs achieved a statistically significant improvement for the URTI-related PPV measure.

Table 10 reports the required and optional measures by program and PIP topic. For example, HHSC required the 18 STAR and 17 CHIP plans with PIPs targeting the reduction of URTI-related PPVs to report on the PPVs using the 3M Enhanced Ambulatory Patient Grouping System (EAPG) 00562—infections of upper respiratory tract & otitis media. In addition, six health plans chose to include additional measures to determine the effectiveness of their PIPs, such as select HEDIS measures, a Consumer Assessment of Healthcare Providers and Systems (CAHPS®) measure, PPV expenditures, and MCO-derived measures. Examples of MCO-derived measures include the percentage of members who saw a PCP in one calendar year, percentage of members with alternative place of service for primary care visits, and percentage of clinics in one service area that offer after-hour services. For STAR+PLUS and STAR Health, HHSC required the BH-related PPA and PPR PIPs to report on the following measures: HEDIS antidepressant medication management (AMM), follow-up after hospitalization for mental illness (FUH), initiation and engagement of alcohol and other substance use or dependence treatment (IET), BH-related PPAs, and BH-related PPRs. One STAR+PLUS health plan reported on the HEDIS plan all-cause readmission (PCR) measure in addition to the required measures. HHSC directed Molina to focus its STAR+PLUS PIP on COPD-related PPAs and report on COPD-related PPAs and the HEDIS pharmacotherapy management of COPD exacerbation (PCE) measure. The dental preventive care PIPs included measures to assess effectiveness of efforts in improving the use of sealants, fluoride, and the annual dental visit.

⁴ HHS Uniform Managed Care Manual, Performance Improvement Project (PIP) Progress Report Submission Instructions. [Online] 2018. [Cited: December 11, 2018.] <https://hhs.texas.gov/sites/default/files/documents/laws-regulations/handbooks/umcm/10-2-8.pdf>.

Table 10. 2016 PIPs Measure List by Program and Topic

Measure Name	Health Plan Count	Health Plan
Programs: STAR and CHIP, Topic: URTI-related PPVs		
Potentially preventable emergency room visits (PPVs) related to URTI (URTI-related PPVs) ^a	18 STAR/ 17 CHIP	Aetna, Amerigroup, BCBSTX, CHRISTUS, CFHP, CHC, CCHP, DCHP, DHP, El Paso, FirstCare, Molina, PCHP, SWHP, Sendero, SHP, TCHP, UHC
Health plan internally derived process measures for improvement (MCO-derived)	5	CFHP, DCHP, FirstCare, Molina, TCHP
Appropriate Treatment for Children with Upper Respiratory Infection (URI)	3	CFHP, Sendero, TCHP
Children and Adolescents' Access to Primary Care Practitioners (CAP)	1	Sendero
Appropriate Testing for Children with Pharyngitis (CWP)	1	Sendero
Well-Child Visits in the 3rd, 4th, 5 th , & 6th Years of Life (W34)	1	CHC
CAHPS Getting Care Quickly	1	CHC
Actual PPV expenditures per 1,000 member-months (MM)	1	CCHP
Program: STAR+PLUS, Topic: BH-related PPAs and PPRs		
Antidepressant medication management (AMM) ^a	4	Amerigroup, HS, SHP, UHC
Follow Up within 30 Days and Follow Up within 7 Days (FUH) ^a	4	Amerigroup, HS, SHP, UHC
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET) ^a	4	Amerigroup, HS, SHP, UHC
PPA reasons (APR-DRG) combination - 750 schizophrenia, 753 bipolar disorders, 751 major depressive disorders (BH-related PPAs) ^a	4	Amerigroup, HS, SHP, UHC
PPR reasons (APR-DRG) combination - 750 schizophrenia, 753 bipolar disorders, 751 major depressive disorders (BH-related PPRs) ^a	4	Amerigroup, HS, SHP, UHC
Plan All-Cause Readmission (PCR)	1	UHC
Program: STAR+PLUS, Topic: COPD-related PPAs		
PPA reasons (APR-DRG) - 140 COPD ^a	1	Molina
Pharmacotherapy Management of COPD Exacerbation (a) Dispensed a systemic corticosteroid within 14 days of the event and (b) Dispensed a bronchodilator within 30 days of the event (PCE) ^a	1	Molina
Program: STAR Health, Topic: BH-related PPAs and PPRs		
Antidepressant medication management (AMM) ^a	1	SHP
Follow Up within 30 Days and Follow Up within 7 Days (FUH) ^a	1	SHP

Measure Name	Health Plan Count	Health Plan
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET) ^a	1	SHP
PPA reasons (APR-DRG) combination - 750 schizophrenia, 753 bipolar disorders, 751 major depressive disorders (BH-related PPAs) ^a	1	SHP
PPR reasons (APR-DRG) combination - 750 schizophrenia, 753 bipolar disorders, 751 major depressive disorders (BH-related PPRs) ^a	1	SHP
Program: Dental, Topic: Preventive Care		
Members (6-9 yrs.) receiving at least one sealant ^a	2	DentaQuest, MCNA
Members (10-14 yrs.) receiving at least one sealant	1	MCNA
Members (1-18 yrs.) receiving at least one treatment with fluoride	1	MCNA
Members (6-9 yrs.) receiving at least one treatment with fluoride	1	DentaQuest
Members (2-18 yrs.) who had at least one annual dental visit	1	MCNA

^a Required measure.

STAR PIP Evaluation

Summary of Scores			
	PIP Plan Score	Final PIP Score	Overall PIP Score
Minimum	61.5%	56.8%	65.9%
Maximum	100%	100%	96.0%
Average	86.2%	83.8%	84.9%

The PIP Plan, Final PIP, and overall PIP scores for the STAR two-year PIPs illustrate the variation in performance between MCOs. Not all of the MCOs with well-designed PIPs had high Final PIP scores. This was due to several factors, which ranged from MCOs misinterpreting the results of their PIPs to not achieving a statistically significant improvement and/or sustained improvement in all study measures.

Table 11. STAR 2016 Two-Year PIP Plan, Final PIP, and Overall PIP Scores by MCO

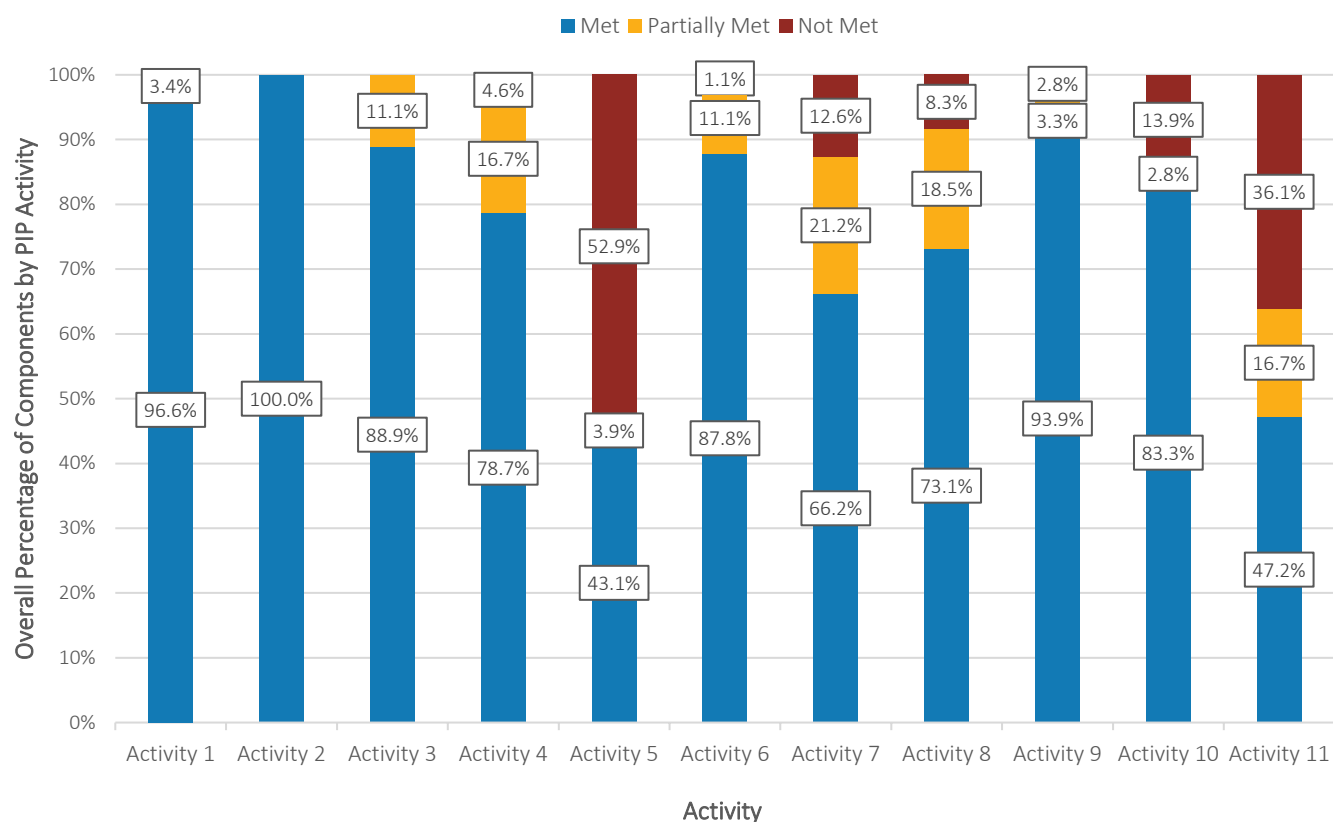
Health Plan Name	PIP Plan Score	Final PIP Score	Overall Score
URTI-Related PPVs			
Aetna Better Health	61.5%	100%	70.6%
Amerigroup	100%	88.1%	96.8%
Blue Cross and Blue Shield of Texas	88.9%	90.5%	90.3%
CHRISTUS Health Plan	87.6%	56.8%	69.0%
Community First Health Plans	81.7%	89.0%	87.3%
Community Health Choice	84.8%	92.7%	88.7%
Cook Children's Health Plan ^a	86.7%	83.3%	87.3%

Health Plan Name	PIP Plan Score	Final PIP Score	Overall Score
Dell Children's Health Plan	94.1%	81.0%	85.6%
Driscoll Health Plan	94.6%	85.4%	89.3%
El Paso Health	100%	93.8%	98.6%
FirstCare Health Plans	86.4%	95.8%	89.0%
Molina Healthcare of Texas, Inc. ^a	75.9%	75.5%	76.2%
Parkland Community Health Plan	61.5%	83.3%	65.9%
RightCare from Scott & White Health Plan	86.5%	95.8%	88.5%
Sendero Health Plans	87.7%	63.8%	80.0%
Superior HealthPlan	96.2%	92.7%	94.6%
Texas Children's Health Plan	89.4%	57.3%	81.7%
UnitedHealthcare Community Plan ^a	88.0%	83.3%	88.9%
Overall Average	86.2%	83.8%	84.9%

^a This health plan performed moderately better on the PIP Plan, which has more evaluation components and activities than the Final PIP. Therefore, the overall score is slightly higher than both the PIP Plan and Final PIP scores.

All 18 STAR MCOs conducted PIPs that focused on URTI-related PPVs. **Figure 2** provides a summary of the percentage of the evaluation components within each activity that scored “met”, “partially met”, or “not met” for each PIP activity. Overall, the MCOs did well in Activities 1-4, 6, and 9. However, there were opportunities for improvement in Activities 5, 7-8, and 10-11. Activity 5 assessed the sampling plan for measures and interventions that targeted a sample of the entire study population. The EQRO scored this activity as “not applicable” (“N/A”) if the health plan’s measures and interventions targeted the entire population. For STAR, 15 MCOs completed Activity 5 for sampling of measures and/or interventions and received a score. The higher percentage of components that received “not met” or “partially met” scores was due to health plans not providing descriptions of the sampling approach or how the sample selected for the interventions were representative of the population at risk for a URTI-related PPV.

Figure 2. STAR PIP Validation Scores by Activity (18 MCOs)



Activity 7 assesses the MCOs' root cause analysis (RCA), proposed interventions, and implementation strategies. The higher percentage of components that received “not met” or “partially met” scores was due to some MCOs inadequately reporting on each of the member, provider-, or system-level factors in the RCA that affect access and utilization of outpatient care to reduce URTI-related PPVs; inadequately describing details of the interventions (i.e., what exactly a health plan would do for a particular intervention); and providing insufficient details about how the MCO would communicate with members and providers.

Activity 8 assesses the data analysis methods and MCO interpretation of the results. The EQRO instructed the health plans to report the URTI-related PPVs as a rate ratio (count of URTI-related PPVs per 1,000 member-months) rather than a rate (percent of PPVs among the target population) since the population at risk included the entire population. The EQRO reviewed all measure information, including numerator, denominator, and rates reported on the PIPs, and cross-checked it with available data on quality of care (QOC) tables and the THLC portal. The EQRO's recommendations reflected discrepancies identified between the MCO-reported data and the data available on the THLC portal. For Activity 8, the health plans did not fully meet the evaluation criteria on all evaluation components due to discrepancies between the data reported by the health plan and the EQRO-verified data from the QOC tables and THLC portal; therefore, these health plans had loss of points in this activity. Additionally, some MCOs misinterpreted the results of the significance testing by reporting a significant improvement in the URTI-related PPVs when, in fact, there was an increase in URTI-related PPVs rather than a decrease. Therefore, the EQRO deducted points in Activity 8 for these health plans. A rate ratio of less than one represented improvement.

Finally, Activities 10 and 11 assess whether the MCO's achieved statistically significant improvement and sustained improvement for at least one study indicator. Twelve STAR MCOs achieved statistically significant improvement for the URTI-related PPV measure. Additionally, there were only two MCOs—Aetna Better Health (Aetna) and FirstCare Health Plans (FirstCare)—that achieved sustained improvement for the URTI-related PPV study measure from baseline (CY2015) to the second re-measurement (CY2017). The remaining plans did not achieve sustained improvement and, thus, received a score of “not met” for that component if they only reported the URTI-related PPV measure. The EQRO defined sustained improvement as a statistically significant improvement in study measures for two consecutive years, and gave a partial score if the MCO achieved a sustained improvement in at least one, but not all, of the study measures. To note, Aetna and Parkland’s PIP Plan scores were the lowest at 61.5 percent due to zero scores in Activities 5 and 7; they received these scores because they omitted details for proposed interventions. Both health plans received the EQRO’s recommendations to report intervention efforts on each PIP report and were able to address all recommendations on the revised PIP Plan submission.

CHIP PIP Evaluation

Summary of Scores			
	PIP Plan Score	Final PIP Score	Overall PIP Score
Minimum	61.5%	56.8%	65.9%
Maximum	100%	91.7%	95.8%
Average	86.4%	80.5%	83.9%

As observed with the STAR PIPs, performance on the initial PIP Plan did not necessarily reflect how the MCO would perform on the Final PIP. For CHIP, the minimum overall score was 65.9 percent, the maximum overall score was 95.8 percent, and the average overall score was 83.9 percent.

Table 12. CHIP 2016 Two-Year PIP Plan, Final PIP, and Overall PIP Scores by MCO

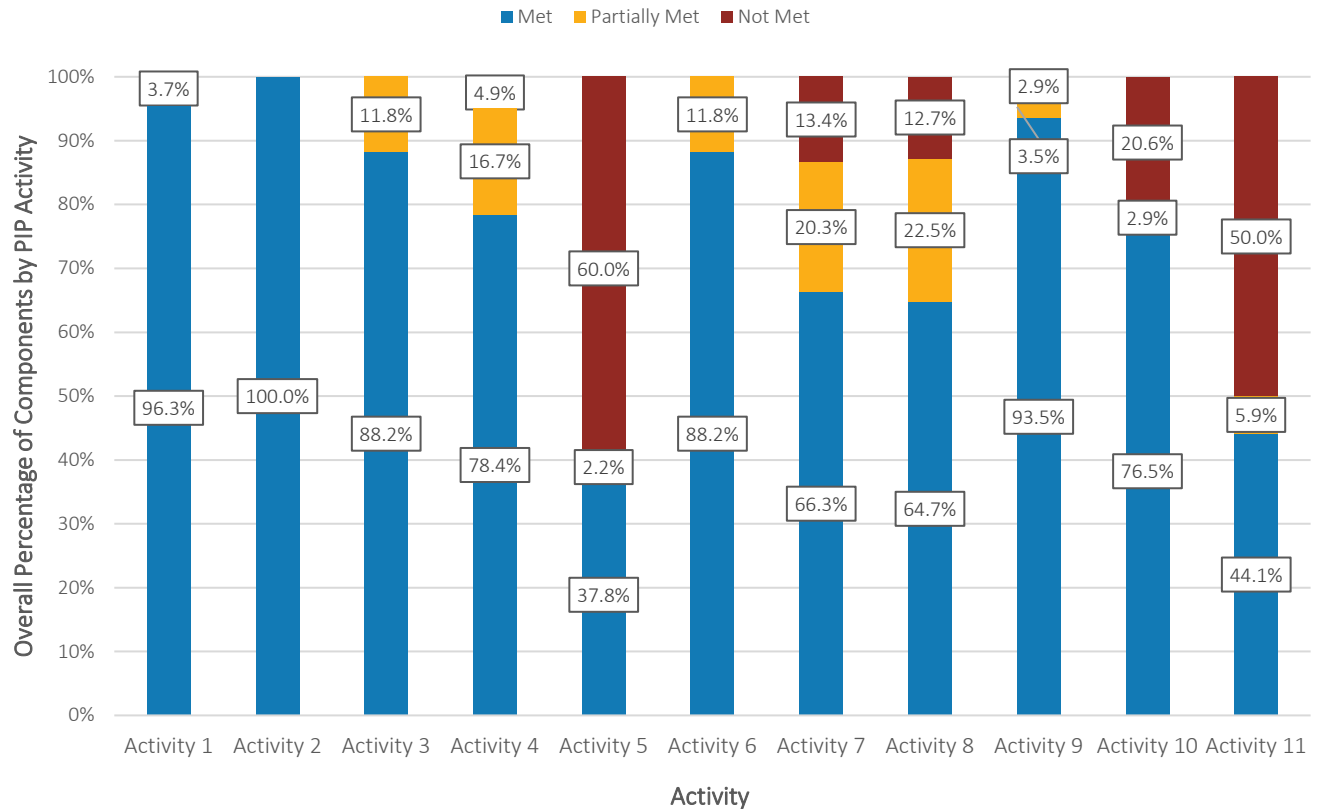
Health Plan Name	PIP Plan Score	Final PIP Score	Overall Score
URTI-related PPVs			
Aetna Better Health	61.5%	90.5%	67.5%
Amerigroup	100%	85.7%	95.2%
Blue Cross and Blue Shield of Texas	88.9%	81.0%	87.1%
CHRISTUS Health Plan	87.6%	56.8%	69.0%
Community First Health Plans	81.7%	84.8%	85.9%
Community Health Choice	88.9%	83.3%	88.9%
Cook Children's Health Plan ^a	86.7%	83.3%	87.3%
Dell Children's Health Plan	94.1%	81.0%	85.6%
Driscoll Health Plan	94.6%	85.4%	89.3%
El Paso Health	100%	85.4%	95.8%
FirstCare Health Plans	86.4%	91.7%	87.5%
Molina Healthcare of Texas, Inc.	75.9%	82.6%	77.8%
Parkland Community Health Plan	61.5%	83.3%	65.9%
Sendero Health Plans	87.7%	63.8%	80.0%
Superior HealthPlan	96.2%	91.7%	93.9%
Texas Children's Health Plan	89.4%	54.2%	81.0%
UnitedHealthcare Community Plan ^a	88.0%	83.3%	88.9%
Overall Average	86.4%	80.5%	83.9%

^a This health plan performed moderately better on the PIP Plan, which has more evaluation components and activities than the Final PIP. Therefore, the overall score is slightly higher than both the PIP Plan and Final PIP scores.

Seventeen CHIP MCOs conducted PIPs that focused on URTI-related PPVs. **Figure 3** presents the percentage of components “met”, “partially met”, and “not met” for each activity. Overall, the MCOs did well with several activities. However, as with STAR, Activities 5, 7-8, and 10-11 revealed opportunities for improvement. Activity 5 assessed the sampling plan for measures and interventions that targeted a sample of the entire study population. The EQRO scored this activity as not applicable (“N/A”) if health plan measures and interventions targeted the entire population. For CHIP, 14 MCOs had Activity 5 evaluated for sampling of measures and/or interventions. The

higher percentage of components that received “not met” or “partially met” scores was due to health plans not describing the sampling approach or explaining how the sample selected for the interventions were representative of the population at risk for a URTI-related PPV.

Figure 3. CHIP PIP Validation Scores by Activity (17 MCOs)



The higher percentage of components that received “not met” or “partially met” scores in Activity 7 was due to some MCOs inadequately reporting on each of the member-, provider-, or system- level factors in the RCA that affect access and utilization of outpatient care to reduce URTI-related PPVs; inadequately describing details of the interventions (i.e., what exactly a health plan would do for a particular intervention), and providing insufficient details about how the MCO will communicate with members and providers.

The EQRO instructed the health plans to report the URTI-related PPVs as a rate ratio (count of URTI-related PPVs per 1,000 member-months) rather than a percentage since the population at risk included the entire population. However, there were discrepancies between the MCO-reported data and the EQRO-verified data; therefore, some of the health plans lost points on evaluation components in Activity 8. In addition, some MCOs misinterpreted the results of the significance testing by reporting a significant improvement in the URTI-related PPVs when, in fact, there was an increase in URTI-related PPVs rather than a decrease. Therefore, the EQRO deducted points in Activity 8 for these health plans. A rate ratio of less than one represented improvement.

Finally, for Activities 10 and 11, three CHIP MCOs achieved statistically significant improvement for the PPV URTI measure. However, none of the CHIP MCOs achieved sustained improvement for the PPV URTI study measure from baseline (CY2015) to re-measurement 2 (CY2017). To note, Aetna and Parkland Community Health Plan’s (PCHP’s) PIP Plan scores were the lowest at 61.5 percent due to zero scores in Activities 5 and 7; they received

these scores because they omitted details for proposed interventions. Both health plans received the EQRO's recommendations to report intervention efforts on each PIP report and were able to address all recommendations on the revised PIP Plan submission. Notably, neither health plan achieved sustained improvement in the URTI-related PPV PIP for CHIP.

STAR+PLUS PIP Evaluation

Summary of Scores			
	PIP Plan Score	Final PIP Score	Overall PIP Score
Minimum	74.4%	66.7%	80.3%
Maximum	100%	93.8%	96.0%
Average	90.6%	84.7%	88.7%

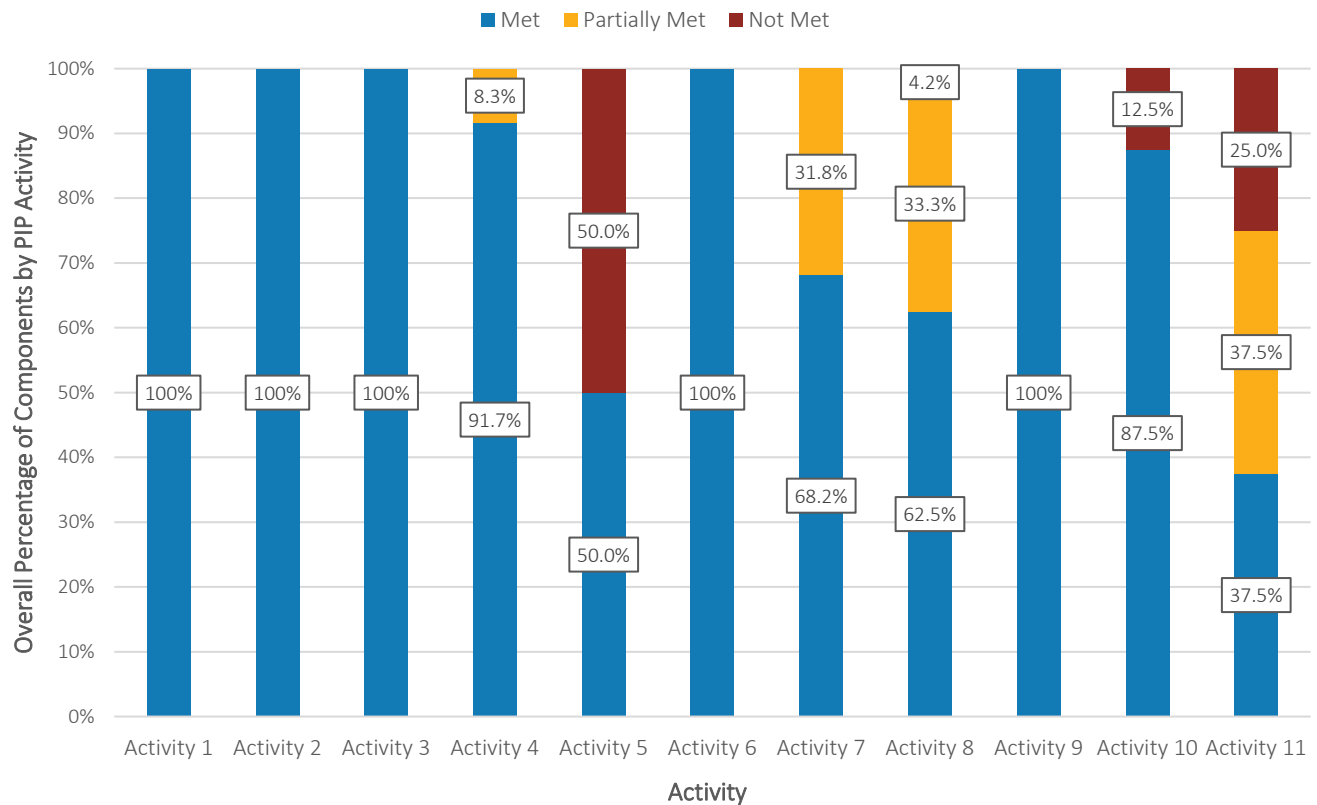
The PIP topics for STAR+PLUS focused on BH-related PPAs and PPRs (four MCOs) and COPD-related PPAs (one MCO). The STAR+PLUS minimum overall score was 80.3 percent, the maximum overall score was 96 percent, and the average overall score was 88.7 percent.

Table 13. STAR+PLUS 2016 Two-Year PIP Plan, Final PIP, and Overall PIP Scores by Topic and MCO

Health Plan Names	PIP Plan Score	Final PIP Score	Overall Score
BH-related PPAs and PPRs			
Amerigroup	100%	84.5%	96%
Cigna-HealthSpring	95.4%	66.7%	85.8%
Superior HealthPlan	95.8%	93.8%	93.3%
UnitedHealthcare Community Plan	87.2%	90.5%	88.1%
COPD-related PPAs			
Molina Healthcare of Texas, Inc.	74.4%	88.1%	80.3%
Overall Average	90.6%	84.7%	88.7%

The STAR+PLUS minimum overall score was 80.3 percent, the maximum overall score was 96 percent, and the average overall score was 88.7 percent. Four of the five STAR+PLUS MCOs conducted PIPs that addressed BH-related PPAs and PPRs. As illustrated in **Figure 4**, Activities 5, 7-8, and 10-11 have higher percentages of evaluation components that were either “partially met” or “not met.” Activity 5 assessed the sampling plan for measures and interventions that targeted a sample of the entire study population. The EQRO scored this activity as “not applicable” (“N/A”) if the health plan measures and interventions targeted the entire population. For STAR+PLUS, two MCOs had Activity 5 evaluated for sampling of measures and/or interventions. One MCO provided full details and received all “met” scores, whereas the second MCO did not provide details and received all “not met” scores. Therefore, the EQRO scored 50 percent of evaluation components in Activity 5 as “not met.”

Figure 4. STAR+PLUS PIP Validation Scores by Activity (Four MCOs)



Activity 7 had about one third of components scores as “partially met” because MCOs provided limited details about the interventions and insufficient details about how they would communicate with members and providers.

For Activity 8, some MCOs did not fully meet the criteria of the evaluation components because they misinterpreted results and did not achieve a statistically significant improvement in all study measures for the PIP.

Finally, for Activities 10 and 11, three of four MCOs focused on BH-related PPAs and PPRs had at least one measure that achieved statistically significant improvement. When considering sustained improvement in Activity 11, 37.5 percent of the evaluation components were “partially met” due to two health plans achieving sustained improvement in at least one study measure, and 25 percent were “not met” because the remaining two health plans did not achieve sustained improvement in any of the study measures.

STAR Health PIP Evaluation

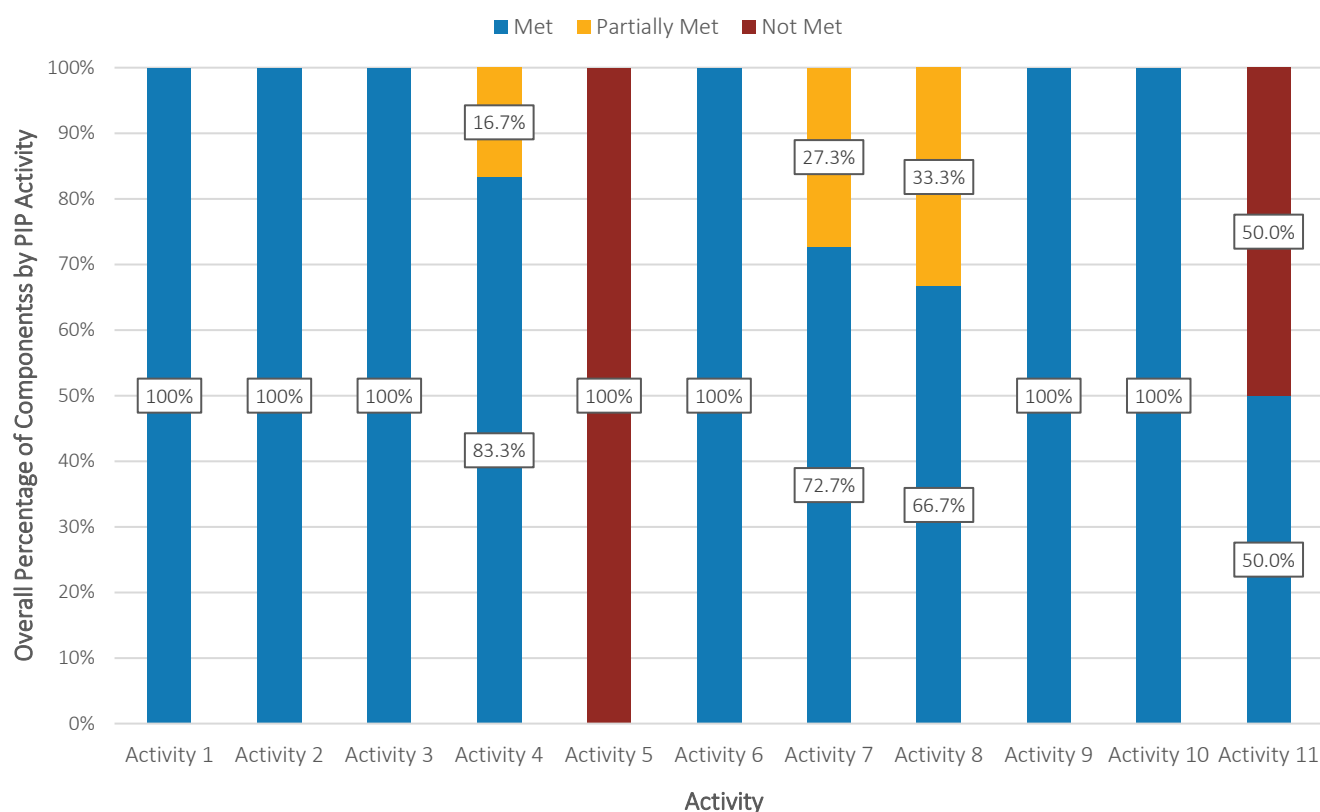
Table 14 provides the PIP Plan, Final PIP, and overall PIP scores for the STAR Health two-year PIP. Superior HealthPlan, the only MCO for STAR Health, had a well-designed PIP that addressed BH-related PPAs and PPRs.

Table 14. STAR Health 2016 BH-Related PPAs and PPRs Two-Year PIP Plan, Final PIP, and Overall PIP Scores

Health Plan Names	PIP Plan Score	Final PIP Score	Overall Score
BH-related PPAs and PPRs			
Superior HealthPlan	88.6%	91.7%	90.1%

Figure 5 illustrates that the MCO did well with most activities in regards to percentage of the evaluation components it met for the BH-related PPAs and PPRs PIP. There were, however, opportunities for improvement in Activities 5, 7, 8, and 11. Because the health plan did not describe the sampling plan for interventions, it received all “not met” scores in Activity 5.

Figure 5. STAR Health PIP Validation Scores by Activity (One MCO)



In Activity 7, the health plan had 27.3 percent of components scored as “partially met” due to inadequate details about how each intervention addressed barriers from the RCA, whom the intervention targeted, and how the health plan would monitor provider involvement throughout intervention implementation.

On Activity 8, the health plan “partially met” one third of components because it used incorrect statistical tests, misinterpreted results, and did not achieve a statistically significant improvement in all study measures for the PIP.

Finally, for the STAR Health PIP, the EQRO scored 50 percent of components in Activity 11 as “not met” since the health plan did not achieve sustained improvement for any of the study measures for the PIP.

Medicaid and CHIP Dental Evaluation

Summary of Scores			
	PIP Plan Score	Final PIP Score	Overall PIP Score
Minimum	90.3%	84.4%	91.2%
Maximum	96.2%	92.7%	91.9%
Average	93.3%	88.6%	91.5%

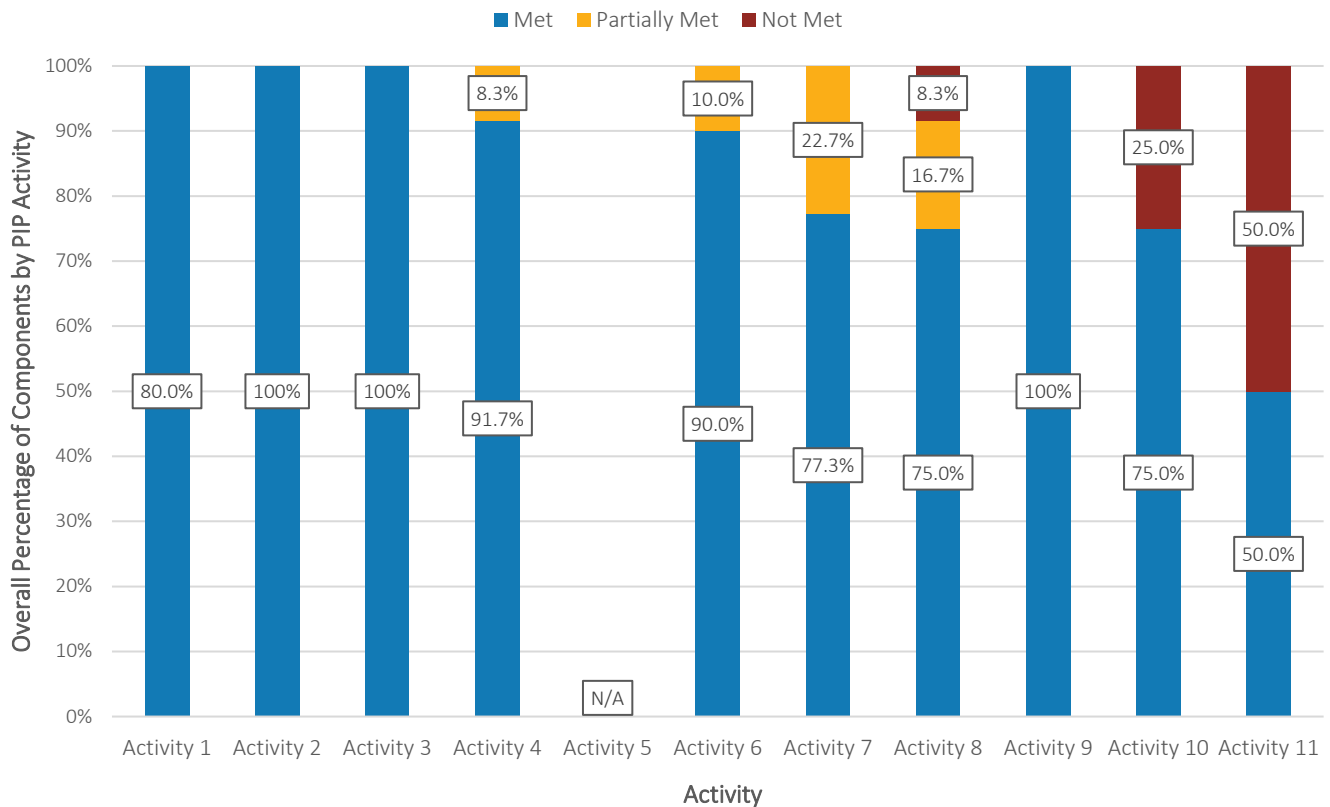
This section provides details of DMO performance for both programs' PIPs, which addressed preventive dental services. Both DMOs performed well throughout the duration of the PIP. The overall average of the DMO's PIPs was 91.5 percent.

Table 15. Dental 2016 Two-Year PIP Plan, Final PIP, and Overall PIP Scores by Topic and DMO

Health Plan Names	PIP Plan Score	Final PIP Score	Overall Score
Preventive Dental Services			
DentaQuest (CHIP Dental)	96.2%	84.4%	91.9%
DentaQuest (Medicaid Dental)	96.2%	84.4%	91.9%
MCNA (CHIP Dental)	90.3%	92.7%	91.2%
MCNA (Medicaid Dental)	90.3%	92.7%	91.2%
Overall Average	93.3%	88.6%	91.5%

Figure 6 provides a summary of the percentage of the evaluation components within each activity that scored a “met”, “partially met” or “not met” for each PIP activity for both the Medicaid and CHIP DMOs. Activity 5 is “N/A” since the DMO’s PIP measures and interventions target the entire population and not a sample. Activities 7-8 and 10-11 have a higher percentage of evaluation components receiving a “partially met” or “not met” score per activity compared to the other activities.

Figure 6. Medicaid and CHIP Dental PIP Validation Scores by Activity (Two DMOs)



For Activity 7, one DMO inadequately described details of the interventions and failed to explain how the interventions addressed the barriers from the root cause analysis. In general, the EQRO recommends that proposed interventions address more than one factor from the root cause analysis.

There was a loss of points in Activity 8 because not all measures achieved a statistically significant improvement. Alternatively, in Activity 10 (*Real Improvement*), one DMO did achieve a statistically significant improvement in one of four study measures, resulting in fully “met” scores, whereas the other DMO did not achieve significance and received a “not met” score. Further, neither of the DMOs achieved sustained improvement for the preventive dental services PIPs. Therefore, 50 percent of evaluation components in Activity 11 were marked as “not met”.

PIP Progress Reports

Table 16 shows the minimum, maximum, and average PIP progress report scores by program. As mentioned earlier, health plans received a score of zero percent for PIP progress reports when the health plan did not implement all previous recommendations or comply with all instructions outlined in Chapter 10.2.8 in the HHSC Uniform Managed Care Manual. Therefore, the minimum PIP progress report scores reflect the zero scores. For Progress Report 1, there were seven PIPs with zero scores: CHRISTUS (STAR and CHIP), Community Health Choice [CHC] (STAR and CHIP), and Molina Healthcare of Texas, Inc. [Molina] (STAR, CHIP, and STAR+PLUS). For Progress Report 2, there were three PIPs with zero scores: CHRISTUS (STAR and CHIP) and Cigna-HealthSpring (STAR+PLUS).

Table 16. 2016 Two-Year PIP Progress Report Scores by Program

Program	Minimum Score	Maximum Score	Average Score
PIP Progress Report 1 Scores			
STAR	0.0%	100%	76.8%
CHIP	0.0%	100%	75.8%
STAR+PLUS	0.0%	96.4%	62.9%
STAR Health	89.3%	89.3%	89.3%
Medicaid/CHIP Dental	96.4%	100%	98.2%
PIP Progress Report 2 Scores			
STAR	0.0%	100%	91.9%
CHIP	0.0%	100%	91.4%
STAR+PLUS	0.0%	100%	77.9%
STAR Health	96.4%	96.4%	96.4%
Medicaid/CHIP Dental	96.4%	100%	98.2%

The EQRO still provided completed evaluations and recommendations to health plans that received zero scores for their progress reports. However, if the EQRO had provided scores to these health plans, then the PIP Progress Report 1 minimum scores for STAR, CHIP, and STAR+PLUS would be 53.6 percent, 53.6 percent, and 28.6 percent, respectively. The Progress Report 1 average scores for STAR, CHIP, and STAR+PLUS would be 89.9 percent, 89.7 percent, and 71.4 percent, respectively. The PIP Progress Report 2 minimum scores for STAR, CHIP, and STAR+PLUS would be 67.9 percent, 67.9 percent, and 71.4 percent, respectively. The Progress Report 2 average scores for STAR, CHIP, and STAR+PLUS would be 95.6 percent, 95.4 percent, and 92.7 percent, respectively.

Progress Report 1 for all programs revealed several opportunities for improvement, but the average score by program increased with Progress Report 2. Loss of points was due to health plans not addressing previous PIP evaluation recommendations, not providing updated re-measurement data, and not reporting target and reach values for each intervention.

Discussion

The medical managed care PIP topics for the 2016 two-year PIPs included URTI-related PPVs (18 STAR MCOs, 17 CHIP MCOs), BH-related PPAs and PPRs (four STAR+PLUS MCOs, one STAR Health MCO), and COPD-related PPAs (one STAR+PLUS MCO).

Across all PIP evaluations, there were 12 STAR PIPs and three CHIP PIPs that achieved a statistically significant improvement for the URTI-related PPV measure. However, only two STAR MCOs—Aetna and FirstCare—achieved a sustained statistically significant improvement for two consecutive data years. Aetna received one of the lowest scores on the PIP Plan because it omitted details about proposed interventions for the PIP. However, Aetna incorporated all of the EQRO's recommendations into its revised PIP Plan and went on to have a successful PIP. The noted strength of its PIP was the use of multiple outreach methods, including a text- and mobile-based message delivery program to members.⁵ Aetna sent text messages in English or Spanish (based on the member's preferred language stated during enrollment) to inform members about their access to—and encouraged use

⁵ Wellpass. Retrieved from <https://www.wellpass.com/>

of—a 24-hour nurse line in an effort to redirect care to the appropriate setting. Aetna newly implemented the text-based intervention as a method of communication for this PIP and reported that it was able to enroll and reach more than 1,500 members. The other outreach efforts carried out by the health plan included two flyer mail-outs and a survey conducted with members who frequented the emergency room for URTIs to determine their preference for receiving information materials. There is an association with using robust interventions, such as text messaging and incorporating member feedback into outreach efforts, to a decrease in the URTI-related PPVs, but the PIPs are not causative. Research studies on technology, however, indicate that the majority of Americans own a mobile phone and, in general, minority and lower income populations reportedly utilize features such as texting and web access at higher rates than the general population (5; 6). Notably, Aetna carried out the same four interventions for CHIP and saw an overall decrease in the URTI-related PPVs, but did not sustain significance for two years. Therefore, it would be beneficial to examine population differences between STAR and CHIP in order to identify factors that may have influenced the differences in outcomes between the two programs.

FirstCare also achieved sustained improvement for its STAR PIP addressing URTI-related PPVs. FirstCare implemented multi-level interventions and collaborated with Texas Tech University Health Science Center – Lubbock on a delivery system reform incentive payment (DSRIP) project to increase use of an after-hours nurse advice line to first-available clinic appointments. FirstCare’s approach also included interventions to increase the number of contracts with walk-in and urgent care clinics, notify primary care providers (PCPs) when a member who was the PCP’s patient visited the emergency department (ED), and educate members about use of emergency services and other resources. Again, the efforts of the PIPs cannot be considered causative without further investigation. However, as with Aetna, there is an association between the intensity of the interventions and reduction in the overall URTI-related PPVs.

Health plans reported the same PIP intervention efforts for both STAR and CHIP. Additional examples of statistically significant improvements in intervention efforts for the URTI-related PPV PIP include the following: distribution of cold and flu kits, follow-up after a URTI-related ED visit, notifications sent to providers about ED utilization trends, provider incentives to increase flu vaccine rates, and intervening with members diagnosed with a URTI in a PCP office and later seen in the ED for a URTI.

For the STAR+PLUS topic on BH-related PPAs and PPRs, three of four health plans achieved a statistically significant improvement in the HEDIS AMM measure, and two of four health plans achieved statistically significant improvement in the PPA measure. Of the three health plans that achieved a statistically significant improvement in the HEDIS AMM measure, there were two STAR+PLUS MCOs that achieved sustained improvement for two consecutive data years—Amerigroup (HEDIS AMM continuation) and Superior (HEDIS AMM acute and continuation). However, none of the health plans achieved sustained improvement for measures regarding BH-related PPAs and PPRs. Similarly, Superior achieved a statistically significant improvement for the HEDIS AMM measure and PPA measure for the STAR Health PIP, but did not achieve sustained improvement for any measure.

Amerigroup implemented multi-level interventions, which included a physician pharmacy alliance to coordinate pharmacy benefits and analytics, provider education, and member outreach from the provider relations team when members who were eligible for the AMM measure were non-compliant or likely to become non-compliant. Superior also achieved sustained improvement for the HEDIS AMM measure and implemented an integrated care program in collaboration with the Center for Health Care Services and The University of Texas Health Science Center at San Antonio. This program aimed to identify members with high utilization and create discharge plans

that included community treatment, primary care, and behavioral health treatment with weekly face-to-face visits and transportation, if needed. Both health plans implemented robust interventions at multiple levels, which could have influenced the improvement achieved in the AMM measure. As with the other health plans that achieved sustained improvement for their PIPs, the PIPs are not causative. Therefore, additional work is necessary to identify factors that influence the relationship between sustained improvement and the interventions implemented.

Upon reviewing all other BH-related PPA and PPR PIP intervention efforts, a majority of the STAR+PLUS health plans reported intervention approaches for integrated care management that target behavioral, medical, and social factors in order to effectively assist members with coordination of healthcare services. All reported that ongoing communication with the member is essential in the delivery of needed services. Additionally, one health plan carried out a medication therapy management intervention with a third-party vendor to analyze prescription drug claims and help members understand their medications to improve safety and health outcomes. Although none of the STAR+PLUS health plans achieved sustained improvement for the BH-related PPAs and PPRs, they did utilize robust interventions. Therefore, the EQRO should conduct additional studies to examine factors influencing the outcomes for the STAR+PLUS population with BH conditions.

MCOs often had difficulty achieving measurement goals, analyzing and interpreting statistically significant study results, and demonstrating sustained improvement. As noted previously, Aetna achieved sustained improvement for STAR, but not for CHIP even though it reported the same intervention efforts for both populations. The difference in outcomes requires further study to determine why sustained improvement from baseline CY2015 to CY2017 only occurred for one program. Again, please note that PIP intervention efforts are not causative to changes in outcome measures. Intervention efforts explain an association for the improvement in care and services. Thus, the EQRO requires health plans to describe their plan for tracking and monitoring intervention effectiveness.

Each DMO conducted dental PIPs for Medicaid and CHIP focused on preventive dental services. Only one DMO achieved a statistically significant improvement for at least one study measure; however, it did not sustain improvement. The EQRO provided two progress report scores during the PIP process. Scores generally improved after Progress Report 1. The most common reason for reduction in scores was failure to implement interventions by the scheduled start date. Additionally, tracking and monitoring efforts were areas for improvement for some MCOs.

Findings from Validation of PIPs:

- *Interventions implemented in the STAR population achieved sustained improvement in the URTI-related PPVs. However, the CHIP population that received the same interventions did not achieve sustained improvement in URTI-related PPVs.*
- *The health plans utilized multiple intervention approaches to address BH-related PPA and PPRs for STAR+PLUS. However, only two STAR+PLUS PIPs achieved sustained improvement for at least one measure.*

Recommendations:

- *Conduct in-depth studies to determine the effectiveness of intervention efforts among different programs.*
- *Examine factors that influence BH-related outcomes in STAR+PLUS.*
- *Determine utility and feasibility of longer intervention efforts in STAR+PLUS due to the complexity of the population's health conditions.*

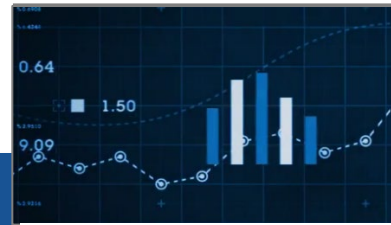
SECTION 2: OPTIONAL EQRO ACTIVITIES & PROTOCOLS

[Protocol 4](#) | Validation of MCO Encounter Data

[Protocol 5](#) | Validation and Implementation of Surveys

[Protocol 6](#) | Calculation of Performance Measures

[Protocol 8](#) | Focus Studies



Data Reveals Opportunities

CMS Protocols 4 through 8 are optional activities for EQROs evaluating the performance of state MCOs. Texas has contracted with its EQRO to perform four of the five optional reviews. In this section, the EQRO uses plan-level data and composite state-level data to introduce findings related to the quality of the encounter data, consumer surveys, performance measures, and focus studies. Results show variation in performance among Texas's programs, with positive quality of care results and opportunities for improvement.

Protocol 4: Validation of Encounter Data Reported by MCOs

Encounter Data Validation: Medical Record Review

This section presents assessments of the processes for collecting and submitting accurate and complete encounter data and the quality of the data. This procedure follows guidance by CMS on optional EQRO activities: review of medical records.⁶ The EQRO annually validates encounter data for accuracy and completeness by comparing encounters against a representative sample of dental or medical records.

Methodology

The 2018 Encounter Data Validation: Medical Record Review (EDVMRR) study examined physical health encounters and records from CY2017 for members in STAR, STAR Health, STAR Kids, STAR+PLUS, and CHIP. The EDVMRR study validated date of service (DOS), place of service (POS), primary diagnoses (PDx), and procedures (PX). The study timeframe was from January 1, 2017 through December 31, 2017, with at least a six-month lag for processing purposes and data quality verification.

Sampling

The EQRO drew a random sample from MCO encounters that occurred during CY2017 for each program (STAR, STAR Health, STAR Kids, STAR+PLUS, and CHIP). The sample was drawn from outpatient office or clinic visit encounters with a DOS during the specified period.

The EQRO used the following POS codes to define office and clinic visits:

- 11: Office,
- 17: Walk-in retail health clinic,
- 49: Independent clinic,
- 50: Federal qualified health center, and
- 53: Community mental health center.

The EQRO associated each encounter in the random sample with one member-provider pair; this encounter became the 'qualifying encounter' for each member in the sample. Enrollees may have appeared in the sample more than once if they had multiple qualifying encounters, i.e., visits with multiple providers. The EQRO requested a full year's worth of records from the provider associated with the qualifying encounter upon identification of the sample of members. Therefore, for the purposes of this study, one year's worth of records was counted as one record, which may include documentation of multiple encounters for one enrollee. The EQRO pulled all encounters associated with that provider for the measurement year and validated them against the medical record for the measurement year.

The EQRO requested records from the providers associated with the qualifying encounters via hard copy mailing. Additionally, EQRO staff called high volume providers to obtain the records not received after the first record request.⁷ The EQRO sent a second mailing three weeks after the initial mailing to providers who did not respond to the first mailed request or telephone calls. The goal of the sampling strategy was to ensure that findings for the MCOs were statistically sound representations of the MCOs' respective performances.

⁶ CMS. 2012d. *EQR Protocol 4: Validation of Encounter Data Reported by the MCO*. Available at: <https://www.medicaid.gov/medicaid/quality-of-care/downloads/eqr-protocol-4.pdf>

⁷ High volume providers are providers that receive record requests for six or more members.

Sample Size Calculations

Based on the lowest match rates for date of service for each program from the previous EDVMRR study, the EQRO calculated the sample size by program in order to reduce the size of the study.⁸ The following sample size calculations were based on the lowest match rate for date of service for each program. The EQRO used the formula below for all sample size calculations, where n is the sample size, $\frac{z_{\alpha}^2}{2} = 1.962$ for a 95 percent confidence level, p^* is the value of the proportion the EQRO is estimating, and ϵ is the maximum error rate of 0.05.

$$n \geq \frac{\frac{z_{\alpha}^2}{2} p^* (1 - p^*)}{\epsilon^2}$$

STAR

The lowest match rate obtained for the date of service in the previous year's EDVMRR study for the STAR program was 81.3 percent. Therefore, the fault rate used for the current sample size calculation was set to 18.7 percent and the value of the proportion estimated (p^*) was 0.187. Based on the formula and criteria listed above, the estimated sample size needed was 234 records per health plan for STAR. However, there was an average of 3.22 dates of service per record. Therefore, the EQRO divided the 234 records by 3.22, which resulted in a sample size of 73 records to ensure a representative sample for STAR.

STAR+PLUS

The lowest match rate obtained for the date of service in the previous year's EDVMRR study for the STAR+PLUS program was 66.1 percent. Therefore, the fault rate used for the current sample size calculation was set to 33.9 percent and the value of the estimated proportion (p^*) was 0.339. Based on the formula and criteria listed above, the estimated sample size needed was 345 records per health plan for STAR+PLUS. However, there was an average of 4.65 dates of service per record. Therefore, the EQRO divided the 345 records by 4.65, which resulted in a sample size of 75 records to ensure a representative sample for STAR+PLUS.

STAR Health

The lowest match rate obtained for the date of service in the previous year's EDVMRR study for the STAR Health program was 80.7 percent. Therefore, the fault rate used for the current sample size calculation was set to 19.3 percent and the value of the estimated proportion (p^*) was 0.193. Based on the formula and criteria listed above, the estimated sample size needed was 239 records per health plan for STAR Health. However, there were 3.23 dates of service per record. Therefore, the EQRO divided the 239 records by 3.23, which resulted in a sample size of 75 records to ensure a representative sample for STAR Health.

STAR Kids

The EQRO has not previously conducted EDVMRR for this program; therefore, they requested 411 records per health plan for STAR Kids.

CHIP

The lowest match rate obtained for the date of service in the previous year's EDVMRR study for the CHIP program was 82.0 percent. Therefore, the fault rate used for the current sample size calculation was set to 18.0 percent and the value of the estimated proportion (p^*) was 0.180. Based on the formula and criteria listed above, the estimated sample size needed was 227 records per health plan for CHIP. However, there were 2.23 dates of

⁸ Sample size calculations assume independence and do not account for correlation between dates of service within a record. The biostatistician confirmed that due to the low number of average dates of service per record, the sample size calculations did not need to account for the correlation since the effect is minimal.

service per record. Therefore, the EQRO divided the 227 records by 2.23, which resulted in a sample size of 102 records to ensure a representative sample for CHIP.

Previous record requests yielded a 63 percent return rate. Therefore, in order to obtain the records needed per health plan per program, the EQRO oversampled to account for the record return rate. As a result, the EQRO requested 116 records per health plan for STAR; 120 records per health plan for STAR+PLUS; 120 records per health plan for STAR Health; 653 records per health plan for STAR Kids; and 162 records per health plan for CHIP (see **Table 17**).

Table 17. Medical Encounter Data Validation - Sample Size

MCO	Records needed
STAR	
Aetna Better Health	
Amerigroup	
Blue Cross and Blue Shield of Texas	
CHRISTUS Health Plan	
Community First Health Plans	
Community Health Choice	
Cook Children's Health Plan	
Dell Children's Health Plan	
Driscoll Health Plan	
El Paso Health	116 records per health plan
FirstCare Health Plans	
Molina Healthcare of Texas, Inc.	
Parkland Community Health Plan	
RightCare from Scott & White Health Plan	
Sendero Health Plans	
Superior HealthPlan	
Texas Children's Health Plan	
UnitedHealthcare Community Plan	
Total STAR Records	2,088
STAR+PLUS	
Amerigroup	
Cigna-HealthSpring	
Molina Healthcare of Texas, Inc.	120 records per health plan
Superior HealthPlan	
UnitedHealthcare Community Plan	
Total STAR+PLUS Records	600
STAR Health	
Superior HealthPlan	120 records per health plan
Total STAR Health Records	120

MCO	Records needed
STAR Kids	
Aetna Better Health	653 records per health plan
Amerigroup	
Blue Cross and Blue Shield of Texas	
Children's Medical Center Health Plan	
Community First Health Plans	
Cook Children's	
Driscoll Health Plan	
Superior HealthPlan	
Texas Children's Health Plan	
UnitedHealthcare Community Plan	
Total STAR Kids Records	6,530
CHIP	
Aetna Better Health	162 records per health plan
Amerigroup	
Blue Cross and Blue Shield of Texas	
CHRISTUS Health Plan	
Community First Health Plans	
Community Health Choice	
Cook Children's Health Plan	
Dell Children's Health Plan	
Driscoll Health Plan	
El Paso Health	
FirstCare Health Plans	
Molina Healthcare of Texas, Inc.	
Parkland Community Health Plan	
Sendero Health Plans	
Superior HealthPlan	
Texas Children's Health Plan	
UnitedHealthcare Community Plan	
Total CHIP Records	2,754
Total Records	12,092

Health Records and Confidentiality

The EQRO designed the record request, submission, login, and abstraction procedures to protect confidentiality in accordance with federal and state regulations. To ensure confidentiality, the EQRO:

- Trained all personnel involved in record processing and reviewing records in the handling of patient identifiable data, as required by the University of Florida Health Science Center Privacy Office.

- Maintained patient- and provider-specific data in a password-protected database, and logged all health records into this password-protected database.
- Placed hard copies in file folders with a provider code and filed the hard copies in locked filing cabinets.
- Received faxed health records by a secure fax line and saved them to the medical record review team's password-protected network drive.

Analysis

A team of certified medical record reviewers conducted the validation study and met daily to discuss any questions or interpretations related to the validation process. The EQRO used a standardized protocol and assessed inter-rater reliability to ensure accuracy. At the onset of the project, cross-review charts per reviewer showed accuracy of 98 to 100 percent. For the subsequent weeks, reviewers exchanged 20 percent of the records validated during the previous week to assess inter-rater reliability. The reviewers had a 99 percent agreement rate.

The review team conducted the Physical Health EDVMRR study by reviewing one year's worth of medical records for each member in the sample to validate whether the information in the encounters matched the documentation in the medical record. In addition, the team reviewed the medical records to ensure that all documented visits in the medical records had a corresponding encounter.

The EQRO calculated the following final match rates:

1. DOS – The denominator for this match rate is the total number of DOS in the encounters and in the medical records. A DOS was numerator compliant when the DOS in the medical record matched the DOS in the administrative data.
2. POS – The denominator for this match rate is the total number of POS in the encounters and in the medical records. A POS was numerator compliant when the POS in the medical record matched the POS in the administrative data.
3. Primary diagnosis – The denominator for this match rate is the total number of primary diagnoses in the encounters and in the medical records. A primary diagnosis was numerator compliant when the primary diagnosis in the medical record matched the primary diagnosis in the administrative data.
4. Procedure – The denominator for this match rate is the total number of procedures in the encounters and in the medical records. A procedure was numerator compliant when the procedures in the medical record matched the procedure in the administrative data.

The record review team cross-checked the date of service in the medical record against all encounters submitted by all providers during the study timeframe in order to ensure visits where the beneficiary was seen by a different provider than the provider associated with the qualifying encounter were not included in the denominator for the match rates. In addition, because the EQRO pulled the sample by health plan and program, the record review team did not validate encounters and documentation of a visit in the medical record if they occurred during a time when the beneficiary was not enrolled in the health plan and/or program he or she was in when random sample selection occurred.

Results

Table 18 through **Table 21** provide the match rates for the four review categories by MCO and program. **Table 18** shows the match rates for DOS by health plan and program. The match rates across programs were 90 percent or higher with exception to the STAR Kids (84 percent) and STAR+PLUS (86.2 percent) programs. STAR Health had the highest match rate for DOS at 93.9 percent. The DOS match rates by health plan and program had similar variation. For example, 10 out of the 18 health plans covering the STAR program had DOS match rates 90 percent or higher. The remaining eight health plans had match rates above 80 percent. Similarly, only four of the health plans providing coverage for CHIP had a DOS match rate less than 90 percent. Of all the CHIP health plans, Driscoll had the lowest DOS match rate (73.9 percent). The other three health plans with match rates below 90 percent were CHRISTUS (89.3 percent), El Paso Health (88.8 percent) and FirstCare (88.3 percent). The health plans had lower DOS match rates for STAR+PLUS and STAR Kids than they did for other programs, ranging from 81.1 percent to 92.4 percent for STAR+PLUS and 54.8 percent to 93.0 percent for STAR Kids. To note, only one STAR+PLUS health plan (United Healthcare Community Plan [UHC]) had a DOS match rate above 90 percent.

Only one STAR+PLUS health plan (UnitedHealthcare) had a DOS match rate above 90 percent.

Table 18. Date of Service Match Rates by MCO and Program

MCO	STAR	STAR+PLUS	STAR Health	STAR Kids	CHIP
Aetna Better Health	86.5%			89.3%	94.1%
Amerigroup	90.3%	81.1%		88.3%	94.8%
Blue Cross and Blue Shield of Texas	82.2%			75.7%	96%
Children's Medical Center Health Plan				54.8%	
CHRISTUS Health Plan	85.2%				89.3%
Cigna-HealthSpring		85.4%			
Community First Health Plans	93.3%			91.9%	90.8%
Community Health Choice	87.5%				92.3%
Cook Children's Health Plan	85.8%			90.3%	90.3%
Dell Children's Health Plan	91.6%				90.2%
Driscoll Health Plan	93.3%			93.0%	73.9%
El Paso Health	89.9%				88.8%
FirstCare Health Plans	90.3%				88.3%
Molina Healthcare of Texas, Inc.	92.0%	88.0%			93.7%
Parkland Community Health Plan	87.4%				90.5%
RightCare from Scott & White Health Plan	94.5%				
Sendero Health Plans	89.7%				94.1%
Superior HealthPlan	95.8%	82.7%	93.9%	90.4%	93.8%
Texas Children's Health Plan	94.7%			90.3%	95.0%
UnitedHealthcare Community Plan	92.1%	92.4%		92.9%	96.0%
Total Across MCOs	90.3%	86.2%	93.9%	84%	91.4%

The POS match rates were approximately the same as the DOS rates for all health plans and programs (see **Table 19**). The match rate was 90 percent or higher across programs, except for STAR Kids (84.1 percent) and STAR+PLUS (86.5 percent). STAR Kids had the lowest rate (84.1 percent) among all of the programs, while STAR Health had the highest match rate (93.6 percent). Across health plans by program, Children’s Medical Center Health Plan (CMCHP) had the lowest POS match rate (54.8 percent), which was for the STAR Kids program, and Driscoll had the second lowest POS match rate (73.9 percent), which was for the CHIP program.

Across programs, STAR Health had the highest match rates for all review categories for medical record review.

Table 19. Place of Service Match Rates by MCO and Program

MCO	STAR	STAR+PLUS	STAR Health	STAR Kids	CHIP
Aetna Better Health	87.0%			89.5%	94.1%
Amerigroup	90.3%	81.1%		88.5%	94.8%
Blue Cross and Blue Shield of Texas	82.6%			75.8%	96.0%
Children’s Medical Center Health Plan				54.8%	
CHRISTUS Health Plan	84.9%				89.3%
Cigna-HealthSpring		85.9%			
Community First Health Plans	93.3%			92.0%	90.8%
Community Health Choice	87.5%				92.7%
Cook Children’s Health Plan	86.2%			90.3%	90.3%
Dell Children’s Health Plan	91.6%				92.5%
Driscoll Health Plan	93.0%			93.1%	73.9%
El Paso Health	89.9%				88.8%
FirstCare Health Plans	90.3%				88.3%
Molina Healthcare of Texas, Inc.	92.0%	88.0%			93.7%
Parkland Community Health Plan	87.4%				90.5%
RightCare from Scott & White Health Plan	94.5%				
Sendero Health Plans	89.7%				94.5%
Superior HealthPlan	95.8%	83.1%	93.6%	90.5%	93.8%
Texas Children’s Health Plan	94.3%			90.4%	95.9%
United Healthcare Community Plan	92.1%	92.7%		92.8%	96.0%
Total Across MCOs	90.3%	86.5%	93.6%	84.1%	91.7%

Table 20 reports the match rates for primary diagnosis (PDx). CHIP and STAR Health were the only two programs that achieved a higher than 90 percent match rate for PDx. STAR Kids ranked among the lowest (83.1 percent) across programs, while STAR+PLUS had the second lowest rate at 84.7 percent. STAR Health had the highest rate (91.7 percent) among all programs. Across health plans, BCBSTX’s CHIP and Superior’s STAR programs achieved the highest PDx rate, both at 95.2 percent. CMCHP’s STAR Kids had the lowest match rate (54.3 percent) across health plans. The PDx match rates by health plan and program had similar variation. For example, eight out of the 18 health plans covering the STAR program had PDx match rates 90 percent or higher. The remaining 10 health plans had match rates above 80 percent. CHIP had a similar trend as STAR with most health plans achieving a PDx

match rate greater than 90 percent. As with the overall match rates for STAR+PLUS and STAR Kids, the health plans had lower PDx match rates for both of these programs, ranging from 79.1 percent to 90.8 percent for STAR+PLUS and 54.3 percent to 92 percent for STAR Kids. Only one STAR+PLUS health plan (UHC) had a PDx match rate above 90 percent.

Table 20. Primary Diagnosis Match Rates by MCO and Program

MCO	STAR	STAR+PLUS	STAR Health	STAR Kids	CHIP
Aetna Better Health	86.5%			89.1%	93.5%
Amerigroup	89.1%	79.1%		87.2%	92.2%
Blue Cross and Blue Shield of Texas	80.3%			75.5%	95.2%
Children's Medical Center Health Plan				54.3%	
CHRISTUS Health Plan	84.9%				87.7%
Cigna-HealthSpring		84.8%			
Community First Health Plans	91.3%			90.4%	90.2%
Community Health Choice	85.6%				91.9%
Cook Children's Health Plan	86.2%			90.0%	90.3%
Dell Children's Health Plan	90.2%				91.9%
Driscoll Health Plan	92.3%			92.0%	72.9%
El Paso Health	89.6%				86.9%
FirstCare Health Plans	89.7%				88.3%
Molina Healthcare of Texas, Inc.	90.0%	85.7%			92.5%
Parkland Community Health Plan	86.4%				89.9%
RightCare from Scott & White Health Plan	93.6%				
Sendero Health Plans	88.5%				93.7%
Superior HealthPlan	95.2%	81.5%	91.7%	89.4%	93.8%
Texas Children's Health Plan	93.5%			89.8%	93.6%
UnitedHealthcare Community Plan	90.4%	90.8%		89.9%	94.0%
Total Across MCOs	89.3%	84.7%	91.7%	83.1%	90.7%

Table 21 details the match rates for procedure (PX) by health plan and program. The match rates across programs were 85 percent or higher, with exception to STAR Kids (84.5 percent). STAR Health had the highest match rate for PX at 94.3 percent. The PX match rates by health plan and program had similar variation. For example, seven out of the 18 health plans covering the STAR program had PX match rate of 90 percent or higher. The remaining 11 health plans had match rates above 80 percent. Similarly, 10 of the health plans providing coverage for CHIP had a PX match rate greater than 90 percent, with other health plans achieving rates of 85 percent or higher, with the exception of Driscoll (69.5 percent). As with the overall match rates for STAR+PLUS and STAR Kids, the health plans had lower PX match rates for both of these programs, ranging from 81.1 percent to 89.1 percent for STAR+PLUS and 60 percent to 90.3 percent for STAR Kids. Noteworthy, two of the STAR Kids health plans, Driscoll and UHC, achieved a 90 percent PX match rate.

Table 21. Procedure Match Rates by MCO and Program

MCO	STAR	STAR+PLUS	STAR Health	STAR Kids	CHIP
Aetna Better Health	85.7%			87.3%	89.1%
Amerigroup	87.3%	81.1%		87.1%	92.0%
Blue Cross and Blue Shield of Texas	86.4%			78.5%	93.9%
Children's Medical Center Health Plan				60.0%	
CHRISTUS Health Plan	81.3%				90.2%
Cigna-HealthSpring		86.8%			
Community First Health Plans	82.4%			89.1%	88.1%
Community Health Choice	86.2%				90.4%
Cook Children's Health Plan	86.3%			85.5%	90.5%
Dell Children's Health Plan	87.5%				90.3%
Driscoll Health Plan	91.9%			90.3%	69.5%
El Paso Health	85.6%				90.5%
FirstCare Health Plans	92.1%				87.1%
Molina Healthcare of Texas, Inc.	93.7%	87.4%			92.3%
Parkland Community Health Plan	84.1%				85.0%
RightCare from Scott & White Health Plan	90.9%				
Sendero Health Plans	87.5%				93.0%
Superior HealthPlan	93.9%	88.3%	94.3%	89.2%	91.6%
Texas Children's Health Plan	93.4%			87.8%	87.9%
UnitedHealthcare Community Plan	92.9%	89.1%		90.1%	89.9%
Total Across MCOs	88.8%	86.9%	94.3%	84.5%	88.9%

Discussion

The match rates varied among health plans and programs. However, the 2018 EDVMRR match rates increased from the previous EDVMRR study that the EQRO conducted in 2016 using calendar year 2015 data. Across programs, the 2016 EDVMRR study match rates ranged from 77 percent to 88.8 percent for DOS, 77.4 percent to 89 percent for POS, 74.1 percent to 87 percent for PDx, and 73.3 percent to 87 percent for PX. Compared to the 2018 EDVMRR match rates, the health plan specific match rates from the 2016 EDVMRR study were also lower. However, the variation in the range of rates was not as pronounced as the program specific rates since the 2018 match rates for CMCHP were lower than other health plans. Across programs, STAR Health had the highest match rates for all review categories and STAR Kids had the lowest rates. In addition, of the 10 MCOs covering STAR Kids, CMCHP consistently had the lowest match rates among STAR Kids health plans. Texas newly implemented STAR Kids in November 2016, and this was the first year STAR Kids was included in the EDVMRR study. CMCHP was the newest health plan and only covers STAR Kids. Therefore, the newness of the program and health plan could potentially explain why the match rates for STAR Kids were the lowest across all review categories. However, the EQRO needs to conduct additional work to identify the factors influencing the match rates. Another factor that could have contributed to the lower match rates for STAR Kids may be the complexity of the population. Although this was the first year STAR Kids was included in the EDVMRR study, STAR+PLUS match rates have similarly been

lower than the match rates for the other programs across review categories. Therefore, it would be beneficial to examine the effect the complexity of the population on the validity of the encounter data.

Driscoll consistently had the lowest match rates among the CHIP health plans for all review categories. However, Driscoll was one of 10 health plans for which the EQRO was unable to obtain a sufficient number of records to meet the sample size requirement. Therefore, the health plan-specific match rates for the CHIP program may not represent the actual match rate. The top three reasons for not receiving the records needed to meet the sample size requirements (in order of most frequent reason) were: bad provider address; provider indicated the member was not a patient; and the provider indicated the member was not seen during the measurement year. Of the 10 health plans that had an insufficient number of records to meet the needed sample size for the CHIP program, the EQRO received ≥ 90 percent of needed records for three of the health plans; ≥ 80 percent of the needed records for six of the health plans; and 52 percent of the needed records for one health plan. Additional studies should be conducted to examine the provider directories for the CHIP program.

Findings from Medical Record Review for EDV:

- *Match Rates Vary by Health Plan and Program – Across all review categories and programs, the highest match rates were for STAR Health, while STAR Kids had the lowest rates and STAR+PLUS had the second lowest match rates. In addition, of the ten MCOs covering STAR Kids, Children’s Medical Center consistently had the lowest match rates among STAR Kids health plans and Driscoll consistently had the lowest match rate for the CHIP program. Further, UnitedHealthcare consistently had higher match rates for all review categories for the STAR+PLUS program.*
- *CHIP Provider Directories Did Not Include Correct Provider Addresses – The EQRO did not obtain a sufficient sample size for 10 out of the 17 CHIP health plans primarily due to bad addresses. This may impact CHIP members if provider listings given to members are also incorrect.*

Recommendations:

- *Examine details of the encounter data elements associated with lower vs. higher match rates by health plan and program. For example, identify differences based on diagnosis, types of procedures conducted, and the interaction between diagnosis and procedure.*
- *Conduct additional analyses to identify factors that may influence different match rates across programs and health plans. Specifically, examine the effect of the complexity of the populations for STAR Kids and STAR+PLUS on the validity of the encounter data.*
- *The EQRO recommends that health plans validate and update provider addresses in order to improve the return rate on records requested from providers.*

Encounter Data Validation: Data Certification

Texas MCOs and DMOs submit service encounter extracts to the administrative contractor Texas Medicaid and Healthcare Partnership (TMHP), which delivers encounter data extracts, along with extracts from state paid claims (also processed by TMHP) and pharmacy encounter data (processed by TMHP-Pharmacy) to the EQRO. TMHP also provides extracts of provider and enrollment data to the EQRO, and HHSC provides eligibility data directly to the EQRO.

The EQRO developed procedures for annually certifying the quality of Texas Medicaid and CHIP encounter data using the CMS Encounter Data Toolkit (7), CMS EQR Protocols, (8) and Texas Government Code §533.0131 (9). The EQRO conducts data certification for each program by MCO or DMO, and service area, allowing at least four months for claims adjudication and adjustment. The data certification completed during 2018 was for services during the state fiscal year (SFY) 2017.

The data certification analyses carried out by the EQRO assess the quality and completeness of the encounter data and identify deficiencies in data for any MCO, DMO, or program. High quality, complete encounter data are critical for calculating accurate HEDIS, AHRQ 3M PPE, and other quality measures. When data is inaccurately coded or missing key elements, measures may be biased or even incalculable, affecting not only the data provider, but also hampering the overall assessment of the quality of healthcare provided through Texas Medicaid and CHIP. The EQRO suggests that HHSC continue to work with the MCOs and DMOs to improve the quality and completeness of provider data and increase the standards for reporting. These data elements are critical for objective evaluation and rate setting activities. When MCOs have significant data deficiencies, it is difficult to include them fully in quality incentive programs.

The EQRO provided three types of analysis for certifying the data:

1. A volume analysis quantifying the number and percentage of paid, denied, and voided claims by plan, month, and service category.
2. A data validity and completeness analysis identifying the percentage of missing and invalid data values from key header and detail encounter fields.
3. A comparison of payment dollars documented in the encounter data with payment dollars reported in the MCO self-reported Financial Statistical Report (FSR).

To address the need for Medicaid data reliability in state and CMS processes, the U.S. Government Accountability Office (GAO) published a report in October 2018 that examined state oversight practices to ensure Medicaid data reliability, and CMS actions to help ensure the quality of data it collects from the states (10). Three recommendations provided by the GAO were: (a) CMS should provide states with more information on how to meet data audit requirements; (b) CMS should provide information to states about required content of data assessment reports; and (c) CMS should provide information to states about why and when CMS would defer or disallow matching funds in response to encounter data submissions.

The ratio of professional to institutional claims was very high in Hidalgo compared to other SAs, suggesting underlying differences in the service delivery system.

Greater use of ambulatory services may reduce reliance on emergent and inpatient care, but overuse of these services could still signify inefficiency or waste.

This report highlights the current focus on data quality. Several initiatives are underway to develop standard assessments or measures for data quality. The EQRO continues to work with HHSC to ensure that Texas meets current standards and is prepared for future requirements by setting high standards for data quality assessment.

Volume Analysis Based on Service Category

The EQRO evaluated the volume and distribution of claims for unexpected or unexplained changes as well as for consistency across programs, months, and MCOs/DMOs. Changes may result from normal changes in business practices and are not necessarily cause for concern; however, the EQRO found no unexpected changes or variations in the encounter volume analyses. Overall, volume was relatively constant with some declines across the year. The ratio of professional to institutional claims was higher in Hidalgo than in other SAs. For STAR+PLUS,

professional claims were more than 90 percent of the total in Hidalgo, while professional claims were only 70 percent on average across other SAs. This difference in utilization patterns may affect quality measures.

Submitted claims are unpaid for a variety of reasons and claims for disallowed services and invalid information should be corrected through re-adjudication. Since denied and voided claims create extra volume in the claims and encounters processing system, keeping them to a minimum improves efficiency. Based on review of reported industry standards, the EQRO considers 10 percent to be an acceptable level for unpaid final adjudications with some expected variation, and more than 20 percent a cause for concern. Besides the impact on the processing system, a high percent of unpaid final adjudications may indicate underlying problems in the data recording process that could affect quality analyses.

Unpaid institutional claims were generally within acceptable levels; however, BCBSTX and Dell Children's Health Plan (DCHP) had more than 20 percent-unpaid institutional claims across programs. In CHIP Perinatal, 12 MCOs/SAs had unpaid institutional claims greater than 20 percent. The percentage of unpaid professional claims is less consistent, ranging from as low as 2 percent (CHIP, Molina – RSA) to as high as 43 percent (STAR, Sendero – Travis), with averages above 20 percent in all programs except STAR+PLUS. Some MCOs have consistently acceptable levels of unpaid claims, indicating that high accuracy is achievable.

Data Validity and Completeness Analysis

The EQRO examined the encounters for the presence and validity of critical data elements, including:

- Percentages of encounter records in which key fields were either missing or did not meet validity standards (see **Appendix E: Key Data Elements Used for Evaluating the Validity and Completeness of Data**)
- Present on admission (POA) indicators, which help calculate PPCs
- Provider information, including the classification of submitted NPI, and submitted taxonomies
- T1015 claim modifiers, which are used by the Federally Qualified Health Centers (FQHCs) and Rural Health Clinics (RHCs)
- Dental-specific coding

Key Fields

The EQRO reexamines the fields and standards evaluated for overall completeness and validity each year. Data quality has improved over time, due to advances in data management systems of the MCOs and TMHP, and in part through recommendations made based on the annual data certification process. For SFY2017 data, the EQRO included 18 encounter fields in the review and considered rates of less than 99 percent passing validity checks areas of concern. In most cases, 100 percent of data passes; however, continuing to review data annually is critical to ensuring that the data used in quality-of-care assessment and rate setting meets quality standards. In past years, the EQRO has identified data issues resulting from recent processing changes and worked with HHSC and the MCOs to identify root causes and make corrections so that the final data passes certification testing.

Among the key fields evaluated for SFY2017 data, admission dates for Amerigroup, CMCHP, DCHP, Texas Children's Health Plan (TCHP), and UHC were missing in slightly more than 1 percent of institutional inpatient encounters for a few SA in specific programs. Admission dates can be missing on certain institutional bill types but should be included on the encounters evaluated. Because inconsistent coding practices result in missing data, the EQRO recommended following up with these MCOs to identify the root cause. Notably, an increase in missing data would be cause for concern.

POA Indicators

Valid coding of POA for reported diagnoses is critical to the EQRO's efforts to calculate the 3M potentially preventable complications (PPC) measure. When POA codes are missing or invalid, the encounters may be misclassified or excluded from the calculation of PPC rates, and the EQRO is unable to provide HHSC with accurate and complete information about Texas Medicaid and CHIP. Thus, to determine valid coding of POA for reported diagnoses, the EQRO evaluated distribution of valid POA codes ('Y', 'N', 'U', 'W') among reported non-exempt primary diagnoses with POA codes on acute inpatient institutional encounter records and applied 3M recommended screening criteria to POA for secondary diagnoses. **Appendix F: POA Screening Criteria** includes a full description of these criteria.

Almost all primary diagnoses should be present on admission ('Y'), and the EQRO found that POA distributions for primary diagnoses were in their accepted ranges for most MCO/SA in CHIP, MMP, STAR Kids, STAR Health, and STAR+PLUS. However, POA was coded 'Y' less than 90 percent of the time in most MCO/SA in CHIP Perinatal, and nearly half the MCO/SA in STAR. This may relate to the high percentage of obstetric admissions for these programs.

To avoid bias in PPC calculations and risk adjustment, 3M recommends screening POA distributions at the hospital level and excluding all data from hospitals that fail to pass screening tests. The EQRO applied these four screening criteria to data aggregated by MCO and SA in each program and found that data for most MCO/SA in CHIP Perinatal and STAR failed to meet the criteria. When the aggregated data fails these overall checks, it is likely that a substantial number of contributing hospitals have failed the screening, leading to data exclusion from PPC calculations for both the MCO as well as the hospital level PPC reporting. To prevent data exclusions, the EQRO recommends that MCOs all work with the hospitals in their networks that have failed POA data quality checks to improve submissions.

Provider Information

Adequate provider identification is critical to the EQRO's efforts to calculate HEDIS measures, conduct provider surveys, and obtain medical records needed to validate encounter data. The EQRO assessed overall provider data completeness by determining the non-missing percentage of: billing provider NPI and taxonomy (by encounter) and professional encounter rendering NPI and taxonomy (by detail encounter).

The analysis included checking the provider information in two ways:

1. The percentage of time the NPI was identified as an individual (not an organization) in the Master Provider data; this was expected greater than 95 percent of the time.
2. The percentage of time taxonomy was reported for the primary NPI.

The rendering provider NPI in professional encounters should be the individual that performed the service. Across programs, the rendering NPI identified an individual between 80 and

For many hospitals, data inconsistency leads to data exclusion from PPC calculations; total exclusions can be as high as 40 percent of all admissions.

MCOs should work with hospitals that have failed POA data quality checks to improve submissions.

Overall, across programs, professional encounters included taxonomy for a rendering individual less than 75 percent of the time.

This information is critical to the accurate calculation of many quality measures as well as analyses of network adequacy.

90 percent of the time; however, for some MCO/SA, the primary NPI identified an individual in less than 70 percent of professional encounters. The percentage was particularly low across STAR Kids, which may reflect members receiving care in settings other than regular office visits. Taxonomy is used to assign provider specialty for HEDIS measure calculation, and to identify provider specialties for quality and clinical analyses. Overall, across programs professional encounters included taxonomy for a rendering individual less than 75 percent of the time. Based on this reporting, Texas will change encounter data requirements to include taxonomy. The EQRO will continue to monitor provider data quality.

Dental Data

Dental quality measures require some specific data elements, including tooth and tooth surface identification. Since the EQRO started reporting on these in the data certification process, quality, and completeness has improved and data is almost 100 percent complete. Several dental quality measures included in the P4Q program require identification of members with elevated caries risk. Caries risk assessment (CRA) is a required part of a complete dental exam, and CRA should also be coded on all dental exam encounters. The EQRO added evaluation of the risk indicator to the data certification process for SFY2017 and found that caries assessment codes were missing in up to four percent of dental exam encounters across programs and DMOs. As a requirement for dental exams, absence of the CRA codes should result in denial of the exam claim. The EQRO recommends that HHSC work with the DMO to enforce this requirement, thus ensuring complete CRA data.

FSR Analysis

The EQRO compared payment dollars documented in the encounter data to payment dollars in the MCO self-reported FSR. According to the standard set by HHSC for SFY2017, the encounter data and the FSR must agree within three percent for the data to be certified (seven percent in the STAR Kids program). All MCO/SA combinations across all programs met this standard. When the EQRO finds discrepancies in the FSR, it discusses them first with HHSC and the MCO or DMO and then may investigate the data further; in the past, this has led to corrections and improvement in the data quality. Over time, the standard for agreement has gone up due to diligent work by all parties to improve data processes. The standard for STAR Kids reflects the fact that this is a new program, and it should achieve the same level of agreement as other programs in the future.

Protocol 5: Validation and Implementation of Surveys

Consumer Quality of Care Surveys

The EQRO conducts biennial surveys to measure experiences and satisfaction of adult members and caregivers of child and adolescent members in Texas Medicaid and CHIP. The EQRO designs the surveys to monitor and evaluate the quality of care provided to the members, assist members in choosing among health plans, inform HHSC on quality improvement initiatives, and help health plans identify areas of strengths and weaknesses so they can better target their quality improvement efforts. The EQRO develops the research design for all consumer quality-of-care surveys with input from HHSC and careful planning to assure the sampling strategy follows AHRQ guidelines and meets survey objectives. During SFY2018, the EQRO designed and conducted two biennial member surveys (STAR Adult, STAR+PLUS) and two biennial caregiver surveys (STAR Kids and STAR Health).

Research Design

The CAHPS Health Plan Survey is a widely used instrument for measuring and reporting consumer experiences with health plans, health services, and providers. The survey includes several questions that indicate health plan performance (such as personal doctor and health plan ratings), including composite measures that combine results from closely related survey items that measure similar constructs. The EQRO utilizes the most recent NCQA version of the CAHPS Health Plan survey, CAHPS 5.0H. This version includes several NCQA-specified supplemental individual items, composites, and item sets such as *Health Promotion and Education*, *Coordination of Care*, *Smoking Cessation*, and *Flu Vaccination* summary items, and the *Children with Chronic Condition (CCC)* Item Set, as well as the full complement of AHRQ-specified measures.

The EQRO selected participants for the CAHPS surveys from stratified random samples of child members (17 years or younger) or adult members (18 years or older) who were continuously enrolled (with no more than one 30-day gap) in the same health plan for at least six months. The EQRO stratified the samples to include representation from each MCO operating in the program, with target numbers of completed survey interviews at 200 per plan code and 300 per MCO. The EQRO selected these targets based on power analyses informed by item completion rates, known population sizes, historical performance, and an acceptable margin of error balanced against the feasibility of large-scale surveys in CHIP, STAR, STAR+PLUS, STAR Health, and STAR Kids.

Survey Fielding

The EQRO contracted with the University of Florida Survey Research Center (UFSRC) and NORC at the University of Chicago to conduct the 2018 member and caregiver experience-of-care surveys using Computer-Assisted Telephone Interviewing (CATI) systems. The EQRO carefully selects survey research firms to conduct the telephone surveys based on reputation, quality, and cost. UFSRC and NORC are both NCQA accredited and have experience conducting Texas EQRO-related telephone surveys.

The experience-of-care surveys fielded for between four and five months. The EQRO sent advance notification letters written in English and Spanish to members or caregivers requesting their participation. The survey vendor began calls approximately four days after each advance mailing. **Table 22** lists the member surveys conducted by the EQRO in SFY2018 and their enrollment and fielding periods.

Table 22. Member and Caregiver Survey Enrollment and Fielding Periods, 2018

Survey	Enrollment Period	Fielding Period
STAR Adult Survey	October 2017 - March 2018	May 2018 - September 2018
STAR+PLUS Survey	October 2017 - March 2018	May 2018 - September 2018
STAR Health Caregiver Survey	December 2017 - May 2018	June 2018 - August 2018
STAR Kids Caregiver Survey	December 2017 – May 2018	July 2018 – October 2018

Scoring

The EQRO follows both AHRQ and NCQA specifications for scoring the CAHPS ratings and composites where feasible; for example, in certain plan codes, the size of CHIP and Medicaid populations limits the feasibility of meeting NCQA sampling specifications. Results in this report follow AHRQ top-box reporting specifications. Scores represent the percentage of members who rated their healthcare “9” or “10” (on a scale from “0” to “10” with higher scores indicating greater satisfaction) or reported “always” having a positive experience in a given composite score.

Results

When compared to 2016 biennial survey results, most composites and ratings have improved for STAR (**Figure 7**) and STAR+PLUS (**Figure 8**). However, the 2018 *Shared Decision Making* and *Personal Doctor Rating* measures are lower when compared to the 2016 data. Ratings and composites for STAR Health (**Figure 9**) have shown improvements in some measures, but slight declines have occurred for *Getting Needed Care*, *How Well Doctors Communicate*, *Coordination of Care*, *Shared Decision Making*, and *Specialist Rating*.

Figure 7. Comparison of Total CAHPS Composites and Rates for STAR

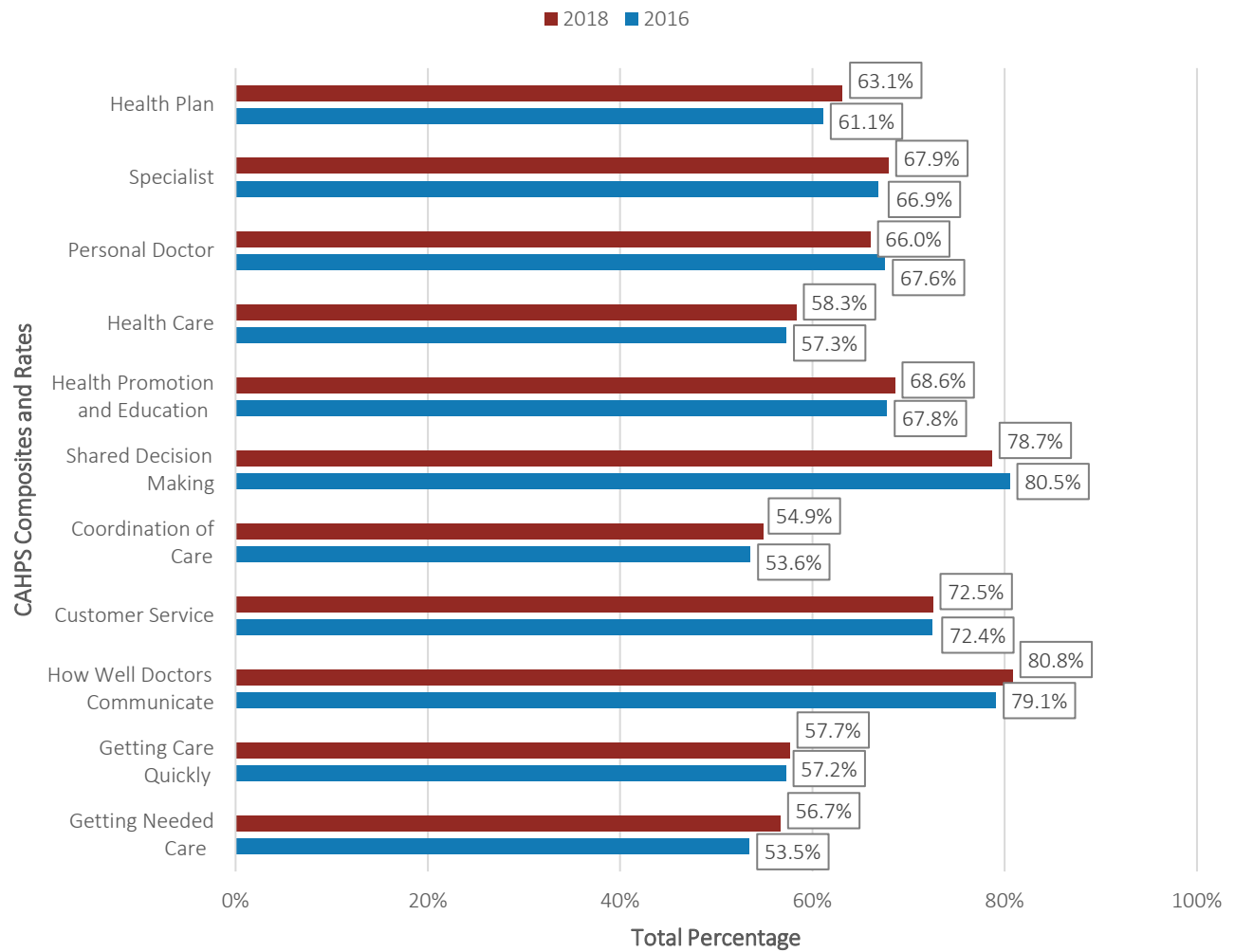


Figure 8. Comparison of Total CAHPS Composites and Rates for STAR+PLUS

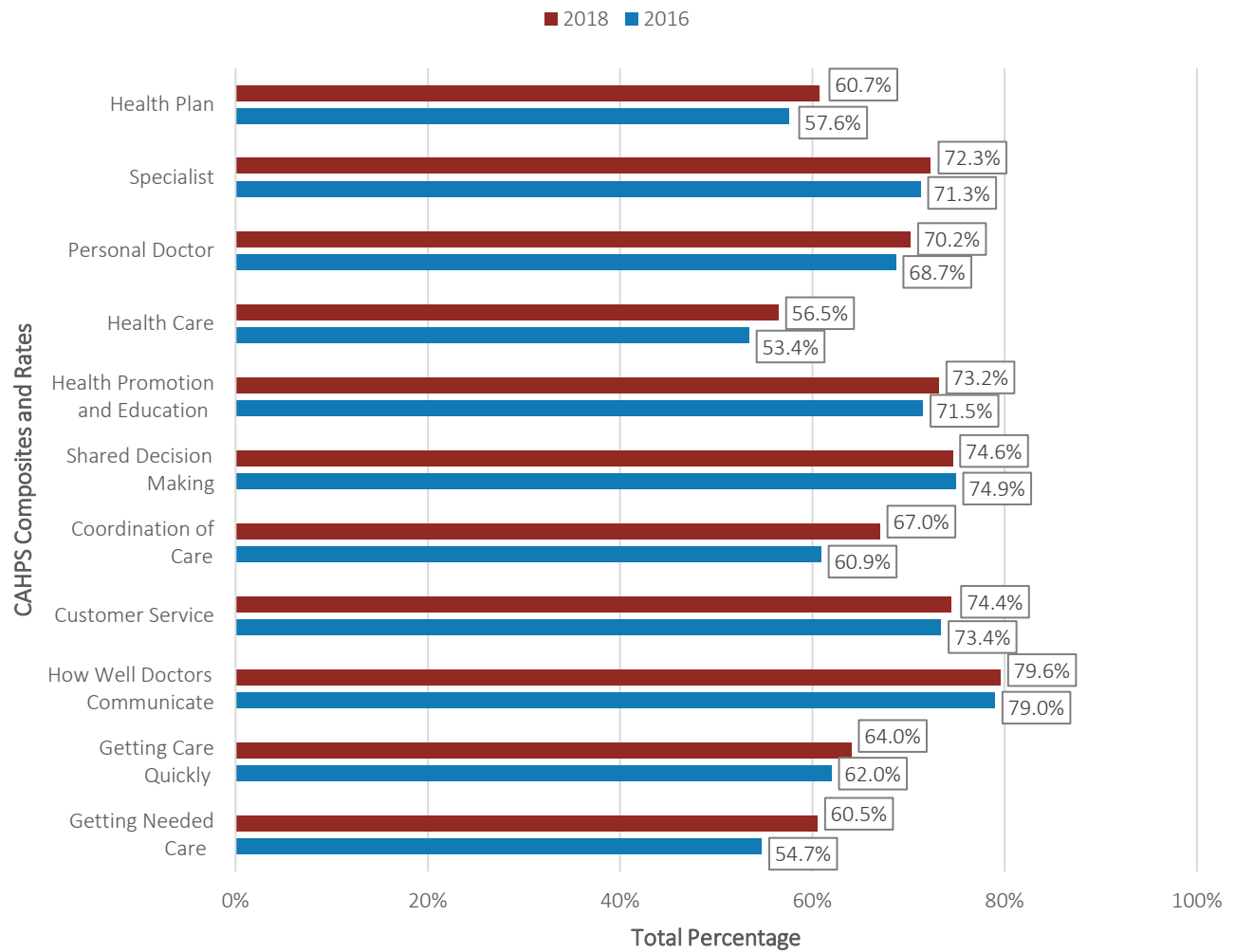
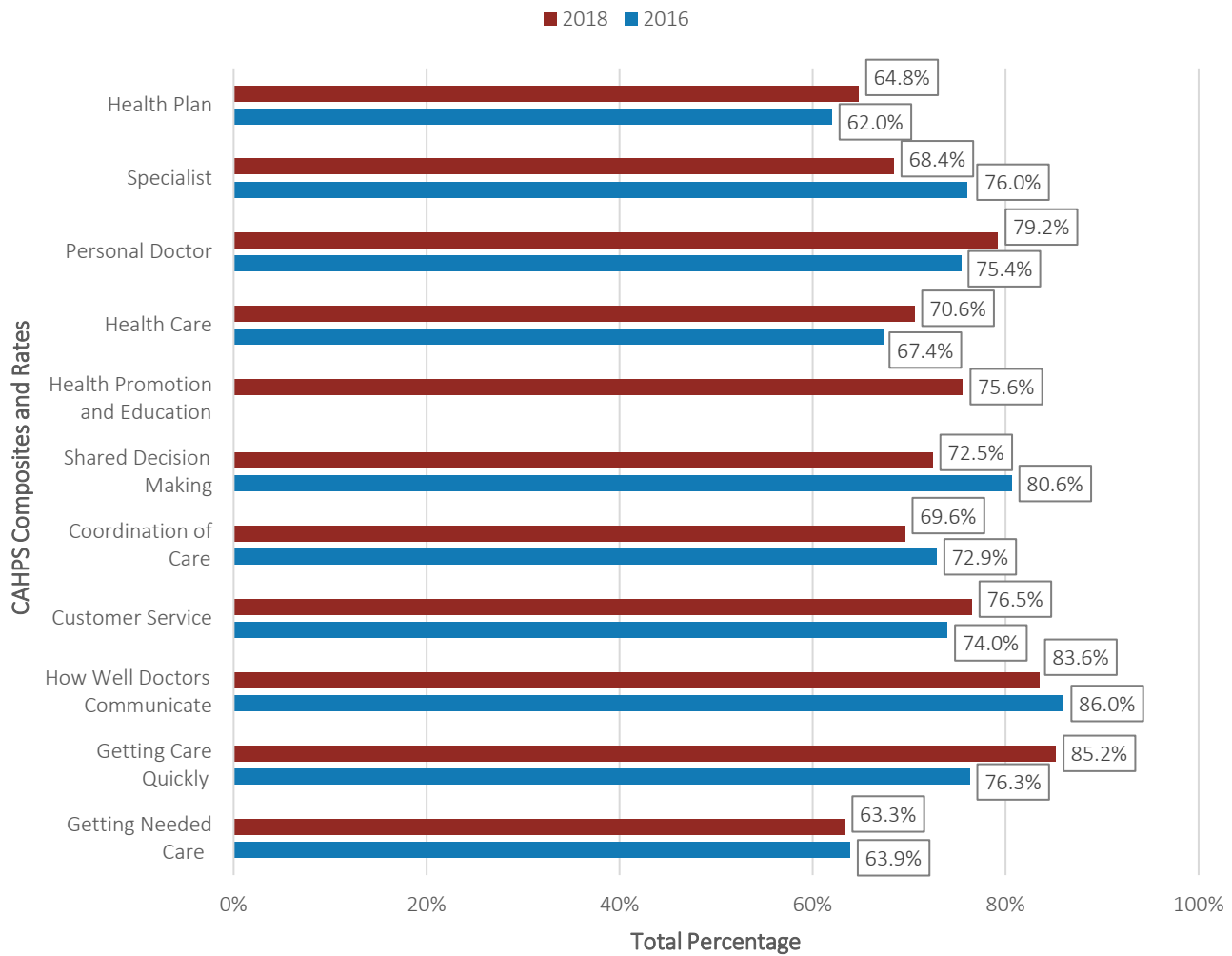


Figure 9. Comparison of Total CAHPS Composites and Rates for STAR Health^a

^a The *Health Promotion and Education* measure was not collected for STAR Health in 2016.

Experience of Care – Adult Surveys

Scores on many of the adult CAHPS survey items for MCOs in Texas were higher than the 2018 National CAHPS Adult Medicaid median rates. Experience-of-care measures show the top-box score or percentages of adult STAR and STAR+PLUS members who rate “always” for having had a positive experience on a four point “never” to “always” scale. In 2018, *How Well Doctors Communicate* received high ratings from both STAR and STAR+PLUS members. *Health Plan Information* and *Customer Service* and overall *Health Plan Rating* were also high among STAR and STAR+PLUS members, indicating that the plans are doing well communicating information to caregivers.

Composite scores and ratings in Texas were higher than most 2018 Nationwide CAHPS Adult Medicaid rates.

The *Personal Doctor Rating* for STAR is in line with the 2018 Nationwide Adult Medicaid CAHPS ratings. Of all the reportable rates, only *Getting Care Quickly* for the STAR program was lower than the national rate, indicating that improvement efforts should focus on reducing the time it takes providers to see members. Additional information on STAR and STAR+PLUS members is in **Table 23**.

Table 23. 2018 CAHPS STAR Adult and STAR+PLUS Experience of Care – Adult Medicaid

Survey Question	Rate for Texas STAR Adult	Rate for Texas STAR+PLUS	National CAHPS Adult Medicaid 2018 Rates
Percent who Always had a Positive Experience			
<i>Getting Needed Care</i>	56.7%	60.5%	54.0%
<i>Getting Care Quickly</i>	57.7%	64.0%	59.0%
<i>How Well Doctors Communicate</i>	80.8%	79.6%	74.0%
<i>Health Plan Information and Customer Service</i>	72.5%	74.4%	68.0%
Percent Who Rated Their Care a “9” or “10”			
<i>Personal Doctor Rating</i>	66.0%	70.2%	66.0%
<i>Specialist Rating</i>	67.9%	72.3%	66.0%
<i>Health Plan Rating</i>	63.1%	60.7%	58.0%
<i>Health Care Rating</i>	58.3%	56.5%	54.0%

Experience of Care – STAR Health and STAR Kids

Ratings on many of the CAHPS survey items for STAR Health and STAR Kids programs were higher than the 2018 National CAHPS Child Medicaid rates. The EQRO measures experience with care as the percentage of STAR Health and STAR Kids caregivers who rate “always” for a particular item. *Health Plan Information* for both programs was high among caregivers indicating that the plans are doing well communicating information. Although this population has greater needs related to chronic conditions, the *Specialist* rating and the *Coordination of Care* ratings for STAR Kids caregivers were markedly higher than the national average. STAR Health *Specialist* and *Health Plan* rating were lower than the 2018 National CAHPS Child Medicaid ratings, suggesting that improvement efforts should focus on providing better access to specialist providers. **Table 24** includes additional information on STAR Health and STAR Kids.

Table 24. 2018 CAHPS Child Medicaid Ratings – STAR Health and STAR Kids Experience of Care

Survey Question	Rate for Texas STAR Health	Rate for Texas STAR Kids	2018 Nationwide Child Medicaid CAHPS Rates
Percent Who Always had a Positive Experience			
<i>Getting Needed Care</i>	63.3%	64.2%	61.0%
<i>Getting Care Quickly</i>	85.2%	75.7%	74.0%
<i>How Well Doctors Communicate</i>	83.6%	77.5%	79.0%
<i>Health Plan Information and Customer Service</i>	76.5%	75.5%	69.0%
Percent Who Rated Their Care a “9” or “10”			
<i>Personal Doctor Rating</i>	79.2%	77.4%	76.0%
<i>Specialist Rating</i>	68.4%	78.9%	73.0%
<i>Health Plan Rating</i>	64.8%	71.1%	70.0%
<i>Health Care Rating</i>	70.6%	73.1%	69.0%
CCC Composites and Summary Rates^a			
<i>Access to Specialized Services</i>	LD	50.4%	54.0%

Survey Question	Rate for Texas STAR Health	Rate for Texas STAR Kids	2018 Nationwide Child Medicaid CAHPS Rates
<i>Personal Doctor Who Knows Child</i>	91.5%	88.5%	91.0%
<i>Coordination of Care or Children with Chronic Conditions</i>	LD	81.6%	77.0%
<i>Getting Needed Information</i>	80.2%	73.7%	74.0%
<i>Access to Prescription Medicines</i>	75.2%	73.4%	71.0%

LD: Low denominator

^a The results for the CCC Item set only include respondents that met the chronic conditions criteria for the STAR Health Program.

STAR Health – Trends

Superior HealthPlan has been the exclusive provider for the STAR Health program for several years, which allows for consistent trending. *Getting Care Quickly* and *Coordination of Care* saw marked increases in 2018, by nine and seven percent, respectively. Satisfaction ratings for all four categories has been fairly consistent, with 60 to 70 percent of caregivers rating their child's healthcare, personal doctor, specialists, and health plan a "9" or "10". The percentage of STAR Health members who meet the CCC screener has remained steady over the years, with an average of approximately 50 percent of STAR Health members meeting CCC criteria. **Figure 10, Figure 11, and Figure 12** include additional information on STAR Health trends.

Figure 10. STAR Health CAHPS Composites, 2012-2018

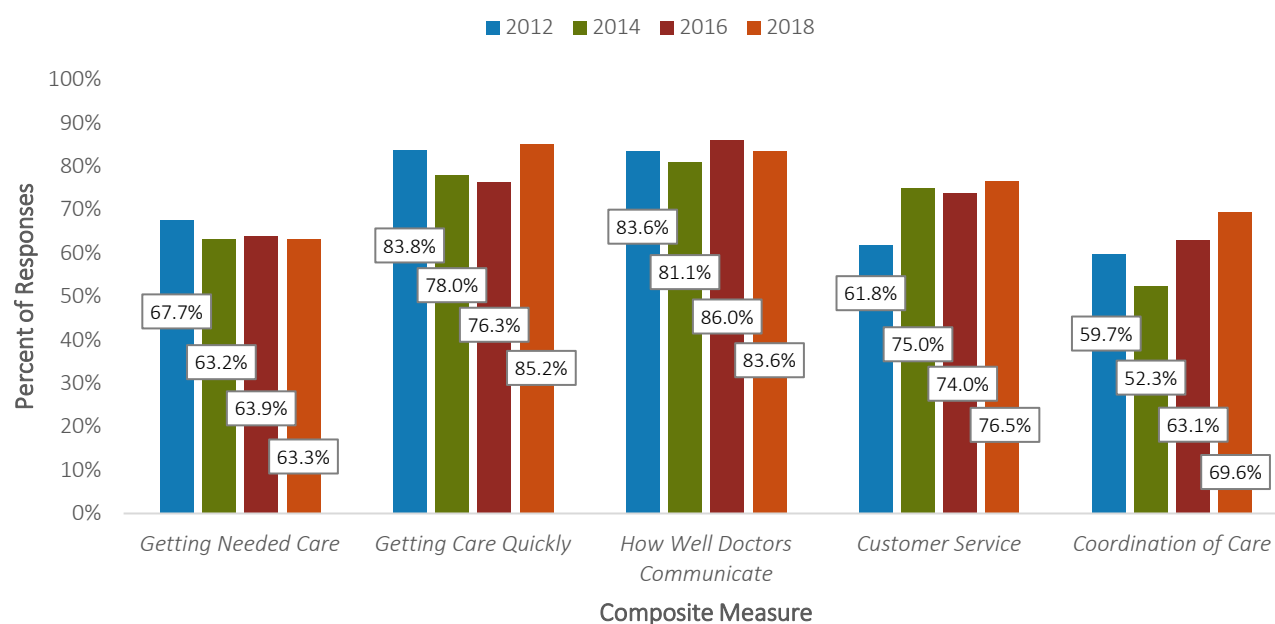


Figure 11. STAR Health CAHPS Caregiver Rating, 2012-2018

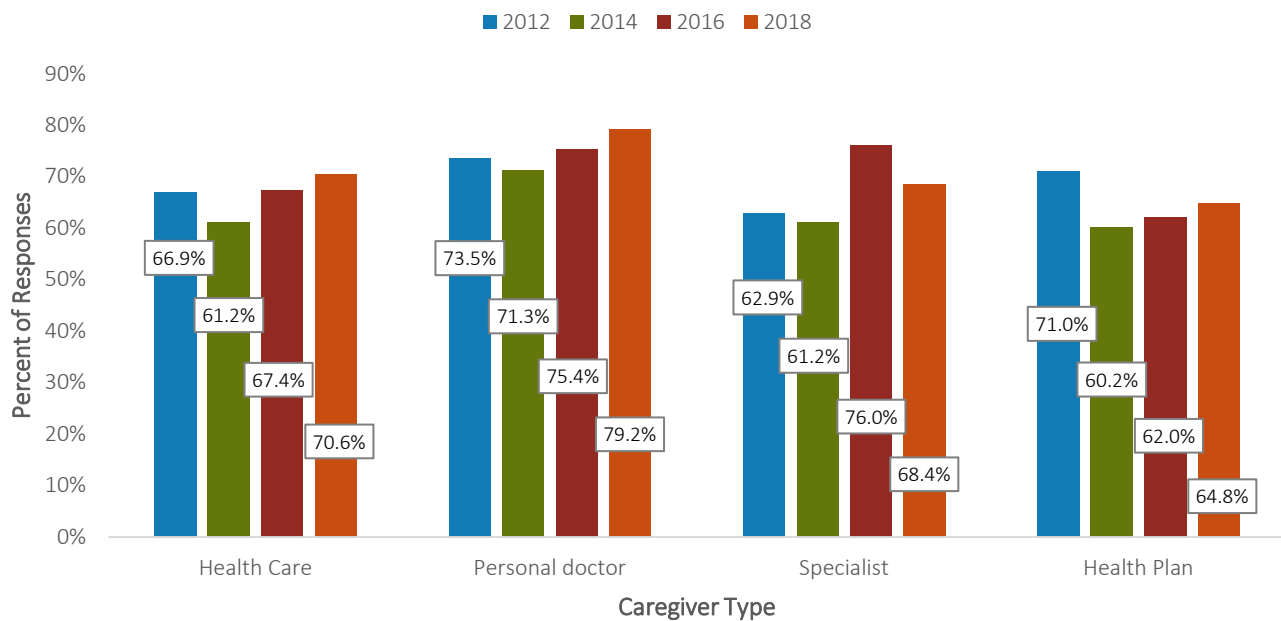
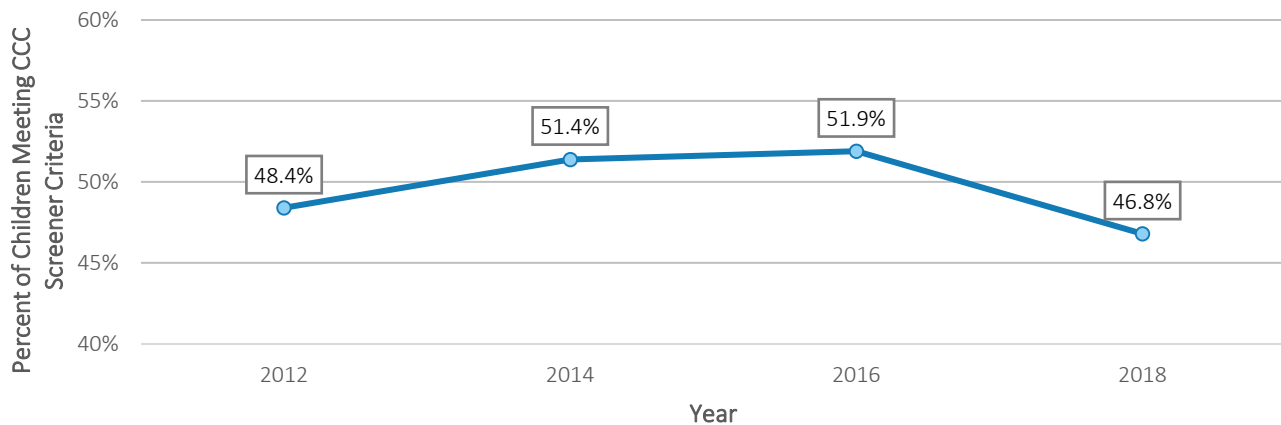


Figure 12. STAR Health Children with Chronic Conditions Screener, 2012-2018



STAR Kids – Baseline Year

The EQRO added the STAR Kids Caregiver Survey to the Biennial Member Survey rotation in 2018. In addition to the full CAHPS 5.0H surveys with the CCC set, the EQRO added items focusing on care coordination, special therapy, medical equipment and supply, and transition of care. HHSC and the EQRO selected these items following recommendations from the STAR Kids Post-Implementation Study. Similar to all other Biennial Member surveys, the STAR Kids survey allows for the calculation and reporting of CAHPS composites, ratings, and summary rates. The EQRO included CAHPS 4.0 supplemental items to capture member experiences related to medical supply access, health literacy, and other STAR Kids specific domains. The EQRO adapted additional survey questions from the National Health Interview Survey, the Behavioral Risk Factor Surveillance System, the National Survey of America's Families, and the National Survey of Children with Special Health Care Needs. The EQRO also asked respondents to report their child's ethnicity and race as well as height and weight for BMI calculations.

Overall, STAR Kids CAHPS results are similar to the nationwide CAHPS rates. Caregivers reported above average rates for “good access to urgent care,” “good access to specialist appointments,” and “good access to routine care.” STAR Kids “Access to behavioral treatment or counselling” and “Ease of getting medical equipment” rates were lower than the national averages. Since STAR Kids members have significantly more healthcare needs compared to other populations, improvement efforts should focus on providing easier access to medical equipment, such as feeding tubes, nebulizers, or oxygen equipment. HHSC and the MCOs should consider examining the barriers to behavioral health treatment and counselling more carefully since the chronic needs of this population can translate to high levels of family and caregiver stress. **Table 25** provides additional information on STAR Kids survey results.

Table 25. STAR Kids Survey Results, SFY2018

Survey Question	Rate for Texas STAR Kids	National CAHPS Child Medicaid 2018 Rates
Performance Dashboard Indicator		
% good access to urgent care (CAHPS4)	81.0%	79.0%
% good access to specialist appointments (CAHPS46)	59.2%	56.0%
% good access to routine care (CAHPS6)	70.4%	68.0%
% good access to behavioral treatment or counseling (CAHPS26)	52.0%	55.0%
% receiving help coordinating child's care (C5Q12)	36.5%	16.0% ^a
% very satisfied with communication among child's providers (C5Q10)	67.1%	74.4% ^a
Survey items - % of "Always" responses		
Ease of getting home health care or assistance (SS2)	56.2%	--
Ease of getting medical supplies (PMS21CHP)	67.2%	--
Ease of getting medical equipment (CAHPS 20)	51.8%	54.0%

^a The results for the CCC Item Set only include respondents that met the chronic conditions criteria for the STAR Health Program.

Protocol 6: Calculation of Performance Measures

HEDIS Results and AHRQ Quality Measures

As noted previously, HHSC has contracted with the EQRO to conduct comprehensive quality evaluations across all Medicaid programs. The EQRO receives all medical, dental, and pharmacy encounter extracts, enrollment extracts, and provider data on a monthly basis. It also maintains a complete data warehouse in support of all EQRO functions, in particular, the calculation of quality measures. HHSC selects quality measures each year to facilitate CMS reporting, quality incentive programs, initiative planning, and other program administration objectives with the goal of improving quality of care for Texas Medicaid and CHIP members.

Administrative data support calculation of quality measures from four nationally recognized quality assessment programs:

1. NCQA HEDIS measures: Supported and maintained by NCQA for over 20 years, [HEDIS](#) is used by more than 90 percent of health plans in the United States. HHSC includes over 50 HEDIS measures for Medicaid and CHIP performance evaluation (11).
2. AHRQ PDIs and PQIs: AHRQ is part of the U.S. Department of Health and Human Services (DHHS) and serves as the lead federal agency in improving the safety and quality of America's healthcare system. The [Prevention Quality Indicators](#) (PQI) and [Pediatric Quality Indicators](#) (PDI) track performance based on administrative hospital inpatient data (12).
3. DQA measures: Established by the American Dental Association (ADA), the [Dental Quality Alliance](#) (DQA) develops evidence-based performance measures for oral healthcare (13).
4. 3M Health Information Systems measures of potentially preventable events (PPEs): 3M has been a leader in healthcare data processing, payment systems, and analytics for over 30 years. Their software uses administrative data to identify the occurrence and expenditures associated with [PPEs](#) (14).

Texas HHSC has specified additional measures, summarized in **Appendix A: Summary of Quality Measures Calculated and Reported by the EQRO for the 2017 Measurement Year by Program**. The appendix provides the complete summary of quality measures calculated and reported by the EQRO during the activity period. The EQRO uses NCQA-certified software for calculation of HEDIS measures ([Inovalon Quality Spectrum®](#)) and contracts with an NCQA-certified auditor [DTS Group](#) to evaluate the measure calculation process for HEDIS, AHRQ, and all dental quality measures (15).

Some HEDIS measures rely on medical record abstraction (for example, measures requiring specific laboratory results such as blood pressure reading). Others are enhanced through abstraction (for example, immunizations recorded based on records reviewed by the provider). NCQA specifies hybrid methods for these measures, which include sampling based on administrative criteria, followed by medical record review from the sample to determine compliance. For 10 HEDIS measures that require hybrid-sampling methodology, the EQRO receives measure results from each MCO. In addition, the MCOs are required to submit NCQA audit certification for each measure and the member-level data from each hybrid sample. The EQRO reviews all reported results and audit documents (i.e., per CMS EQR **Protocol 2: Validation of Performance Measures Reports by MCOs**). The hybrid rates for the MCOs are weighted by their eligible populations to produce overall statewide rates for these measures. The EQRO compares results for the HEDIS measures to benchmark percentiles that the NCQA compiles from Medicaid managed care plans nationally.

These national benchmarks provide a commonly used standard of comparison, but have some limitations:

- Rates from the national benchmarks combine administrative and hybrid results and reflect a mix of different methods.
- Limited information is available about the health and sociodemographic characteristics of members enrolled in Medicaid plans nationally, and it is not clear how these factors compare with Texans enrolled in Medicaid and CHIP.
- Submission of HEDIS data to NCQA is a voluntary process; therefore, MCOs that submit HEDIS data nationally may not fully represent the industry in Texas.
- Health plans participating in NCQA HEDIS reporting tend to be older, are more likely to be federally qualified, and are more likely to be affiliated with a national managed care company than U.S. MCOs overall.
- In addition to the NCQA benchmarks, the EQRO uses year-over-year comparisons, and trending across program comparisons and other publicly available comparison data to evaluate measure results.

The EQRO adapted software from AHRQ to calculate area measures and summarize results specific to the Texas Medicaid and CHIP populations. The EQRO uses program enrollee populations as general denominators rather than census-based population standards suggested in the AHRQ measure definitions.

Dental services are an important and required part of services for children in Medicaid and CHIP. The EQRO has worked extensively with Texas HHSC to develop an evaluation program for oral health that is scientifically sound and promotes accountability and improvement in the dental coverage programs. The EQRO has adapted some measures to reflect the age groups in specific dental programs, and developed other measures to evaluate specific services associated with Texas initiatives, such as the [Texas Health Steps \(THSteps\) program](#).

The 3M measures of PPEs evaluate health outcomes, safety, efficiency, and utilization rates, as well as costs associated with potentially avoidable care. Identified PPEs represent opportunities to improve the timeliness and access to care as well as the efficiency, quality, and coordination of care. The EQRO has worked closely with 3M to apply the grouping software to the Texas Medicaid and CHIP populations and provide both actionable information and reliable metrics that support P4Q initiatives.

In addition to reporting results to HHSC, the EQRO submits data on behalf of HHSC to CMS for both *Adult and Child Core Health Care Quality Measures*. These measure sets provide national- and state-level snapshots of the quality of care provided to adults and children enrolled in Medicaid and CHIP. Submission of results to CMS is voluntary; however, CMS supports improvements in uniform data collection and reporting and assists states in understanding how to use these data to improve the quality of care.

The [THLC portal](#) presents all performance measures that the EQRO calculates and evaluates. This site provides public access to quality-of-care measures, including HEDIS, AHRQ, and dental measures, and PPEs. Additionally, authorized users from HHSC, MCOs, and designated stakeholders have access to more in-depth PPE analyses, HHSC performance dashboard summaries, super-utilizer visualizations, and other quality evaluation resources.

HEDIS Results

The EQRO reports HEDIS results for Medicaid and CHIP annually by program, MCO, and SA. Results for all Medicaid programs and categorizes results by race, sex, and health status are included in reports delivered to HHSC via electronic report. The EQRO also posts annual HEDIS results publicly on the [THLC portal](#).

The EQRO also conducts quality evaluation for Texas FFS Medicaid, and these results are included in summary tables in this section. However, notably, most FFS enrollment in Texas represents transition into or between managed care programs, and only a limited population meets the longer enrollment criteria for many measures.

This section presents results for measures in the following HEDIS domains:

- Prevention and Screening
- Respiratory, Cardiovascular, Diabetes, and Musculoskeletal Conditions
- Behavioral Health
- Medication Management
- Overuse/Appropriateness
- Access/Availability
- Utilization

The EQRO compared HEDIS results to the national percentiles compiled by NCQA based on Medicaid Health Maintenance Organization (HMO) data submitted for the 2017 measurement year. The EQRO also compared HHSC 2017 performance dashboard standards for selected measures. Details on these standards are available in the Uniform Managed Care Manual (UMCM), Performance Indicator Dashboards for Quality Measures (16). Selected measures also include the range of results across MCOs within each program for comparison.

The AHRQ National Quality Measure Clearinghouse (NQMC), a joint initiative of AHRQ and DHHS previously provided detailed information on quality measures, which promoted further dissemination, implementation, and discussion, and led to a more informed healthcare decision-making process. The AHRQ NQMC was a vital resource that became unavailable after funding ended in 2018. Currently, the EQRO draws information on quality measures from other AHRQ resources, the NCQA State of Health Care Quality Report (17), and measure-specific information.

Prevention and Screening

Measures of preventive care assess rates of primary care visits, screenings, and vaccinations that aim to prevent the onset of disease and adverse health outcomes. Screening tests include standard evaluations for normal development or function as recommended for all patients in a specific age or sex group (e.g., developmental screening or hearing tests, or regular blood pressure testing) and tests for specific diseases or conditions, which may be recommended based on age, sex, or other risk factors (e.g., cancer or Chlamydia screening). This is different from diagnostic testing, such as a strep culture, which is done in response to symptoms. Appropriate screening provides important timely information that can improve outcomes and efficiency of care by allowing for earlier intervention or treatment. **Table 26** lists the seven HEDIS measures that the EQRO reports in this domain by program, in addition to the Oregon Health Science University measure for developmental screening (part of the *Child Core Health Care Quality Measures*) (18).

Table 26. EQRO Reporting on Prevention and Screening Measures

Measure	CHIP	STAR	STAR+PLUS	STAR Health	STAR Kids
HEDIS Effectiveness of Care					
<i>Prevention and Screening</i>					
ABA: Adult BMI Assessment			H ^a		
WCC: Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents					
BMI Percentile	H ^a	H ^a		A	H
Counseling for Nutrition	H ^a	H ^a		A	H
Counseling for Physical Activity	H ^a	H ^a		A	H
CIS: Childhood Immunization Status	H ^a	H ^a		A	H
IMA: Immunizations for Adolescents	A	A		A	A
BCS: Breast Cancer Screening		A	A ^a		
CCS: Cervical Cancer Screening		A ^a	H ^a		
CHL: Chlamydia Screening in Women	A ^a	A ^a	A ^a	A	A

H – Hybrid methodology used

A – Administrative methodology used

^a included on the HHSC performance dashboard

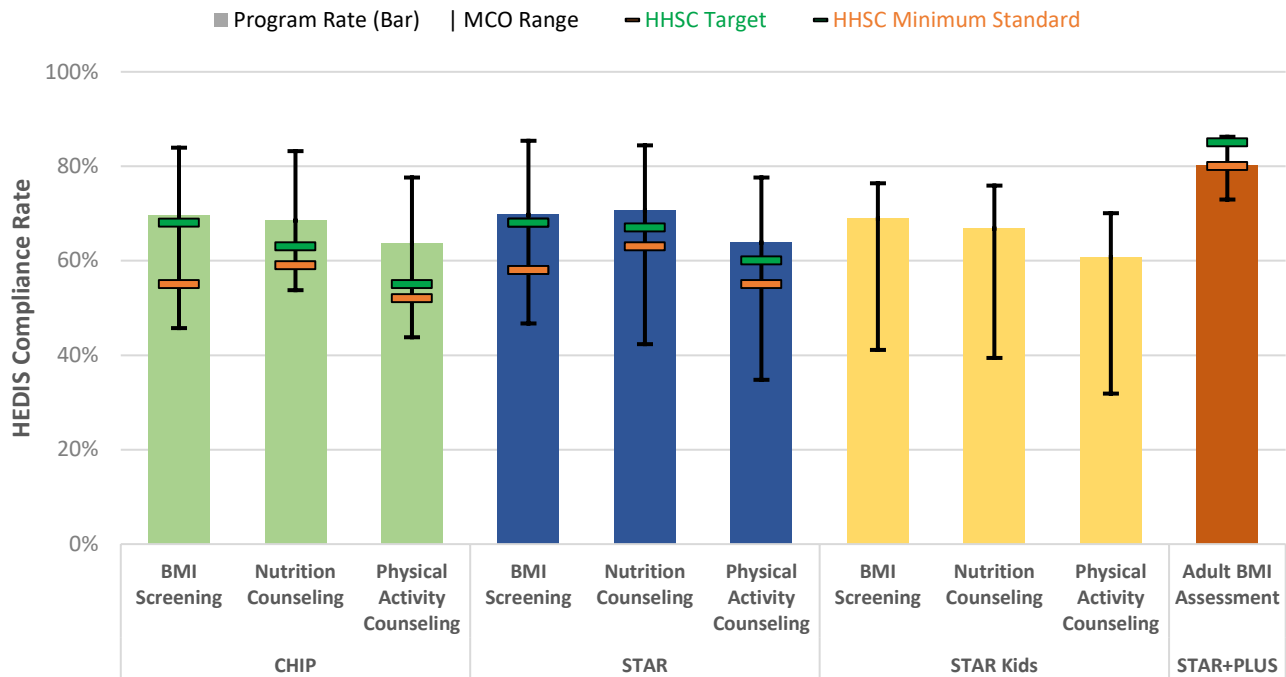
Performance on prevention and screening measures is generally poor-to-moderate across Texas Medicaid and CHIP programs relative to national benchmarks. Results in the charts below show measure performance against state-determined minimum and high standards.

Adult BMI Assessments and Weight Assessment (ABA) and Counseling for Nutrition and Physical Activity for Children/Adolescents (WCC)

A key component of preventive healthcare is counseling that occurs during regular health assessments or well-care visits. Obesity is a growing national health crisis and providers should address healthy weight management as part of any preventive health visit (19; 20; 21). The WCC measure addresses the rising prevalence of obesity among children. Overweight children and adolescents are more likely to become obese as adults, which highlights the importance of early intervention. Childhood obesity has more than doubled in children and tripled in adolescents in the past 30 years; in fact, one in five youth between 6 to 19 years are overweight. Because of these alarming statistics, obesity is now the primary health concern among U.S. parents, who express more concern about obesity than substance use and smoking. Currently, the costs associated with childhood obesity top \$14 billion per year in the United States, and obesity is a major risk factor for heart disease, Type 2 diabetes, stroke, and several types of cancer (20). **Figure 13** shows the 2017 performance on these measures along with the performance dashboard standards for CHIP, STAR, STAR Kids, and STAR+PLUS. Performance standards are not available for STAR Kids because 2017 was the first year for this program and these standards are based on the prior year's performance.

Most CHIP MCOs performed below the national average on nutrition and physical activity counseling.

Figure 13. 2017 Adult BMI Assessments (ABA) and Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents (WCC).



The CHIP P4Q program includes the nutrition and physical activity counseling sub-measures for WCC. CHC, CHRISTUS, and UHC performed below the HHSC minimum standard for both nutritional and physical activity counseling standards, while FirstCare, Molina, and Sendero fell below the set standards for nutrition counseling. Conversely, El Paso Health and Amerigroup performed above the 75th national percentile for both sub-measures.

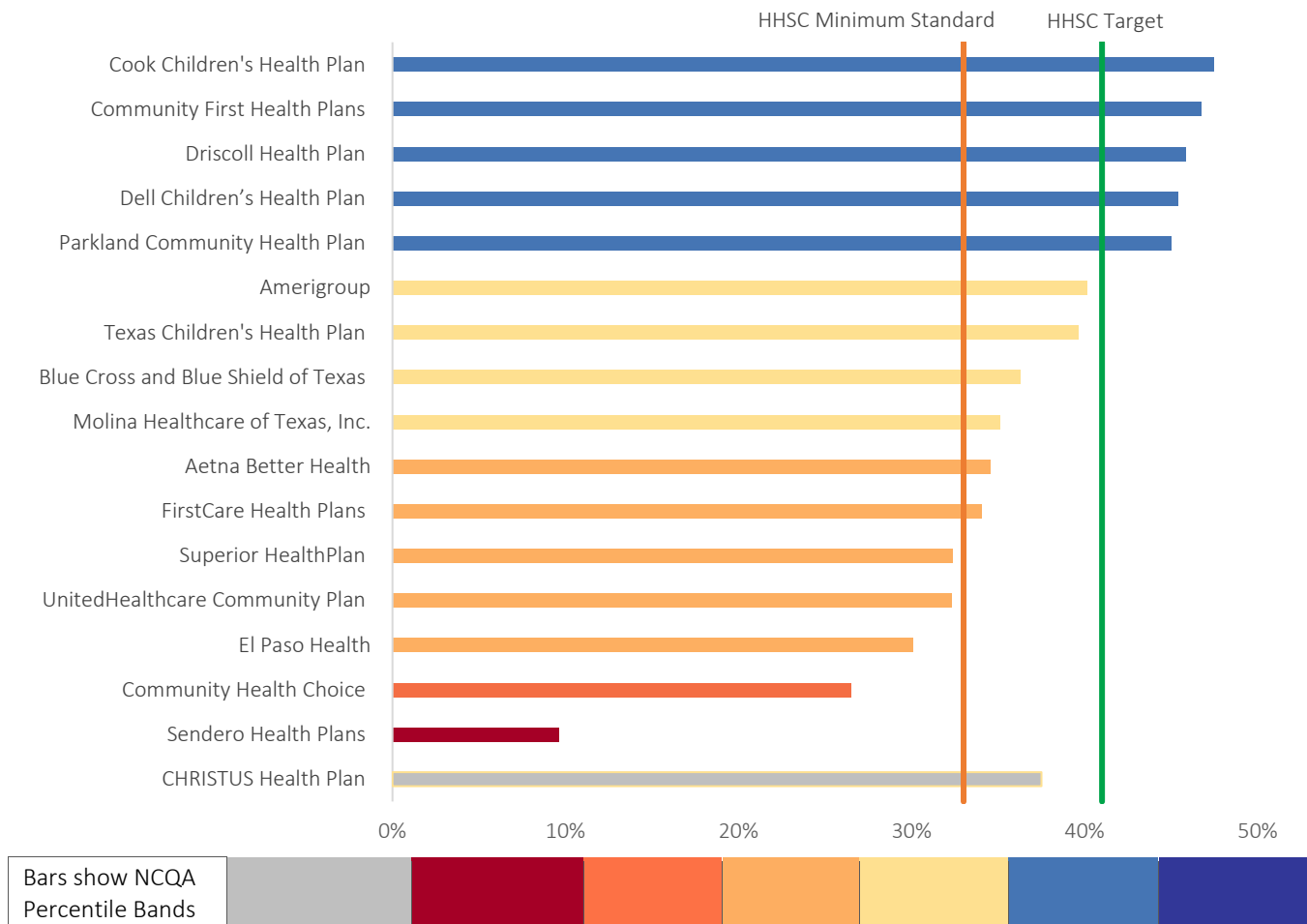
Childhood Immunization Status (CIS) and Immunizations for Adults (IMA)

Vaccinations are a proven way to help a child stay healthy and avoid the potentially harmful effects of childhood diseases. The Centers for Disease Control and Prevention provides recommendations for vaccination against 16 diseases for children and teens. Vaccination not only protects vaccinated children from disease, but also protects others in the family or community by preventing the spread of diseases. DHHS estimates that immunization prevents 14 million cases of disease, resulting in tens of millions of dollars in healthcare savings (22). HHSC evaluated program performance using the most complete vaccination recommendations in the measure definitions, CIS and IMA. HHSC also reviewed individual vaccine compliance.

Vaccination rates for Rotavirus, Influenza, and HPV lagged behind other immunizations and should be a focus for providers.

The CHIP P4Q program includes the CIS Combination 10 sub-measure. Performance varied widely across MCOs, with five MCOs performing above the 75th national percentile and two plans performing below the 25th percentile. Texas began evaluating MCOs for performance on CIS Combination 10 in 2015 and established the dashboard standards beginning in 2017. Prior to 2017, the performance dashboard included Combination 4 for evaluation. Combination 10 includes rotavirus and influenza vaccination in addition to the eight other vaccines included in Combination 4. **Figure 14** shows 2017 performance for Combination 10 for the CHIP MCOs.

Figure 14. 2017 Childhood Immunization Status (CIS) Performance on Combination 10 in CHIP



Most CHIP MCOs performed well on Combination 4, but due to low compliance on influenza vaccination, performance for Combination 10 was not as strong. Although five MCOs achieved the HHSC high standard, four other MCOs did not reach the HHSC minimum standard for Combination 10.

Performance in STAR was variable across MCOs for CIS Combination 4, with six MCOs performing above the 75th national percentile and five performing below the 50th percentile. Performance on CIS Combination 10 was consistently worse relative to national standards, with fewer than half of the MCOs performing above the 50th percentile and seven below the 25th percentile. Performance on IMA Combination 2 was below the 50th national percentile in both CHIP and STAR. STAR Health performance on measures for both CIS Combination 10 and IMA Combination 2 was below the 25th national percentile. The most frequently missed vaccinations were human papilloma virus (HPV), influenza, and rotavirus.

Breast Cancer Screening (BCS) and Cervical Cancer Screening (CCS)

Screening tests for cancer can help identify cancer at an earlier stage, before symptoms appear. Early detection generally provides more treatment options and better chances for survival (23). Breast cancer affects hundreds of thousands of women each year, and mammography can detect cancer too small to identify by manual palpation exam. Cervical cancer rarely causes symptoms in early stages, but is detectable using a Pap test. **Figure 15** shows 2017 performance on the BCS and CCS screening measures, which are included on the HHSC performance dashboards.

The STAR+PLUS P4Q program includes the CCS measure. All MCOs were at or below the 10th national percentile for this measure. Women with disabilities are less likely to have regular cervical cancer screening (24). This can be due to difficulties making or getting to appointments, expected or experienced environmental barriers to testing, or reluctance by providers to perform screening tests. Targeted interventions should focus on women with disabilities to improve compliance in this population.

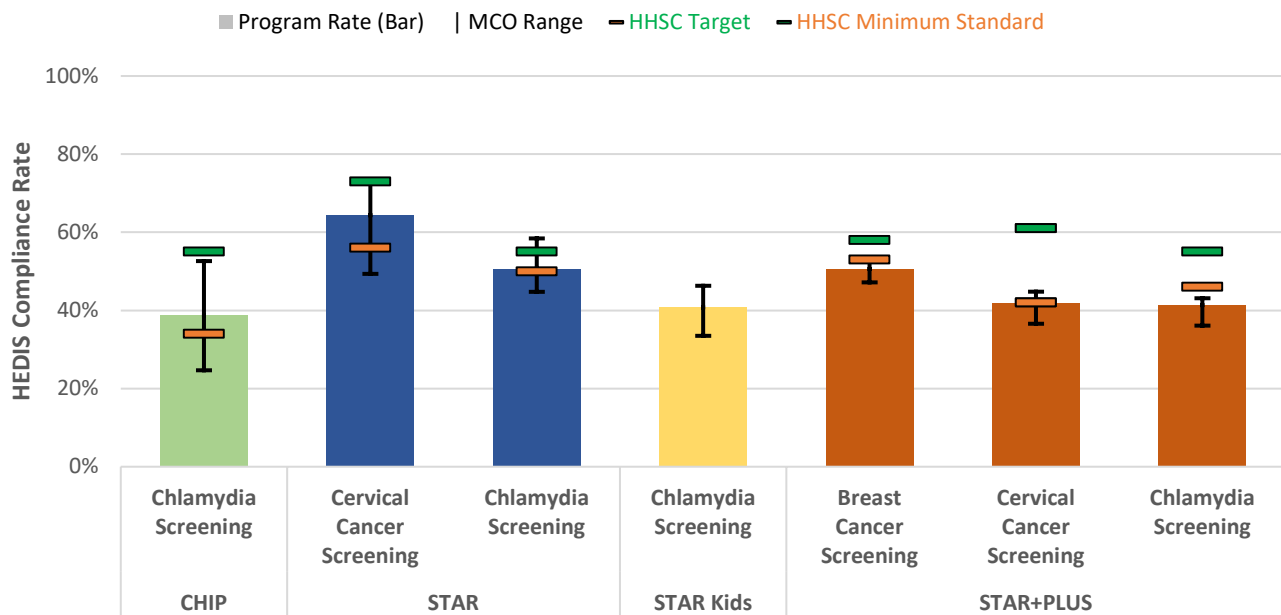
Cervical cancer screening rates for women in STAR+PLUS were very low, at less than the 10th national percentile, with all MCOs performing below the 25th percentile.

The state should work with MCOs to identify barriers to recommended screening and develop improvement strategies.

Chlamydia Screening in Women (CHL)

Chlamydia trachomatis is the most common sexually transmitted infection (STI) in the United States, infecting 3 million people each year (25). Most women do not experience symptoms, making screening an essential tool in identifying this treatable disease. Complications resulting from untreated disease include pelvic inflammatory disease, infertility, and ectopic pregnancy. **Figure 15** shows 2017 performance on the CHL measure along with the performance dashboard standards for CHIP, STAR, and STAR+PLUS. Almost half of STAR MCOs and all STAR+PLUS MCOs performed below the minimum standard set by HHSC. Performance was below the 10th national percentile for CHIP and STAR+PLUS.

Figure 15. Breast Cancer (BCS), Cervical Cancer (CCS), and Chlamydia (CHL) Screening



Developmental Screening

Developmental screening is recommended for all children at 9, 18, and 24 months of age because it better identifies potential developmental issues than surveillance alone. The Children's Health Insurance Program Reauthorization Act (CHIPRA) child core set of quality measures includes the rate of recommended screenings (18). These screenings are critical to identifying children at risk for developmental delays. Early identification should lead to better outcomes through further evaluation, diagnosis, and treatment. The Medicaid overall rate for *Developmental Screening in the First 3 Years of Life*, which includes over half a million children, was 47.46 percent for 2017; this was slightly better than in 2016. Performance was best in STAR Health (50.99 percent), but the rate for STAR Kids was only 42.05 percent. The rate for approximately 10,000 children in CHIP was 48.64 percent. Overall, Texas programs performed better than the national average on this measure in 2017; however, the national median rate is less than 40 percent.

The EQRO provided an issue brief on developmental screening to investigate why screening rates remain low despite better performance on other measures of well-child care. A key finding was that even among children that received well-care visits, almost half did not meet developmental screening requirements. A medical record review of THSteps services might provide more information about care delivery patterns and shed light on this observed discrepancy between well care and developmental screening. The screening rate varied across age groups and MCOs; across all programs, it was highest for Hispanic children and lowest in rural areas. The lower screening rates in rural areas may be because federally qualified health centers or rural health clinics serve many children in rural areas, and differences in billing practices may affect the calculation of rates.

Respiratory Conditions, Cardiovascular Conditions, and Diabetes

The HEDIS measure set includes several measures targeting conditions related to the respiratory and cardiovascular systems. Controlling chronic conditions in these systems is particularly important for the STAR+PLUS population, many of whom struggle with significant, multiple health issues. The STAR+PLUS P4Q program includes the *Controlling High Blood Pressure* (CBP) and *Comprehensive Diabetes Care* (CDC) measures. To

be most effective and efficient, high-quality care for chronic and acute conditions should promote the most appropriate treatments and minimize the need for emergent care. For 2017, the EQRO reported on nine HEDIS measures related to acute respiratory disease, chronic respiratory and cardiovascular conditions, and diabetes, as shown in **Table 27**.

Table 27. EQRO Reporting on Respiratory Condition Measures

Measure	CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids
HEDIS Effectiveness of Care					
<i>Respiratory Conditions</i>					
CWP: Appropriate Testing for children with Pharyngitis	A ^a	A ^a	A	A	A
SPR: Use of Spirometry Testing in the Assessment and Diagnosis of COPD			A		
PCE: Pharmacotherapy Management of COPD Exacerbation			A		
MMA: Medication Management for People with Asthma	A ^a	A ^a	A ^a	A ^a	A
AMR: Asthma Medication Ratio	A ^a	A ^a	A ^a	A	A
<i>Cardiovascular Conditions</i>					
CBP: Controlling High Blood Pressure		H ^a	H ^a		
SPC: Statin Therapy for Patients with Cardiovascular Disease		A	A		
<i>Diabetes</i>					
CDC: Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing		H ^a	H ^a		
HbA1c Control (<8.0%)		H ^a	H ^a		
BP Control (<140/90 mmHg)		H ^a	H ^a		
Eye Exam		A ^a	A ^a		
Medical Attention for Nephropathy		A ^a	A ^a		
SPD: Statin Therapy for Patients with Diabetes		A	A		
H – Hybrid methodology used					
A – Administrative methodology used					
^a included on the HHSC performance dashboard					

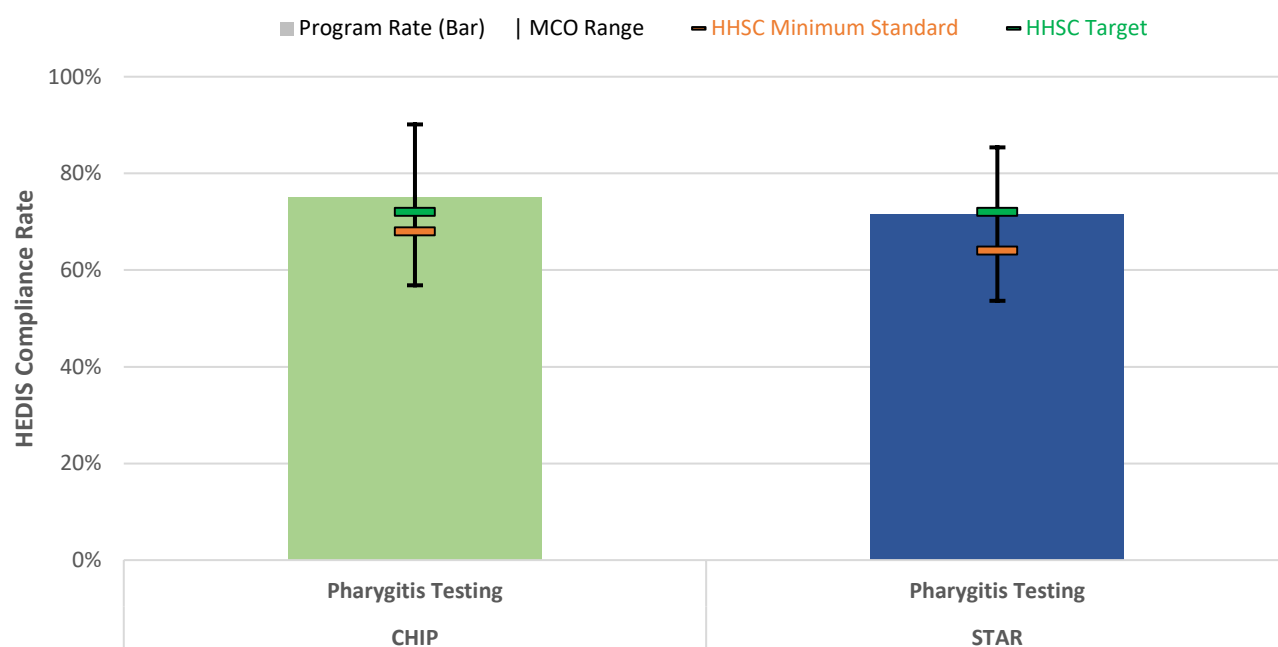
Despite receiving national attention, asthma, chronic obstructive pulmonary disease (COPD), cardiovascular disease, and diabetes continue to be major health issues in the United States. Although not all of the HEDIS performance measures listed in **Table 27** for these conditions are included in P4Q programs, these conditions are responsible for large numbers of potentially preventable events. These conditions are also responsive to high-quality preventive care, and developing interventions around these performance measures may improve both the effectiveness and efficiency of care, promote better health, and reduce expenditures resulting from preventable episodes of acute care.

Appropriate Testing for Children with Pharyngitis (CWP)

Antibiotics are not recommended treatment for most upper respiratory infections, which are typically viral and thus not responsive to antibiotics. The Centers for Disease Control and Prevention considers antibiotic resistance a major health concern, and inappropriate prescription of antibiotics is costly (26). The CWP measure considers whether children diagnosed with pharyngitis and prescribed antibiotics received testing for streptococcus. Three STAR and four CHIP MCOs failed to meet the HHSC minimum standards for this measure. Improvement in this

area may reduce medical costs and help address a serious national health issue. **Figure 16** shows the 2017 performance on this measure.

Figure 16. Appropriate Testing for Children with Pharyngitis (CWP)



Use of Spirometry Testing in the Assessment and Diagnosis of COPD (SPR) and Pharmacotherapy Management of COPD Exacerbation (PCE)

Spirometry testing is a simple method of evaluating airflow for individuals suspected of having COPD or being at risk for it. Although COPD is the fourth leading cause of death in the United States, evidence suggests that more than 40 percent of all cases are undiagnosed (27). Earlier diagnosis improves management of symptoms and decreases the number of exacerbations of this irreversible condition. The SPR measure identifies whether new diagnoses of COPD were confirmed or made based on spirometry testing. Overall, 2017 performance on this measure was below the 25th national percentile in STAR+PLUS. However, performance in the Hidalgo and El Paso SAs was above the 75th percentile. The MCOs performing exceptionally well in Hidalgo and El Paso do not have similar performance in other SAs, suggesting that this finding has a service area effect. However, reasons for the higher rates in Hidalgo and El Paso have not been determined. The PCE measure evaluates medication management for COPD following an ED visit or hospital discharge for COPD. Interestingly, 2017 performance on both sub-measures was lowest in El Paso and third lowest in both sub-measures in Hidalgo. The denominators for SPR and PCE were new COPD diagnoses and acute care episodes for COPD, respectively. Overall, the ratio of acute episodes to new diagnoses was almost two to one, but in Hidalgo and El Paso, it was almost one to two. Understanding variation in care patterns and how differences are reflected in patient outcomes can strengthen statewide initiatives to improve care.

Asthma Medication Ratio (AMR) and Medication Management for People with Asthma (MMA)

Asthma is a treatable condition affecting millions of Americans and costing billions of dollars in total medical costs. Using appropriate medication for controlling asthma is more effective and efficient than relying on rescue medication and acute care (28). The EQRO currently evaluates two quality measures for asthma care for Texas

CHIP and Medicaid; these measures address the type of medications used and whether control medication use is consistent.

The AMR measure considers the ratio of controller versus reliever (i.e. rescue) medications dispensed. Compliant members are those who receive more controller than rescue medication. Texas CHIP MCOs uniformly perform well on this measure, with overall 2017 performance in CHIP above the 90th national percentile. For STAR, overall performance was above the 50th percentile, but the majority of MCOs fell below the 50th percentile or performed poorly in at least one service area. In comparison to the previous year, the rates for AMR for STAR have decreased across MCOs. Performance in the Nueces, Bexar, Lubbock, and MRSA West SAs is lower relative to overall performance in the state and across MCOs.

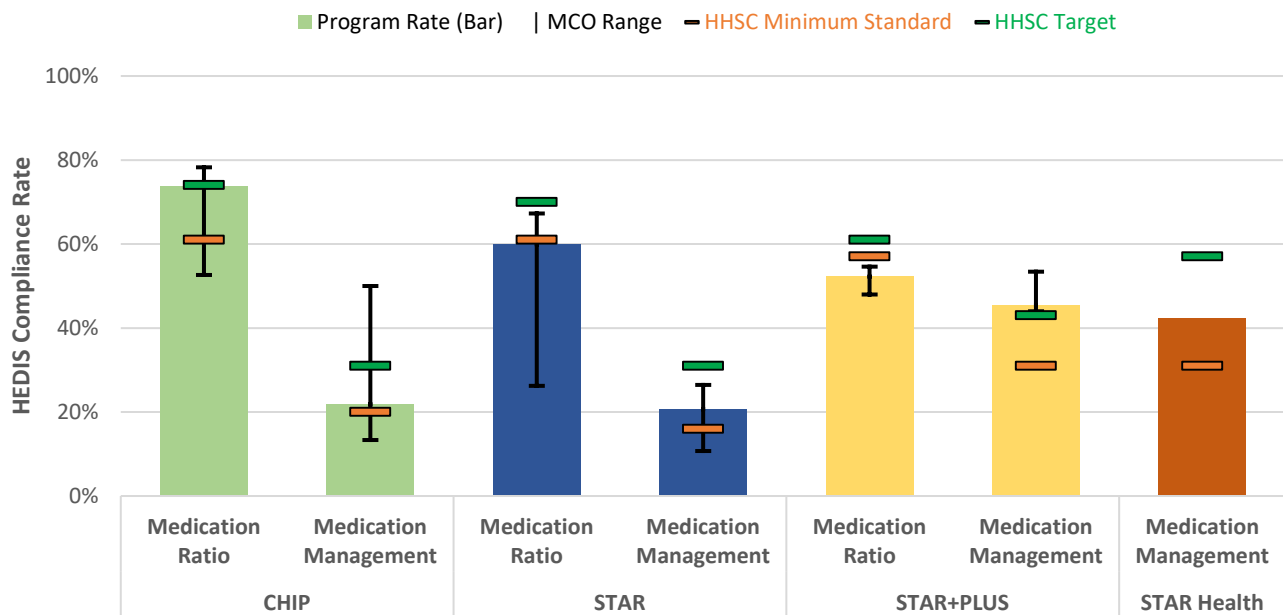
The MMA measure considers whether providers dispensed controller medication to provide treatment for more than 75 percent of days covered. Although rates have improved slightly each year, 2017 performance in CHIP and STAR was very low; indeed, it fell below the 10th national percentile overall. Most CHIP MCOs failed to meet the minimum HHSC performance standard. In STAR Health, performance was above the 50th percentile on both measures, which met the HHSC minimum standard of 31 percent, but not the HHSC high standard of 57 percent. STAR+PLUS performed better on the MMA measure than CHIP and STAR.

The performance dashboards for CHIP, STAR, and STAR+PLUS included both asthma measures, which were the focus of performance improvement projects for a few MCOs. The STAR Health performance dashboard included the medication management measure. **Figure 17** shows 2017 performance on these measures by program. Due to the required enrollment period for these measures, they were not applicable for STAR Kids at the program level in 2017.

Although performance on the asthma medication ratio measure (AMR) is high for CHIP and moderate for STAR, medication management (MMA) is extremely poor across programs.

Failure to adhere to treatment increases the possibility of asthma related admissions; asthma is the second most common reason for PPAs.

Figure 17. Asthma Medication Ratio (AMR) and Asthma Medication Management (MMA)



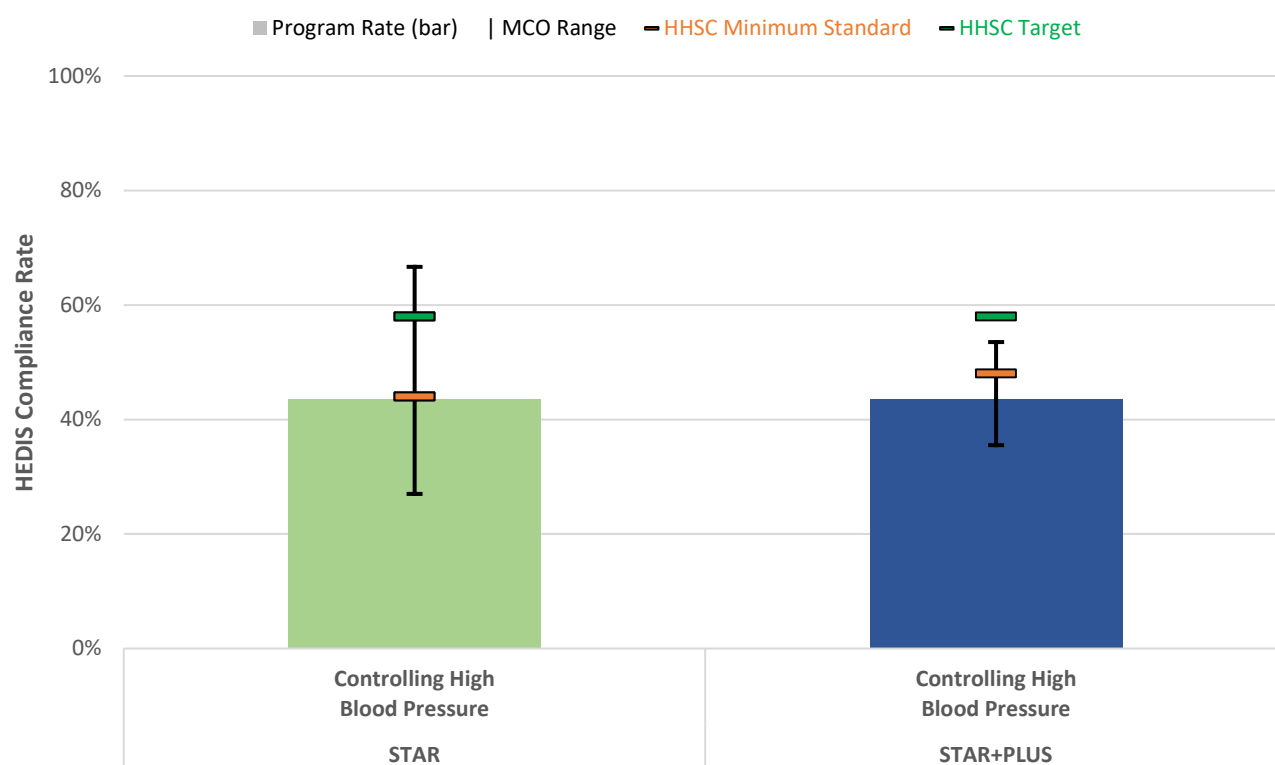
Controlling High Blood Pressure (CBP)

Cardiovascular disease is the leading cause of death in the United States, and it is responsible for one in every four deaths. Hypertension, one aspect of cardiovascular disease, is controllable with diet, lifestyle, and medication management (29). The CBP measure evaluates whether patients with diagnosed hypertension are adequately controlling their blood pressure. **Figure 18** shows the 2017 performance on this measure, which is included in the HHSC performance dashboards for STAR and STAR+PLUS. With few exceptions, performance on this measure was poor in the STAR program, with the overall performance falling below the 25th national percentile. The CBP measure is also included in the STAR+PLUS P4Q program. For the 2017 measurement year, overall performance was below the 25th national percentile, and most MCOs failed to meet the minimum HHSC performance standard.

With few exceptions, performance on the controlling high blood pressure (CBP) measure was poor in both the STAR and STAR+PLUS programs, with the overall performance falling below the 25th national percentile.

HHSC should focus on improving performance for this measure, which is part of the P4Q program and affects nearly 60,000 STAR+PLUS members.

Figure 18. Controlling High Blood Pressure (CBP)



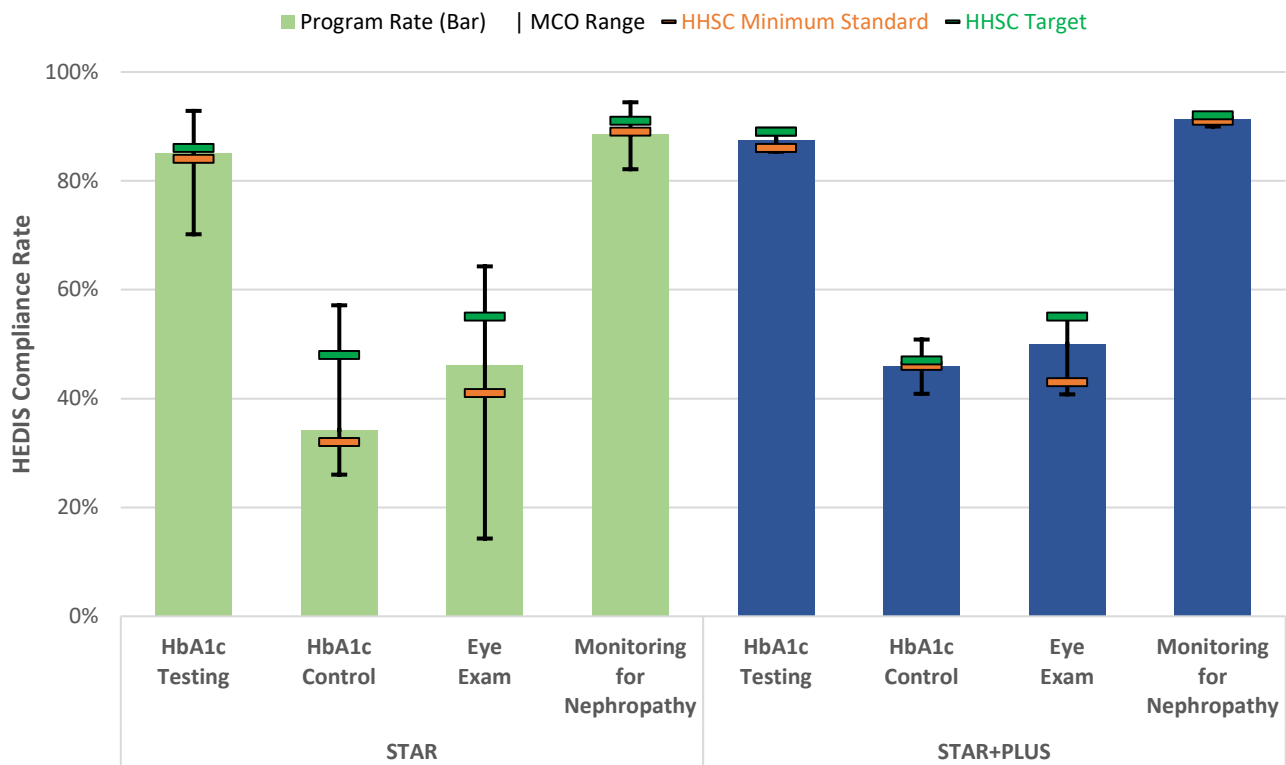
Statin Therapy for Patients with Cardiovascular Disease (SPC)

Statins are drugs used to inhibit cholesterol formation and thus lower cholesterol in the blood. The use of statins can reduce complications related to cardiovascular disease. The SPC measure evaluates patients with cardiovascular disease who received and adhered (greater than 80 percent of covered days) to high- or medium-intensity statin therapy. Nationally, adherence to statin therapy is low and performance for STAR+PLUS (the program providing services to almost all Medicaid members eligible for this measure) was below the 50th national percentile for both sub-measures. Improvement on this measure could enhance the quality of cardiovascular care and reduce the need for acute treatment for heart attacks.

Comprehensive Diabetes Control (CDC)

Diabetes affects more than 25 million Americans and complications related to the disease cost more than \$245 billion annually. Effective diabetes management and monitoring can prevent many of these complications (30). The CDC sub-measures include monitoring and control of HbA1c (an indicator of average blood sugar over time), screening for diabetic retinal disease, and screening or treatment for diabetic nephropathy (both caused by vascular damage resulting from chronic high blood sugar). **Figure 19** shows the 2017 performance on the CDC sub-measures included on the HHSC performance dashboards for STAR and STAR+PLUS. For STAR, performance on these sub-measures relative to national standards was low overall, with most falling below the 25th national percentiles; however, rates varied widely by MCO, ranging from below the 10th to above the 75th national percentile. The STAR+PLUS P4Q program includes the adequate HbA1c control (less than 8) sub-measure. In 2017, all MCOs performed below the 50th national percentile.

Figure 19. Comprehensive Diabetes Care (CDC)



The EQRO also provided an issue brief on adult diabetes in Texas Medicaid. This report showed that the overall prevalence of diabetes in adult Medicaid enrollees aged 18 to 65 was seven percent, but certain populations had much higher rates. For example, the STAR+PLUS program had the highest rate (23 percent) with over 60,000 diabetic members, most of whom (over 50,000) were between the ages of 46 and 65. In this age group, female and Hispanic members had the highest prevalence rates for diabetes. Another key finding was that most diabetic members in STAR and STAR+PLUS had co-occurring behavioral health and/or other chronic physical health conditions, which can make it hard to manage diabetes effectively. When the EQRO compared potentially preventable events to compliance on measures for HbA1c testing and control, unsurprisingly, compliant members had fewer Potentially Preventable Visits (PPVs) and Potentially Preventable Admissions (PPAs) than members who did not comply with HbA1c testing and control.

Most members with diabetes in STAR and STAR+PLUS had co-occurring behavioral health and/or other chronic physical health conditions, which can make it hard to manage diabetes effectively.

Statin Therapy for Patients with Diabetics (SPD)

Diabetes increases the risk for cardiovascular disease, in part due to elevated cholesterol levels. Thus, healthcare providers recommend statin therapy for patients with diabetes over 40 years of age (31). The SPD measure evaluates the percentage of patients with diabetes without cardiovascular disease that receive statin therapy, as well as their adherence to therapy. Overall, 2017 performance for this measure was low for STAR, which provides coverage for about five percent of Medicaid members eligible for the measure. Performance in STAR+PLUS was better for members receiving statin therapy, but the rate for adherence was below the 50th national percentile.

Behavioral Health

More than one-quarter of the population is diagnosed with a mental disorder. In the future, the portion with behavioral health disorders may surpass the portion with a physical disability (32). In addition, healthcare spending for mental health treatment exceeds \$100 million per year in the United States, with Medicaid as the single largest payer for mental health services. Medicaid beneficiaries with behavioral health diagnoses account for a significantly disproportionate amount of overall healthcare spending (33). Access to behavioral health services, including substance use treatment and integration of behavioral and physical health services, are national priorities. The HEDIS measures in this domain address follow-up care, medication management, and challenges of co-occurring conditions. **Table 28** shows the EQRO reporting on 10 HEDIS behavioral health measures.

Table 28. EQRO Reporting on Behavioral Health Measures

Measure	CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids
HEDIS Effectiveness of Care					
<i>Behavioral Health</i>					
AMM: Antidepressant Medication Management		A ^a	A ^a	A	
ADD: Follow-Up Care for Children Prescribed ADHD Medication	A ^a	A ^a	A ^a	A ^a	A
FUH: Follow-Up After Hospitalization for Mental Illness	A ^a	A ^a	A ^a	A ^a	A
FUM: Follow-Up After Emergency Department Visits for Mental Illness	A	A	A	A	A
FUA: Follow-Up After Emergency Department Visits for Alcohol and Other Drug Dependence	A	A	A	A	A
APM: Metabolic Monitoring for Children and Adolescents on Antipsychotics	A	A		A	A
SSD: Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications		A	A		
SMD: Diabetes Monitoring for People with Diabetes and Schizophrenia		A	A		
SMC: Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia			A		
SAA: Adherence to Antipsychotic Medications for Individuals with Schizophrenia		A	A		

A – Administrative methodology used

^a included on the HHSC performance dashboard

Antidepressant Medication Management (AMM)

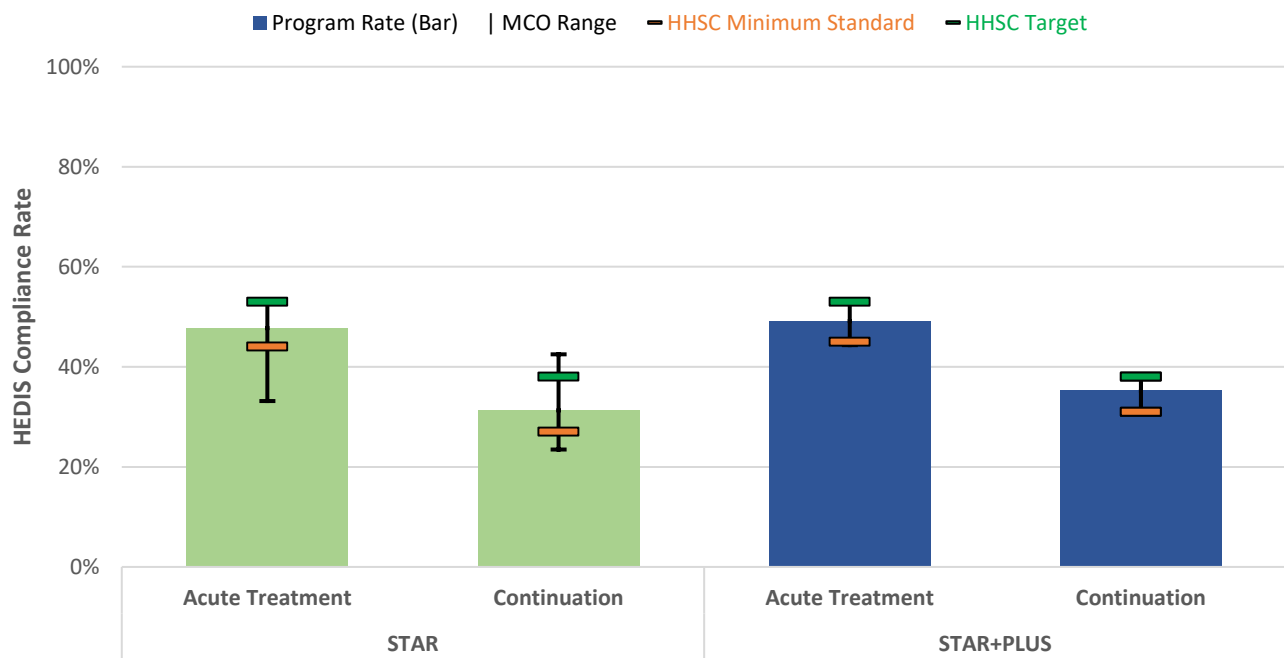
Adherence to medication plans is vital to effectively managing behavioral health conditions. Non-compliance can lead to worsening conditions or the avoidable need for acute care. Even missing a few doses of medication can have serious consequences for behavioral health conditions. Close adherence to treatment plans is critical for the 20 million Americans with depressive disorders. The AMM measure evaluates the success of adults' adherence to antidepressant medication during the first three or six months following diagnosis.

Performance on this measure was poor across programs, especially in comparison to national benchmarks (below

Performance on the anti-depressant management measure was poor relative to national benchmarks, across all programs.

the 50th percentile across Medicaid for both sub-measures). **Figure 20** shows 2017 performance on the AMM sub-measures on the HHSC performance dashboards.

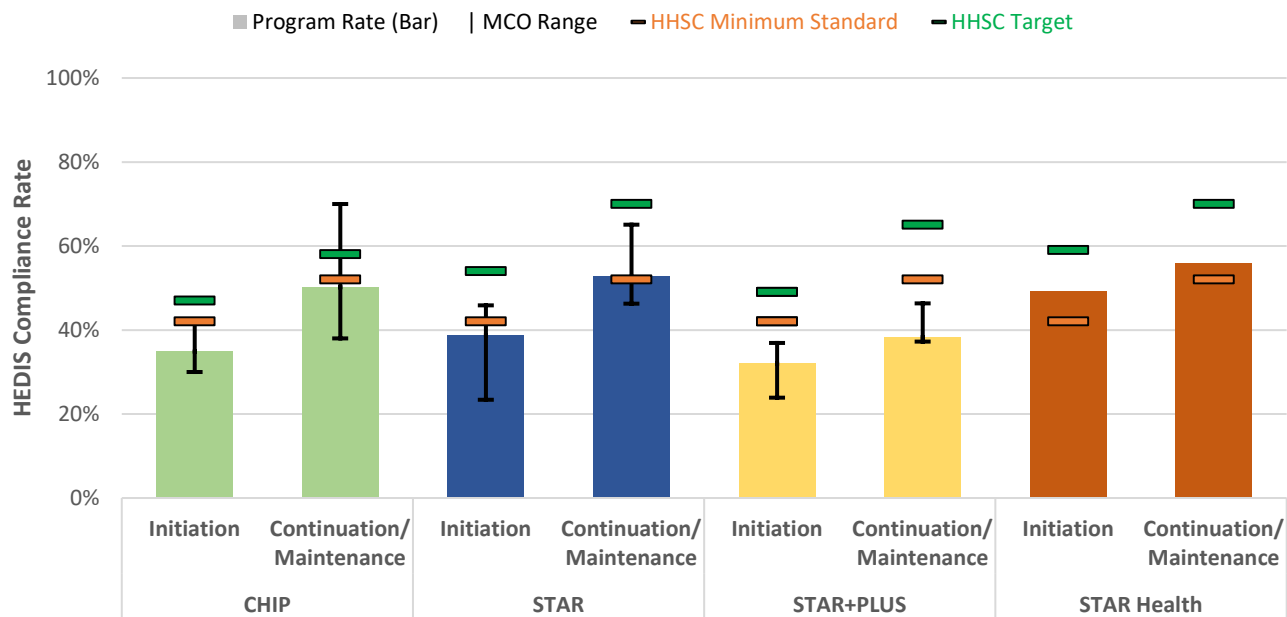
Figure 20. Antidepressant Medication Management (AMM)



Follow-Up Care for Children Prescribed ADHD Medication (ADD)

Attention deficit hyperactivity disorder (ADHD) affects 10 percent of school age children, who may have difficulty with academics, relationships, and personal interactions. When healthcare providers appropriately manage medication, it can control symptoms of ADHD. It is important, however, that healthcare providers monitor treatment monthly for the first six months and every six months thereafter (34). Rates for the ADD measure were low across programs in 2017. **Figure 21** shows 2017 performance on the ADD measures on HHSC performance dashboards. Due to the required enrollment period for these measures, they did not apply to STAR Kids in 2017. In 2016, only STAR Health and some STAR MCOs met the minimum standard for these measures. Performance was similar in 2017, although some CHIP MCOs met the HHSC minimum standard and one CHIP MCO, Amerigroup, met the HHSC high standard.

Figure 21. Follow-Up Care for Children Prescribed ADHD Medication (ADD)



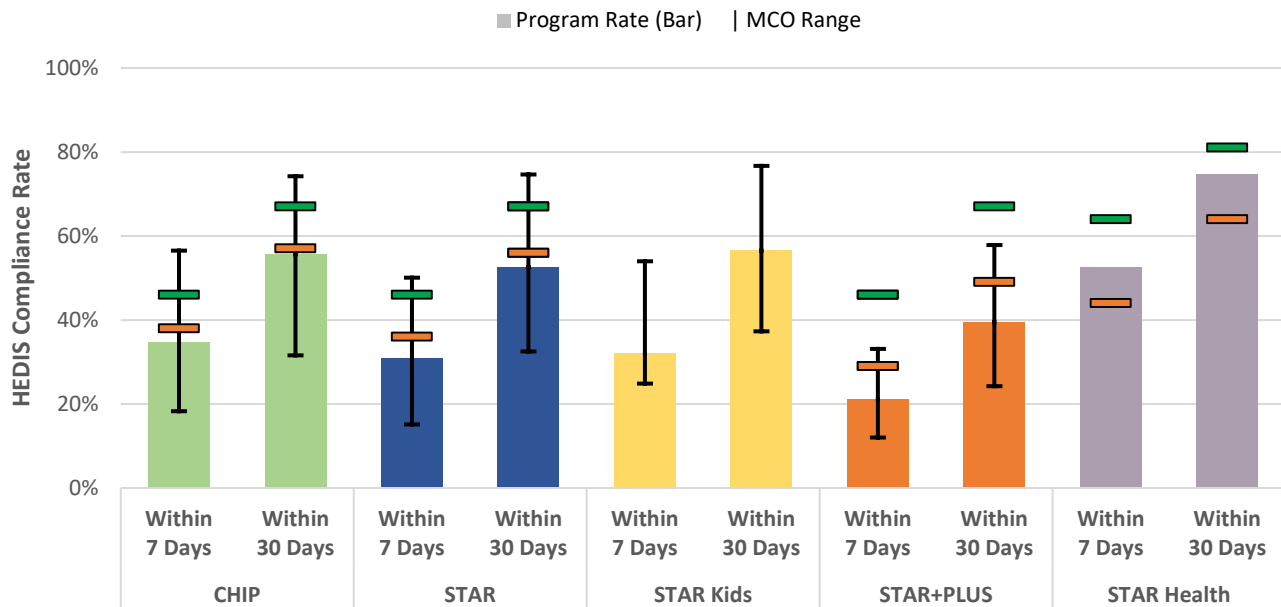
Adherence to Antipsychotic Medication for Individuals with Schizophrenia (SAA)

For patients with schizophrenia, medication non-adherence is a significant cause of relapse. The SAA measure evaluates adherence to anti-psychotic medication for at least 80 percent of the measurement year. Performance on this measure in 2017 was generally low for patients in STAR and FFS. Performance on SAA in STAR+PLUS, which provides the majority of care for Medicaid patients with schizophrenia, was below the 50th national percentile. This finding was generally consistent across MCOs and SAs, with the exception of the El Paso SA, where performance was above the 75th percentile.

Follow-Up After Hospitalization for Mental Illness (FUH)

Follow-up care helps sustain the benefits of care and enables the monitoring of problems with medication or treatment. Performance on the measure of follow-up care after hospitalization for mental illness (FUH) was generally low relative to national benchmarks. **Figure 22** shows 2017 performance on the FUH sub-measures and HHSC performance dashboards standards.

Figure 22. Follow-Up Care after Hospitalization for Mental Illness (FUH)



Differences by MCO and SA indicate that higher FUH rates are attainable. For example, in STAR, Driscoll Health Plan performed above the 75th national percentile for thirty-day follow-up. This MCO performed better than average in the Nueces SA, but they performed best in the Hidalgo SA. Hidalgo was the only SA to perform above the 75th percentile. Aside from Driscoll, UHC also performed above the 75th percentile within Hidalgo SA, but performed below the 75th percentile in other SAs. In contrast, Molina performed below the 25th percentile in Hidalgo and overall (across four SAs). These results suggest that both geographic differences and MCO differences influenced performance on this measure.

Behavioral health follow-up care varied widely by MCO/SA.

Identifying the reasons for differences in outcomes can increase the effectiveness of improvement strategies.

Follow-Up After Emergency Department Visit for Mental Illness (FUM), and Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (FUA)

The national benchmark data became available in 2017 for the FUM and FUA measures. The rates were moderate for FUM, but STAR Health performed above the 75th national percentile for this measure. On the other hand, the rates for follow up after ED visit for alcohol were extremely low across all programs and below the 10th national percentile across all Medicaid members. Variation in these two measures occurred more frequently by SA than MCO, suggesting geographic differences in how the care delivery system integrated ED services.

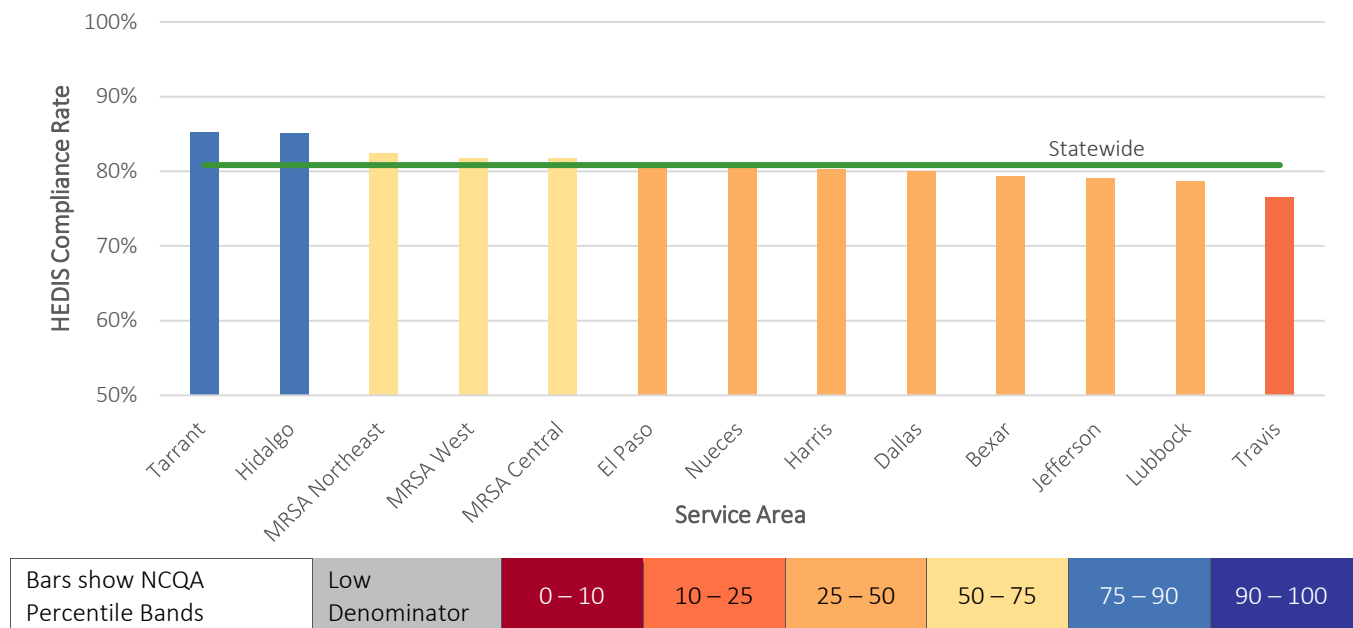
Behavioral Health and Co-Existing Conditions

The remaining behavioral health measures address co-existing conditions in adults with schizophrenia or bipolar disorder and include other measures related to diabetes screening (*Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who are Using Antipsychotic Medications* [SSD]), diabetes monitoring (*Diabetes Monitoring for People with Diabetes and Schizophrenia* [SMD]), and cardiovascular monitoring (*Cardiovascular Monitoring for people with Cardiovascular Disease and Schizophrenia* [SMC]) (35). For children, a metabolic monitoring measure is included (*Metabolic Monitoring for Children and Adolescents on Antipsychotics* [APM]).

Schizophrenia has been directly linked to metabolic disorders (MD), and the use of antipsychotic medications can further increase risk for MD (36). Lifestyle factors associated with schizophrenia (e.g., poor diet, substance use) may also contribute to the risk of diabetes. As with the SAA measure, performance on the adult measures was low for STAR and FFS. For all three measures, overall performance in STAR+PLUS was close to the 50th national percentile and this result was consistent across MCOs. Notably, rates varied more by SA. Tarrant and Hidalgo performed above the 75th percentile, and Travis performed below the 25th percentile.

The STAR+PLUS P4Q program includes the SSD measure. Understanding the geographic differences in rates would help MCOs improve performance on this measure. **Figure 23** shows SSD rates for this population.

Figure 23. Diabetes Screening for Adults with Schizophrenia and Bipolar Disorder Using Antipsychotics (SSD) in STAR+PLUS by Service Area



Medication Management

Medications improve quality of life for millions of Americans. However, when patients do not take them properly, adverse events can occur that result in hospitalizations and increased healthcare costs. Medication management includes taking the appropriate medications on time, avoiding dangerous medication interactions, and monitoring the treatment of conditions that might be affected by medications to allow for adjustments to treatment plans (37).

Annual Monitoring for Patients on Persistent Medications (MPM)

The MPM measure examined treatment for a common group of medications that can have negative effects, particularly in the elderly, when use is not appropriately monitored and adjusted. Results are reported for the STAR+PLUS program. Overall, performance was above the 90th national percentile and consistently high across both MCOs and SAs.

Overuse/Appropriateness

Measures of overuse and appropriateness consider common treatments or screening tests that are often misdirected and can result in poor health outcomes. As shown in **Table 29**, the EQRO reported on three HEDIS

measures of overuse that are included in HHSC performance dashboards. Two new measures addressing opioid use were added for 2017.

Table 29. EQRO Reporting on Overuse/Appropriateness Measures

Measure	CHIP	STAR	STAR+PLUS	STAR Health	STAR Kids
HEDIS Effectiveness of Care					
<i>Overuse/Appropriateness</i>					
URI: Appropriate Treatment for Children with Upper Respiratory Infection	A ^a	A ^a		A	A
AAB: Avoidance of Antibiotic Therapy for Adults with Acute Bronchitis		A ^a	A ^a		
APC: Use of Multiple Concurrent Antipsychotics in Children and Adolescents	A	A		A	A
UOD: Use of Opioids at High Dosage		A	A		
UOP: Use of Opioids from Multiple Providers		A	A		

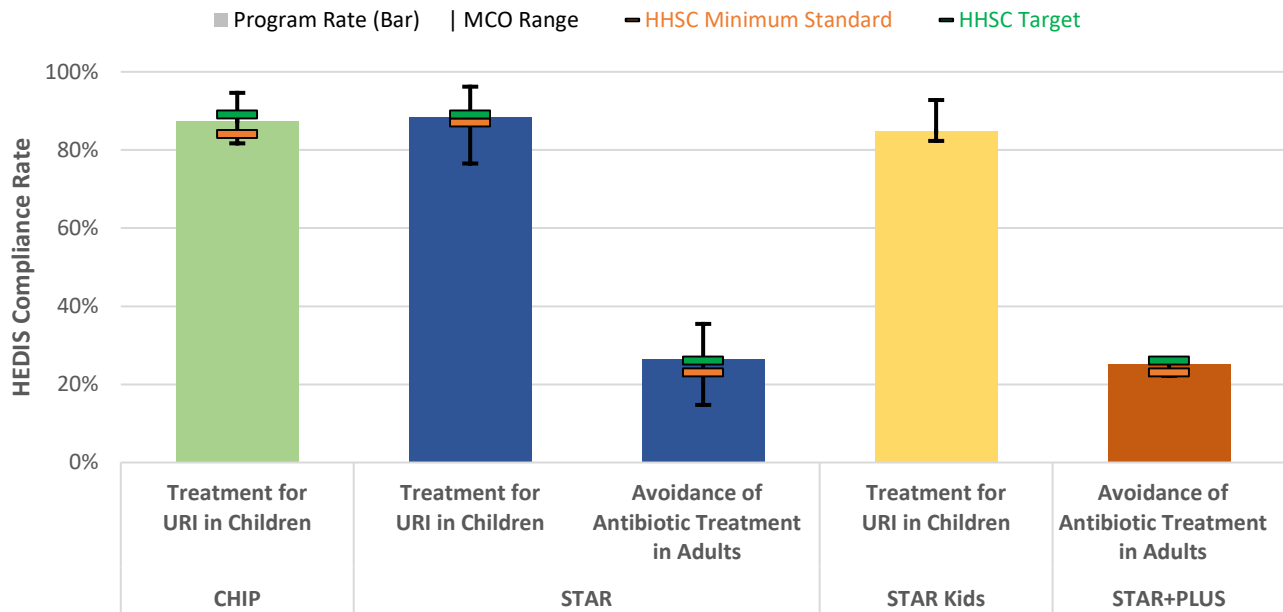
A – Administrative methodology used

^a included on the HHSC performance dashboard

Appropriate Treatment for Children with Upper Respiratory Infection (URI) and Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis (AAB)

Texas continues to focus on the inappropriate use of antibiotics. According to the Centers for Disease Control and Prevention, healthcare providers write an estimated 47 million unnecessary prescriptions each year, representing 30 percent of dispensed antibiotics (26). The URI measure evaluates inappropriate use of antibiotics in children. The measure is reported as an inverted rate (i.e., the number of URI cases with antibiotics prescribed are counted and the reported rate is one minus the counted rate). The AAB measure similarly counts the cases of adult bronchitis with inappropriate antibiotics dispensed and is reported as an inverted rate. **Figure 24** shows the 2017 results for these measures, which were included in the HHSC performance dashboards for CHIP, STAR, and STAR+PLUS.

Figure 24. Appropriate Treatment for Children with Upper Respiratory Infection (URI) and Avoidance of Antibiotic Therapy for Adults with Acute Bronchitis (AAB)



Use of Multiple Concurrent Antipsychotics in Children and Adolescents (APC)

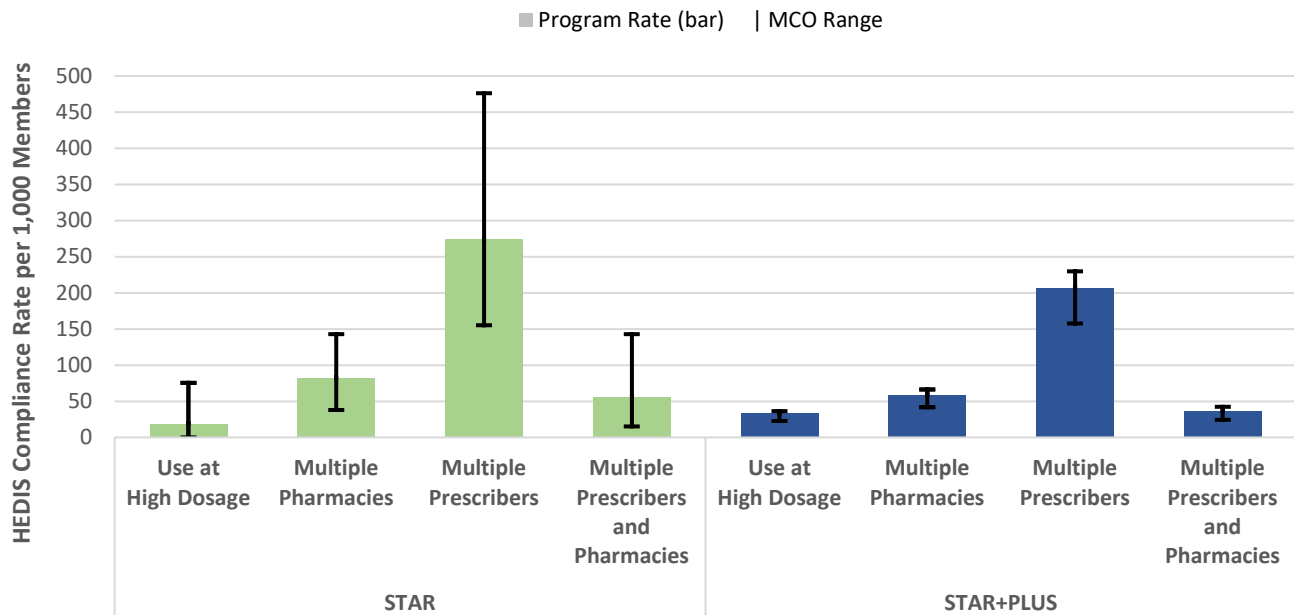
Although the frequency of prescribing antipsychotics to children has increased dramatically, studies of safety and efficacy for some common combination or off-label uses are lacking. As a result, the American Academy of Child and Adolescent Psychiatry recommends that clinicians currently avoid the use of multiple concurrent antipsychotic medications for children and adolescents (38). The APC measure provides monitoring of this practice. Unlike most other measures in this report, lower APC rates indicated better performance. Performance in Texas was generally good relative to national benchmarks, although the denominators were often small and the national percentile ranges were narrow.

Use of Opioids at High Dosage (UOD) and Use of Opioids from Multiple Providers (UOP)

Opioid use is recognized as a public health emergency, and Medicaid and CHIP provide coverage to more than a quarter of the over 2 million Americans living with opioid addiction (39). Healthcare related to opioid use is estimated to cost hundreds of billions of dollars annually in the U.S., where Americans consume 80 percent of the global opioid supply (40). In 2015, more Americans used prescription painkillers than tobacco products, and two thirds of new heroin users report prior misuse of prescription opioids that were more expensive or harder to obtain than heroin (41). Two new measures provide information on opioid use. The first measure, UOD, addresses use of opioids at high dosage, and the second, UOP, addresses drug-seeking behavior by evaluating use of opioids from multiple providers. **Figure 25** shows the 2017 rates (per 1,000 members) for these measures in STAR and STAR+PLUS. The EQRO also conducted more in-depth analyses of opioid use as described in **QTR 2: The Opioid Epidemic and Opioid Medication Overutilization in Texas Medicaid, 2016**.

Rates were highest on the measure of members using multiple prescribers. Variation across MCOs suggests that improvement is possible.

Figure 25. Use of Opioids at High Dosage (UOD) and from Multiple Providers (UOP) per 1,000 Members



Access and Availability of Care

The measures in the domain of access and availability addressed access to primary care, maternal care, substance use treatment, and psychosocial care for children and teens. These measures consider the percentage of eligible members utilizing preventive, routine, or treatment services. The EQRO reported on five measures in this HEDIS domain, as shown in **Table 30**.

Table 30. EQRO Reporting on Access and Availability of Care

Measure	CHIP	STAR	STAR+PLUS	STAR Health	STAR Kids
HEDIS Access/Availability of Care					
AAP: Adults' Access to Preventive/Ambulatory Health Services		A	A		
CAP: Children and Adolescents' Access to Primary Care Practitioners	A ^a	A ^a		A ^a	A
IET: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	A	A ^a	A ^a	A	A
PPC: Prenatal and Postpartum Care	A	H ^a	A ^a	A	A
APP: Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics	A	A		A	A

H – Hybrid methodology used

A – Administrative methodology used

^a included on the HHSC performance dashboard

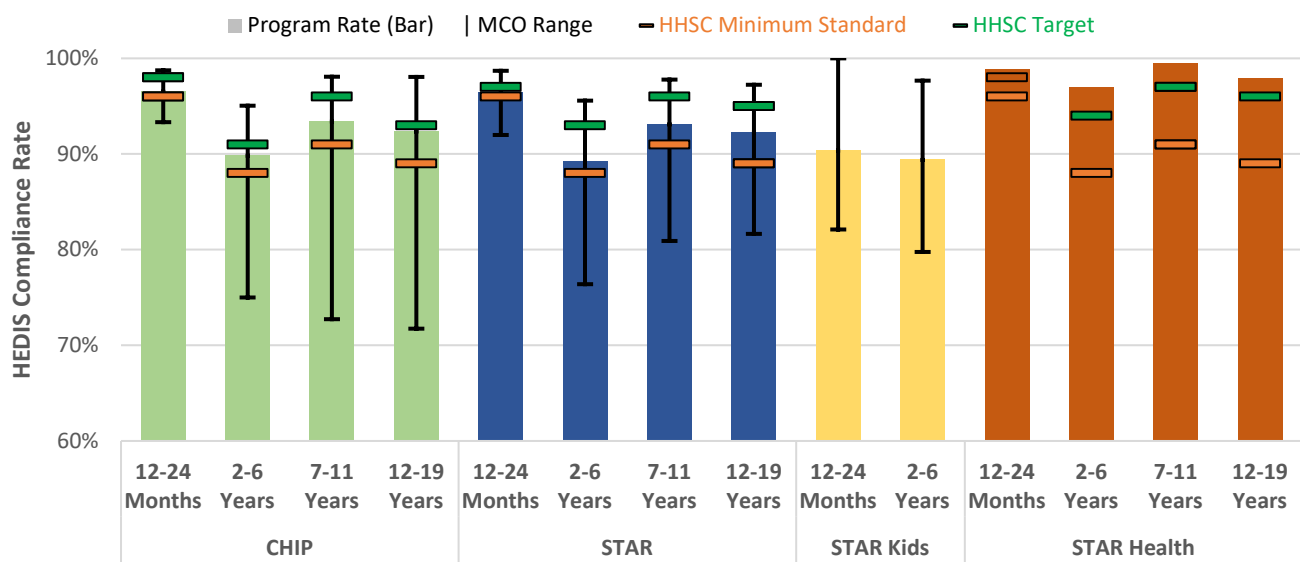
Children and Adolescents' Access to Primary Care Practitioners (CAP)

Routine preventive health visits give providers the opportunity to discuss patient health issues, screening, and other recommended testing. Routine visits also enable more timely diagnosis and intervention for many healthcare problems (42).

In Texas, performance in managed care programs was generally good relative to the national benchmarks, although differences occurred across SAs and by MCO. Contrary to some other measures, performance in the Medicaid Rural Service Areas tended to be above average. Performance by MCOs varied across the reported age groups. Overall, however, some MCOs did better in this category of measures (e.g., Superior, Driscoll) while others struggled (e.g., Molina, CHRISTUS, UHC).

The CAP measure was part of the performance dashboards for CHIP, STAR, and STAR Health. Results indicate that MCOs should try to understand and alleviate barriers to care in their networks. Overall, performance on these measures was generally the same in 2017 as it was in 2016; however, performance was lower relative to national standards, which have been improving. Because older age groups require two years' continuous enrollment, the EQRO did not report these measures for STAR Kids for 2017. **Figure 26** shows 2017 performance by program.

Figure 26. Children and Adolescents' Access to Primary Care Practitioners (CAP)

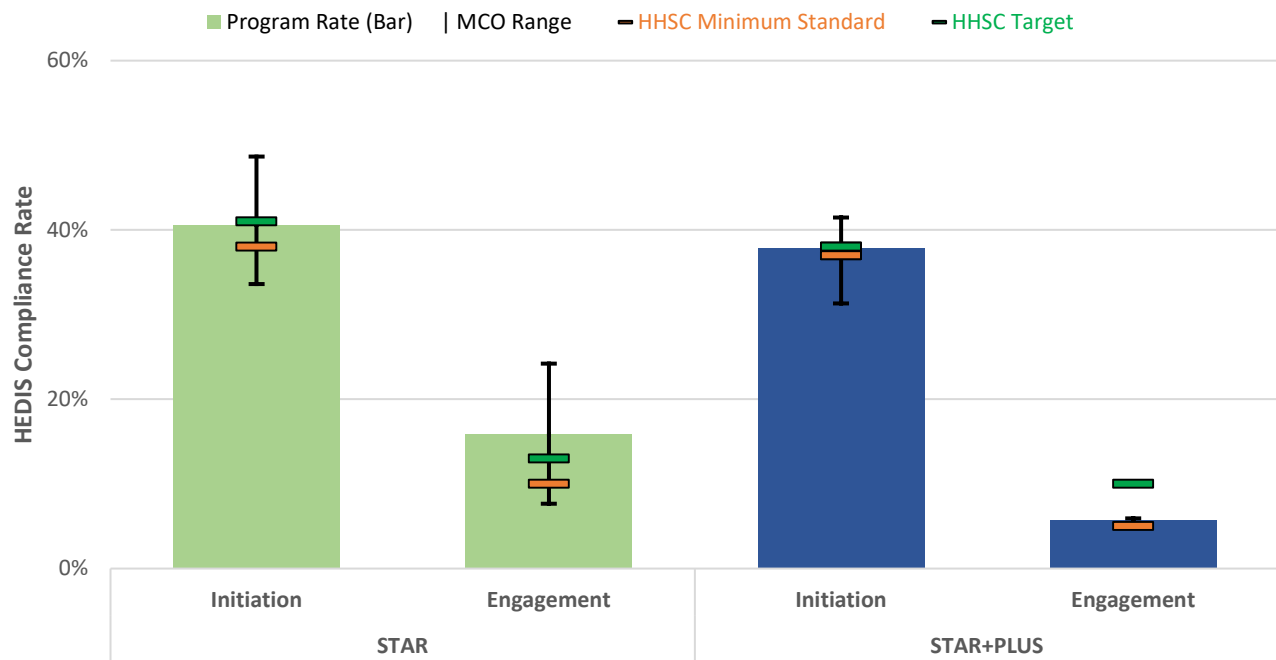


Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET)

Treatment for substance use is a large burden on the healthcare system, but initiating a treatment plan soon after diagnosis helps avoid treatment costs for secondary health conditions (43). The IET measure evaluates the success of starting and maintaining treatment following an initial intervention. Nationally, rates for initiation of treatment are less than 50 percent and rates of engagement (continuation following initiation) are less than 20 percent.

In the STAR program, 2017 performance relative to the national benchmarks was better for engagement, with many MCOs performing above the 75th percentile. Performance varied by SA with Hidalgo performing extremely well relative to benchmarks, while Harris and Jefferson both had lower performance on both sub-measures. Performance in STAR+PLUS was uniformly poor, notably for the engagement sub-measure. The IET measure is part of the Performance Dashboards for both programs. **Figure 27** shows the overall 2017 performance by program. Untreated substance use disorders are direct and indirect risk factors for a variety of chronic diseases. Thus, improving continuity of care for substance use disorders may improve patients' overall health and reduce healthcare costs.

Figure 27. Initiation and Engagement of Alcohol and Other Drug Dependence Treatment Measure (IET)



Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP)

Healthcare providers commonly use antipsychotic medications to treat non-psychotic conditions such as ADHD. Psychosocial treatment provides a safer first treatment option, which may also lead to better long-term outcomes (34). With the exception of STAR Health (greater than 90th national percentile), performance on the APP measure was low across programs. Indeed, performance fell below the 25th national percentile for almost all SAs and MCOs in STAR, and below the 10th percentile for almost all SAs and MCOs in CHIP. Performance in STAR Health demonstrates that psychosocial treatment options are available and used by providers and thus improvement in other programs is possible by understanding and addressing the reasons for lower performance.

High performance in STAR Health demonstrates that psychosocial treatment options are available and used by providers; thus, improvement in other programs is possible by understanding and addressing the reasons for lower performance.

Maternal Care

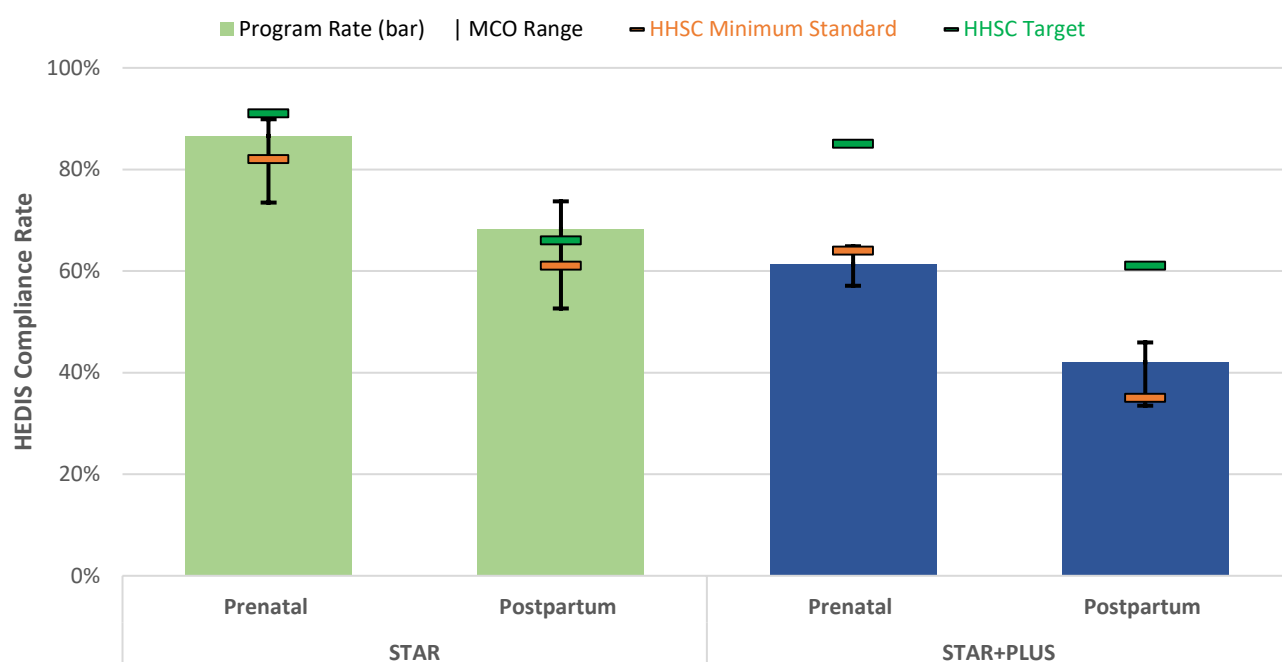
Prenatal and postpartum care benefit both mother and infant and can improve outcomes during the perinatal period. Although infant mortality rates have been a key metric in public health and continue to decrease in response to healthcare initiatives targeting major causes (e.g., Sudden Unexpected Infant Death), measures of maternal care have not shown the same improvements (44). This is despite the fact that some leading causes of infant death relate directly to maternal care (e.g., pregnancy complications, short gestation, and low birthweight). Although recent studies indicate an increase in obstetric safety, maternal mortality and severe maternal morbidity have continued to increase over the past 20 years in the United States (45; 46).

Currently, Medicaid pays for more than half of the births in Texas; thus, the EQRO provided an analysis of maternal morbidity, which **QTR 3: Estimating Severe Maternal Morbidity among Women Enrolled in Texas Medicaid and CHIP** describes in detail.

Prenatal and Postpartum Care (PPC)

The PPC measure is included in the STAR P4Q program. The PPC measure is also included on both the STAR and STAR+PLUS HHSC performance dashboards. Performance in STAR was relatively good for timeliness of prenatal care, but lower for postpartum care. **Figure 28** shows the 2017 PPC performance by program for STAR and STAR+PLUS.

Figure 28. Prenatal and Postpartum Care Measure (PPC)



Utilization

The utilization measure domain included measures counting the timely occurrence of certain beneficial services (such as well-child care) and the overall utilization rates for several types of services. The measures of overall utilization do not necessarily indicate good or poor performance, but when compared to national standards or standards in the Texas Medicaid system, they can identify differences in the care delivery system. The EQRO reported on the utilization of services in Texas Medicaid and CHIP and compared results to national standards using these HEDIS measures:

- Ambulatory Care (AMB)
- Inpatient Utilization—General Hospital/Acute Care (IPU)
- Identification of Alcohol and Other Drug Services (IAD)
- Mental Health Utilization (MPT)

The well-child care measures included rates of receiving recommended well care during the first 15 months of life (W15), during the 3rd to 6th years of life (W34), and for adolescents (AWC). The EQRO reported on these three measures of timely beneficial care as shown in **Table 31**.

Table 31. EQRO Reporting on Measures of Timely Beneficial Care

Measure	CHIP	STAR	STAR+PLUS	STAR Health	STAR Kids
HEDIS Utilization and Risk Adjustment Utilization					
W15: Well-Child Visits in the First 15 Months of Life	A ^a	H ^a		A ^a	A
W34: Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life	H ^a	H ^a		A ^a	H
AWC: Adolescent Well-Care Visits	H ^a	H ^a	A	A ^a	H

H – Hybrid methodology used

A – Administrative methodology used

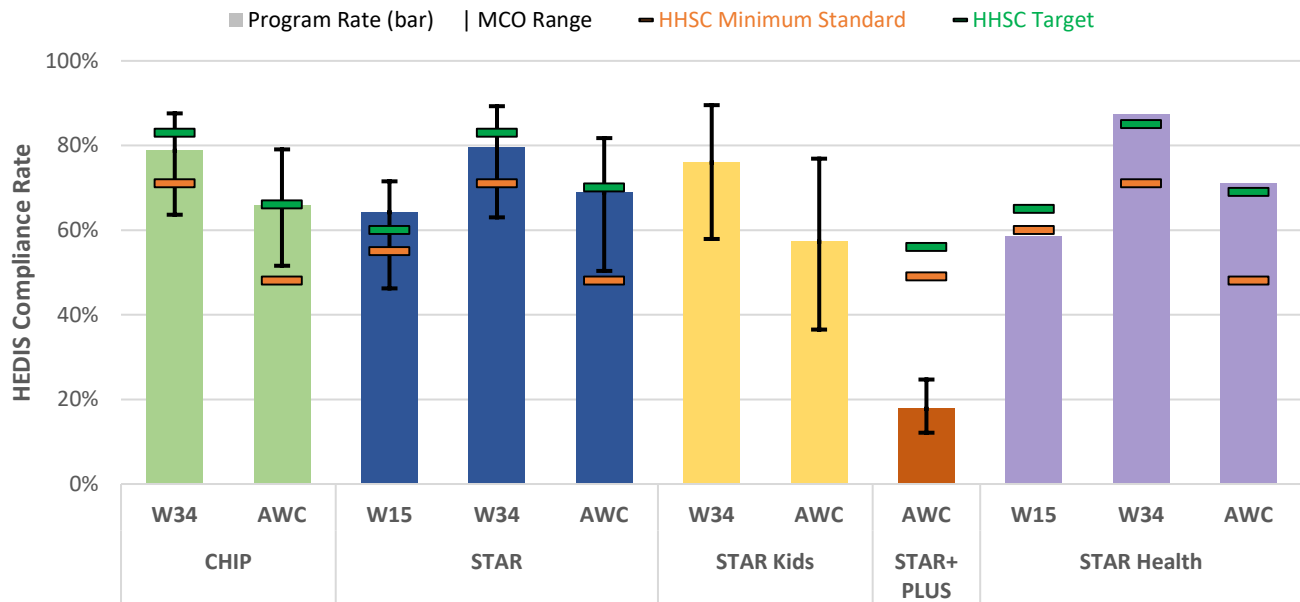
^a included on the HHSC performance dashboard

Well-Child Care

Regular care throughout childhood is important to monitor development, ensure routine preventive care, and provide education and guidance to parents or caregivers. The American Academy of Pediatrics recommends six or more visits during the first 15 months of life (*Well-Child in the First 15 Months of life* [W15]), at least annual visits during the next four years (*Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life* [W34]) and annual visits during adolescence (*Adolescent Well-Care Visits* [AWC]). Overall, performance in Texas was good for W34 and AWC, and performance has improved year after year. Throughout all programs in 2017, all MCOs met the HHSC minimum standard for AWC. However, performance was below the national average for W15.

In STAR, nine MCOs performed above the 90th national percentile for AWC. However, several MCOs fell below the 10th percentile for W15, which is included in the STAR P4Q program. For CHIP, performance varied more by MCO for both W34 and AWC. Four CHIP MCOs implemented PIPs around the AWC measure in 2014 and saw marginal improvements. The AWC rate for STAR+PLUS dropped by almost half from 2015. This likely relates to the shift of eligible members to STAR Kids; the 2017 denominator having fallen to only three percent of the 2015 denominator. **Figure 29** shows performance on the well-child care measures included in the HHSC performance dashboards by program.

Figure 29. Well-Child Visits in the First 15 Months of Life (W15) and in the Third, Fourth, Fifth, and Sixth Years of Life (W34), and Adolescent Well-Care Visits (AWC)



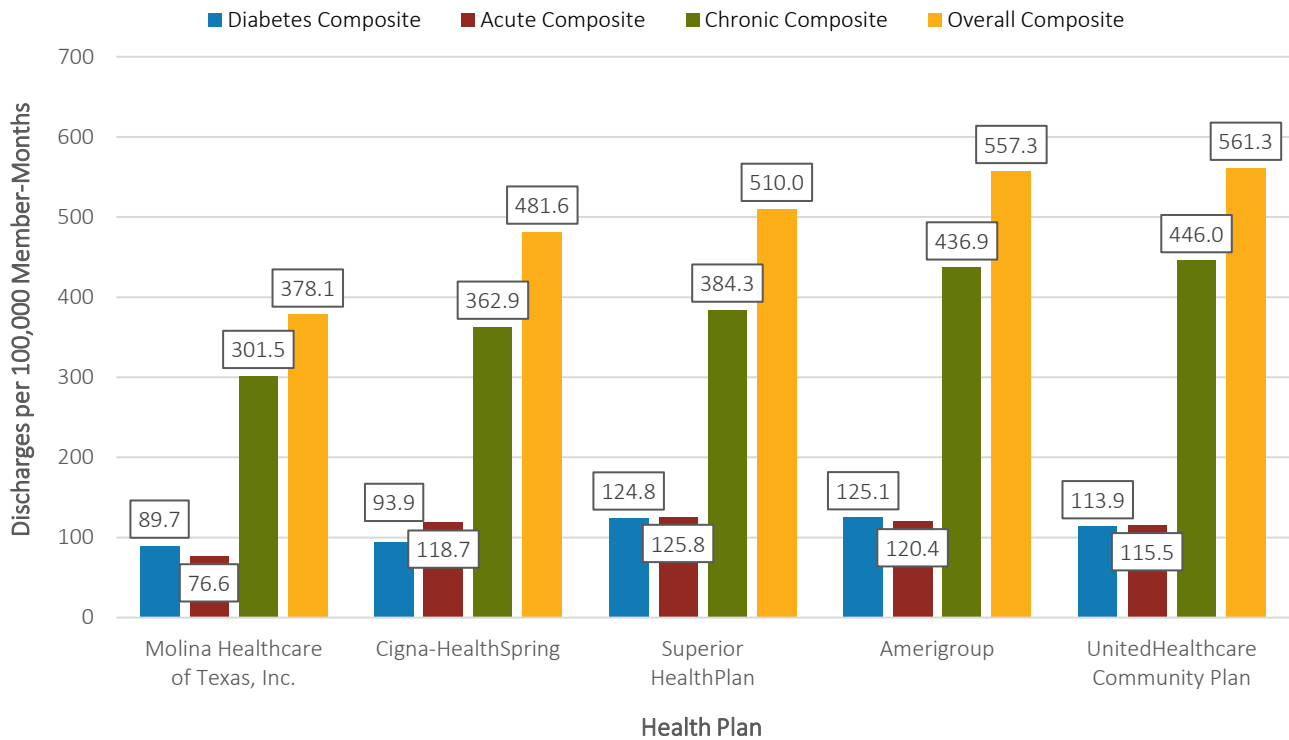
AHRQ Quality Indicators – Area Measures

The AHRQ Prevention Quality Indicators (PQIs) and Pediatric Quality Indicators (PDIs) area measures identify hospital use for ambulatory care sensitive conditions (ACSCs). Notably, because good outpatient care can help prevent hospital use for ACSCs, AHRQ (47) states that these measures should be used as a “screening tool” to help flag potential healthcare quality problem areas that need further investigation.

The EQRO reported results for 14 PQI and five PDI area measures. The PQI measures applied to adult populations and were included in the STAR and STAR+PLUS performance dashboards. The PDI measures applied to children and were included in the CHIP, STAR, STAR+PLUS, and STAR Health performance dashboards. The results for individual PDI and PQI admission types and the composites rates are also available on the [THLC portal](#). The results provided to Texas HHSC were specific to the Texas Medicaid populations (not the AHRQ general population standards), allowing Texas to monitor admissions for these conditions over time within programs.

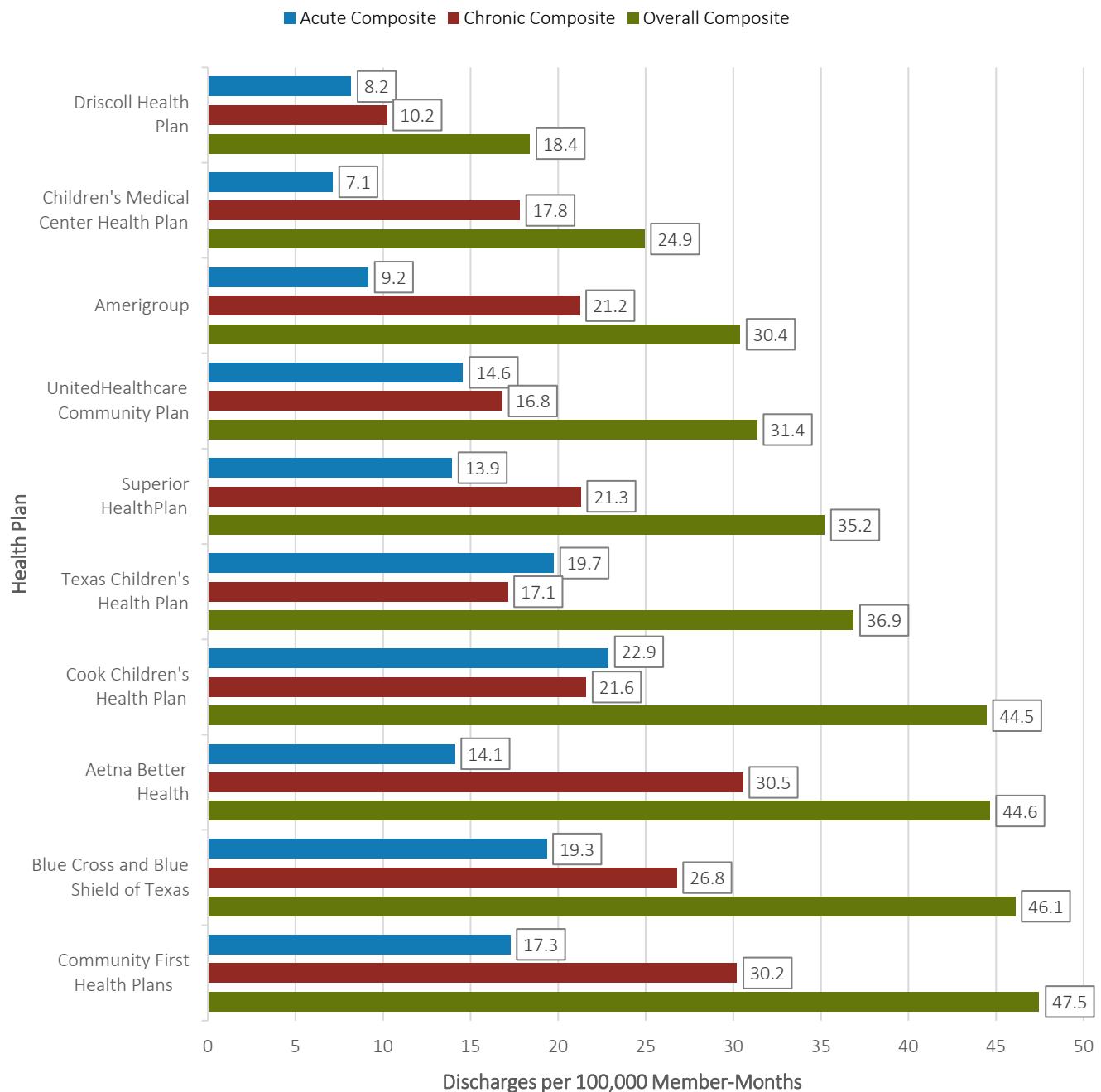
The STAR+PLUS P4Q program includes the PQI composite. Due to the health challenges facing most STAR+PLUS members, more PQI admissions were expected than in the general healthy population. **Figure 30** shows the STAR+PLUS PQI composite results by MCO. The overall composite performance varied by over 35 percent across MCOs. The MCOs have an opportunity to work with providers in their networks to improve access to ambulatory services and preventive healthcare and reduce the impact of these types of admissions.

Figure 30. Prevention Quality Indicators (PQI) Composites Measures for STAR+PLUS MCOs



Similar to the STAR+PLUS program, the STAR Kids program serves children with complex healthcare needs. As expected, the STAR Kids program has higher rates for the PDI composite measures than other programs serving generally healthy children. However, variation across MCOs suggests that these rates can improve. **Figure 31** shows the STAR Kids PDI composite results by MCO.

Figure 31. Pediatric Quality Indicators (PDI) Composites Measures for STAR Kids MCOs

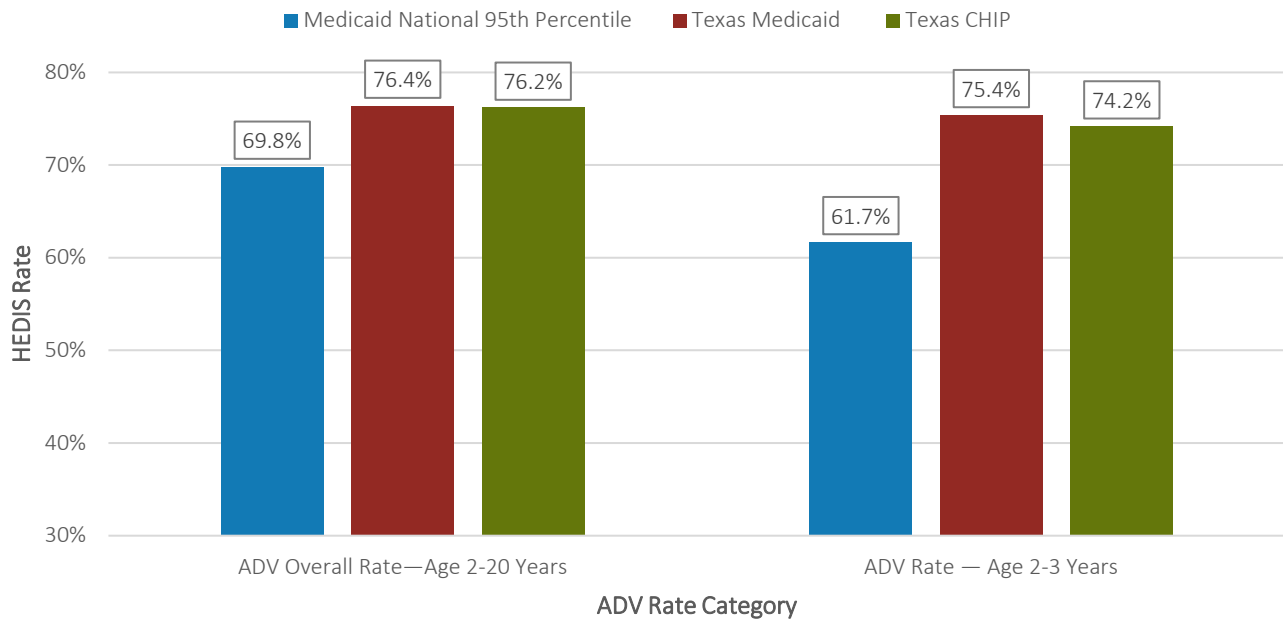


Dental Measures

Dental care is a required benefit for children in federally funded Medicaid and CHIP. Texas HHSC promotes overall oral health, not only through services provided by the DMOs, but also through state-level initiatives in policy development, education, and population-based preventive services. Based on evaluation by the EQRO, Texas HHSC has developed a panel of dental quality measures including HEDIS annual dental visit measure, American Dental Association (ADA) Dental Quality Alliance (DQA) preventive and continuity of care measures, DQA utilization measures, and several additional measures specific to Texas Medicaid and CHIP requirements. The

complete list of dental measures evaluated is in **Appendix B: Quality Assessment and Performance Improvement Recommendations**. Through their commitment to quality in dental care, HHSC has achieved results above the NCQA national Medicaid 95th percentile for the HEDIS Annual Dental Visit (ADV) measure. In addition, Texas achieved consistently high rates (>70 percent) for children between 2-3 years of age. **Figure 32** shows the ADV performance for 2017. The success for young children is attributable to the First Dental Home (FDH) initiative, aimed at improving the oral health of children 6-35 months of age.

Figure 32. Texas Medicaid and CHIP Results for HEDIS ADV Compared to National Benchmarks, 2017



Because coordination of medical and dental care is an important area of focus for HHSC, the EQRO added the DQA Ambulatory Care Sensitive ED Visits for Dental Caries in Children measure to quality reporting for Medicaid and CHIP. From 2016 to 2017, these visits decreased from 11.4 to 8 per 100,000 member months in Medicaid, and from 5.2 to 3.8 in CHIP.

Four measures from the dental quality evaluation will be part of the Texas Medicaid Dental Pay-for-Quality (P4Q) program for measurement years 2018 and 2019. These measures relate to oral evaluation, and topical fluoride and dental sealants for children with elevated caries risk. **Table 32** and **Table 33** show the 2017 overall program rate and DMO rates for Medicaid and CHIP, respectively.

Table 32. Children's Medicaid Dental P4Q Performance Measure Results for 2017

Measure	Program Rate	DentaQuest	MCNA Dental
Oral Evaluation - Percent of members enrolled for at least 6 months (under 19) who received a comprehensive or periodic oral evaluation within the reporting year	71.0%	72.6%	68.9%
Sealants in 6-9 Years - Percent of members (6-9 years) enrolled for 6 months who are at "elevated" risk for dental caries and received a sealant on a permanent first molar tooth within the reporting year	24.1%	24.3%	24.3%

Measure	Program Rate	DentaQuest	MCNA Dental
Sealants in 10-14 Years - Percent of members (10-14 years) enrolled for 6 months who are at “elevated” risk for dental caries and received a sealant on a permanent second molar tooth within the reporting year	16.8%	17.0%	16.6%
Topical Fluoride - Percent of enrolled children (1-18 years) who are at “elevated” risk (i.e. “moderate” or “high”) who received at least two topical fluoride applications within the reporting year	49.8%	50.9%	47.9%

Table 33. CHIP Dental P4Q Performance Measure Results for 2017

Measure	Program Rate	DentaQuest	MCNA Dental
Sealants in 6-9 Years - Percent of members (6-9 years) enrolled for 6 months who are at “elevated” risk for dental caries and received a sealant on a permanent first molar tooth within the reporting year	20.4%	22.8%	22.7%
Sealants in 10-14 Years - Percent of members (10-14 years) enrolled for 6 months who are at “elevated” risk for dental caries and received a sealant on a permanent second molar tooth within the reporting year	13.6%	15.5%	14.8%
Oral Evaluation - Percent of members enrolled for at least 6 months (under 19) who received a comprehensive or periodic oral evaluation within the reporting year	68.0%	72.1%	68.8%
Topical Fluoride - Percent of enrolled children (1-18 years) who are at “elevated” risk (i.e. “moderate” or “high”) who received at least two topical fluoride applications within the reporting year	43.1%	46.9%	44.4%

Potentially Preventable Events

With healthcare costs increasing nationwide, identifying ways to improve efficiency and increase savings without compromising medical care is of growing importance. The Texas 82nd Legislature, Regular Session, 2011 passed Senate Bill (S.B.) 7 (48), which required a quality-based outcomes payment program for Texas Medicaid with the goal of containing costs while improving patient outcomes. Notably, the program incentivizes providers to reduce PPEs. These include ED visits, hospital admissions, re-admissions, complications, and ancillary services that are potentially preventable with improved coordination of care, effective primary care, and improved population health. Texas’s inclusion of provisions to reduce PPEs goes beyond the payment reforms enacted by other states, such as Maryland and New York. As a result, the National Association of Medicaid Directors recognized the Texas legislation for incentivizing innovations and improvements in hospital-based care, patient management, and follow-up (49).

Using 3M Health Information Systems software (50), the EQRO analyzed encounter and eligibility data for Texas Medicaid programs and CHIP, excluding those who were dually eligible for both Medicaid and Medicare during the measurement year. The EQRO classified events as PPEs based on the 3M grouping systems for either ambulatory care (EAPGs) or inpatient care (All Patient Refined Diagnosis-Related Groups [APR-DRGs]), and by considering other factors such as diagnosis codes, procedure codes, and the source of the admission.

Analyses included calculation of PPE rates and expenditures, identification of conditions contributing most to events for each program, and examination of rates by gender, age, race, rurality, and area. The EQRO also calculated actual-to-expected (A/E) ratios for programs and MCOs within programs.

The EQRO conducted analyses for four types of PPEs:

- Potentially preventable visits (PPVs) are ED visits that may result from a lack of adequate access to care or ambulatory care coordination.
- Potentially preventable admissions (PPAs) are facility admissions that may be avoided through improved care coordination, effective primary care, and improved population health.
- Potentially preventable readmissions (PPRs) are return hospitalizations that may be caused by deficiencies in care during the initial hospital stay, or poor coordination of services at the time of discharge or during follow-up.
- Potentially preventable complications (PPCs) are complications that arise after hospitalization because of poor clinical care or poor coordination of services during the inpatient stay.

The EQRO provided PPE results in an annual report that included summaries of data and analysis of rates at the state and program levels. Results are also available on the THLC portal. Statewide results are available publicly. Detailed results by MCO are available to authorized MCO users. Technical notes on all PPE calculations are also available in the resources section of the portal.

Potentially Preventable Emergency Department Visits (PPVs)

High rates of PPVs may represent a failure of the primary care provided to the patient. When a PPV occurs shortly after a hospitalization, it may be the result of actions taken or omitted during the hospital stay, such as incomplete treatment, poor care of the underlying problem, or poor coordination with the primary care or specialist physician. Of the approximately 2.2 million ED visits from Medicaid and CHIP that were at risk for PPVs in 2017, the EQRO identified 1.4 million ED visits (63.3 percent) as PPVs. These PPVs account for approximately \$405.8 million in costs. **Table 34** summarizes statewide PPV results by program for 2017.

Table 34. PPVs in Texas Medicaid and CHIP by Program, 2017

Measure	STAR	STAR+PLUS	STAR Kids	STAR Health	FFS	CHIP
Member-Months at Risk for PPVs	31,892,065	2,660,429	1,918,699	364,984	3,461,989	4,449,299
ED Visits at Risk of being PPVs	1,562,264	306,242	103,878	22,453	141,158	98,712
Total PPVs	998,285	195,714	64,457	14,459	81,199	60,704
Total PPV Weights	275,291	57,538	18,190	3,988	23,084	17,030
Total PPV Expenditure (\$Millions)	\$261.20M	\$80.35M	\$23.50M	\$3.42M	\$15.84M	\$21.49M
PPV Rate (Total PPV Weights per 1,000 Member-Months)	8.63	21.63	9.48	10.93	6.67	3.83

The PPV rate was highest in the STAR+PLUS program and lowest in CHIP. This is understandable given the difference in populations served: STAR+PLUS manages care for a population with complex healthcare needs while CHIP manages care for a relatively young and healthy population. **Table 35** shows the top 10 PPV conditions across Texas Medicaid and CHIP in 2017 based on EAPG categories ranked by weights.

Table 35. PPVs in Texas Medicaid and CHIP: Top Ten EAPG Conditions, Ranked by Weights, 2017

EAPG	Description	Total PPVs	% Total PPVs	% Total PPV Weights	PPV Expenditures	% Total PPV Expenditures
00562	Infections of upper respiratory tract and otitis media	341,046	24.11%	19.00%	\$64,190,341	15.82%
00627	Non-bacterial gastroenteritis, nausea, and vomiting	107,171	7.57%	9.62%	\$35,263,051	8.69%
00674	Contusion, open wound, and other trauma to skin and subcutaneous tissue	86,047	6.08%	7.55%	\$20,929,548	5.16%
00628	Abdominal pain	71,924	5.08%	6.59%	\$37,603,297	9.27%
00808	Viral illness	73,282	5.18%	6.06%	\$15,941,273	3.93%
00675	Other skin, subcutaneous tissue, and breast diagnosis	87,089	6.16%	4.54%	\$14,274,583	3.52%
00576	Level I other respiratory diagnoses	53,667	3.79%	4.40%	\$13,039,676	3.21%
00727	Acute lower urinary tract infections	42,282	2.99%	3.56%	\$15,519,615	3.82%
00807	Fever	46,370	3.28%	3.30%	\$14,951,653	3.68%
00661	Level II other musculoskeletal system and connective tissue diagnoses	46,053	3.26%	3.23%	\$12,215,783	3.01%

Upper respiratory tract infections contributed to PPVs in 2017 much more than any other condition not only in number of PPVs, but considering both weights, which represent resource utilization, and expenditures. Results were similar in 2016. Not only do these PPVs represent an overuse of hospital resources, conditions that lead to PPVs may receive better treatment in a primary care setting. A recent study found that antibiotics were twice as likely to be prescribed during an ED visit as during an office visit (51). Although other studies found conflicting results regarding location and antibiotic prescribing, below average performance on HEDIS measures of inappropriate antibiotic use (AAB and URI) suggest that investigating location of treatment for upper respiratory infections might lead to improvements in PPV, AAB, and URI rates.

The selection of conditions to target for interventions should consider both prevalence and cost for the relevant population.

Although abdominal pain and related conditions are less common than upper respiratory infections, the former are more resource intensive, and interventions that reduce the number of these PPVs can have a high marginal impact on costs. Many of the top reasons for PPVs should respond to interventions focused on prevention-focused care, such as vaccinations, and the use of primary care providers for common acute illnesses, such as gastroenteritis.

Upper respiratory tract infections contributed to PPVs in 2017 much more than any other condition.

PPVs overuse hospital resources, and conditions that lead to PPVs may receive higher quality treatment in the primary care setting, where care may be more comprehensive than care provided in a hospital setting.

Potentially Preventable Admissions (PPAs)

PPAs are hospital admissions that could have been avoided with proper outpatient care. These hospital admissions may result from inefficient hospital and or ambulatory care, poor access to outpatient care, or inadequate coordination of ambulatory care services. In many cases, PPAs are for flare-ups of chronic conditions (e.g., asthma) which adequate monitoring and follow-up, such as proper medication management, could have avoided. As a result, the occurrence of high rates of PPAs within a region or a healthcare system may represent a failure of the ambulatory care system.

The EQRO identified approximately 260,000 inpatient admissions from Texas Medicaid and CHIP as being at risk for PPAs in 2017. Of these, over 38,000 admissions (14.8 percent) were PPAs. These PPAs account for approximately \$241.5 million in costs. **Table 36** summarizes statewide PPA results by program for 2017.

Table 36. PPAs in Texas Medicaid and CHIP by Program, 2017

Measure	STAR	STAR+PLUS	STAR Kids	STAR Health	FFS	CHIP
Member-Months at Risk for PPAs	31,892,065	2,660,429	1,918,699	364,984	3,461,989	4,449,299
Admissions at Risk of being PPAs	147,578	68,368	20,039	4,412	17,489	4,952
Total PPAs	13,263	17,099	4,014	893	2,610	1,092
Total PPA Weights	9,972	24,793	3,959	615	2,965	713
Total PPA Expenditure (\$Millions)	\$64.40M	\$115.48M	\$33.80M	\$6.58M	\$15.29M	\$5.90M
PPA Rate (Total PPA Weights per 1,000 Member-Months)	0.31	9.32	2.06	1.68	0.86	0.16

As with PPVs, the PPA rate was highest for STAR+PLUS and lowest for CHIP. **Table 37** shows the top 10 PPA conditions across Texas Medicaid and CHIP in 2017 based on APR-DRG categories and ranked by weights.

Table 37. PPAs in Texas Medicaid and CHIP: Top Ten APR-DRG Conditions, Ranked by Weights, 2017

APR-DRG	Description	Total PPAs	% Total PPAs	% Total PPA Weights	PPA Expenditures	% Total PPA Expenditures
194	Heart failure	2,867	7.36%	9.68%	\$19,156,237	7.93%
139	Other pneumonia	3,806	9.77%	8.91%	\$22,563,866	9.34%
140	Chronic obstructive pulmonary disease	2,443	6.27%	7.34%	\$13,866,333	5.74%
141	Asthma	3,640	9.34%	5.17%	\$15,275,631	6.33%
161	Cardiac defibrillator and heart assist implant	172	0.44%	4.63%	\$10,958,520	4.54%
053	Seizure	1,930	4.95%	4.45%	\$11,912,169	4.93%
304	Dorsal and lumbar fusion procedure except for curvature of back	382	0.98%	4.12%	\$9,038,649	3.74%
753	Bipolar disorders	2,913	7.47%	4.10%	\$13,896,447	5.76%
720	Septicemia and disseminated infections	573	1.47%	3.91%	\$6,823,408	2.83%
463	Kidney and urinary tract infections	1,868	4.79%	3.49%	\$8,685,516	3.60%

Heart failure accounted for the greatest percentage of PPA resource utilization (weights) overall; however, other pneumonia accounted for a greater percentage of PPA counts and expenditures. Asthma and bipolar disorders occurred more frequently as PPA conditions than heart failure. Promoting vaccinations, counseling and resources to help reduce tobacco use in patient households, and better management of patient medications can reduce PPAs for conditions such as pneumonia and asthma. Medication management is critical in treatment of bipolar disorders. Some form of mental health disorder was among the top ten PPA conditions for all managed care programs. Understanding the most prominent health issues affecting members in the Texas Medicaid and CHIP population overall and within specific programs is critical to developing effective interventions to reduce PPAs.

Mental health disorders were among the top 10 reasons for PPAs across all managed care programs.

Potentially Preventable Readmissions (PPRs)

A PPR is a readmission that is clinically related to (and occurs within a specified time interval from) the initial hospital admission. The underlying reason for readmission must be related to the care rendered during or immediately following a prior admission. The EQRO used a 30-day readmission window to evaluate PPRs in the Texas Medicaid and CHIP population for the comparison of MCOs. Of the approximately 530,000 admissions from Medicaid and CHIP that were at risk for PPRs in 2017, the EQRO identified over 20,000 (3.8 percent) as PPRs. These PPRs account for approximately \$226.1 million in costs. **Table 38** summarizes statewide PPR results by program.

Table 38. PPRs in Texas Medicaid and CHIP by Program, 2017

Measure	STAR	STAR+PLUS	STAR Kids	STAR Health	FFS	CHIP
Admissions at Risk for PPRs	314,802	54,339	16,668	4,488	139,517	4,429
Initial Admissions Resulting in PPRs	5,400	7,911	1,967	698	3,830	298
Total PPRs	6,590	12,158	2,876	961	5,338	373
Total PPR Weights	6,204	15,196	3,516	726	7,329	312
Total PPR Expenditure (\$Millions)	\$49.65M	\$78.15M	\$36.88M	\$8.65M	\$37.12M	\$3.36M
PPR Rate (Total PPR Weights per 1,000 Admissions)	19.71	279.66	210.91	161.76	52.53	70.41

As with other PPEs, the PPR rate was highest for STAR+PLUS, which is understandable given that the program manages care for a population with complex healthcare needs that may affect readmission rates. However, the high PPR rate also underscores the need to improve care coordination in the STAR+PLUS population. Unlike other PPEs, the PPR rate was lowest for STAR; however, this may relate to the very high percentage of obstetrical admission among the candidate admissions, which typically have very low rates of readmission. **Table 39** shows the top 10 PPR conditions across Texas Medicaid and CHIP in 2017 based on APR-DRG categories and ranked by weights.

The high PPR rate underscores the need to improve care coordination in the STAR+PLUS population.

Table 39. PPRs in Texas Medicaid and CHIP: Top Ten APR-DRG Conditions, Ranked by Weights, 2017

APR-DRG	Description	Total PPRs	% Total PPRs	% Total PPR Weights	PPR Expenditures	% Total PPR Expenditures
753	Bipolar disorders	2,555	12.25%	7.42%	\$23,087,125	10.21%
750	Schizophrenia	1,806	8.66%	7.06%	\$17,832,970	7.89%
720	Septicemia and disseminated infections	809	3.88%	6.19%	\$11,975,518	5.30%
194	Heart failure	689	3.30%	5.09%	\$7,896,284	3.49%
751	Major depressive disorders and other/unspecified psychoses	1,768	8.48%	4.91%	\$13,874,480	6.14%
133	Respiratory failure	380	1.82%	3.01%	\$6,890,208	3.05%
140	Chronic obstructive pulmonary disease	329	1.58%	2.10%	\$3,246,221	1.44%
420	Diabetes	395	1.89%	1.84%	\$3,202,017	1.42%
540	Cesarean delivery	735	3.52%	1.83%	\$2,856,526	1.26%
425	Other non-hypovolemic electrolyte disorders	229	1.10%	1.72%	\$2,864,287	1.27%

PPRs are an indicator of quality of care because they reflect poor clinical care and poor coordination of services, either during hospitalization or in the immediate period following hospital discharge. Notably, readmissions for mental health conditions are considered clinically related, regardless of the diagnoses for the initial admission; thus, some mental health readmissions follow an initial admission for a non-mental health reason. Bipolar disorders appeared among the top ten conditions for all programs. Bipolar disorders accounted for the greatest percentage of PPR resource utilization (weights) overall in 2017, followed by schizophrenia. Major depressive disorders appeared among the top ten for all managed care programs. Septicemia and disseminated infections appeared among the top ten for all programs except STAR Health. Similar to 2016, three of the top ten PPR conditions overall in 2017 were related to mental health (bipolar disorders, schizophrenia, and major depressive disorders), which indicates that the management of co-occurring mental health conditions still needs improvement. Strategies to address this need include improving service coordination between inpatient and outpatient settings, improving timely access to mental health resources, and increasing mental health support in the primary care setting.

Potentially Preventable Complications (PPCs)

PPCs are complications that arise during the inpatient stay because of improper care or treatment and do not represent progression of the underlying disease. Admissions may be at risk for some PPC categories but not others, and each admission can have multiple complications. The EQRO team evaluated over 280,000 admissions from Texas Medicaid and CHIP that were at risk for PPCs in 2017. Note that PPC calculation depends on accurate POA indicators. The EQRO and 3M found that many hospitals were inconsistent in POA coding which could significantly bias results. To avoid bias, particularly as it would affect risk adjustment, 3M developed a systematic data quality evaluation that applies to data at the hospital level. Data from hospitals failing to meet data quality standards are excluded from PPC calculations. The 2017 PPC analysis identified almost 4,000 eligible admissions (1.4 percent) as having PPCs. **Table 40** provides a summary of statewide PPC results by program.

Table 40. PPCs in Texas Medicaid and CHIP by Program, 2017

Measure	STAR	STAR+PLUS	STAR Kids	STAR Health	FFS	CHIP
Admissions at Risk for PPCs	151,612	43,212	14,056	3,208	64,554	3,531
Admissions with PPCs	880	1,603	90	5	1,370	11
Total PPCs	1,037	2,105	110	6	1,886	12
Total PPC Weights	733	2,376	142	10	2,070	12
PPC Rate (Total PPC Weights per 1,000 Admissions)	4.83	54.97	10.12	3.21	32.07	3.45

Similar to other PPEs, the PPC rate was highest for the medically fragile population served by STAR+PLUS; however, unlike other PPEs, the PPC rate was lowest for STAR Health. The high number of complications in the FFS population, which includes undocumented aliens who may require emergency Medicaid services, merits further exploration. **Table 41** shows the top 10 PPC conditions across Texas Medicaid and CHIP in 2017 based on PPC categories ranked by weights.

Table 41. PPCs in Texas Medicaid and CHIP: Top Ten PPC Category Conditions, Ranked by Weights, 2017

PPC Category	Description	Total PPCs	% Total PPCs	% Total PPC Weights
09	Shock	376	7.29%	10.65%
04	Acute pulmonary edema and respiratory failure with ventilation	183	3.55%	9.39%
24	Renal failure without dialysis	801	15.54%	9.04%
35	Septicemia and severe infections	339	6.57%	8.71%
03	Acute pulmonary edema and respiratory failure without ventilation	418	8.11%	6.23%
14	Ventricular fibrillation/cardiac arrest	239	4.64%	5.61%
05	Pneumonia and other lung infections	187	3.63%	4.71%
01	Stroke and intracranial hemorrhage	109	2.11%	2.34%
54	Infections due to central venous catheters	46	0.89%	2.18%
39	Reopening surgical site	77	1.49%	2.08%

Shock accounted for the greatest percentage of PPC resource utilization (weights) for Texas Medicaid and CHIP overall. Although shock contributed to PPCs more than any other condition in terms of weights, two PPC conditions occurred more frequently: renal failure without dialysis, and acute pulmonary edema and respiratory failure without ventilation. Only shock was included among the top ten PPC conditions for all programs. Notably, because most PPC categories do not apply to children, certain conditions important in STAR and STAR+ PLUS do not apply in STAR Kids, STAR Health, or CHIP. Collectively, these results demonstrate the need to consider both the service population and the frequency and resource utilization of PPCs when selecting PPC conditions to target for interventions. Because PPCs are directly related to the care provided during a hospital stay, they may not respond to managed care interventions implemented in the primary care network. Thus, MCOs need to identify potential targets for influence among and across their hospital networks.

Because PPCs are directly related to the care provided during a hospital stay, they may not respond to managed care interventions implemented across the primary care network. Thus, MCOs need to identify potential targets for influence across their hospital networks.

Protocol 8: Focused Studies

MCO Report Cards

The EQRO began producing annual MCO report cards in 2013 to support the state's ongoing efforts to improve consumer choice in Texas Medicaid and CHIP. Texas is one of several states, including California, Maryland, and Ohio that use report cards to assist Medicaid enrollees with making healthcare decisions. The MCO report cards in Texas assist Medicaid and CHIP enrollees and their caregivers in choosing a health plan and meet federal requirements for the provision of accessible information on healthcare quality for Medicaid consumers.

In 2018, the EQRO produced 62 unique report cards (differentiated by service area/plan); including the inaugural set of STAR Kids report cards as well as unique adult and child report cards for STAR service areas. Enrollment packets for new members contained the appropriate report card in English and Spanish with comparative performance ratings for the health plans in the new member's service area, an information sheet on how to evaluate scores, and several ways to acquire more information. Packets also included the URL for the online versions of the MCO report cards, which are available on the HHSC website, and contact information that directs members to the help line or website of local MCOs for assistance.

The tiered structure of the report cards organizes the information about plan performance so that new enrollees and their caregivers can compare plans and make an informed decision. Ratings on each report card derive solely from a health plan's performance in a new member's area, providing a more accurate picture of the care available where the member lives. A five-star rating system, with strong performers (five stars) highlighted in gold, supports consumer choice, and a good overall rating suggests broad-based quality of care.

Methods

The MCO report cards rely on two primary sources of information:

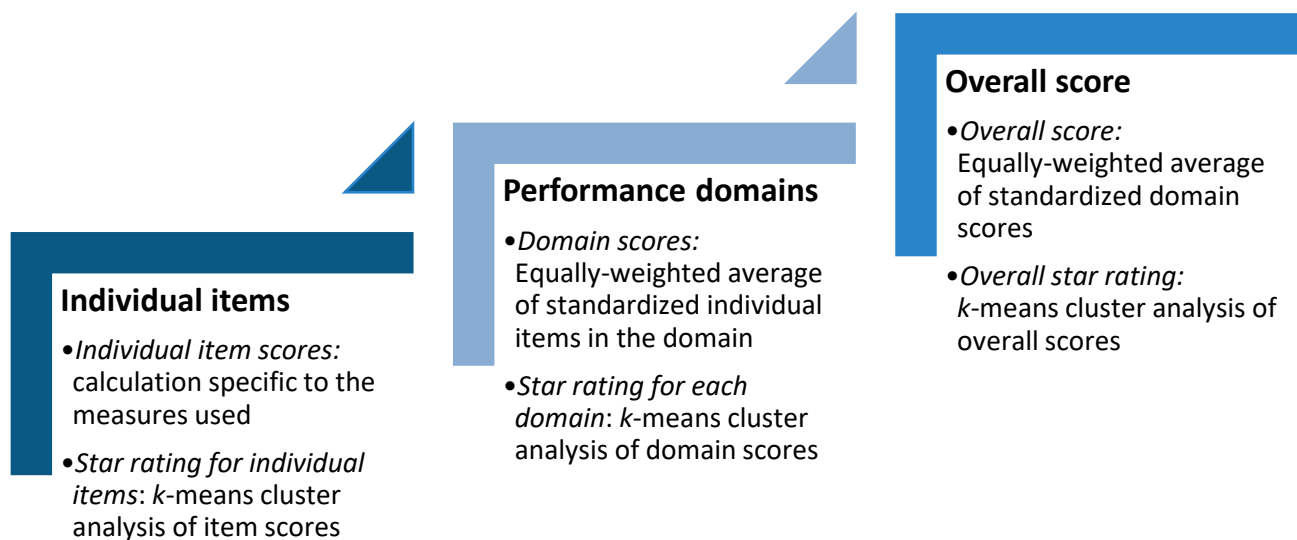
1. CAHPS Surveys conducted by the Texas EQRO with information on member perspectives of health plan and provider quality, and
2. Administrative data for select HEDIS measures on health plan performance.

The report cards rely on CAHPS member and caregiver survey data collected by the EQRO following recommendations to HHSC by S.B. 894, 85th Legislature, Regular Session, on using EQRO-produced surveys to monitor MCO performance. The CAHPS member survey data provide information on member experiences with the health plan. The EQRO selects measures for report cards based on HHSC priorities, the prevalence of the measure, CMS/NCQA recommendations, and feedback from enrollees. Final recommendations for specific measures and methods for ratings on the MCO report cards balance NCQA and CMS standards for evaluating quality of care with the needs of multilevel stakeholders.

The MCO report cards for CHIP, STAR Child, STAR Adult, and STAR+PLUS begin with an overall composite summary of relative health plan performance that weights each of the three domains—*Experience with Doctors and the Health Plan*, *Staying Healthy*, and *Common Chronic Conditions*—equally. Listed below the overall score are subsections with the scores for each of the three performance domains and scores for the individual measures included in the calculation of each domain score. The domain *Experience with Doctors and the Health Plan* summarizes member and caregiver experience and satisfaction measures from a subset of the CAHPS surveys and provides information on what members think about the quality of each plan. The second domain, *Staying Healthy*, summarizes preventive healthcare measures of particular importance to each population (e.g., well-care visits for CHIP or prenatal visits for STAR Adult), which can help enrollees and caregivers select the plan that best meets their preventive health needs. The third and final domain, *Common Chronic Conditions*, summarizes measures

relating to managing chronic conditions among adults and children (e.g., asthma for STAR Child or diabetes for STAR+PLUS). Similarly, the MCO report cards for STAR Kids begin with an overall composite summary of relative health plan performance that assigns equal weight to each of the three domains—*Getting Care*, *Services and Supports*, and *Common Chronic Conditions*. Listed below the overall score are subsections with the scores for each of the three performance domains and scores for the individual measures used to calculate each domain score. The domain *Getting Care* summarizes patient experience and satisfaction measures from a composite of the CAHPS member surveys, and provides information about how easily patients can access care, medical equipment, and regular checkups. The second domain, *Services and Supports*, summarizes patient experience and satisfaction measures for the health plan overall, assistance with care coordination, adolescents’ transition to adult care, and doctors’ understanding of how health conditions affect day-to-day life. Finally, the third domain, *Common Chronic Conditions*, summarizes measures relating to how well doctors follow up after urgent treatment for common conditions (e.g., mental illness, or alcohol, opioid, or other substance use) and use of antipsychotics to manage mental illness. **Figure 33** illustrates the tiered structure of the report cards and describes score calculations.

Figure 33. Conceptual Diagram of 2018 MCO Report Card Structure



Score Standardization

Each domain score is the equally weighted average of standardized individual items in the domain. Standardizing individual items for each base tier rescales the plan code scores so that zero corresponds to the lowest-performing plan and one corresponds to the highest-performing plan. Standardized scores are input into the *k*-means clustering algorithm to determine domain and overall ratings. Notably, score standardization for the overall composite score follows the same process.

$$\text{Standardized score} = \frac{\text{Raw score} - \text{Minimum score}}{\text{Maximum score} - \text{Minimum score}}$$

K-Clustering for Star Ratings:

The *k*-means clustering approach uses unsupervised learning to group observations by similarity. This enhances the measurable variation between groups (or clusters) by deriving categories from observed data distribution, instead of breaking up observations based on set percentiles (20 percent, 40 percent, and 60 percent). Plan codes that do not meet a minimum threshold of 30 in the denominator for HEDIS measures and 49 responses to an item for survey measures are not included in cluster calculations and do not receive a rating. Plan codes that meet the

minimum threshold for a survey measure but are not significantly different at the $p < 0.10$ level from the mean of all plan codes receive a rating of “average” (three stars) after cluster calculation. The EQRO uses k -means clustering to assign star ratings to plans based on similarities in performance, creating ratings that correspond to meaningful differences in performance that can help enrollees and caregivers distinguish between plans.

Star ratings for health plans are as follows:

- 5 stars: Excellent (cluster with the highest mean ratings for the measure)
- 4 stars: Above average (cluster with second highest mean ratings)
- 3 stars: Average (cluster with the third highest mean ratings)
- 2 stars: Below average (cluster with the second lowest mean ratings)
- 1 star: Poor (cluster with lowest mean ratings for the measure)

The MCO report cards produced in 2018 use the most recent available measure data, including 2017 administrative data and member and caregiver surveys conducted in spring/summer 2018. The EQRO fielded short 15-minute surveys for each report card type, and longer surveys for adult members in STAR, STAR+PLUS, and caregivers of members in STAR Kids. To reduce costs and accumulate an adequate number of interviews per plan code, the EQRO combined responses from the short surveys with the longer biennial surveys. The EQRO targeted at least 200 completed interviews per plan code and gathered 36,787 completed interviews after attempting to contact 265,820 members or caregivers. **Appendix G: Measures Used in Report Card Ratings Calculations** defines the domain structure and lists the individual items included on each type of report card.

Table 42 shows the number of plan codes in each star rating category for each program. Not every plan code received a rating, and plan code totals are therefore not necessarily equal to the total number of plan codes in a program.

Table 42. Distributions of Report Card Ratings by Plan Code

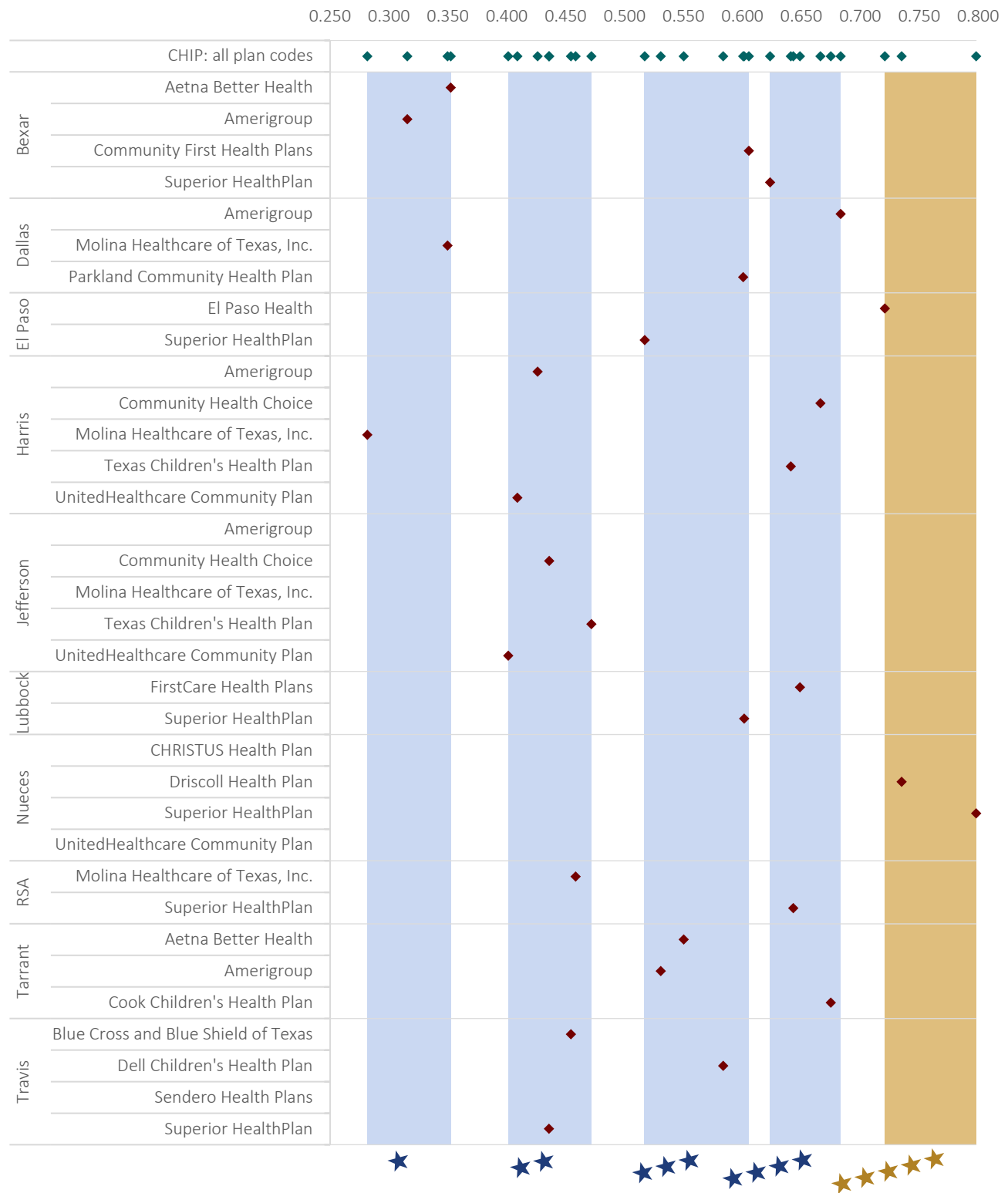
Program	5 star	4 star	3 star	2 star	1 star	Total Plan Codes Rated ⁹
CHIP	3	7	7	8	4	29
STAR Child	5	12	24	3	1	45
STAR Adult	4	11	8	12	6	41
STAR+PLUS	2	7	5	13	3	30
STAR Kids	1	10	7	5	5	28

Figure 34 through **Figure 38** on the next pages show the scores and ratings for the *Overall Quality* composites for CHIP (**Figure 34**), STAR Child (**Figure 35**), STAR Adult (**Figure 36**), STAR+PLUS (**Figure 37**), and STAR Kids (**Figure 38**). The top row in each chart shows program performance by plan code. The remaining rows present the same performance scores sorted by service area and MCO to show variations within and among service areas. The five vertical bands indicate the five performance clusters calculated using k -means. Each cluster corresponds to a rating of one to five stars on the consumer-facing report cards (star rating categories appear at the bottom of each chart). The k -means clusters derive from the performance data and vary across programs and years.

⁹ In cases where insufficient information existed to compute a reliable rating, the report cards indicate “No rating”; a clarifying note informs users that this is due to not meeting information criteria and does not indicate poor quality.

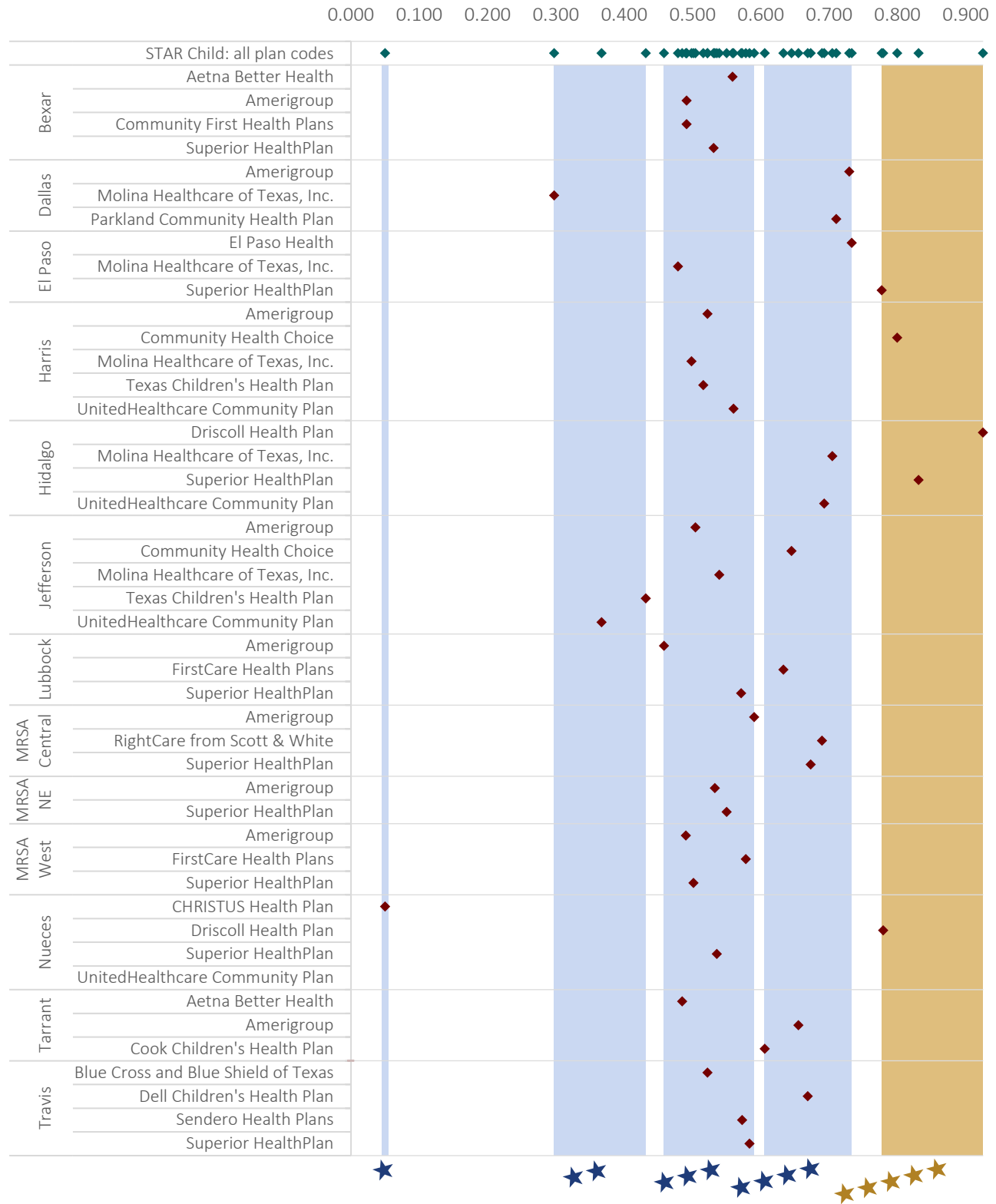
In 2018, Driscoll had the highest ratings with consistent five-star ratings on the overall quality composite in at least one service area in CHIP, STAR Kids, STAR+PLUS, STAR Adult, and STAR Child. Superior also performed well, with five-star ratings in at least one service area in all of the programs with the exception of STAR Kids. Amerigroup and Molina consistently had the lowest scores, with one-star ratings on the overall quality composite in at least one service area for four different programs. El Paso and Hidalgo had the highest frequency of five-star ratings on the overall quality composite among SAs, whereas Dallas had the highest frequency of one-star ratings on the overall quality composite.

Figure 34. Scores and Star Rating Clusters for Overall Quality Composite Scores, CHIP 2018



♦ Indicates the CHIP overall quality score for each plan/service area combination

Figure 35. Scores and Star Rating Clusters for Overall Quality Composite Scores, STAR Child 2018



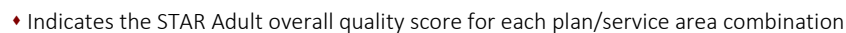


Figure 37. Scores and Star Rating Clusters for Overall Quality Composite Scores, STAR+PLUS 2018

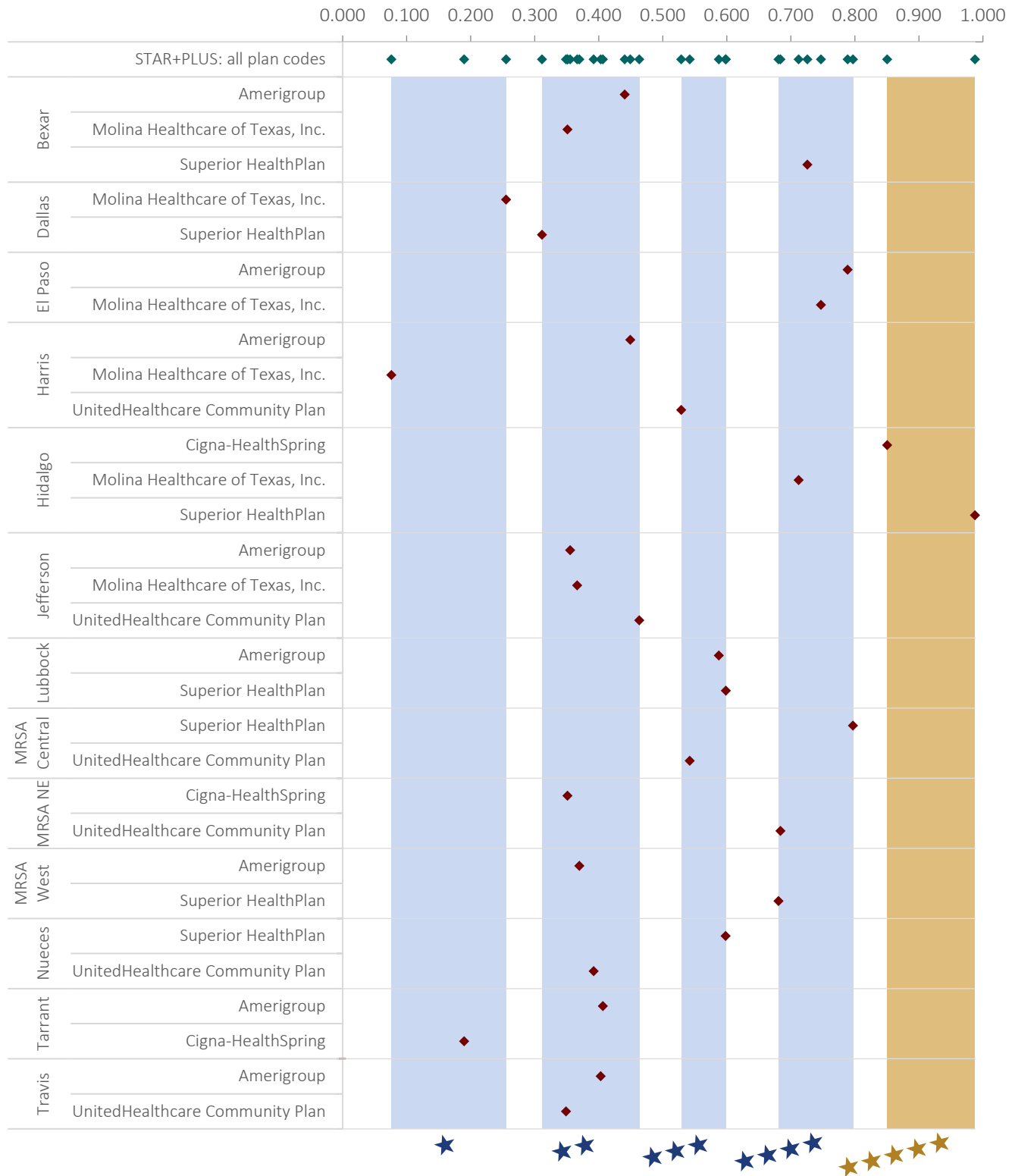
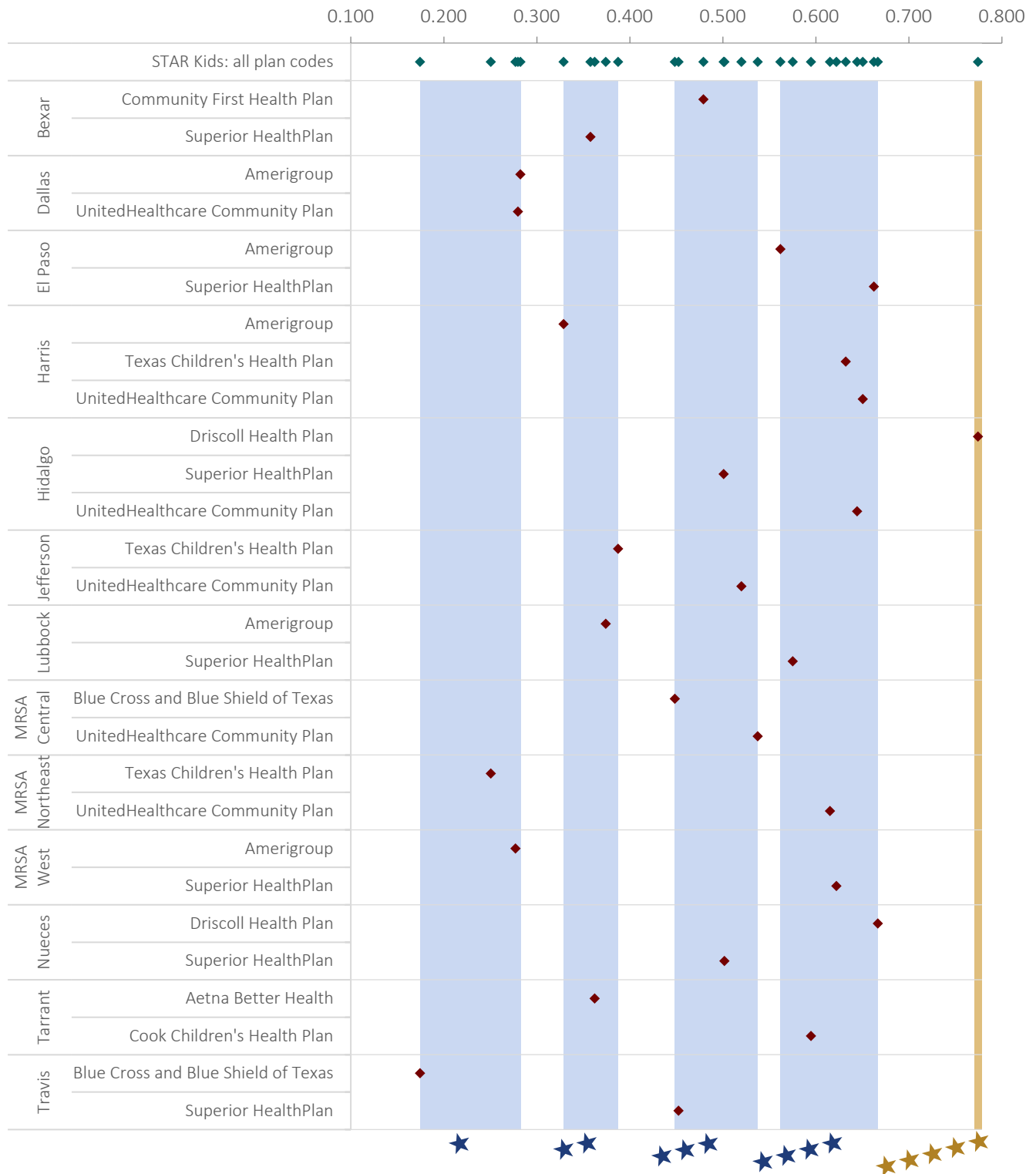


Figure 38. Scores and Star Rating Clusters for Overall Quality Composite Scores, STAR Kids, 2018



♦ Indicates the STAR Kids overall quality score for each plan/service area combination

Network Adequacy Studies

Appointment Availability Studies

Methods

Timely primary and specialist care appointments are vital to providing access to care to beneficiaries of public insurance programs. The Patient Protection and Affordable Care Act mandates that states monitor and evaluate network adequacy and access to timely care for members.¹⁰ Timely access to all covered services must be consistent with medically appropriate guidelines and accepted practice parameters that specify maximum wait times for several levels and types of care.

The Texas Medicaid and CHIP Managed Care Provider Appointment Availability Study focuses on the appointment availability for primary care, behavioral health, vision, and prenatal care providers as outlined in the Universal Managed Care Contract (UMCC) between Texas HHSC and the MCOs. Section 8.1.3 of the UMCC lists the maximum waiting time for appointments (**Table 43**).

Table 43. UMCC Standards for Appointment Wait Times

Level/Type of Care	Time to Appointment
Urgent care (child and adult)	Within 24 hours
Routine primary care (child and adult)	Within 14 calendar days
Preventive health services for newborn members	No later than 14 calendar days after enrollment
Preventive health services for new child members	No later than 90 calendar days after enrollment
Initial outpatient behavioral health visits (child and adult)	Within 14 calendar days
Preventive health services for adults	Within 90 calendar days
Prenatal care (not high-risk)	Within 14 calendar days
Prenatal care (high risk)	Within 5 calendar days
Prenatal care (new member in 3rd trimester)	Within 5 calendar days
Vision care (ophthalmology, therapeutic optometry)	Access without PCP referral

The appointment availability study uses the “secret shopper” method to assess the availability of appointments at sampled provider offices. Various studies have found this to be a valid, reliable, effective, and efficient way to determine service accessibility (52; 53). The EQRO hired and trained staff members to pose as potential new patients for the study, gave the callers copies of member-facing provider directories, and instructed them to call provider offices and attempt to schedule an appointment. During phone calls, staff followed several scripts that the EQRO developed in consultation with HHSC and clinicians in the UF College of Medicine. The EQRO designed the call scripts to elicit the necessary information for assessing compliance with appointment standards without creating undue concern among providers about the health of the member. Staff used HHSC-approved instruments specific to each level/type of care to collect data, which they then input into an online entry system for convenience and reliability. Notably, throughout the study, staff members did not actually schedule any appointments.

The EQRO calculates compliance rates for timeliness of appointments using only the calls that reach a provider with an appointment available. Calls with other dispositions are not included in calculating compliance with

¹⁰ Patient Protection and Affordable Care Act, 42 U.S.C. § 18001 (2010).

appointment wait times to avoid conflating problems due to directory quality with actual wait times for appointments. It is important to note, however, that the quality of provider directory information overall also affects a member's ability to contact providers and their access to appointments.

Behavioral Health Care Sub-Study

The EQRO conducted calls for the Behavioral Health Care sub-study from July through November 2017. Results are included in the SFY2018 annual report because the study was not completed in SFY2017. It is also important to note that in 2017, Hurricane Harvey delayed calls to behavioral healthcare providers in hurricane-affected counties. The EQRO suspended calls to CHIP and STAR+PLUS providers in Hurricane Harvey-affected counties from August 25 through October 8 and any associated results were not included in the 2017 report.

The EQRO calculated descriptive statistics on compliance rates (percentage of providers who offered appointment times within the UMCC-specified standards) and median, minimum, and maximum wait times when an appointment was available. Because the member-facing directories often contained incorrect or outdated information, the majority of calls did not result in available appointments. For example, the percentage of "Excluded providers" who either did not answer after three attempts or had the wrong number ranged from 48 to 61.1 percent. For all behavioral health care provider calls, the percentage of available appointments ranged from 12.1 to 12.4 percent (**Table 44**).

A majority of calls in the Behavioral Health Care sub-study did not result in an appointment.

Table 44. Final Disposition Code Weighted Percentages, All Behavioral Health Care Provider Calls

Final Disposition Codes	STAR	CHIP	STAR+PLUS
Excluded Providers	48.0%	57.6%	61.1%
Specialist	19.9%	12.5%	8.3%
Not Accepting Medicaid/CHIP	5.0%	4.0%	3.2%
Not Accepting Plan	1.1%	0.6%	0.9%
Not Accepting New Patients	3.9%	2.9%	4.3%
Needs Referral	1.3%	0.7%	0.7%
Needs Additional Information	8.7%	9.3%	9.3%
Appointment Available	12.1%	12.4%	12.3%

The EQRO calculated an overall program-level compliance rate of 76 percent for STAR Adult providers, 77.4 percent for STAR Child providers, 79.2 percent for CHIP, and 81.7 percent for STAR+PLUS. Across the programs, the median wait time was less than seven days (**Table 45**).

Behavioral health care providers in STAR+PLUS had the highest rate of compliance with appointment wait times.

Table 45. Weighted Percentage of Providers in Each Program That Meet the UMCC Appointment Standard

Provider Type	CHIP	STAR Child	STAR Adult	STAR+PLUS
Behavioral Care	79.2%	77.4%	76.0%	81.7%
Median Wait Time (Days)	4	5.1	5.4	5.1

Across all programs, only a few providers (18.2 to 22.6 percent) offered weekend appointments, and less than half (24.2 to 42.5 percent) of providers offered after-hours appointments (**Table 46**).

Table 46. Weighted Percentage of Behavioral Health Providers Office Characteristics

Accessibility Services	CHIP	STAR	STAR+PLUS
Weekend Appointment Option	19.3%	18.2%	22.6%
Affiliated After-Hours	24.2%	42.5%	41.4%

Prenatal Care Sub-Study

The EQRO conducted the Prenatal Care Appointment Availability sub-study in November and December 2017. During this sub study, the EQRO made calls posing as new members with low-risk pregnancies, high-risk pregnancies, and as members in their third trimester of pregnancy. Low-risk appointment call scripts identified callers as new members in the first 12 weeks of pregnancy with no complications, high-risk call scripts identified callers as new members with diabetes during pregnancy, and third-trimester call scripts identified the callers as new members in their third trimester of pregnancy. Per UMCC standards, appointment wait times are 14 calendar days for low-risk pregnancies, and five days for high-risk and third trimester pregnancies.

The EQRO calculated descriptive statistics on the frequency of call dispositions, accessibility of services (e.g., weekend appointments, physician on call, 24/7 nursing call line, availability of adjustable exam table) and compliance rates (percentage of providers who offered appointment times within the UMCC-specified standards) for low-risk, high-risk, and third-trimester appointments.

High-risk prenatal care providers had the lowest rate of compliance with wait time standards.

Overall, program-level compliance rates were 72.5 percent for the low-risk sub-study, 27.9 percent for the high-risk sub-study, and 57.9 percent for the third-trimester sub-study. Fewer than five percent of attempted calls to high-risk and third-trimester providers resulted in appointments that met UMCC compliance standards (**Table 47**).

Table 47. Weighted Percentage of Providers in Each Plan that Met the UMCC Appointment Standard

Provider Type	STAR	Median Wait Time (Days)
Low-Risk Prenatal Care	72.5%	8
High-Risk Prenatal Care	27.9%	7.5
Third-Trimester Prenatal Care	57.9%	5

As noted in the introduction, the quality of provider directory information affects whether the EQRO can even reach a provider, much less make an appointment. The majority of calls to providers in the prenatal care sub-study did not result in an appointment. The EQRO excluded between 43.2 and 45 percent of providers from the samples because they could not reach them after three calls or the call resulted in a wrong number. Compliance calculations also excluded additional providers that did not accept Medicaid or the plan, did not accept the pregnancy type, did not accept new patients, required a referral, etc. A list of final disposition codes for all calls is included in **Table 48**. The EQRO exhausted the prenatal

A majority of calls in the Prenatal Care sub-study did not result in an appointment.

sample for many of the health plans because of the high percentage of excluded providers due to directory inaccuracies.

Table 48. Weighted Percentage of Final Disposition Code for All Calls by Prenatal Care Type

Final Disposition Codes	Low-Risk	High-Risk	Third Trimester
Excluded Providers	43.2%	44.3%	45.0%
Specialist	16.1%	10.9%	12.6%
Not Accepting Pregnancy Type	3.4%	2.6%	7.3%
Not Accepting Medicaid/CHIP	10.1%	10.8%	12.0%
Not Accepting Plan	2.2%	2.1%	3.2%
Not Accepting New Patients	1.6%	2.6%	3.5%
Needs Referral	0.1%	1.2%	0.5%
Needs Additional Information	7.0%	15.1%	10.3%
Appointment Available	16.3%	10.4%	5.7%

Furthermore, the study found low accessibility of services (e.g., less than one percent of low-risk and third-trimester appointments offered a weekend appointment option) and the providers who offered adjustable exam tables ranged from 7.2 percent for high-risk members to 37.1 for low-risk members (Table 49).

Table 49. Provider Office Characteristics for Each Prenatal Care Type

Accessibility Services	Low-Risk	High-Risk	Third Trimester
Weekend Appointment Option	0.5%	6.2%	0.8%
Physician on Call	76.7%	87.8%	83.0%
24/7 Nursing Call Line	56.4%	57.7%	54.4%
Adjustable Exam Table	37.1%	7.2%	22.3%
Total Appointments Available	211	110	77

The overall results from both Appointment Availability sub-studies suggest several areas for improvement:

1. The number of excluded providers in both studies is greater than 40 percent of the sample, indicating a continued need to improve the quality of provider directory information. The EQRO excludes providers from the study when callers cannot reach the provider after three tries, the number is wrong, or the number is disconnected.

Excluding providers because of the poor quality of directory information often causes the EQRO to exhaust the samples for health plans and results in small sample sizes when calculating compliance. HHSC and the MCOs should continue exploring ways to improve the quality of provider directory information and establish ways to hold providers and the MCOs accountable for the quality of the directory information.

2. Very few weekend and after-hours appointments are available, which limits the availability of behavioral health and prenatal care appointment options for members. HHSC and the MCOs should consider ways to increase the availability of after-hours and weekend appointments through increased use of telemedicine services or incentives for providers to practice in more remote areas.

Very few prenatal care providers offered weekend appointment options or adjustable exam tables.

3. The lowest compliance rate for appointment availability (27.9 percent) occurred in the high-risk prenatal care category, indicating the women most at risk for poor pregnancy outcomes are the least likely to get a timely appointment. HHSC and the MCOs need to work with providers to identify the barriers to providing timely care for women with high-risk pregnancies and increase the availability of high-risk appointments.

Primary Care Provider Specialty Referral Study

The Primary Care Provider (PCP) specialty referral study is a statewide examination of PCP experiences in referring members in Texas Medicaid managed care and CHIP to specialty care. The study is an effort to continue the monitoring of Texas provider network adequacy. The purpose of the study is to identify the barriers that PCPs experience when making specialty referrals and to use these findings to develop targeted strategies to improve access to care for Medicaid and CHIP beneficiaries.

The SFY2018 PCP Referral Study had the following specific aims:

1. Examine whether differences exist in the ease/difficulty of specialty referrals for providers in Metropolitan and Micropolitan/Rural counties and how these differences vary by program.
2. Describe the social network characteristics associated with specialty referrals and the interactions between PCPs and specialists.

Methods

The EQRO used SFY2017 Standard Encounter data to determine eligible providers in an effort to limit problems related to member-facing directories. The study stratified samples by program (CHIP, STAR Health, STAR+PLUS, STAR Kids, and STAR) and by county-level network adequacy category (Metropolitan and Micropolitan/Rural).

Eligibility criteria for PCP providers included:

- At least one encounter for any MCO for any program in 2017: CHIP, STAR Health, STAR+PLUS, STAR Kids, and STAR.
- The claim type for a qualifying encounter must be professional, or if it is institutional, the bill type must be "Rural Clinic," "Freestanding Clinic," or "FQHC."
- The claim status for the encounter is "paid."
- The encounter is a primary care visit based on HEDIS Adults' Access to Preventive/Ambulatory Health Services (AAP) and HEDIS Children and Adolescents' Access to Primary Care Practitioners (CAP) value sets (excluding ophthalmology, nursing/residential care facilities, and telehealth).
- At least one facially valid address is associated with the provider and all expected address elements are present.
- A valid NPI for the rendering provider and the NPI is active in Medicaid/CHIP managed care as of March 2018.

The EQRO assigned five hundred providers to each program per county-level category, resulting in ten quotas and a sample sum of 5,000 providers; however, the EQRO used a final sample of 4,998 providers after address verification found two undeliverable addresses at the time of mailing. The study assigned unique provider IDs to each provider in the sample to maintain the confidentiality of survey responses.

The EQRO used a mixed-mode model for data collection that included a regular mail and an online version of the survey tool on REDCap. The survey tool collected information about respondent practice type, the specialists they interact with most frequently for referral, difficulties with referrals, the amount of time needed to refer pediatric and adult members, and provider satisfaction in interactions with Medicaid and CHIP managed care organizations. The EQRO also collected provider network information using questions asking providers to identify five physician

specialists to whom they most commonly referred members in the past two years. Follow-up network questions asked about the location of these specialists, how frequently the PCP refers patients to them, the most frequent reason for referring to these specialists, and whether the PCP knew if any of the specialists referred members to other specialists that they listed.

The EQRO used a modified version of the Dillman Method (54) to contact providers in the following steps:

1. First, the EQRO mailed a notification letter to all providers explaining the purpose of the survey, with a two-dollar bill incentive and a link to complete the survey online.
2. Two weeks later, all providers received a paper copy of the survey and a postage-paid return envelope. This mailing also contained a link to complete the survey online.
3. Two weeks after mailing the survey, the EQRO sent a reminder postcard to providers who had not returned the survey.
4. Simultaneously, the EQRO conducted follow-up calls with a random subsample of the providers who had not returned a completed survey at the time the EQRO mailed reminder postcards. These calls verified provider address information, asked providers if they received the survey, and asked providers if they planned to complete the survey. The EQRO gave providers who did not recall receiving the survey the option to complete the survey online or to have a second survey mailed to them.

Provider directory information had unreliable contact information. Approximately 24 percent of the follow-up calls identified incorrect information and ten percent of addresses failed USPS validation.

Ten percent of provider addresses required correction during the address verification process and the postal service rejected an additional six percent of the addresses that failed verification against the National Change of Address (NCoD) database or USPS Delivery Point Validation (DPV).

The EQRO made follow-up calls to 2,875 (60 percent) of providers who had not completed the survey after two weeks of mailing. The study halted calls after survey responses dropped to the point where additional calls were unlikely to improve survey response rates. Approximately 33 percent of the follow-up calls with providers identified problems associated with information in the provider directory. **Table 50** lists the final disposition codes for follow-up calls.

Table 50. Call Disposition Outcomes SFY2018 PCP Referral Study

Call Disposition	Count	Percent
Voicemail/Busy/Call Center	892	31.0%
Wrong Number ^a	538	18.7%
Not Available/Call Back	328	11.4%
Address Correction ^a	288	10.0%
Hold/Disconnected	211	7.3%
Email Survey	175	6.1%
Complete/Will Complete	155	5.4%
Number Not in Service ^a	136	4.7%
No Answer	107	3.7%
Refusal	45	1.6%
Total	2,875	100%

^a Addresses and phone numbers with errors associated with provider directory information.

Results

The EQRO received 316 completed surveys. Providers not meeting the eligibility criteria and surveys where the responses could not be associated with a valid Provider ID were excluded from analysis (N=31). The EQRO weighted remaining 285 completed surveys by sampling quota.

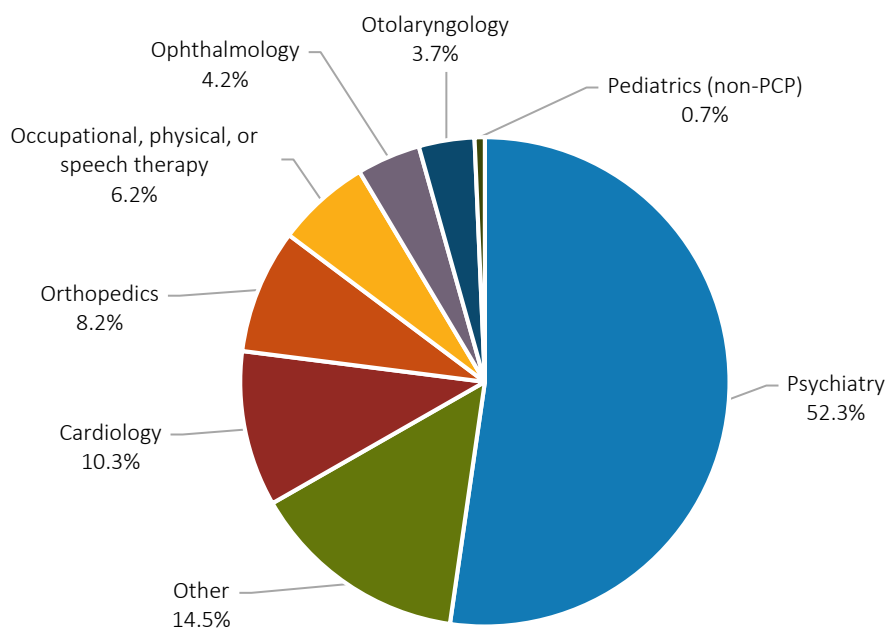
Approximately 80 percent of providers identified themselves as a Physician (MD/DO) and 38 percent were part of a family practice. CHIP was the most frequently accepted program (76.4 percent), followed by STAR+PLUS (74.2 percent) and STAR (73.3 percent). Member population differed according to rural classification and program. Providers in Metropolitan areas frequently reported seeing a higher number of adult members compared to providers in Micropolitan/Rural areas.

CHIP, STAR Health, and STAR Kids providers reported a higher proportion of pediatric members while STAR+PLUS and STAR reported higher proportions of adult members. This distribution is not surprising given the composition of each of the programs.

Just over 48 percent (48.4 percent) of providers reported having fewer than ten patients per week who required a specialty referral. Providers identified psychiatrists as the most difficult referral type for both pediatric and adult patients. Among pediatric patients, providers identified pediatric otolaryngology (ENT) as the most common “very easy” referral. Providers most frequently identified psychiatry referrals for children as taking longer than a month. For adult patients, providers considered referrals to psychiatry as well as outpatient behavioral health to be “very difficult” with adult psychiatry referrals taking longer than a month. Finally, providers indicated that referrals for obstetrics were the least difficult referral type for adults (**Figure 39**).

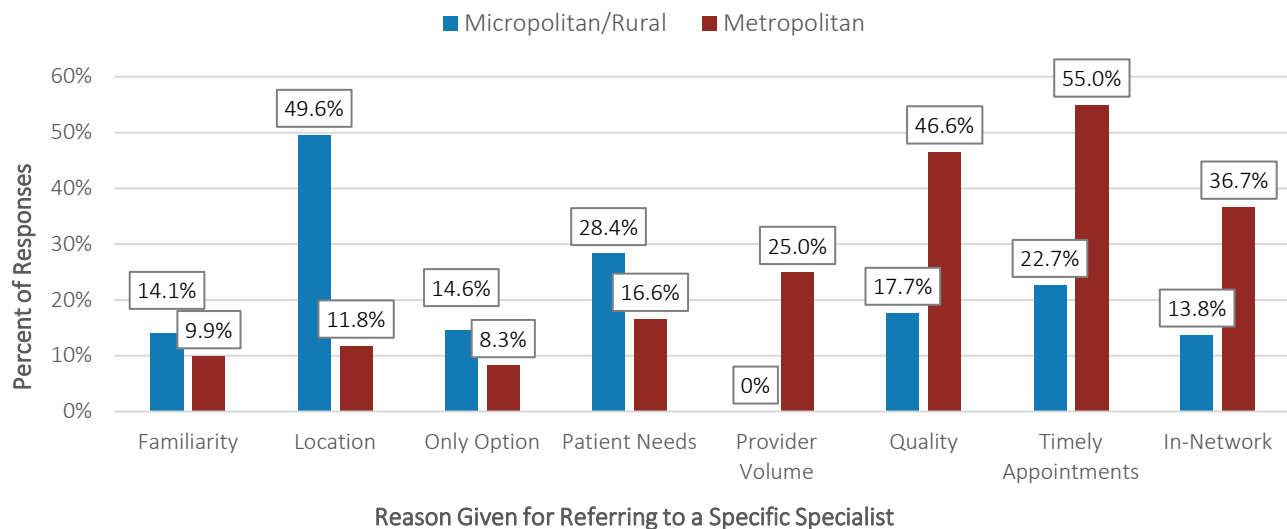
For the third year in a row, PCPs rated Psychiatry referrals as the “most difficult” specialty referral type.

Figure 39. Specialties Identified as the Most Difficult for Pediatric Referral (All Respondents)



Thirty-five providers responded with complete information regarding specialty referral networks. Orthopedics was the most commonly mentioned type of specialty in referral networks (46.2 percent), followed by gastroenterology (42.8 percent), and otolaryngology (40.4 percent). Most providers made specialist referrals within provider networks and on a weekly or monthly basis. Timely appointments and location were the most common reason for referrals to a specific provider. Providers in Micropolitan/Rural locations most often cited location as the primary reason for referral to a particular specialist while providers in Metropolitan areas most frequently cited the quality of care and timeliness of appointments as a primary reason for referral. **Figure 40** illustrates the variation in reasons for referring to a specific provider.

Figure 40. Reasons Given for Referral by Providers in Micropolitan/Rural and Metropolitan Areas



Recommendations from the SFY2018 PCP Referral Study

The results of the address certification process during mailing and follow-up calls to providers indicate that inaccuracies in provider directory information continue to be a concern. Using the address information from encounter data did not improve the quality of provider address information. Therefore, HHSC should consider returning to the provider directories from the health plans as a source of provider information in future iterations of the study.

Social network analysis can provide valuable information on personal networks for providers and how PCPs use these networks to overcome barriers to specialty referral; however, the sample of providers that responded to the network questions in SFY2018 was too small for analysis. The data collected on networks in SFY2018 did not provide much information beyond what could be identified using traditional survey methods. If HHSC wants to continue collecting network information, the EQRO will need to approach data collection in a different way. At this point, the EQRO recommends removing the social network analysis component of the study in later iterations of the study.

Providers continue to identify psychiatry as the most difficult specialty for referral, especially in rural counties. Rural providers also cited time and distance as one of their primary concerns for referral. HHSC and the MCOs should explore strategies for increasing the prevalence and availability of psychiatrists and psychiatric care in more remote areas. The EQRO recommends that HHSC include questions about how PCPs use telemedicine resources to bridge gaps in provider networks in future iterations of the PCP Referral Study.

Long Term Services and Supports

STAR Kids Focus Study

Since its initiation in November 2016, the STAR Kids program has provided managed care services to Medicaid members 20 years of age and younger who receive Supplemental Security Income (SSI) benefits or benefits through state programs for children with disabilities, such as waiver programs for home and community-based services (HCBS) (55). The EQRO is conducting a multi-year focus study to evaluate the implementation of STAR Kids and recommend a performance measure set that is appropriate to the STAR Kids population.

The overall STAR Kids Focus Study has three aims for evaluation:

1. Assess changes in utilization and quality of care among STAR Kids members by comparing pre- and post-implementation findings on key administrative and survey measures.
2. Provide baseline STAR Kids MCO profiles that present results on member characteristics, service groups, utilization, satisfaction, and quality of care for each STAR Kids MCO.
3. Refine the measure set and conceptual framework for STAR Kids evaluation studies, based on analysis of how existing administrative and survey measures perform, feasibility of reporting measures at the MCO level, and availability of new measures.

The study uses multiple data sources and methods of data collection and analysis, including administrative claims and encounter data, telephone surveys with caregivers of STAR Kids members, qualitative interviews with key personnel at the STAR Kids MCOs, secondary analysis of existing survey datasets (including the 2015 National Core Indicators - Child and Family Survey data), and quality review of samples of STAR Kids Screening and Assessment Interview (SK-SAI) collected by the MCOs.

During SFY2018, work on the STAR Kids Focus study included qualitative interviews with STAR Kids MCOs about MCO structure and processes related to program membership and a follow-up (post-implementation) telephone survey of caregivers who had participated in the baseline (pre-implementation) survey in 2016. The discussion below presents the methods and findings of these activities.

STAR Kids MCO Interviews

The EQRO conducted interviews with STAR Kids MCOs to assess their experiences during the first year of implementation and to collect information on MCO structure and processes for ensuring a high quality of care for STAR Kids members.

The interviews included a set of open-ended questions regarding challenges and successes encountered during implementation, resources for care coordination, methods for monitoring enrollment, concerns from parents and disability advocates, network adequacy, and continuity of care. All ten STAR Kids MCOs provided written responses to the questions. The EQRO reviewed the responses and drafted follow-up questions for the MCOs, and posed the questions in-person during site visits (August to December 2017) or via teleconferences (January and February 2018) with key MCO staff. The EQRO audio recorded and transcribed all site visits and teleconferences for analysis.

To analyze the data, the EQRO developed a codebook through review of written responses, producing 80 distinct codes that it grouped into six general theme categories: barriers, complaints, goals, networks, services, and strategies. During review of the transcripts, the team specified several new codes to capture emerging themes that fell under one of the general categories. Using this codebook, the team then conducted a content analysis of all interview transcripts, allowing for identification of the most common and salient themes (56). Review of

findings focused on both common experiences and unique or innovative approaches to care. **Table 51** shows the definitions of the six major theme categories and the number of distinct codes assigned to each.

Table 51. STAR Kids MCO Written Responses, Major Themes

Category	Definition: Comments Regarding...	Number of Codes
Barriers	Barriers or challenges encountered by the MCO for effective care coordination and high-quality care in STAR Kids	17
Complaints	Complaints (whether formal or informal) received by the MCO from STAR Kids members, caregivers, providers, or advocates	8
Goals	The MCO's goals or objectives for its STAR Kids line of business	8
Networks	The provider networks that serve the MCO's STAR Kids members	12
Services	Services or care available to, or needed by, the MCO's STAR Kids members or their families	13
Strategies	Strategies and practices the MCO employs to overcome barriers/challenges to STAR Kids program implementation, and to ensure effective care coordination and high-quality care	22

Common areas of concern regarding STAR Kids program implementation included resistance to the program on the part of families and providers, changes to or reductions in services, medical necessity denials, and issues with scheduling and completing the SK-SAI. **Table 52** lists codes related to barriers, the codes' definitions, the relative presence of codes in the interview transcripts, and the number of MCOs citing the codes. In particular:

1. Many MCOs reported early resistance to the program by families and providers, in part due to critical reports by news organizations and advocacy groups. Fears about service reductions under STAR Kids lessened as members and providers developed relationships with their service coordinators and gained experience with the program.
2. Poor quality member contact information has led to challenges in scheduling initial visits for screening and assessment. Once visits are scheduled, completing the SK-SAI can be a challenge due to its length and format.
3. MCOs found that some families of low-risk members, who have fewer needs for long-term services and supports (LTSS), such as private-duty nursing (PDN) or personal care services (PCS), may be less likely to schedule appointments for the SK-SAI because they are not aware of the need for assessment, are self-sufficient, or are accustomed to the less-involved level of assessment under traditional fee-for-service (FFS) Medicaid.
4. Some MCOs reported denials of medical necessity for the Medically Dependent Children's Program (MDCP). These denials may occur because the SK-SAI enables a more detailed and appropriate assessment of needs for children than the more adult-focused Medical Necessity and Level of Care (MN/LOC) assessment that traditional FFS Medicaid used. While the SK-SAI and MN/LOC include all the same Resource Utilization Group items used to determine medical necessity, the SK-SAI collects additional information that can impact medical necessity determination for MDCP.

Common areas of concern regarding STAR Kids program implementation included resistance to the program on the part of families and providers, changes to or reductions in services, medical necessity denials, and issues with scheduling and completing the SK-SAI.

Most MCOs reported that members experienced changes or reductions to certain service types, such as PDN. These changes typically occurred because of partial denials of PDN services (e.g. a reduction of authorized PDN hours) from what traditional FFS Medicaid previously authorized and provided. In many cases, the MCOs reported that increases in other service types, such as PCS, replaced reduction of PDN hours.

Table 52. Most Commonly Cited Barriers in STAR Kids MCO Interviews

Barriers Code	Definition: Comments regarding...	Percentage of All Interview Quotations ^a	Number of MCOs Citing
Resistance	Resistance to participate in the program on the part of members, providers, or communities	14%	9
Eligibility	Other problems related to confirming, determining, or maintaining program eligibility	9%	9
Early Stage	Barriers encountered at start-up or in the early stages of implementation	9%	7
SAI/ISP (Completion) ^b	Difficulties in completing SAI or ISP forms with members/caregivers	8%	8
SAI/ISP (Scheduling) ^b	Difficulties in scheduling appointments for members/caregivers to complete SAIs or ISPs	8%	9
Contact Information	Issues with the quality or completeness of member contact information	5%	7
Member Awareness	Barriers that result from lack of/insufficient member awareness of the STAR Kids program	5%	7
Service Reduction	Reduction or changes to specific types of services for new members after enrollment	5%	6
Data Quality	Issues with data quality/accessibility and performance of data systems	4%	6
Contract	Barriers related to HHSC contract requirements ^c	4%	6
Rural Areas	Barriers to care for members living in rural areas of the state	4%	8
Low-Risk Groups	Issues related to care coordination or service delivery for members in lower-risk groups	3%	7
Provider Awareness	Barriers resulting from lack of/insufficient provider awareness of the STAR Kids program	3%	7

^a This represents the percentage of all coded interview quotations (regardless of the code/s used), across all transcripts, that had the indicated Barriers code. The number of all coded interview quotations was 307, which is the denominator used for all percentages in the table. These percentages represent the frequency of mentions for each Barriers theme generally, and provide information on the relative salience/importance of the theme to the MCOs.

^b References to contract-related barriers included administrative burden placed on providers (e.g., authorization process, reimbursement, paperwork), frequent changes to requirements for quarterly reporting, restrictive criteria for developing and implementing performance improvement projects (PIPs), difficulty meeting appointment standards, requirements for SAI administration, and lack of a provision for waiver of the MDCP interest/waiting list.

The interviews also revealed several promising strategies taken by the STAR Kids MCOs to ensure effective care coordination and service delivery, including stakeholder engagement, strategies to improve transition of members from pediatric to adult care, and methods for building provider networks and ensuring continuity of care. **Table 53** lists codes related to strategies, their definitions, their relative presence in the interview transcripts, and the number of MCOs citing them. In particular:

1. Engagement of member, family, provider, community, and advocacy stakeholders was the most common strategy employed by STAR Kids MCOs. Stakeholder engagement strategies fell into six main categories based on the goal of engagement: (a) addressing barriers to service delivery and quality; (b) providing

- better services for STAR Kids members in schools; (c) improving relationships or sharing information with members; (d) improving relationships or sharing information with providers; (e) listening to member or family concerns; and (f) training MCO staff members.
2. To improve transition of members to adult care, MCOs stressed the importance of beginning the transition process early. Keys to successful transition include establishing transition specialists, educating families on the process of transition, and working with providers and other health plans on specific cases.
 3. MCOs noted that issues of network access or adequacy were similar to those experienced in other lines of business, and included shortages of behavioral health providers (in particular, pediatric psychiatrists) and other specialists. Keys to successful recruitment of providers include hiring talented marketing staff, negotiating reasonable and appropriate payment rates, and establishing a reputation for having sufficient membership, reducing administrative burden, and maintaining good provider relations.
 4. Continuity of care provisions required STAR Kids MCOs to honor existing authorizations and pay for services rendered to members' by previously established out-of-network providers for six months after implementation. Some MCOs voluntarily extended this period an additional six months. To ensure continuity of care beyond this period, STAR Kids MCOs identified these providers early – either directly through members' families or indirectly through claims data.

Table 53. Most Commonly Cited Strategies in STAR Kids MCO Interviews

Strategies Code	Definition: Comments Regarding...	Percentage of All Interview Quotations ^a	Number of MCOs Citing
Stakeholder Engagement	MCO efforts to engage member, provider, community, or advocate stakeholders	19%	10
Partnerships	Partnerships established by MCOs with state, community, or advocacy organizations	13%	8
Member Education	MCO efforts to educate members, typically about program benefits or complaints processes	11%	9
Member Outreach	MCO efforts to reach out to members once located, typically for initial SK-SAI scheduling	11%	9
Staff Engagement	MCO efforts to train or otherwise engage staff or employees	10%	9
Provider Education	MCO efforts to educate providers, typically about program benefits or claims processes	8%	8
Member Location	MCO efforts to locate members, typically for initial contact and SK-SAI scheduling	5%	9
Caregiver Support	MCO efforts to support caregivers of STAR Kids members, including support for their health, economic, social, and other needs	4%	6

^a This represents the percentage of all coded interview quotations (regardless of the code/s used), across all transcripts, that had the indicated Strategies code. The number of all coded interview quotations was 307, which is the denominator used for all percentages in the table. These percentages represent the frequency at which each Strategies theme was mentioned generally, and provide information on the relative salience/importance of the theme to the MCOs.

Recommendations

Based on findings from the STAR Kids MCO interviews, the EQRO made the following recommendations as the STAR Kids program moved into its third year of operation:

1. STAR Kids MCO service coordinators should prepare families in advance during annual reassessments for MDCP eligibility determination. Service coordinators should inform families about their right to a fair

- hearing if they are denied medical necessity. Service coordinators should also help families identify alternative services in the event they lose their fair hearing.
2. STAR Kids MCOs should continue to monitor participation of new members in low-risk groups, educate families on the value of service coordination, and prepare for longer and more intensive relationship building with these families.
 3. To update contact information for new members, STAR Kids MCOs should continue practices, such as driving to listed addresses after telephone and mailed correspondence attempts are unsuccessful, and using claims data to identify providers who can help locate new members. Notably, a potentially significant proportion of unreachable members may have no claims data available. HHSC should consider further study into these cases to address why members do not have claims, and whether and where these members might be receiving care.
 4. The full SK-SAI may not be necessary for families of members with fewer needs. Texas HHSC and STAR Kids MCOs should consider changes to the assessment process, such as populating demographic fields prior to the visit, modifying the triggers for specialized modules, and reviewing the functionality of data entry systems and procedures.
 5. STAR Kids MCOs may consider several promising approaches to stakeholder engagement, including partnering with Texas community and disability advocacy organizations to teach MCO service coordinators how to communicate with families of children with special healthcare needs; embedding service coordinators in health homes to engage providers; and establishing or improving upon online portals to engage members.
 6. STAR Kids MCOs may also consider innovative approaches to improving transition services, such as making home visits with STAR+PLUS service coordinators, implementing the [Got Transition program](#) within provider networks, and establishing transition centers.
 7. In rural areas, where shortages of behavioral health and specialist providers are common, MCOs should improve access to care through transportation assistance and telemedicine services.
 8. Continued monitoring of out-of-network provider usage is important. Some out-of-network providers for existing STAR Kids members may be concerned about their capacity to take on additional members; STAR Kids MCOs may consider allowing these providers to close their panels after joining the network.

STAR Kids Post-Implementation Focus Study

In the three months immediately prior to implementation of the STAR Kids program (August to October 2016), the EQRO conducted a baseline telephone survey of 986 caregivers of children eligible for the program. Medicaid members 20 years of age or younger who received services or benefits through Supplemental Security Income (SSI) and/or through a MDCP or IDD waiver for HCBS, were eligible for the study. 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), an IDD waiver (N=236), FFS-SSI (N=255), and STAR+PLUS-SSI (N=248) in the six months prior to survey administration. The survey included questions from CAHPS and the National Survey of Children's Health (NSCH) assessing caregivers' experiences and satisfaction with their child's personal doctors, well-child care, specialist care and specialized services, care coordination, transportation services, prescription medicines, and transition to adult care.

The EQRO fielded a post-implementation telephone survey with the same caregivers approximately 18 months following program implementation (May to July 2018). This fielding period allowed the survey to capture experiences and satisfaction with care delivered after the continuity of care provisions had ended and ensure that findings were relevant to STAR Kids network providers. Among the caregivers who had participated in the

baseline survey, 400 completed the follow-up survey (for a response rate of 58 percent). The EQRO completed fielding of the post-implementation survey prior to the end of SFY2018, and is presently conducting a statistical analysis of the survey data to determine whether changes in key survey measures are significant after controlling for member demographics, health status, and health service factors. The EQRO will submit findings from this analysis to HHSC during SFY2019. The discussion below presents preliminary findings comparing the pre- and post-implementation survey responses, which are descriptive and do not control for other factors that may influence responses.

The following findings show changes in STAR Kids caregiver experiences and satisfaction at the aggregate level, comparing average rates and means from the pre-implementation survey with those from the post-implementation survey. The EQRO compared all members in the study overall and separately for members in MDCP, members in an IDD waiver, and members not in a waiver program. The analysis included chi-square and t-tests to assess whether changes were statistically significant.

The findings show changes in three general domains:

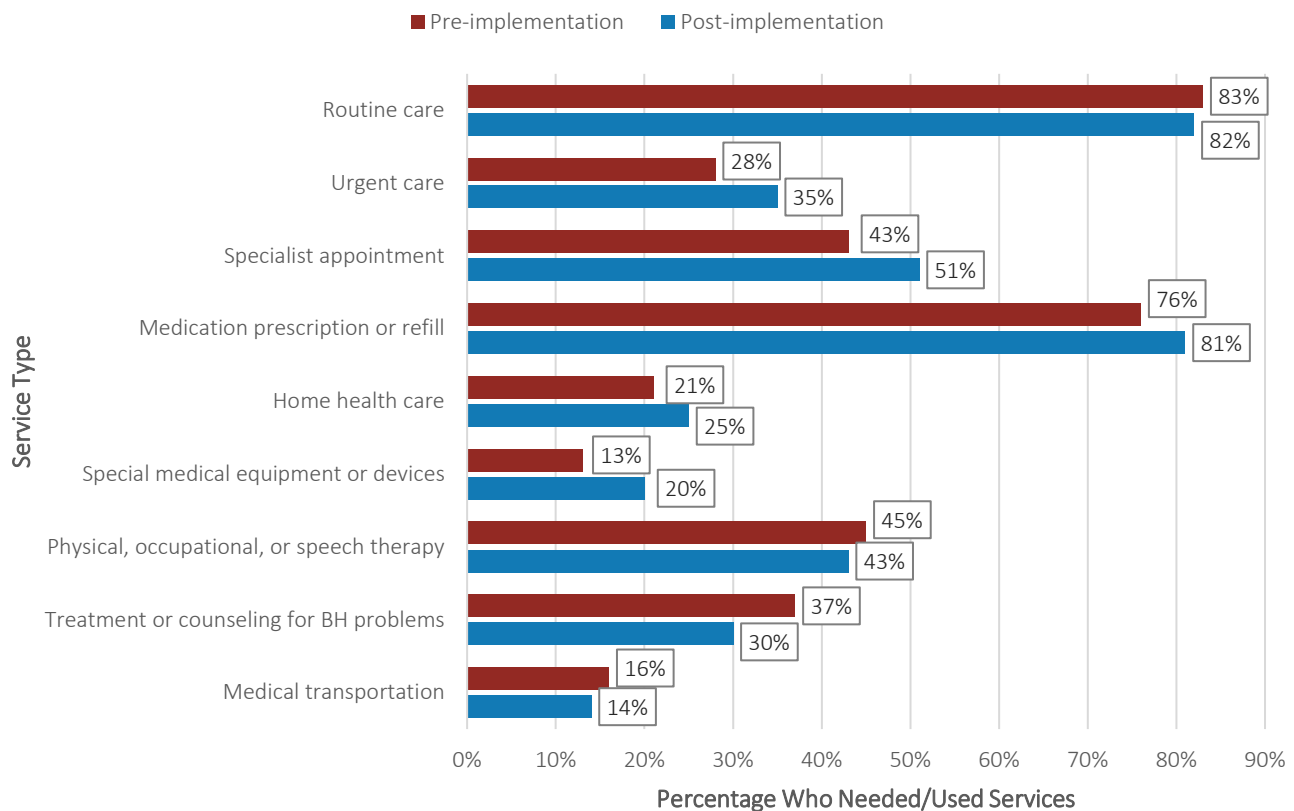
1. STAR Kids member service need and utilization.
2. Caregiver experiences and satisfaction with their child's care, as measured by CAHPS composite measures and ratings.
3. Caregiver experiences with coordination of their child's care, as measured by items from the NSCH.

Service Need and Utilization

Figure 41 highlights the differences in need for, or utilization of, nine types of health services by STAR Kids members at the program level. Following implementation of STAR Kids, caregiver-reported utilization increased for urgent care, specialist appointments, medication prescriptions or refills, home healthcare, and special medical equipment or devices. Caregiver-reported utilization decreased for special therapies, BH treatment or counseling, and medical transportation.

Following implementation of STAR Kids, caregiver-reported utilization increased for urgent care, specialist appointments, medication prescriptions or refills, home healthcare, and special medical equipment or devices.

Figure 41. Caregiver Reported Changes in Service Need/Utilization, Pre- and Post- STAR Kids Implementation

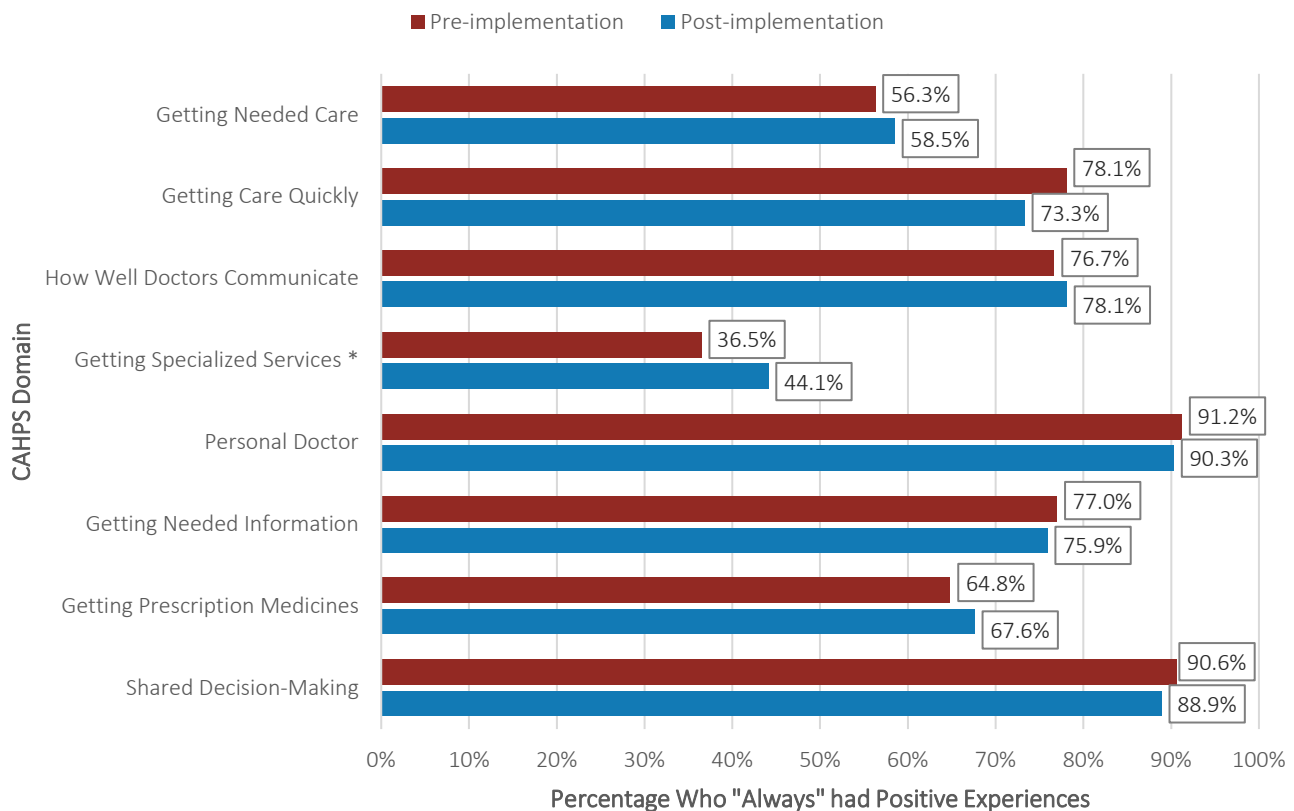


While none of these changes was statistically significant at the program level, the EQRO did find significant changes for some measures in specific sub-groups (not shown in the figure). MDCP members saw significant decreases in the use of routine care (100 percent to 93 percent) and special therapies (77 percent to 65 percent). Furthermore, members not in a waiver program saw significant increases in the use of specialist appointments (40 percent to 49 percent), prescription medicines (75 percent to 80 percent), and home healthcare (18 percent to 25 percent), and a significant decrease in use of BH counseling or treatment (37 percent to 29 percent).

CAHPS Measures

Figure 42 shows differences in caregiver experience with eight domains of care. Findings on these domains are assessed using CAHPS composites, which represent the percentage of caregivers who "always" had positive experiences with their child's care. The EQRO noted few changes at the program level, with the exception of *Getting Specialized Services*, which increased significantly from 37 percent to 44 percent. The EQRO also found significant increases among caregivers of MDCP members with regard to getting prescription medicines, getting special medical equipment or devices, and receiving advice from doctors about reasons their child should take a medication.

Figure 42. CAHPS Composite Rates, Pre- and Post- STAR Kids Implementation

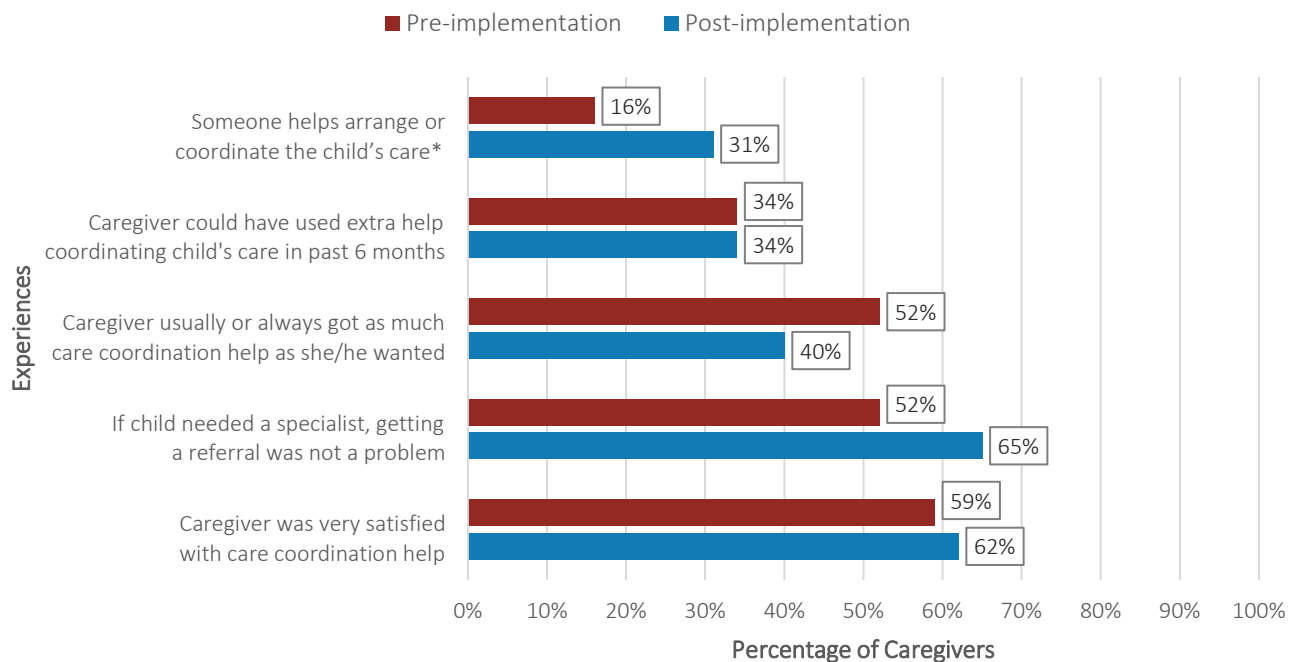


The EQRO measured caregiver satisfaction using CAHPS ratings, which ask respondents to rate their care on a scale from zero to 10 (not shown in the figure). The EQRO found no significant changes in the percentage of caregivers who rated their child's care a "9" or "10" with regard to personal doctors, specialists, or overall healthcare. Rates for these measures in the post-implementation period were 75 percent for personal doctors, 77 percent for specialists, and 74 percent for overall healthcare.

Care Coordination

Figure 43 shows differences in caregiver experiences with the care coordination received by STAR Kids members, as measured using selected items from the NSCH. In the study sample overall, the percentage of caregivers saying they had someone to help arrange or coordinate their child's care increased significantly, from 16 percent to 31 percent. However, a lower percentage of caregivers in the post-implementation period stated that they "usually" or "always" got as much care coordination help as they wanted. The study also showed increases in the percentage of caregivers who said it was "not a problem" to get a specialist referral for their child, and the percentage who were "very satisfied" with their child's care coordination, although these increases were not statistically significant.

Figure 43. Caregiver Experiences with Care Coordination, Pre- and Post- STAR Kids Implementation



Although these descriptive findings, which compare pre- and post-implementation survey results, are preliminary, they do point toward areas of service delivery (e.g. specialized services) that have likely improved since implementation. Changes in caregiver experience with coordination of their child's care also suggest areas for further study. While more caregivers reported having someone to help with care coordination, fewer said they “usually” or “always” got as much help as they wanted. This finding suggests that, while access to care coordination may be improving, the amount and quality of care coordinators may not be meeting caregivers' needs and expectations.

Future studies should explore the role of STAR Kids service coordination in these changes. Nearly one-third of caregivers in the post-implementation period said they had someone to help arrange or coordinate their child's care, which was a significant increase from the pre-implementation period. However, the post-implementation rate is still considerably lower than expected, given that MCOs assign all STAR Kids members a service coordinator. Further research can help determine why this disconnect is occurring, assess caregivers' awareness of and access to STAR Kids MCO service coordination, and determine whether caregivers refuse to utilize service coordination.

The EQRO is building upon these findings in SFY2019 and incorporating analyses that will control for other factors that may potentially influence experience and satisfaction with care, including individual, geographic, and/or health system factors. Baseline STAR Kids MCO profiles will include the survey findings alongside findings on administrative measures and information collected from the STAR Kids MCO interviews.

Findings from the STAR Kids Focused Study

- *The preliminary findings comparing STAR Kids pre- and post-implementation survey results reveal areas of service delivery, such as access to specialized services, which have likely improved since implementation. While more caregivers in the post-implementation study reported having someone to help with care coordination, fewer said they “usually” or “always” got as much help as they wanted. This finding suggests that access to care coordination may be improving, while the ability of care coordination to meet caregivers' expectations may not.*

Recommendation

- *Future studies should explore the discrepancy between access to and effectiveness of care coordination for STAR Kids members. For a more comprehensive assessment of changes in caregiver experience and satisfaction, the EQRO is conducting analysis of the pre- and post-implementation survey data that controls for individual, geographic, and other health system factors.*

National Core Indicators-Aging and Disabilities

The National Core Indicators – Aging and Disabilities (NCI-AD) Survey is an initiative designed to support states' interest in assessing the performance of their programs and delivery systems for LTSS and improving services for older adults, individuals with physical disabilities, and caregivers. The initiative represents a collaboration among the National Association of States United for Aging and Disabilities (NASUAD), the Human Services Research Institute (HSRI), and individual state agencies. NCI-AD data measure the performance of state LTSS systems and help state agencies with quality improvement initiatives, strategic planning, and legislative and funding prioritization. Texas is one of the 23 states participating in the NCI-AD study, and it has participated in the initiative biennially since 2015. The EQRO provides technical assistance to HHSC in the design and administration of the state's NCI-AD study.

The purpose of the NCI-AD Survey is to gather information and feedback from individuals receiving state services and use it to understand how well those services are meeting their needs. Data collected through this survey fill a gap in the managed care quality assurance system and demonstrate managed care organization performance to external parties, including state and federal stakeholders. The project team interprets each state's data and produces reports that can support state efforts to strengthen LTSS policy, inform quality improvement activities, and compare their performance with national norms. Texas owns and has immediate access to its own data, which the state can analyze across settings and funding sources, and other state, program, and regional results.

The NCI-AD Survey measures approximately 50 core indicators, which address 17 broader domains, such as service and care coordination, community participation, choice and decision-making, employment, rights and respect, and healthcare and safety. The survey instrument includes a background survey, which gathers data about the consumer from agency records, and an in-person survey, which includes subjective satisfaction-related questions that can only be answered by the consumer and objective questions that can be answered by the consumer or, if needed, their proxy.

For 2017 to 2018, the Texas NCI-AD Survey study focused on members in the STAR+PLUS HCBS program enrolled in the same STAR+PLUS MCO continuously from April 1, 2016 through March 31, 2017 and individuals enrolled in the Program of All-Inclusive Care for the Elderly (PACE) at the time of sampling.

The study targeted 1,800 completed surveys, representing 300 in each of the five STAR+PLUS MCOs and 300 in PACE. The EQRO contracted with an external survey vendor, NORC, to collect the NCI-AD data over a 40-week fielding period that began in July 2017 and ended in April 2018. Twelve trained field interviewers collected the data in-person using the NCI-AD Adult Consumer Survey instrument. Interviewers completed the survey tool using an online data entry system application (ODESA), which allows data to be stored in electronic format, accessible to HHSC and collaborating agencies. The EQRO functioned primarily as a liaison between HHSC, NASUAD, HSRI, and NORC, providing assistance with interviewer training, development, and coordination of interview protocols, sample preparation and management, and continuous progress and quality monitoring of data collection. The data collected through NCI-AD helps demonstrate performance in managed LTSS delivery to external parties, including state and federal stakeholders. The Texas NCI-AD report and national NCI-AD report (for the 2017 to 2018 data collection period) are in development by NASUAD and HSRI, and will be available online in 2019.

Quarterly Topic Reports

QTR 1: Identifying Opportunities for Better Integrating Behavioral Health and Physical Health Services in Texas Medicaid

In recent years, Medicaid's role in financing and administering public behavioral health services has expanded, as mental health is currently a key driver of Medicaid spending. The Medicaid program is the nation's largest source of financing for behavioral health services and plays a large role in financing substance use disorder services.

In Texas, recent state legislation has sought improved integration of behavioral health and physical health (BH/PH) services. In 2013, the 84th Texas Legislature added targeted mental health case management and mental health rehabilitative services to the array of services provided by Medicaid MCOs.¹¹ In 2015, the 85th Texas Legislature required Texas HHSC to monitor the integration of physical and behavioral health at the MCO level.¹²

This Quarterly Topic Report (QTR) was the first of two QTRs in SFY2018 exploring where successfully integrated BH/PH services can potentially reduce expenditures and improve outcomes for Medicaid enrollees with co-occurring BH/PH conditions. The study used exploratory analyses of Medicaid encounter data to provide important and timely information on the potential size, location, variability, and nature of BH/PH care integration in Texas Medicaid.

Study Methods

The EQRO used Texas Medicaid encounter data from the STAR+PLUS and STAR programs for 2016 to examine the relationship between co-occurring BH/PH conditions and quality of care using rates of PPEs and performance on HEDIS measures. The EQRO also used findings from the MCO AIs to categorize the MCOs based on the strength of their behavioral health focus.

The EQRO used the aforementioned data to answer four research questions:

1. What proportion of PPEs (both number and dollar volume) is associated with co-occurring BH/PH conditions?
2. Which specific BH/PH diagnostic pairs have the highest PPE rates (both number and dollar volume) in cases where (a) a behavioral health condition is the primary cause of the PPE, and (b) a physical health condition is the primary cause of the PPE?

¹¹ S.B. 58, 83rd Legislature, Regular Session, 2013.

¹² S.B. 200, 84th Legislature, Regular Session, 2015

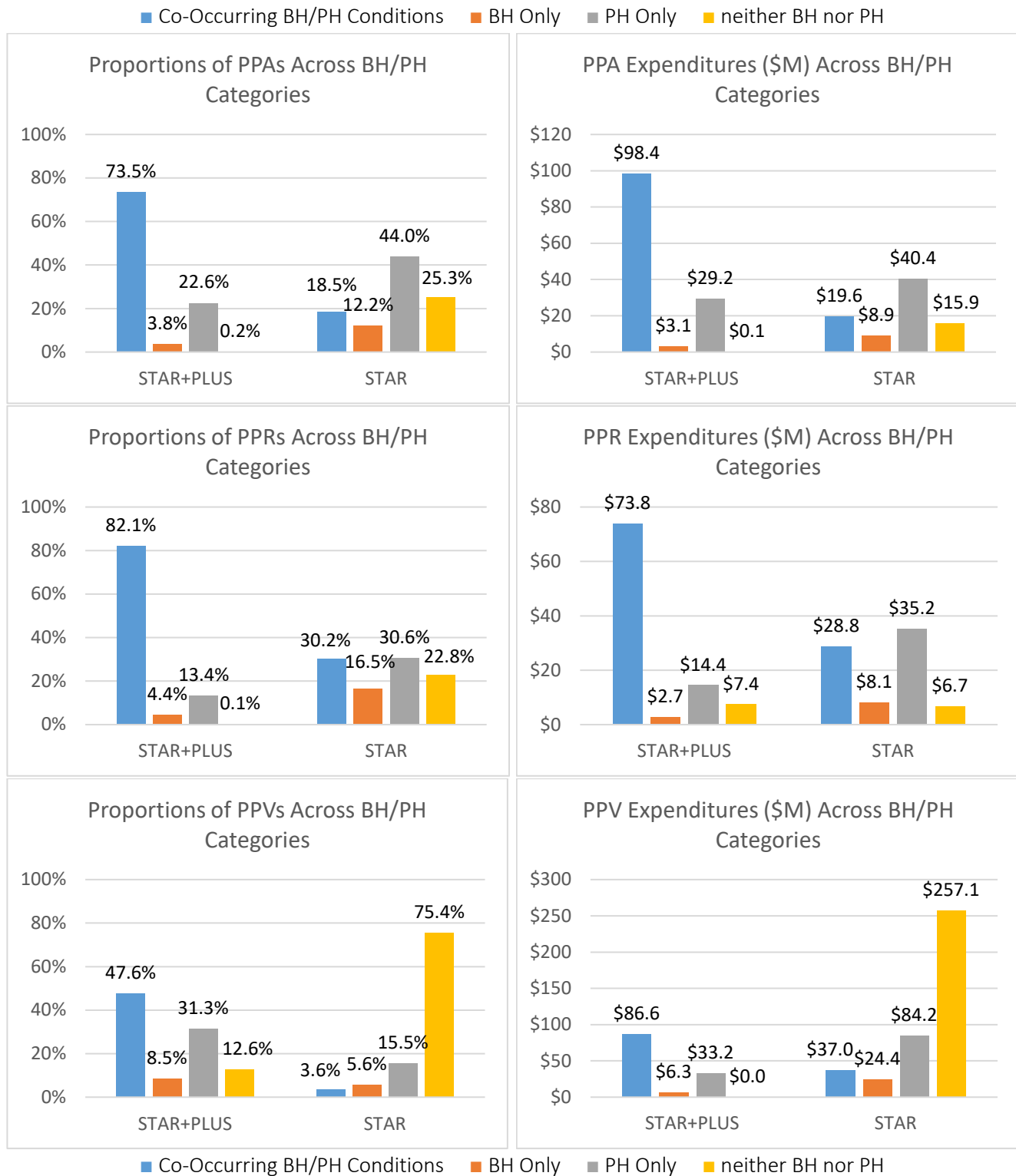
3. Do the proportions of PPEs associated with BH/PH conditions and the specific BH/PH diagnostic pairs with the highest PPE rates vary across MCOs and SAs? If so, how? Do these diagnostic pairs also vary based on the level of support the MCO has in place at the plan level for BH care?
4. How do key HEDIS measures differ between enrollees with co-occurring BH/PH conditions and enrollees without co-occurring conditions? Do these differences vary across MCOs and SAs?

Study Findings

Proportion of PPEs Associated with Co-occurring BH/PH Conditions

The EQRO classified STAR+PLUS and STAR enrollees into four mutually exclusive and exhaustive categories of BH/PH diagnostic combinations: Co-occurring chronic BH/PH conditions, Chronic BH diagnosis only, Chronic PH diagnosis only, and No chronic BH or PH condition. **Figure 44** shows the PPE event proportions and PPE expenditures across each of the four BH/PH diagnostic categories for STAR+PLUS and STAR. The data show considerable differences between the programs. For STAR+PLUS, co-occurring BH/PH conditions account for the vast majority of all PPEs in both frequency and total PPE dollar volumes. For STAR, co-occurring BH/PH conditions are not strongly associated with PPEs. Focusing on co-occurring conditions captures 73 percent of total PPE expenditures in STAR+PLUS, compared to only 15 percent of total PPE expenditures in STAR. The strong association of co-occurring BH/PH conditions with PPEs in the STAR+PLUS program compared to the STAR program is a key finding of this report.

Figure 44. Potentially Preventable Event Proportions and Expenditures across BH/PH Categories, STAR+PLUS, and STAR



Because of the high incidence of PPEs in the STAR+PLUS co-occurring BH/PH conditions population, the remainder of this summary focuses on the STAR+PLUS program. The first QTR for SFY2018 includes detailed results for both STAR and STAR+PLUS.

BH/PH Diagnostic Pairs with Highest PPE Rates

Enrollees with co-occurring conditions were dispersed across many BH/PH diagnostic pairs. They did not appear to cluster in a few, high-frequency diagnostic pairs. By contrast, a relatively small number of individual BH and PH diagnoses were the primary diagnostic causes of PPEs among enrollees with co-occurring conditions, as **Table 54** shows for STAR+PLUS. These results suggest that it may be easier to target the small number of individual BH and PH diagnoses that cause the majority of PPE expenditures than to target a small number of high-frequency diagnostic pairs.

Table 54. Most Frequent BH and PH Primary Causes of PPEs by PPE Type for STAR+PLUS Enrollees with Co-Occurring Conditions (Cumulative Expenditure Percentages)

Primary BH PPA Cause	Primary BH PPR Cause	Primary BH PPV Cause	Primary PH PPA Cause	Primary PH PPR Cause	Primary PH PPV Cause
Schizophrenia/other (50%)	Schizophrenia/other (48%)	Anxiety (19%)	CHF (29%)	CHF (17%)	Diabetes (14%)
Depression (74%)	Depression (67%)	Substance Use Disorders (41%)	Asthma (50%)	Asthma (25%)	Epilepsy (29%)
Bipolar (95%)	Bipolar (86%)	Schizophrenia/other (59%)	COPD (69%)	COPD (32%)	Fibromyalgia (36%)
Substance Use Disorders (97%)	Alcohol (95%)	Alcohol (79%)	Epilepsy (77%)	Chronic kidney disease (41%)	COPD (44%)
--	Substance Use Disorders (99%)	Depression (90%)	Hypertension (86%)	Diabetes (48%)	Hypertension (53%)

An examination of the most frequent BH and PH diagnoses deemed the primary cause of PPEs (admissions, readmissions, and ED visits; $n \geq 100$) revealed that, in STAR+PLUS: (a) schizophrenia accounts for approximately half of expenditures among PPAs and PPRs with a primary BH diagnostic cause, while anxiety disorders account for approximately one-fifth of expenditures among PPVs with a primary BH diagnostic cause; (b) other common primary BH diagnostic causes of PPEs include depression, bipolar disorder, and alcohol/substance use disorders; and (c) congestive heart failure, asthma, COPD, epilepsy, hypertension, and diabetes appear prominently as PH condition causes of multiple types of PPEs.

Study Recommendations

This study found a stronger association of co-occurring BH/PH conditions with PPEs in the STAR+PLUS program compared to the STAR program. The relatively small numbers of individual BH and PH diagnoses that appear to be the primary causes of PPEs make them an easier target for intervention than the more dispersed BH/PH diagnostic pairs. Furthermore, there was lower variability across MCOs and SAs in STAR+PLUS compared to STAR in the proportion of PPEs found among enrollees with co-occurring conditions, suggesting that statewide interventions may be more effective than interventions targeting specific STAR+PLUS MCOs or SAs.

Interventions should focus on the relatively small number of individual BH and PH diagnoses that were the primary causes of PPEs among STAR+PLUS members with co-occurring conditions.

Based on these findings, the EQRO makes the following recommendations:

1. The relatively high proportion of PPEs in both event frequency and total amounts paid for co-occurring BH/PH conditions suggests that the STAR+PLUS program should receive considerable attention when attempting to improve care integration for enrollees with co-occurring BH/PH conditions.

2. Efforts designed to improve care integration for enrollees with co-occurring BH/PH conditions should focus on a handful of co-occurring BH and PH diagnoses as major contributors to PPEs. Specifically, schizophrenia, depression, bipolar disorder, anxiety, and substance and alcohol use disorders figure prominently among BH diagnoses that generate PPEs, while CHF, asthma, COPD, epilepsy, diabetes, and hypertension are the most prominent PH diagnoses across all PPE types.
3. Efforts to improve care integration for enrollees with co-occurring BH/PH conditions should focus on determining the causes for high PPE rates (including issues related to network adequacy) among those MCOs and SAs that have unusually high rates of PPEs for enrollees with co-occurring conditions.

QTR 2: The Opioid Epidemic and Opioid Medication Overutilization in Texas Medicaid, 2016

The NCQA endorsed two new HEDIS measures that enable health plans to examine indicators for problematic use of prescription opioids. Because of this endorsement, the EQRO explored the new measures using Texas Medicaid administrative and pharmacy claims data for CY2016, as well as opioid-related deaths and ED visits in Texas and Texas Medicaid. The aim of this work was to understand the context of the opioid epidemic in Texas and the use and misuse of prescription opioids in the state. **Table 55** provides the complete list of prescription opioids identified in Texas Medicaid administrative claims according to the NCQA specifications used in this analysis.

Table 55. Prescription Opioid Medications Used in this Analysis

Active Ingredient	Example Brand Name ^a
Codeine	Various brand names; often combined with acetaminophen and aspirin
Fentanyl	Duragesic [®] , Actiq [®] , Sublimaze [®]
Hydrocodone	Vicodin [®] , Lortab [®] , Lorcet [®]
Hydromorphone	Dilaudid [®]
Meperidine	Demerol [®]
Morphine	Kadian [®] , Avinza [®] , MS Contin [®] , Duramorph [®] , Roxanol [®]
Oxycodone	OxyContin [®] , Percodan [®] , Percocet [®]

^a The HEDIS specifications also include the following medications that are not listed above: buprenorphine, butorphanol, dihydrocodeine, levorphanol, methadone, nalbuphine, opium, oxymorphone, pentazocine, tapentadol and tramadol.

HEDIS Use of Opioids at High Dosage (UOD)

This measure addresses the prescription of opioids at doses that can cause negative health outcomes. The UOD measure requires members to be exposed to prescription opioids for 15 or more cumulative days during the measurement year to be eligible for inclusion. Opioid dose is frequently measured using the morphine equivalent dose (MED) to standardize comparisons between opioids with varying active ingredients, days supplied, formulations and dosing regimens. Thus, according to this measure's specifications, this study provided the rate per 1,000 adult enrollees (18 years of age and older) receiving prescription opioids for 15 or more days at MED of greater than 120 mg. The study reported rates per 100 adult enrollees (percentages) for interpretability. The study excluded dual-eligible enrollees.

HEDIS Use of Opioids from Multiple Providers (UOP)

This measure addresses drug-seeking behavior frequently referred to as "doctor shopping," "opioid shopping," or "pharmacy hopping" (57). The EQRO prefers the term "multiple provider episodes" (MPEs), since the other terms suggest an intent to deceive and/or obtain opioid medications for potential diversion, such as distribution or selling to non-pharmaceutical markets. Per the HEDIS UOP measure, this study provided the rate per 1,000 adult

enrollees receiving prescription opioids for 15 or more days from: multiple prescribers only, multiple pharmacies only, or both. For interpretability, the EQRO provided these rates as percentages. The study also excluded dual-eligible enrollees. For this measure, the EQRO defined “MPEs” as having claims-based evidence of four or more providers associated with the prescribing or dispensing of the prescriptions. It is important to note that prescriptions paid for by other insurers or in cash cannot be identified in Medicaid claims.

Study Findings

Opioid Overdoses, Substance Use Disorder and High Utilization

To determine the potential correlation between the HEDIS UOD and UOP measures with important opioid-related outcomes, the EQRO examined the number of enrollees with one or more opioid overdoses and diagnostic evidence of a substance use disorder (SUD). To determine the rate of opioid overdoses, the EQRO examined diagnostic evidence of opioid overdose in either the ED or inpatient setting. The EQRO used International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnostic codes to determine evidence of opioid-related SUD. The EQRO determined high utilization in ED and inpatient settings by examining billing codes, as described in prior work by EQRO authors (58).

Opioid-Related Epidemiology in Texas and Texas Medicaid

Table 56 shows the results of the opioid-related HEDIS measures for Texas Medicaid. In SFY2016, of the 67,236 Medicaid members who were prescribed an opioid for 15 or more days during the measurement year, 3.4 percent (2,255 members) received high dosages of opioids (120 MED or higher).

Table 56. Results of Opioid-Related HEDIS Measures for Texas Medicaid, SFY2016

Measure Description	Eligible Members (Denominator) ^{a, b}	Members (Numerator)	Rate per 1,000 Members	Rate per 100 Members (%)
Use of Opioids at High Dosage (UOD)				
For members ≥18 years, the rate per 1,000 receiving prescription opioids for ≥15 (cumulative) days during the measurement year at a high dosage (mean MED >120 mg)	67,236	2,255	33.5	3.4%
Use of Opioids from Multiple Providers (UOP)				
<i>Multiple Prescribers:</i> The rate per 1,000 of members receiving prescriptions for opioids from ≥4 different prescribers during the measurement year	76,595	18,033	235.4	23.5%
<i>Multiple Pharmacies:</i> The rate per 1,000 of members receiving prescriptions for opioids from ≥4 different pharmacies during the measurement year	76,595	5,691	74.3	7.4%
<i>Multiple Prescribers and Multiple Pharmacies:</i> The rate per 1,000 of members receiving prescriptions for opioids from ≥4 different prescribers and ≥4 different pharmacies during the measurement year (i.e., the rate per 1,000 of members who are	76,595	3,722	48.6	4.9%

numerator compliant for both the Multiple Prescribers and Multiple Pharmacies rates)

^a Eligibility requirements include having a prescription opioid for 15 days or more cumulatively throughout the measurement year. The high dose measure includes additional exclusions for cancer and sickle cell disease and has more restrictive continuous enrollment criteria.

^b The EQRO obtained data on deaths and ED visits from the Texas Health Data website provided by the Texas Department of State Health Services (DSHS) Center for Health Statistics (CHS). The EQRO obtained opioid-related inpatient hospital stays from the Healthcare Cost and Utilization Project (HCUP) Fast Stats - Opioid-Related Hospital Use from the AHRQ.

As the data reveal, in SFY2016, 24 percent (18,033 members) received a prescription opioid from four or more different prescribers, representing approximately one-quarter of the eligible population (n=76,595). There were 5,691 members that filled a prescription opioid from four or more pharmacies, representing approximately 7 percent of the eligible population. Approximately 5 percent of enrollees met the criteria for the combined measure.

Table 57 shows the demographic analysis results for the HEDIS UOD measure stratified by dosing level (120 MED or greater and lower than 120 MED). In Texas Medicaid, more women than men were exposed to prescription opioids for 15 or more cumulative days during the measurement year across both dosing levels. Among women, 59 percent were exposed to MED levels of 120 mg or greater and 66.5 percent were exposed to MED levels of less than 120 mg. Only 41 percent of men were exposed to the higher dosage level and 33.5 received dosages less than 120 mg. The mean age of those receiving high doses was approximately 49 years old, compared to a slightly younger mean age for those receiving lower doses (approximately 47 years old). The data showed a relatively large difference in racial/ethnic make-up of the groups. Nearly half of members receiving 120 mg or greater MED were White, non-Hispanic (48 percent), compared to approximately one-third of members who received less than 120 mg MED (31 percent).

In Texas Medicaid, prescription opioid use was more common among women than men at both dosing levels. Furthermore, a disproportionate percentage of members receiving high dosage opioids were White, non-Hispanic.

Table 57. Select Demographic Results for the HEDIS Use of Opioids at High Dosage (UOD) Measure Stratified by Dose Level in Texas Medicaid, SFY2016

Demographic Characteristics	All Dosages	
	120 MED or Greater	Lower than 120 MED
Sex^a		
Female	1,330 (59.0%)	43,197 (66.5%)
Male	925 (41.0%)	21,780 (33.5%)
Age Group (Years)		
18-24	47 (2.1%)	2,844 (4.4%)
25-34	189 (8.4%)	8,733 (13.4%)
35-44	388 (17.2%)	11,144 (17.2%)
45-54	743 (33.0%)	18,721 (28.8%)
55-64	880 (39.0%)	23,214 (35.7%)
65+	8 (0.4%)	325 (0.5%)
Race/Ethnicity		

Demographic Characteristics	All Dosages	
	120 MED or Greater	Lower than 120 MED
White, Non-Hispanic	1,085 (48.1%)	20,062 (30.9%)
Black, Non-Hispanic	263 (11.7%)	13,987 (21.5%)
American Indian or Alaskan	4 (0.2%)	58 (0.1%)
Asian, Pacific Islander	12 (0.5%)	426 (0.7%)
Hispanic	488 (21.6%)	18,551 (28.6%)
Unknown/Other	403 (17.9%)	11,897 (18.3%)

^a Four enrollees with unknown sex.

Results for the three UOP sub-measures examining MPEs demonstrate that across all UOP sub-measures, women had higher MPEs than men (approximately 70 percent compared to 30 percent). Generally, enrollees with higher MPEs were younger than enrollees with lower MPEs. On the combined MPE measure, the mean age was approximately 44 years old for members with higher MPEs compared to 48 years old for members with lower MPEs. Unlike the UOD measure, the data did not show substantial differences in race/ethnicity composition.

Opioid-Related Overdose, Substance Use Disorder, and High Health-Care Utilization

Analysis of opioid- and service utilization-related outcomes, when examined by opioid dose level, revealed that among members exposed to high doses of opioids, 2.5 percent had a diagnosis for an opioid-related overdose during SFY2016.

Table 58 shows the results of opioid- and service utilization-related outcomes when examined by the UOP sub-measures. For the UOP sub-measures, the EQRO identified a substantial proportion of members in the high-MPE population who were also in the high-utilizer population, primarily in the ED setting, ranging from 43 to 57 percent. In contrast, the corresponding percentage of ED high utilizers in the lower MPE population ranged from nine to 15 percent. The percentage of members who were also inpatient high utilizers ranged from six to 10 percent. The corresponding percentage in the lower MPE comparator groups ranged from one to 2 percent. SUDs were prevalent among all members exposed to prescription opioids. A substantially larger percentage of members who received opioids from four or more prescribers (or pharmacies) had a SUD compared to those with lower MPEs (65 and 70 percent, respectively).

Table 58. Opioid- and Service Utilization-Related Outcomes Stratified by the HEDIS Use of Opioids from Multiple Providers (UOP) Measure in Texas Medicaid, CY2016

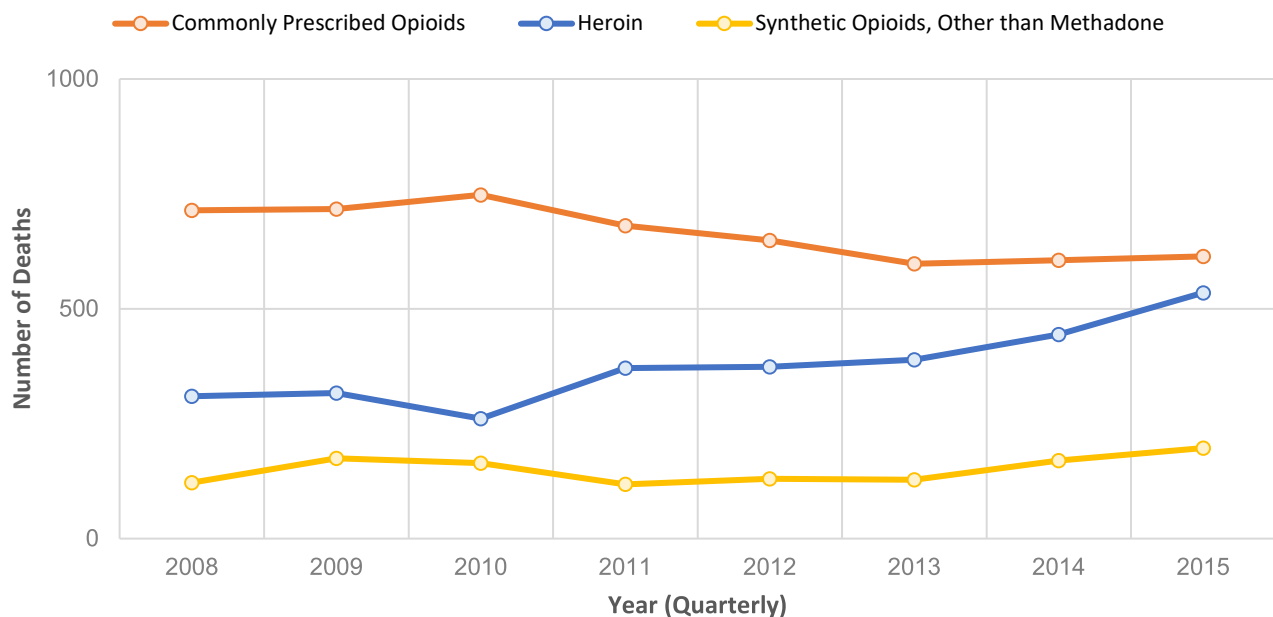
Member Category:	Prescribers		Pharmacies		Combined	
	Four or more	Less than four	Four or more	Less than four	Four or more	Less than four
Opioid-related overdose	239 (1.3%)	346 (0.6%)	117 (2.1%)	468 (0.7%)	91 (2.4%)	494 (0.7%)
Substance use disorder	11,735 (65.1%)	25,550 (43.6%)	3,985 (70.0%)	33,300 (47%)	2,834 (46.1%)	34,451 (47.3%)
≥5 ED visits	7,846 (43.5%)	5,389 (9.2%)	2,452 (43.1%)	10,783 (15.2%)	2,143 (57.6%)	11,092 (15.2%)
≥5 Inpatient stays	1,083 (6.0%)	729 (1.2%)	405 (7.1%)	1,407 (2.0%)	361 (9.7%)	1,451 (2.0%)

Opioid-Related Epidemiology in Texas and Texas Medicaid

Figure 45 shows the number of opioid-related deaths in Texas by opioid type from 2008 to 2015 obtained from DSHS. From 2008 to 2015, mortality from commonly prescribed opioids declined 14 percent (from 714 to 614, respectively). Deaths related to commonly prescribed opioids historically have accounted for the largest proportion of all opioid-related deaths (61 percent in 2008 and 46 percent in 2015). Although this study focused on prescription opioids, it is worth noting that over the same period, deaths related to heroin and synthetic opioids other than methadone (e.g. fentanyl derivatives) increased approximately 73 percent (from 310 to 535) and 61 percent (from 122 to 197), respectively. It is important to follow the trends in both legal and illegal sources of opioids because addiction may drive users to seek opioids from either or both sources.

It is important to follow the trends in both legal and illegal sources of opioids because addiction may drive users to seek opioids from either or both sources.

Figure 45. Opioid-Related Deaths in Texas (General Population), 2008-2015



From 2008 to 2015 nationally, the quarterly number of opioid-related inpatient stays across all payers increased by 82,350 cases, or approximately 72 percent, from 113,850 to 196,200, with stays paid by Medicaid. The opioid-related stays paid by Medicaid have increased at approximately twice the all-payer rate (141 percent, from 33,100 to 79,850, respectively), outpacing both Medicare and private insurance. However, compared to these national trends, Texas Medicaid accounted for the smallest proportion of total opioid-related inpatient stays from 2008 to 2015. While opioid-related inpatient stays have increased for Texas Medicaid (57 percent, from 700 to 1,100), the increase was lower compared with Texas Medicare (89 percent, from 1,300 to 2,450) and the state's uninsured population (83 percent, from 900 to 1,650). It is noteworthy that the increase in the opioid-related inpatient stays paid by Medicaid in Texas (57 percent) is less than half of the increase in the national rate (141 percent). **Figure 46** shows AHRQ quarterly data for opioid-related inpatient stays in Texas, 2008-2015.

Figure 46. Opioid Related Inpatient Stays by Expected Payer in Texas

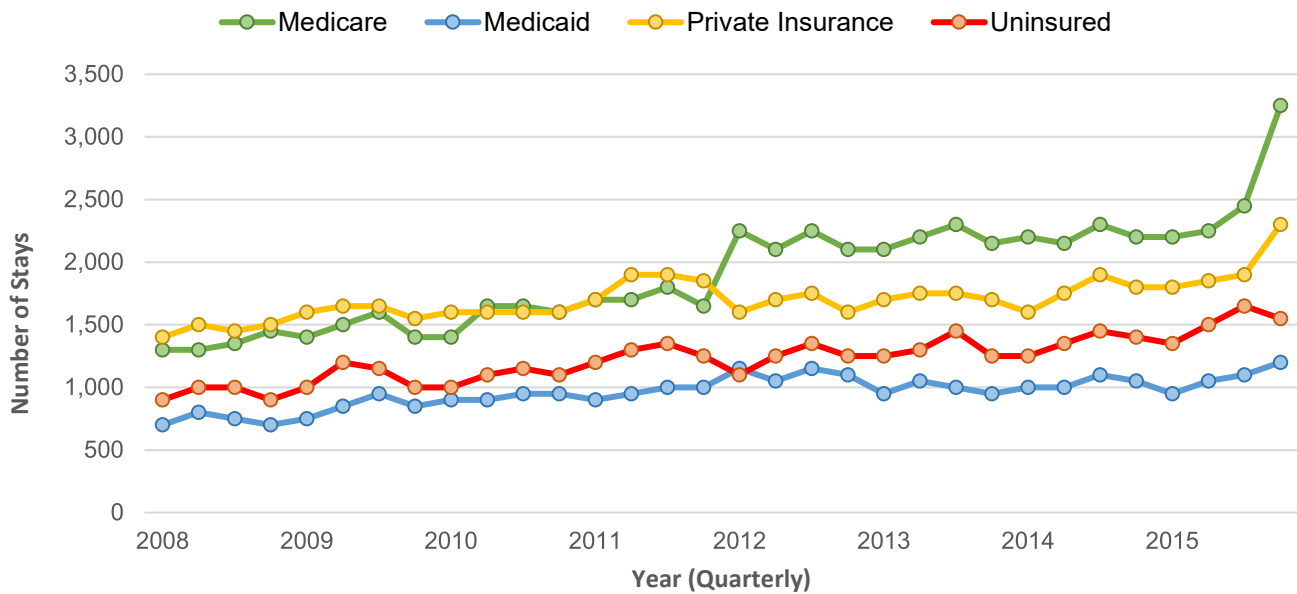
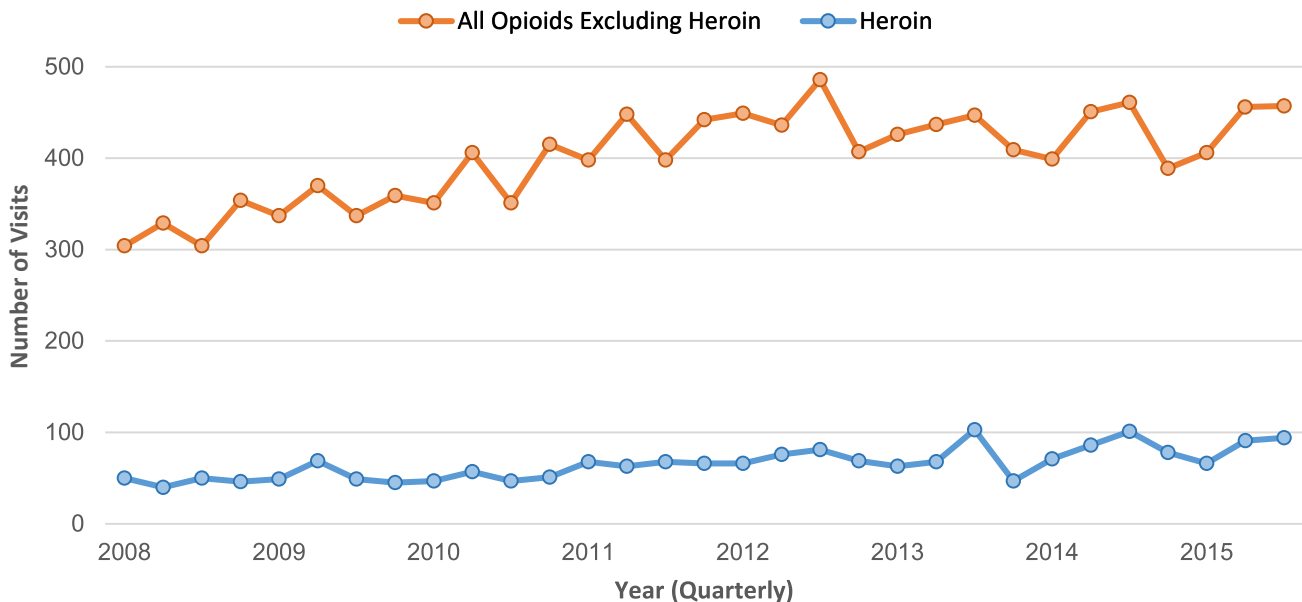


Figure 47 shows the number of opioid-related ED visits in Texas from 2008 to 2015. From 2008 to 2015, the total number of opioid-related ED visits increased by 56 percent (from 354 to 551) between Q1 2008 and Q3 2015. The number of heroin-related ED visits account for the smallest proportion but have almost doubled over time (from 50 to 94).

Figure 47. Opioid-Related Emergency Department Visits in Texas (General Population) 2008-2015



Payments for Opioids

Cash payments for opioids have been associated with “doctor shopping” and diversion. From 2016 Q3 through 2017, the number of patients with controlled substance prescriptions paid for by Texas Medicaid and cash is relatively infrequent and has declined by approximately 39 percent (from 189 to 116). From 2016 Q3 through 2017, Texas Medicaid consistently paid for approximately four percent of all controlled opioids in the state, private insurance paid for 60 percent, Medicare paid for 25 percent, and cash paid for 3 percent.

From 2016 Q3 through 2017, Texas Medicaid consistently paid for approximately four percent of all controlled opioids in the state, private insurance paid for 60 percent, Medicare paid for 25 percent, and cash paid for three percent.

Study Recommendations

Rates associated with use of opioids from multiple providers appeared to be higher in the Texas Medicaid population than in the all-payer population in Texas. Future studies should examine key differences in methods used to define multiple provider episodes between Medicaid and the Texas Prescription Drug Monitoring Program (PDMP) (all-payer).

1. Texas Medicaid pays for a relatively small proportion of all prescription opioids in Texas. Accessing more indicators from the Texas PDMP would enhance knowledge regarding Texas Medicaid’s scope in this epidemic.
2. HHSC should consider adding prescription opioid-related information to the THLC portal, specifically the high-utilizer portal, and/or make opioid-prescribing data based on pharmacy claims more available online. Data-driven efforts would align Texas Medicaid with multiple initiatives at the state and federal levels.
3. Future studies should examine outcomes associated with medical and non-medical sources of opioids in Texas and across payers concurrently to anticipate the intended and unintended consequences of opioid policy.
4. The EQRO recommends increased coordination between Texas Medicaid, health plans, and the Vendor Drug Program to adopt the MED thresholds promoted by CMS and the U.S. Centers for Disease Control and Prevention (CDC).
5. The EQRO also recommends increased engagement with state agencies addressing the opioid epidemic in Texas, especially with the Texas PDMP.

QTR 3: Estimating Severe Maternal Morbidity among Women Enrolled in Texas Medicaid and CHIP

The 2016 Joint Biennial Report by the Maternal Morbidity and Mortality Task Force and the Department of State Health Services (DSHS) reviewed statewide trends of severe maternal morbidity (SMM) for a sample of women in CY2012 (59). Their report indicated that hemorrhage and blood transfusion cases contribute significantly to maternal morbidity in Texas. More recently, estimations of SMM for 2014 put statewide rates for Texas at 19.5 per 1,000 deliveries (60). Postpartum hemorrhage contributed to a significant proportion of these cases, with an estimated prevalence of 12.9 hemorrhage cases per 1,000 hospitalizations.

Following the Joint Task Force Report, the Texas Legislature requested in Senate Bill 17 (85th Legislature, 1st Called Session, 2017) that HHSC examine the feasibility of using procedures included in the maternal health and safety initiative as indicators for medical assistance quality-based payments.¹³

¹³ Texas Health and Safety Code Sec. 34.0157: “FEASIBILITY STUDY RELATED TO MATERNAL HEALTH AND SAFETY INITIATIVE. (a) Using existing resources and not later than December 1, 2018, the commission shall study and determine the feasibility of

As a preliminary step in that investigation, the EQRO's third QTR for SFY2018 included an overview of selected outcome measures from the Alliance on Innovation in Maternal Health (AIM) maternal patient safety bundles, which were implemented in the new Texas AIM initiative to improve the quality of maternal care. Although the AIM bundles outline several outcome measures, the EQRO focused on the AIM Hospital Discharge Data (HDD) outcome measures for severe maternal morbidity to evaluate the success of Texas programs that use the AIM bundles.

This study explored the feasibility of using the AIM HDD outcome measures to identify severe maternal morbidity patterns and associated delivery costs. In addition, the study examined the potential to augment the HDD data by using all available related encounters and combining the AIM HDD outcome measures with data collected using other quality measures. The report concluded with recommendations for integrating the AIM HDD measures into value-based payment programs.

Study Methods

The EQRO identified births between January 2015 and December 2016 using encounter data in Texas Medicaid managed care programs, FFS, CHIP, and CHIP Perinatal, which is a program that provides coverage for unborn children when the mother does not qualify for Medicaid or CHIP. The EQRO used diagnoses, procedure codes, and Medicare Severity Diagnosis Related Group (MS-DRG) codes identified in the AIM definitions to classify each encounter as a delivery or an exclusion. The EQRO identified deliveries, morbidities, and complications, including hemorrhage and eclampsia, using two methods: (a) following the hospital discharge-based approach defined by AIM, and (b) defining birth events by including professional and institutional encounters within a defined period around a delivery. **Table 59** lists the specific diagnoses and procedures included in the AIM criteria for SMM.

Table 59. Diagnoses and Procedures Included in Criteria for SMM Events

Criteria	
Diagnoses	
- Acute myocardial infarction	- Aneurysm
- Acute renal failure	- Acute respiratory distress syndrome,
- Amniotic fluid embolism	- Cardiac arrest/ventricular fibrillation
- Heart failure/arrest during surgery or procedure	- Puerperal cerebrovascular disorders
- Pulmonary edema/acute heart failure	- Severe anesthesia complications
- Sepsis	- Shock
- Air and thrombotic embolism	- Disseminated intravascular coagulation
- Sickle cell anemia with crisis	- Eclampsia
Procedures	
- Conversion of cardiac rhythm	- Hysterectomy
- Temporary tracheostomy	- Ventilation
- Blood transfusion	

Following the methods outlined in the AIM bundles for severe maternal morbidity, the EQRO extracted all non-excluded institutional delivery encounters from encounters for 2015 and 2016. The first birth encounter for a member during the measurement year is included in the 2015 and 2016 AIM datasets and a single encounter represents each birth.

adding a provider's use of procedures included in the maternal health and safety initiative described by Section 34.0156 as an indicator of quality for commission data and medical assistance quality-based payment purposes."

The EQRO datasets define a birth event by linking all continuous encounters that identify a birth or an exclusion based on the AIM criteria. The datasets include the first birth event span without exclusions for a member beginning during the measurement year. In order to identify SMM conditions for each member, the EQRO also augmented the birth data by using all encounters that began seven days prior through 15 days after the initial event.

The EQRO also collected sociodemographic and geographic information for all women (age, race/ethnicity, county of residence), information on eligibility for and compliance with the Timeliness of Prenatal Care component of the HEDIS *Prenatal and Postpartum Care* (PPC) measure, and expenditure data from paid institutional claims. This information helped improve understanding of the context of delivery events and highlight patterns of severe maternal morbidity.

Demographic information for women included in the analysis came from the enrollment data for the delivery month. The EQRO prepared the data for analysis by removing cases without enrollment records for the month of birth. The EQRO also excluded all records with implausible maternal age (women <10 years or >65 years of age, based on date of birth in the enrollment data). Finally, the EQRO excluded records with only unpaid claims. The final sample included 410,332 records (91 percent of preliminary data) for the AIM sample and 434,598 records (93 percent of preliminary data) for the EQRO sample. Approximately 7,000 of the excluded records were present in several categories, accounting for the difference between the sum of removed records and the number of records in the final dataset.

Study Findings

Approximately 69 percent of women were enrolled in STAR at the time of delivery, 30 percent were enrolled in FFS, and the remaining <1 percent were enrolled in STAR Health, STAR+PLUS, CHIP, or STAR Kids. Women younger than 19 years old were enrolled longer than all other age categories. Women over 40 years old were enrolled for the shortest amount of time. More than 60 percent of all deliveries were among women ages 20-29 years old. Two-thirds of deliveries occurred among Hispanic women in both the AIM and EQRO samples. A large proportion (98.7 percent) of births in all samples represented singleton deliveries. The largest proportion of women in both samples (approximately 85 percent of women in both samples) lived in a Metropolitan county.

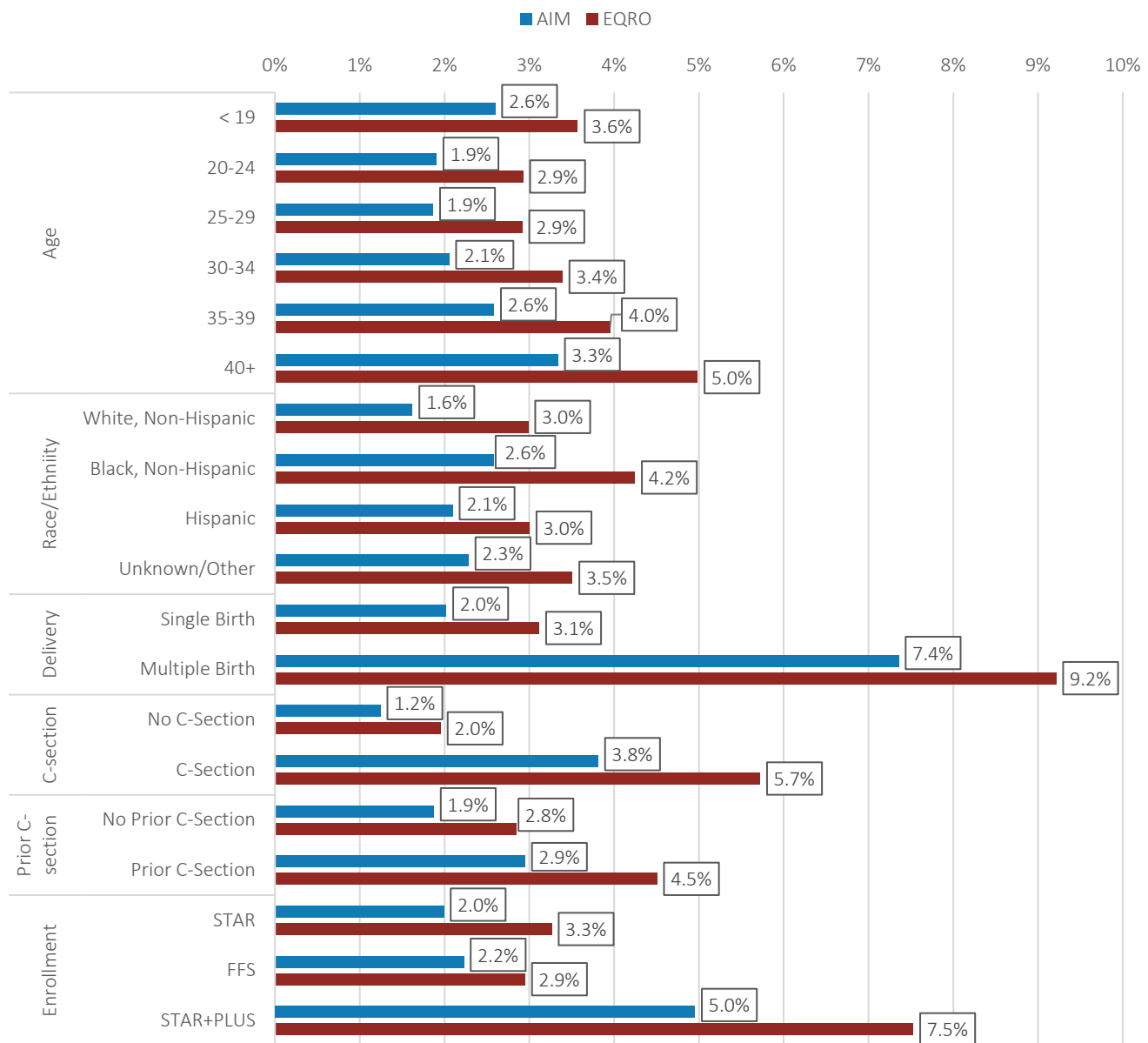
There were differences in the number of deliveries as well as the number of cases of SMM, hemorrhage, and preeclampsia between the two samples due to the more inclusive approach used in the EQRO sample to define relevant cases. **Table 60** shows the difference in the number of deliveries and the variation in the number of these cases across AIM and EQRO samples.

Table 60. Overall Number of Deliveries, SMM Cases, Hemorrhage Cases, and Preeclampsia Cases by Sample.

	AIM Cases	ICHP Cases	N Difference	% Difference
Overall deliveries	410,332	434,598	24,266	6.0%
SMM	8,557	13,928	5,371	63.0%
Hemorrhage	21,562	30,599	9,037	42.0%
Preeclampsia	14,024	18,676	4,652	33.0%

Women with multiple births had the highest rates of SMM among all deliveries, with a 7.4 percent SMM rate for all deliveries in the AIM sample and a 9.2 percent rate for all deliveries in the EQRO sample. SMM occurred frequently among STAR+PLUS members and C-section deliveries. SMM rates were significantly different for AIM and EQRO samples (**Figure 48**), showing variation between one to three percentage points.

Figure 48. SMM Rates for All Deliveries for EQRO and AIM



Since hemorrhage and preeclampsia are two of the primary causes of poor delivery outcomes, it is not surprising to see the increased rate of SMM among these deliveries. The largest SMM rates among hemorrhage cases occurred among deliveries of multiples, deliveries with C-sections and prior C-sections, and STAR+PLUS deliveries. Younger women were also associated with higher SMM rates for women with hemorrhage.

The largest SMM rate among preeclampsia cases occurred among women with multiple births, women below the age of 19, and women enrolled in STAR+PLUS. The SMM rate for women with preeclampsia was also higher among Black women in the EQRO sample. SMM rates for women with preeclampsia were higher in rural counties for both AIM and EQRO samples. Women over the age of 40 living in rural counties had the highest rates of SMM, while Black women living in Metropolitan counties had higher SMM rates for women with preeclampsia.

Compliance with the HEDIS *PPC Prenatal Care* measure varied by age, race, and geographic location in both samples. A higher proportion of women <19 years of age did not meet the timeliness of care standards compared to all other age groups, while more births among women between ages 20-29 were PPC-compliant. A higher proportion of births among Hispanic women met PPC compliance standards compared to births among White and Black women. A larger proportion of STAR enrollees met the PPC standard compared to enrollees in STAR Health and STAR+PLUS. A significantly higher proportion of PPC-compliant deliveries also occurred among women living in micro and rural counties compared to women living in Metropolitan counties.

The mean paid institutional claim amount varied by sample and by sociodemographic category. The mean number of paid claims was significantly larger for rural county residents, women over the age of 40, STAR+PLUS members, and Black women. Delivery status and SMM status were also associated with larger paid claim amounts.

Study Recommendations

The AIM standards for identifying SMM cases from hospital discharge data provide important insights into sociodemographic patterns of maternal health that can help monitor the quality of maternal care. These analyses indicate that the AIM HDD outcome measures can both identify delivery events and monitor changes in SMM rates. However, before adopting the AIM measures to monitor the quality of care for MCOs, HHSC may want to consider the following:

The AIM standards for identifying SMM cases from hospital discharge data provide important insights into sociodemographic patterns of maternal health that can help monitor the quality of maternal care.

1. Using a more inclusive approach to identify a delivery event by linking continuous encounter records or including professional claims information increases the possibility of capturing a severe morbidity event as well as the context of the morbidity event.
2. Comparing SMM, hemorrhage, and preeclampsia rates by sociodemographic status can provide important insight into which groups may be the most at risk for SMM. For example, older women, Black women, and women in STAR+PLUS had some of the highest rates of morbidity. A more in-depth analysis of the underlying drivers of these health disparities can help target interventions to improve the quality of maternal care.
3. This study indicates that significant differences exist in the paid claim amounts associated with SMM events. There was also a significant positive relationship between the number of co-occurring morbidities and the mean expenditures on claims. A more in-depth analysis of the factors that drive these expenditure differences and how the drivers vary across socioeconomic and geographic contexts can provide an important link to translating this information into value-based care.

QTR 4: Potentially Preventable Events in Members with Co-Occurring Behavioral Health and Physical Health Needs in Texas STAR+PLUS: Focus on Primary Care Providers and BH/PH Integration Practices

Medicaid members with co-occurring BH/PH conditions have worse outcomes, more intensive use of services, and higher expenditures than other beneficiaries (61; 62). To help improve outcomes and control expenditures among these high-need members, state Medicaid programs are increasingly turning to practices that integrate BH and PH services (63). However, to determine where integration practices are most needed, states must first identify the highest-risk populations, measure the impact of co-occurring conditions on outcomes and

expenditures, and understand the individual, community, and health system factors that may affect these relationships.

In the first SFY2018 QTR, the EQRO found that co-occurring BH/PH conditions accounted for the majority of PPEs in STAR+PLUS, although the proportion of PPEs attributed to members with co-occurring conditions varied little by MCO or SA. To follow up on these findings, the fourth QTR focused on the population of STAR+PLUS members with co-occurring conditions and explored the potential influence of members' PCPs and MCO integration practices on the prevalence of PPEs.

Study Methods

The EQRO used Texas Medicaid encounter data from the STAR+PLUS program for SFY2017 to examine the relationship between PCPs and PPAs and PPVs among STAR+PLUS members with co-occurring BH/PH conditions. The EQRO also examined the relationship between PPAs and PPVs in this population with selected STAR+PLUS MCO strategies for BH/PH integration, which the EQRO identified from a survey with MCOs conducted by HHSC in December 2017. The primary outcome for evaluation was the A/E ratio, which represents the ratio of actual PPEs/expected PPEs in a given group, taking into account the risk profile of members in the group. An actual-to-expected ratio greater than one signifies more PPEs than expected based on statewide experience with the group's risk profile, indicating poorer performance.¹⁴

The evaluation team used the data to answer the following questions:

1. Are A/E ratios for PPAs and PPVs in the STAR+PLUS BH/PH population disproportionately higher among members seen by certain primary care providers? What proportion of all PPAs and PPVs in the STAR+PLUS BH/PH population could be potentially prevented by focusing on the PCPs associated with the highest A/E ratios?
2. Are A/E ratios for PPAs and PPVs in the STAR+PLUS BH/PH population disproportionately higher among members who did not see any PCP? What proportion of all PPAs and PPVs in the STAR+PLUS BH/PH population could be potentially prevented by focusing on members who did not see any PCP?
3. Are A/E ratios for PPAs and PPVs in the STAR+PLUS BH/PH population disproportionately higher among members with PCPs in a certain provider category? What proportion of all PPAs and PPVs in the STAR+PLUS BH/PH population could be potentially prevented by focusing on PCP categories with the highest A/E ratios?
4. Are A/E ratios for PPAs and PPVs in the STAR+PLUS BH/PH population disproportionately lower among members in plans that have adopted certain BH/PH integration practices? What proportion of all PPAs and PPVs in the STAR+PLUS BH/PH population could be potentially prevented by broadly implementing BH/PH integration practices associated with the lowest A/E ratios?

Study Findings

The 145 high-volume PCPs (defined as those who provided the majority of care to 50 or more STAR+PLUS members in the study population) accounted for 1.3 percent of all PCPs in this study, but over one-fifth of all PPAs and over one-quarter of all PPVs. A smaller number of providers had high PPE A/E ratios (> 1.50). For PPAs, 18 providers fell in this category and accounted for 3.6 percent of all PPAs in the study. For PPVs, 35 providers fell in this category and accounted for 11.9 percent of all PPVs in the study.

¹⁴ Actual-to-expected ratios were based on risk-adjustment to the full STAR+PLUS population using the 3M risk adjustment approach. The full STAR+PLUS population is healthier and less likely to have PPEs than the population of STAR+PLUS members with co-occurring BH/PH conditions. The A/E ratios presented in this study therefore tended to skew right (more likely >1).

Table 61 shows that more highly populated, urban SAs (Bexar, Dallas, and Harris) had higher concentrations of both PPAs and PPVs. Providers in the Dallas SA accounted for over 6 percent of all PPAs and 10 percent of all PPVs in the study. Notably, the 11 high-volume PCPs in the Hidalgo SA had the lowest PPE A/E ratios in the study; among these providers, all had PPA A/E ratios less than one. A total of 1,169 STAR+PLUS members with co-occurring conditions (1.8 percent of the study population) had no visit with a PCP in 2017. Up to 2.2 percent of all PPAs and 2.3 percent of all PPVs could be potentially reduced by focusing on members with no PCP.

Table 61. PPA and PPV Findings for High-Volume PCPs by Service Area

Service Area	Number of PCPs	% of all PPAs	Lowest PPA A/E Ratio	Highest PPA A/E Ratio	% of all PPVs	Lowest PPV A/E Ratio	Highest PPV A/E Ratio
Dallas	27	6.4%	0.20	2.46	10.2%	0.64	2.69
MRSA West	4	0.6%	0.68	2.18	0.7%	1.21	2.56
Bexar	32	4.1%	0.0	2.07	4.9%	0.54	2.33
MRSA Northeast	12	1.3%	0.24	1.73	2.1%	0.90	2.30
Jefferson	7	0.7%	0.21	2.15	1.1%	0.54	2.15
Nueces	5	0.4%	0.28	1.18	0.6%	0.71	2.07
El Paso	5	0.5%	0.11	1.21	0.9%	0.78	2.01
MRSA Central	10	1.1%	0.15	1.88	1.5%	0.79	1.93
Travis	3	0.4%	0.74	2.21	0.4%	1.16	1.62
Tarrant	3	0.3%	0.58	1.40	0.5%	1.02	1.58
Harris	26	4.0%	0.22	2.50	2.8%	0.43	1.56
Hidalgo	11	0.7%	0.0	0.96	0.8%	0.40	1.28

Table 62 shows PPA and PPV findings for the 18 provider types assessed in this study. Providers practicing in internal medicine and family practice together accounted for 45 percent of all providers, which is approximately the same as their proportion of PPAs (47 percent) and PPVs (44 percent). Behavioral health providers (including therapists, psychiatrists, and psychiatric facilities) accounted for 17 percent of all providers in this study, but slightly lower proportions of PPAs (14 percent) and PPVs (13 percent). Compared to other provider types, behavioral health providers also had relatively lower A/E ratios for PPAs (0.96) and PPVs (1.16). The proportion of PPVs accounted for by FQHCs (7.7 percent) was disproportionately greater than their representation in the full set of providers (1.8 percent). The reason for this finding was beyond the scope of this study and highlights an area for further research.

Behavioral health providers accounted for 14 percent of PPAs and 13 percent of PPVs and had relatively lower A/E ratios for PPAs compared to other provider types.

Table 62. PPAs and PPVs Among STAR+PLUS BH/PH Members, by PCP Category

PCP Category	% of all providers	Number of PPAs	% of all PPAs	PPA A/E Ratio	Number of PPVs	% of all PPVs	PPV A/E Ratio
Nursing facility	0.0%	0	0.0%	0	7	0.0%	2.32
OB/GYN	3.4%	52	0.5%	0.76	1,278	1.3%	1.86
Multi-specialty group	0.6%	304	3.1%	0.86	4,610	4.9%	1.59

PCP Category	% of all providers	Number of PPAs	% of all PPAs	PPA A/E Ratio	Number of PPVs	% of all PPVs	PPV A/E Ratio
FQHC	1.8%	574	5.9%	1.10	7,329	7.7%	1.50
Other facility	0.3%	61	0.6%	0.94	863	0.9%	1.39
Pediatrics	1.2%	47	0.5%	0.73	702	0.7%	1.36
Surgical	3.7%	153	1.6%	1.72	1,385	1.5%	1.35
Inpatient facility	0.5%	242	2.5%	1.04	3,005	3.2%	1.31
Rural health clinic	0.8%	89	0.9%	1.46	767	0.8%	1.26
Specialist physician	5.4%	472	4.9%	1.11	5,047	5.3%	1.25
Family practice	19.1%	2,097	21.7%	1.12	22,293	23.5%	1.24
General practice	0.8%	109	1.1%	1.21	1,039	1.1%	1.20
APRN/PA	14.6%	1,212	12.5%	1.28	10,569	11.1%	1.19
BH/MH	17.1%	1,355	14%	0.96	12,615	13.3%	1.16
Internal medicine	25.8%	2,404	24.9%	1.33	19,084	20.1%	1.14
Non-physician specialist	2%	112	1.2%	1.15	915	1.0%	1.10
Case management or social work	2.5%	136	1.4%	1.03	1,167	1.2%	0.97
Single-specialty group	0.4%	30	0.3%	0.94	245	0.3%	0.85

Because A/E ratios generated in this study were based on risk-adjustment to the full STAR+PLUS population (including those with and without co-occurring conditions), all BH/PH integration practices had PPE A/E ratios > 1 (indicating more PPEs than expected given the case-mix of members). Nevertheless, certain practices had notably lower PPA A/E ratios than for members in MCOs that did not have these practices. Practices that warrant further study for their potential to reduce PPAs include having case management or utilization management staff participate in integration activities, holding regular workgroups with clinical staff to discuss integration, having provider guidelines for BH/PH care coordination, and facilitating continuous quality improvement for members with co-occurring conditions using clinical monitoring indicators and referral tracking.

Overall, findings from this study suggest several areas where focused interventions may help to reduce PPAs and PPVs among STAR+PLUS members with co-occurring conditions.

- Focusing on specific providers.** In this study, a small number of high-volume PCPs had a disproportionately high percentage of PPAs and PPVs. Identifying and focusing provider-level interventions on these PCPs may help reduce the occurrence of PPAs and PPVs in STAR+PLUS.
- Focusing on particular PCP categories.** For most PCP categories, the proportion of PPEs they accounted for was similar to their representation in the full set of providers in this study. In general, interventions that focus on internal medicine and family practice provider types could potentially reduce PPEs in up to 50 percent of STAR+PLUS members with co-occurring conditions. However, this is because providers in internal medicine and family practice are the most common provider types to treat STAR+PLUS members with co-occurring conditions; the large number of these providers may make larger-scale interventions difficult to implement. Notably, the study found lower A/E ratios among BH/MH providers—a smaller group that already shows potential for improvement.

In this study, a small number of high-volume PCPs had a disproportionately high percentage of PPAs and PPVs.

- *Focusing on BH/PH integration practices.* The analysis of STAR+PLUS MCO BH/PH integration practices in this study comes with several caveats. First, findings are based on self-report by the STAR+PLUS MCOs and any associations with PPEs are subject to bias related to the varying levels of detail provided by respondents. The associations found in this study also may not account for the influence of unmeasured MCO structure and process characteristics, and may be subject to adverse selection, whereby MCOs that have had problems with PPEs among members with co-occurring conditions are more likely to implement practices to improve integration. Furthermore, in cases where two or more practices had the same MCO profile (i.e., were adopted by the same MCOs), it was not possible to interpret differences between or among them.

Study Recommendations

Based on these findings, HHSC and the STAR+PLUS MCOs should consider the following in efforts to reduce PPEs among members with co-occurring BH/PH conditions.

1. Interventions intended to improve on provider practices (e.g., BH/MH screening, BH/PH care coordination) should focus on a small number of high-volume PCPs, particularly those found to have higher-than-expected PPEs. For example, focusing interventions on high-volume PCPs who have PPE ratios of 1.50 or greater could potentially prevent up to 4 percent of PPAs and up to 12 percent of PPVs.
2. Interventions intended to reduce PPEs in specific SAs should focus on more highly populated, urban SAs – particularly the Dallas SA. Further research into the practices implemented by the PCPs in the Hidalgo SA assessed in this study may reveal promising strategies for reducing PPEs that can be disseminated to other providers.
3. While interventions with internal medicine and family practice providers could address up to 50 percent of PPAs and PPVs in the study population, focusing on the large number of providers in this category may be impractical. Behavioral health providers had relatively lower PPE A/E ratios compared to other providers; thus, promoting integration practices that focus on BH providers (e.g., encouraging BH providers to screen and monitor for chronic PH conditions) may further reduce PPEs among members with co-occurring conditions. Further study can improve understanding of the disproportionately higher occurrence of PPVs accounted for by FQHCs.
4. Further study can also help in understanding the potential for BH/PH integration strategies to reduce PPEs in this population. Strategies such as holding regular workgroups with clinical staff to discuss integration and having provider guidelines for BH/PH integration are promising and may be straightforward to implement. Additional research is needed using study designs to account for other factors that may be associated with both BH/PH integration practices and PPEs.

SECTION 3: RECOMMENDATIONS



Data Driven Decision Making

Findings, analyses, and recommendations of the EQRO may help decision making at the plan and state levels. Overall, MCOs and DMOs in Texas are functioning well, and oversight by HHS is strong. This report offers insights for consideration alongside specific suggestions for continual quality improvement.

Recommendations

Texas HHSC consistently takes a proactive response to EQRO recommendations to improve the quality of care for Texas Medicaid and CHIP members, including working closely with the EQRO to develop the appropriate deliverables. In turn, the EQRO makes recommendations based on a careful review of quality assurance data and study results.

Deliverables follow a four-step process of: (a) planning, (b) implementation, (c) review, and (d) submission. For each deliverable, the EQRO assigns a team member to lead the project from proposal development through submission based on the team member's expertise and the needs of the project. Final submission of each deliverable goes through a rigorous multiple-team review to ensure accuracy, consistency, reliability, and validity as well as appropriate revision following feedback from HHSC. The EQRO also internally reviews all recommendations and then modifies them through an iterative and collaborative process with HHSC. As a result, the recommendations for quality improvement account for feasibility, local context, evidence-based best practices, and the most current advances in healthcare delivery and quality measurement.

Quality Improvement Progress

The EQRO provided several key recommendations in the SFY2016 and 2017 Annual Reports that Texas improved upon in SFY2018.

- Monitoring W15 rates: In 2014, UHC was the only MCO to have a PIP to address W15 rates. In 2017, eight MCOs added PIPs to address W15 rates. The EQRO recommended that HHSC monitor changes in W15 rates once the MCOs implemented the PIPs. HHSC followed up by monitoring the W15 rates during implementation. Because these PIPs ended in December 2018, the EQRO recommends HHSC review performance on the W15 measure as well as any changes that occurred over the course of the two-year PIP.
- In 2016, the EQRO recommended that MCOs explore the barriers to women participating in high-risk prenatal care management because increased participation in the programs could improve the quality of care and medication management. HHSC responded by focusing the 2018 PIPs on prenatal and postpartum care for STAR and STAR+PLUS members. HHSC provided an opportunity for MCOs to focus the PIPs on specific sub-populations of high-risk pregnant women and new mothers (such as women with behavioral health conditions or minority women) and held workgroups for the health plans that selected this option to refine these groups and discuss potential strategies for improvement.
- In 2016, the EQRO recommended that HHSC and the MCOs explore ways to increase access to behavioral and specialty health care for IET overall and for APP in STAR+PLUS. HHSC has followed up on this recommendation in a number of ways. The 2016 PIPs for STAR+PLUS and STAR Health focused on behavioral health PPAs and PPRs, and HHSC required the health plans to address IET. In addition, HHSC asked the EQRO to examine factors influencing behavioral health and physical health integration in several quarterly topic reports and address the needs of members with BH conditions. More recently, HHSC has planned a statewide PIP for 2019 that aims to reduce and prevent high utilization among members with anxiety and depression across all programs. Similarly, HHSC has proposed PIPs for 2020 that aim to improve integration of behavioral health and physical health care.

Overall Recommendations SFY2018

Table 63, Table 64, Table 65, Table 66, and Table 67 list the general findings and recommendations from the SFY2018 report, organize them by topic, and subdivide them according to the protocols provided in the [CMS EQR toolkit](#).

Table 63. Protocol 1 Findings and Recommendations

Protocol 1: Compliance with Medicaid Managed Care Regulations	
<i>Finding</i>	Health plans' compliance with regulations related to the General Provisions and Grievance and Appeal System decreased from 2016 to 2018 due to their delay in implementing required changes in policies and procedures that account for the 2017 CMS revisions to the regulations.
<i>Key Area/Significance</i>	Compliance with CMS regulations related to the General Provisions and Grievances and Appeal System enhances the member's experience and strengthens the protection of member rights.
<i>Recommendation</i>	Health plans should review and monitor CMS revisions to the regulations and update their policies and procedures within the specified timeframe.
<i>Finding</i>	Health plans utilize different criteria to determine eligibility for a disease management program, which affected overall participation rates by program.
<i>Key Area/Significance</i>	Variability in eligibility criteria by health plan can create disparities of care for members who may benefit from participation in disease management programs.
<i>Recommendation</i>	HHSC should examine the variations in eligibility criteria for DM programs and participation rates between health plans, programs, and years in order to identify factors influencing active participation in DM programs.
<i>Finding</i>	Five disease management programs (asthma, congestive heart failure, depression, general disease management, and obesity in children) had participation rates below 40 percent across STAR, STAR Kids, STAR+PLUS, and CHIP.
<i>Key Area/Significance</i>	Disease management programs offer members education and resources to understand and better manage their health conditions, which can lead to better health outcomes and a decrease in costs for future disease-related care.
<i>Recommendation</i>	MCOs should identify the reason for low active participation rates and develop an approach to increase active participation in DM programs for high-risk members.
<i>Finding</i>	Health plans that incorporated the EQRO's recommendations from the previous year improved their performance in Activity B1—Program Description—from 2017 to 2018.
<i>Key Area/Significance</i>	Implementation of the EQRO's recommendations can strengthen the health plans' quality improvement strategies.
<i>Recommendation</i>	Health plans should address and incorporate all of the EQRO's recommendations from the previous year in an effort to achieve continuous quality improvement.

Table 64. Protocol 3 Findings and Recommendations

Protocol 3: Validation of Performance Improvement Projects	
<i>Finding</i>	Interventions implemented in the STAR population achieved sustained improvement in the URTI-related PPVs. However, the CHIP population that received the same intervention did not achieve sustained improvement in URTI-related PPVs.
<i>Key Area/Significance</i>	Member population differences based on program type and provided services can impact intervention success.
<i>Recommendation</i>	HHSC should conduct in-depth studies to determine the effectiveness of interventions among programs.
<i>Finding</i>	The health plans utilized multiple intervention approaches to address BH-related PPAs and PPRs for STAR+PLUS. However, only two STAR+PLUS PIPs achieved sustained improvement for at least one measure.

Protocol 3: Validation of Performance Improvement Projects	
<i>Key Area/Significance</i>	Various factors influence PPA and PPR rates, and targeted interventions may need to focus on a specific factor to produce sustained improvements in these rates within STAR+PLUS.
<i>Recommendation</i>	HHSC should examine factors that influence BH-related outcomes in STAR+PLUS. In addition, HHSC should determine the utility and feasibility of longer intervention efforts in STAR+PLUS due to the complexity of the population's health conditions.
<i>Finding</i>	Loss of points on PIP Progress reports was due to the health plans not addressing previous PIP evaluation recommendations, not providing updated re-measurement data, and not reporting target and reach values for each intervention.
<i>Key Area/Significance</i>	Health plan provision of updated qualitative and quantitative reporting is essential to understanding the progress toward improving health care for members.
<i>Recommendation</i>	HHSC should conduct workgroups with the EQRO and health plans in order to identify the factors that contribute to missing information, challenges with the implementation of the PIPs, and opportunities for improvement in the PIPs.

Table 65. Protocol 4 Findings and Recommendations

Protocol 4: Validation of Encounter Data Reported by MCOs	
<i>Finding</i>	The ratio of professional to institutional claims was very high in Hidalgo compared to other SAs, suggesting underlying differences in the service delivery system.
<i>Key Area/Significance</i>	Greater use of ambulatory services may reduce reliance on emergent and inpatient care, but overuse of these services could still signify inefficiency or waste.
<i>Recommendation</i>	HHSC should investigate root causes of differences in utilization patterns and how these may affect quality measures.
<i>Finding</i>	For many hospitals, data consistency issues lead to data exclusion from PPC calculations.
<i>Key Area/Significance</i>	Total exclusions from PPC calculations can be as high as 40 percent of all admissions.
<i>Recommendation</i>	MCOs should work with hospitals that have failed POA data quality checks to improve submissions.
<i>Finding</i>	Overall, across programs, professional encounters included taxonomy for a rendering individual less than 75 percent of the time.
<i>Key Area/Significance</i>	Taxonomy for a rendering individual is critical to the accurate calculation of many quality measures as well as analyses of network adequacy.
<i>Recommendation</i>	Although new data edits should improve taxonomy data, MCOs should continue to work with their providers to improve the submission of individual rendering provider data.
<i>Finding</i>	Caries assessment codes were missing in up to four percent of dental exam encounters across programs and DMOs.
<i>Key Area/Significance</i>	As a requirement for dental exams, absence of the CRA codes should result in denial of the exam claim.
<i>Recommendation</i>	HHSC should work with the DMOs to enforce this requirement, thus ensuring complete CRA data.
<i>Finding</i>	Because CHIP provider directories did not include correct provider addresses, the EQRO did not obtain a sufficient sample size for 10 out of the 17 CHIP health plans for medical record review.
<i>Key Area/Significance</i>	Incomplete and incorrect provider information limits HHSC and the EQRO's ability to monitor MCO compliance with CMS regulations regarding medical record data validation.
<i>Recommendation</i>	The EQRO recommends that health plans validate and update provider addresses in order to improve the return rate on records requested from providers.
<i>Finding</i>	Overall, the EQRO found that match rates varied by health plan and program. Across all review categories and programs, the highest match rates were for STAR Health, while STAR Kids had the lowest match rates, and STAR+PLUS had the second lowest match rates. In addition, Children's Medical Center consistently had the lowest match rates among the 10 MCOs covering STAR Kids,

Protocol 4: Validation of Encounter Data Reported by MCOs	
	and Driscoll consistently had the lowest match rates for CHIP. Further, UnitedHealthcare consistently had higher match rates for all review categories for the STAR+PLUS program.
Key Area/Significance	Low match rates of encounter data limits HHSC and the EQRO's ability to review and assess care.
Recommendation	The EQRO recommends further study of encounter data elements associated with lower vs. higher match rates by health plan and program. Results should help identify differences based on diagnosis, types of procedures conducted, and the interaction between diagnosis and procedure. The EQRO also recommends additional analyses to identify factors that may influence different match rates across programs and health plans. These analyses may include studies that examine the effect of the complexity of the populations for STAR Kids and STAR+PLUS on the validity of the encounter data. Finally, the EQRO recommends that health plans validate and update provider addresses in order to improve the return rate on records requested from providers.

Table 66. Protocol 6 Findings and Recommendations

Protocol 6: Calculation of Performance Measures	
Finding	Most CHIP MCOs performed below the national average on the counseling sub-measures of the <i>Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents</i> (WCC) measure, which are part of the CHIP P4Q program.
Key Area/Significance	The WCC measure addresses the rising prevalence of obesity among children, which is the primary health concern of U.S. parents.
Recommendation	HHSC should continue to follow up with progress made through the statewide PIP addressing this measure.
Finding	Vaccination rates for Rotavirus, Influenza, and HPV lagged behind other immunizations.
Key Area/Significance	Vaccinations are a proven way to help a child stay healthy and avoid the potentially harmful effects of childhood diseases.
Recommendation	MCOs should focus on improving rates for these key vaccinations.
Finding	Cervical cancer screening rates for women in STAR+PLUS were very low, at less than the 10th percentile, with all MCOs performing below the 25th percentile
Key Area/Significance	Screening and preventive care should not be less accessible to populations with complex healthcare needs.
Recommendation	HHSC should work with MCOs to identify barriers to recommended screening and develop improvement strategies targeting these issues.
Finding	Rates for developmental screening were not as high as rates for well-child visits despite the fact that developmental screening is a requirement for the THSteps program.
Key Area/Significance	Developmental screening is recommended for all children at 9, 18, and 24 months of age because it better identifies potential developmental issues than surveillance alone.
Recommendation	HHSC should consider a medical record review of THSteps services. This review might provide more information about care delivery patterns and shed light on the observed discrepancy between well care and developmental screening.
Finding	Although performance on the <i>Asthma Medication Ratio</i> measure (AMR) is high for CHIP and moderate for STAR, <i>Medication Management for People with Asthma</i> (MMA) is extremely poor across programs.
Key Area/Significance	Failure to adhere to treatment increases the possibility of asthma-related admissions; asthma is the second most common reason for PPAs.
Recommendation	Asthma measures were the focus of several recent PIPs. HHSC should use the results to develop interventions and strategies for statewide improvement on asthma medication management.
Finding	With few exceptions, performance on the <i>Controlling High Blood Pressure</i> (CBP) measure was poor in both the STAR and STAR+PLUS programs, with the overall performance falling below the 25th national percentile.

Protocol 6: Calculation of Performance Measures	
<i>Key Area/Significance</i>	Nearly 60,000 STAR+PLUS members with high blood pressure were included in this measure, which is part of the P4Q program.
<i>Recommendation</i>	HHSC should focus on improving blood pressure management for populations with complex healthcare needs and co-occurring conditions that may influence a member's ability to adhere to treatment plans.
<i>Finding</i>	Most members with diabetes in STAR and STAR+PLUS had co-occurring behavioral health and/or other chronic physical health conditions.
<i>Key Area/Significance</i>	Co-occurring conditions, including behavioral health problems, can make disease management more challenging.
<i>Recommendation</i>	HHSC should focus diabetes interventions on populations that have co-occurring behavioral health and/or other chronic physical health conditions.
<i>Finding</i>	Behavioral health follow-up care varied widely by MCO/SA.
<i>Key Area/Significance</i>	Follow-up care helps sustain the benefits of care and enables the monitoring of problems with medication or treatment.
<i>Recommendation</i>	HHSC should work to identify the reasons for differences in outcomes and use this information to develop interventions that are more effective.
<i>Finding</i>	High performance in STAR Health on the <i>Use of First-Line Psychosocial Care for Children</i> (APP) measure demonstrates that psychosocial treatment options are available and used by providers.
<i>Key Area/Significance</i>	Psychosocial treatment provides a safer first treatment option, which may also lead to better long-term outcomes.
<i>Recommendation</i>	HHSC should work to understand the differences in care delivery across programs to find ways to increase the use of these services.
<i>Finding</i>	Upper respiratory tract infection contributed to PPVs in 2017 much more than any other condition.
<i>Key Area/Significance</i>	PPVs overuse hospital resources, and conditions that lead to PPVs may receive higher quality treatment in the primary care setting, where care may be more comprehensive than care provided in a hospital setting.
<i>Recommendation</i>	MCOs should promote prevention-focused care and the use of primary care providers for common acute illnesses.
<i>Finding</i>	Mental health disorders were among the top 10 reasons for PPAs across all managed care programs.
<i>Key Area/Significance</i>	Co-occurring behavior health conditions can also increase the number of PPEs for physical health reasons.
<i>Recommendation</i>	Since only two PIPs addressing BH-related PPAs and PPRs demonstrated sustained improvement, HHSC should work with these MCOs to develop statewide strategies for improvement in these areas.
<i>Finding</i>	STAR+PLUS had the highest rate for PPRs.
<i>Key Area/Significance</i>	This is unsurprising due to the complex needs of many STAR+PLUS beneficiaries, but results highlight the need for better care coordination in this population.
<i>Recommendation</i>	MCOs should work to improve care coordination following hospitalizations, particularly for patients with co-occurring conditions that could make adherence to treatment plans challenging.

Table 67. Protocol 8 Findings and Recommendations

Protocol 8: Focused Studies	
<i>Finding</i>	Very few weekend and after-hours appointments were available to members.
<i>Key Area/Significance</i>	Lack of weekend and after-hours appointments limits member access to vital services for prenatal, preventive, and behavioral health care.

Protocol 8: Focused Studies	
<i>Recommendation</i>	HHSC and the MCOs should consider ways to increase the availability of after-hours and weekend appointments. These ways may include offering a greater number of telemedicine services, incentives for providers to practice in rural areas, and nurse practitioner-led clinics in rural areas.
<i>Finding</i>	The lowest compliance rate for appointment availability (27.9 percent) occurred in the high-risk prenatal care category.
<i>Key Area/Significance</i>	This finding indicates that the women most at risk for poor pregnancy outcomes are the least likely to get a timely appointment.
<i>Recommendation</i>	HHSC and the MCOs need to work with providers to identify the barriers to providing timely care for women with high-risk pregnancies and increase the availability of high-risk appointments.
<i>Finding</i>	The number of excluded providers in both Appointment Availability Sub-Studies is greater than 40 percent of the sample, indicating a continued need to improve the quality of provider directory information. The EQRO excludes providers from the study when callers cannot reach the provider after three tries, or find that the number is wrong or disconnected.
<i>Key Area/Significance</i>	Excluding providers because of the poor quality of directory information often causes the EQRO to exhaust the samples for health plans and results in small sample sizes when calculating compliance.
<i>Recommendation</i>	HHSC and the MCOs should continue exploring ways to improve the quality of provider directory information and establish ways to hold providers and the MCOs accountable for the quality of the directory information.
<i>Finding</i>	The first quarterly topic report found that co-occurring BH/PH conditions accounted for the vast majority of all PPEs in STAR+PLUS, in terms of both frequency and total PPE dollar volumes. Co-occurring conditions captured 73 percent of total PPE expenditures in STAR+PLUS, compared to only 15 percent of total PPE expenditures in STAR.
<i>Key Area/Significance</i>	The STAR+PLUS member population has a wide range of co-occurring conditions that may result in higher total PPE expenditures. BH/PH service integration can lead to better health outcomes, therefore improving quality of care, and reducing costs related to care.
<i>Recommendation</i>	Care integration efforts for members with co-occurring conditions should focus on STAR+PLUS members.
<i>Finding</i>	STAR+PLUS members with co-occurring conditions were dispersed across many BH/PH diagnostic pairs, while a relatively small number of individual BH diagnoses PH diagnoses were the primary diagnostic causes of PPEs in this population.
<i>Key Area/Significance</i>	Identifying and targeting primary diagnostic causes of PPEs is an important step toward the development of effective interventions. Focusing on primary diagnostic causes also allows for comparable intervention findings across MCOs and SAs.
<i>Recommendation</i>	Rather than focusing on BH/PH diagnostic pairs, interventions should focus on members with the most frequently occurring individual BH diagnoses (e.g., schizophrenia, depression, alcohol/substance use disorders) and individual PH diagnoses (e.g., congestive heart failure, COPD, asthma) that contribute to PPEs.
<i>Finding</i>	The second quarterly topic report found that among Medicaid members who were prescribed an opioid for 15 or more cumulative days during the measurement year, 3.4 percent received high dosages of opioids (120 MED or higher) and 24 percent received a prescription opioid from four or more different prescribers.
<i>Key Area/Significance</i>	Higher dosages of opioids over a prolonged time can lead to addiction for members. Improved oversight of opioid prescriptions can help with management and control of opioid use.
<i>Recommendation</i>	HHSC should access more indicators from the Texas Prescription Drug Monitoring Program to enhance knowledge regarding Texas Medicaid's scope in the opioid epidemic, and add prescription opioid-related information to the THLC portal.
<i>Finding</i>	Among members exposed to high doses of opioids, 2.5 percent had an opioid-related overdose, 10 percent had five or more ED visits, and slightly less than one percent had five or more inpatient stays.

Protocol 8: Focused Studies	
<i>Key Area/Significance</i>	High doses of opioids can lead to severe health outcomes for members and increase utilization and costs for care.
<i>Recommendation</i>	HHSC should increase coordination to adopt the MED thresholds promoted by CMS and the CDC and increase engagement with state agencies to address the opioid epidemic in Texas.
<i>Finding</i>	The third quarterly topic report on severe maternal morbidity confirmed prior findings from the Maternal Mortality and Morbidity Task Force, including higher rates of severe maternal morbidity and hemorrhage among Black women. This analysis also identified a higher rate of severe morbidity among older women.
<i>Key Area/Significance</i>	The reasons for these differences are unclear but these findings suggest that the quality of health care for women in Texas may vary by age and race.
<i>Recommendation</i>	HHSC should consider a more in-depth examination of how patterns of maternal care vary by socioeconomic and demographic strata among Medicaid and CHIP members and whether there are systematic differences in the quality of care that contribute to racial disparities in maternal health outcomes.
<i>Finding</i>	Results indicate that AIM HDD outcome measures can help identify delivery events and monitor changes in SMM rates; in addition, certain rates may be more sensitive to the effects of preventive care. For example, statistically significant differences exist in hemorrhage and preeclampsia rates for women that received timely prenatal care, but no difference exists in overall SMM rates based on timely prenatal care.
<i>Key Area/Significance</i>	This finding suggests that rates of hemorrhage and preeclampsia among women with severe maternal morbidity may help monitor the effect of initiatives to prevent SMM and improve the quality of maternal care.
<i>Recommendation</i>	Consider developing specific benchmarks for maternal morbidity rates based on the AIM outcome measures. A standardized set of benchmarks for monitoring care across MCOs and service areas can help the state identify and prioritize strategies for improvement.
<i>Finding</i>	The fourth quarterly topic report, which focused on the population of STAR+PLUS members with co-occurring conditions, found that 145 high-volume PCPs accounted for 1.3 percent of all PCPs in the study, and over one-fifth of all PPAs and over one-quarter of all PPVs.
<i>Key Area/Significance</i>	Primary care represents an important intervention setting for preventing admissions among members with co-occurring BH/PH conditions. Analytic tools (such as the 3M PPEs) can identify specific PCPs whose patients are less likely to have PPEs (to identify best practices) as well as PCPs whose patients are more likely to have PPEs (to identify target settings for intervention).
<i>Recommendation</i>	The EQRO recommends identifying and focusing on a small number of high-volume PCPs to address higher-than-expected PPEs.
<i>Finding</i>	Among STAR+PLUS members with co-occurring BH/PH conditions, PPAs and PPVs were concentrated in highly populated, urban SAs. With regard to provider type, BH providers accounted for 17 percent of all providers in the study, but slightly lower proportions of PPAs (14 percent) and PPVs (13 percent).
<i>Key Area/Significance</i>	Interventions to integrate BH and PH care in specific service areas or with specific provider types may help reduce PPEs at the population level.
<i>Recommendation</i>	The EQRO recommends that STAR+PLUS MCOs implement interventions that: (a) focus on more highly populated, urban SAs to address the highest-need areas; and (b) promote integration practices among BH providers (e.g., screening and monitoring for chronic PH conditions) who show promise in reducing PPEs compared to other provider types.
<i>Finding</i>	In the STAR Kids focus study, qualitative interviews with STAR Kids MCOs yielded several common areas of concern regarding program implementation and quality assurance; these areas of concern were related to changes to or reductions in services, and medical necessity denials for MDCP eligibility for new members.
<i>Key Area/Significance</i>	Prior to STAR Kids implementation, caregivers and disability advocates expressed concerns about reduction of common types of LTSS, such as private duty nursing and personal care services. An important step in quality assurance for this new program is determining the extent to which these reductions may be occurring and incorporating perspectives from multiple stakeholders.

Protocol 8: Focused Studies	
<i>Recommendation</i>	During annual reassessments for MDCP eligibility determination, STAR Kids MCO service coordinators should inform families about the appropriate steps to take if they are denied medical necessity, including their right to a fair hearing.
<i>Finding</i>	In the STAR Kids focus study post-implementation survey, nearly one-third of caregivers said they had someone to help arrange or coordinate their child's care, which was a significant increase from the rate of the pre-implementation period. However, the post-implementation rate is still considerably lower than expected, given that MCOs assign all STAR Kids members a service coordinator.
<i>Key Area/Significance</i>	Accessible and comprehensive service coordination is vital to successfully managing care for children and adolescents with disabilities and complex conditions.
<i>Recommendation</i>	HHSC should investigate why STAR Kids caregivers are reporting low rates of access to care coordination, and determine if they are aware of available services and reasons why they may be refusing these services.
<i>Finding</i>	While more STAR Kids caregivers in the post-implementation survey reported having someone to help with care coordination, fewer said they “usually” or “always” got as much help as they wanted.
<i>Key Area/Significance</i>	This finding suggests that access to care coordination may be improving, but STAR Kids service coordinators may not be meeting caregivers' needs and expectations.
<i>Recommendation</i>	HHSC should consider further study to explore the extent to which STAR Kids service coordinators are meeting caregiver needs and expectations.

SECTIONS 4-5: REFERENCES & APPENDICES

- [References](#) | Bibliographic References
- [Appendix A](#) | Summary of Quality Measures
- [Appendix B](#) | QA & PIP Recommendations
- [Appendix C](#) | Clinical Risk Group Definitions
- [Appendix D](#) | PPC Groups & Categories
- [Appendix E](#) | Key Data Elements
- [Appendix F](#) | POA Screening Criteria
- [Appendix G](#) | Measures Included in Report Cards



Supportive Materials

The EQRO maintains business relationships with leading governmental bodies and experts within the industry. This body of references reflects Texas HHSC's and the EQRO's commitment to staying abreast of the policy, academic research, and innovation that defines health care today. Items in the appendices are included for reference to material described and labeled throughout the report. The appendices reflect the order in which they appear in the text.

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Appendix A: Summary of Quality Measures Calculated and Reported by the EQRO for the 2017 Measurement Year by Program

Measure	CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS	Medicaid
HEDIS Effectiveness of Care							
<i>Prevention and Screening</i>							
ABA: Adult BMI Assessment			H ^a				
WCC: Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents							
BMI Percentile	H ^a	H ^a		A	H	A	
Counseling for Nutrition	H ^a	H ^a		A	H	A	
Counseling for Physical Activity	H ^a	H ^a		A	H	A	
CIS: Childhood Immunization Status	H ^a	H ^a		A	H	A	
IMA: Immunizations for Adolescents	A	A		A	A	A	A
BCS: Breast Cancer Screening		A	A ^a			A	A
CCS: Cervical Cancer Screening		A ^a	H ^a			A	
CHL: Chlamydia Screening in Women	A ^a	A ^a	A ^a	A	A	A	A
<i>Respiratory Conditions</i>							
CWP: Appropriate Testing for children with Pharyngitis	A ^a	A ^a	A	A	A	A	A
SPR: Use of Spirometry Testing in the Assessment and Diagnosis of COPD			A				A
PCE: Pharmacotherapy Management of COPD Exacerbation			A				A
MMA: Medication Management for People with Asthma	A ^a	A ^a	A ^a	A ^a	A	A	A
AMR: Asthma Medication Ratio	A ^a	A ^a	A ^a	A	A	A	A
<i>Cardiovascular Conditions</i>							
CBP: Controlling High Blood Pressure		H ^a	H ^a				
SPC: Statin Therapy for Patients with Cardiovascular Disease		A	A			A	A
<i>Diabetes</i>							
CDC: Comprehensive Diabetes Care							
Hemoglobin A1c (HbA1c) Testing		H ^a	H ^a				
HbA1c Control (<8.0%)		H ^a	H ^a				
BP Control (<140/90 mmHg)		H ^a	H ^a			A	A
Eye Exam		A ^a	A ^a			A	A
Medical Attention for Nephropathy		A ^a	A ^a			A	A
SPD: Statin Therapy for Patients with Diabetes		A	A				
<i>Behavioral Health</i>							
AMM: Antidepressant Medication Management		A ^a	A ^a	A		A	A
ADD: Follow-Up Care for Children Prescribed ADHD Medication	A ^a	A ^a	A ^a	A ^a	A	A	A
FUH: Follow-Up After Hospitalization for Mental Illness	A ^a	A ^a	A ^a	A ^a	A	A	A

FUM: Follow-Up After Emergency Department Visits for Mental Illness	A	A	A	A	A	A	A
FUA: Follow-Up After Emergency Department Visits for Alcohol and Other Drug Dependence	A	A	A	A	A	A	A
APM: Metabolic Monitoring for Children and Adolescents on Antipsychotics	A	A		A	A	A	A
SSD: Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications		A	A			A	A
SMD: Diabetes Monitoring for People with Diabetes and Schizophrenia		A	A			A	A
SMC: Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia			A				A
SAA: Adherence to Antipsychotic Medications for Individuals With Schizophrenia		A	A			A	A
Medication Management							
MPM: Annual Monitoring for Patients on Persistent Medications			A			A	A
Overuse/Appropriateness							
URI: Appropriate Treatment for Children with Upper Respiratory Infection	A ^a	A ^a		A	A	A	A
AAB: Avoidance of Antibiotic Therapy for Adults with Acute Bronchitis		A ^a	A ^a			A	A
APC: Use of Multiple Concurrent Antipsychotics in Children and Adolescents	A	A		A	A	A	A
UOD: Use of Opioids at High Dosage		A	A			A	A
UOP: Use of Opioids from Multiple Providers		A	A			A	A
HEDIS Access/Availability of Care							
AAP: Adults' Access to Preventive/Ambulatory Health Services		A	A			A	A
CAP: Children and Adolescents' Access to Primary Care Practitioners	A ^a	A ^a		A ^a	A	A	A
IET: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	A	A ^a	A ^a	A	A	A	A
PPC: Prenatal and Postpartum Care	A	H ^a	A ^a	A	A	A	
APP: Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics	A	A		A	A	A	A
HEDIS Utilization and Risk Adjustment Utilization							
Utilization							
W15: Well-Child Visits in the First 15 Months of Life	A ^a	H ^a		A ^a	A	A	
W34: Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life	H ^a	H ^a		A ^a	H	A	
AWC: Adolescent Well-Care Visits	H ^a	H ^a	A	A ^a	H	A	
AMB: Ambulatory Care	A	A	A	A	A	A	A
IPU: Inpatient Utilization—General Hospital/Acute Care	A	A	A		A	A	A
IAD: Identification of Alcohol and Other Drug Services	A	A	A		A	A	A
MPT: Mental Health Utilization	A	A	A	A	A	A	A
Risk Adjusted Utilization							
PCR: Plan All-Cause Readmission			A			A	A

Other Non-HEDIS						
CDS: Survey on Using Consumer Directed Services	T ^a , S ^a					
DVS: Developmental Screening in the First 3 Years of Life	A	A		A	A	A
CCP: Contraceptive Care - Postpartum Women	A	A	A	A	A	A
CCW: Contraceptive Care - All Women	A	A	A	A	A	A
COB: Concurrent Use of Opioid and Benzodiazepines		A	A		A	A
LBW: Low Birth Weight Infants		T	T	T		T
HIV: HIV Viral Suppression	T	T	T	T	T	
Measures Collected Through CAHPS Health Plan Survey						
MSC: Medical Assistance with Smoking Cessation and Tobacco Use						S
FVA: Flu Vaccinations for Adults Ages 18-64						S
CAHPS Experience of Care						
CPA: CAHPS Health Plan Survey 5.0H, Adult Version						
Rating of All Health Care						S
Rating of Personal Doctor		S	S			S
Rating of Specialist Seen Most Often						S
Rating of Health Plan		S	S			S
Customer Service						S
Getting Care Quickly		S	S			S
Getting Needed Care		S	S			S
How Well Doctors Communicate		S	S			S
Shared Decision Making						S
Health Promotion and Education						S
Coordination of Care						S
CPC: CAHPS Health Plan Survey 5.0H, Child Version						
Rating of All Health Care	S	S				S
Rating of Personal Doctor	S ^a	S ^a				S
Rating of Specialist Seen Most Often	S	S				S
Rating of Health Plan	S ^a	S ^a				S
Customer Service	S	S				S
Getting Care Quickly	S	S				S
% good access to urgent care	S ^a	S ^a				
% good access to routine care	S ^a	S ^a				
Getting Needed Care	S	S				S
% good access to specialist appointments	S ^a	S ^a				
How Well Doctors Communicate	S ^a	S ^a				S
Shared Decision Making	S	S				S
Health Promotion and Education	S	S				S
Coordination of Care	S	S				S
CCC: CAHPS Health Plan Survey 5.0H, Child Version with Children with Chronic Conditions						
Rating of All Health Care	S	S				
Rating of Personal Doctor	S	S				

Rating of Specialist Seen Most Often	S	S	
Rating of Health Plan	S	S	
Customer Service	S	S	
CAHPS Supplemental Measures			
% good access to behavioral health treatment or counseling	S ^a	S ^a	
Experience of Care and Health Outcome (ECHO) Survey			
Experience of Care and Health Outcome (ECHO)			
Survey for Adults			
Getting Treatment Quickly		S	S
How Well Clinicians Communicate		S	S
Perceived Improvement		S	S
Information About Treatment Options		S	S
Getting Treatment and Information from the Plan		S	S
Getting Treatment and Information from the BHO		S	S
Counseling and Treatment		S	S
Health Plan Rating		S	S
Handling Benefits		S	S
Clinician Rating		S	S
Experience of Care and Health Outcome (ECHO)			
Survey for Children			
Getting Treatment Quickly		S	
How Well Clinicians Communicate		S	
Perceived Improvement		S	
Information About Treatment Options		S	
Getting Treatment and Information from the Plan		S	
Getting Treatment and Information from the BHO		S	
Counseling and Treatment		S	
Health Plan Rating		S	
Handling Benefits		S	
Dental Survey Measures			
Regular dentist treated patient with courtesy and respect.	S	S	
Member able to get a dental appointment as soon as needed.	S	S	
Dental plan covered all services caregiver thought were covered.	S	S	
Dentist Rating (9 or 10)	S	S	
Dental Care Rating (9 or 10)	S	S	
Access to Dental Care Rating (9 or 10)	S	S	
Dental Plan Rating (9 or 10)	S	S	
AHRQ Quality Indicators - Area Measures			
<i>Prevention Quality Indicators (PQI)</i>			
1: Diabetes short-term complications	A ^a	A ^a	A
2: Perforated appendix	A ^a	A ^a	A
3: Diabetes long-term complications	A ^a	A ^a	A

5: COPD or asthma in older adults	A ^a	A ^a				A
7: Hypertension	A ^a	A ^a				A
8: Heart failure	A ^a	A ^a				A
9: Low birth weight	A ^a	A				A
10: Dehydration	A ^a	A ^a				A
11: Bacterial pneumonia	A ^a	A ^a				A
12: Urinary tract infection	A ^a	A ^a				A
14: Uncontrolled diabetes	A ^a	A ^a				A
15: Asthma in younger adults	A ^a	A ^a				A
16: Lower extremity amputation among patients with diabetes	A ^a	A ^a				A
90: Prevention Quality Overall Composite	A	A				A
91: Prevention Quality Acute Composite	A	A				A
92: Prevention Quality Chronic Composite	A	A				A
93: Prevention Quality Diabetes Composite	A	A				A
<i>Pediatric Quality Indicators (PDI)</i>						
14: Asthma	A ^a	A ^a	A ^a	A	A	
15: Diabetes short-term complications	A ^a	A ^a	A ^a	A	A	
16: Gastroenteritis	A ^a	A ^a	A ^a	A	A	
17: Perforated appendix	A ^a	A ^a	Aa	A	A	
18: Urinary tract infection	A ^a	A ^a	A ^a	A	A	
90: Pediatric Quality Overall Composite	A	A	A	A	A	
91: Pediatric Quality Acute Composite	A	A	A	A	A	
92: Pediatric Quality Chronic Composite	A	A	A	A	A	
3M Health Information Systems Measures of PPEs						
PPV: Potentially preventable emergency department visits	A ^a	A ^a	A ^a	A	A	A
PPA: Potentially preventable hospital admissions	A	A ^a	A ^a	A	A	A
PPR: Potentially preventable hospital readmissions	A	A ^a	A ^a	A	A	A
PPC: Potentially preventable hospital complications	A	A	A ^a	A	A	A
H – Hybrid methodology used						
A – Administrative methodology used						
T – Calculated by HHSC						
S – Survey methodology used						
^a included on the HHSC performance dashboard						

Measure	Medicaid Dental	CHIP Dental
Dental Quality Measures		
<i>Quality of Care</i>		
Annual Dental Visits		
% of members (2 - 3 yrs) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
% of members (4 - 6 yrs) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
% of members (7 - 10 yrs) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A

% of members (11 - 14 yrs) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
% of members (15 - 18 yrs) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
% of members (19 - 20 yrs) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
Preventive Dental Services		
% of members enrolled for at least 11 of the past 12 months who had at least one preventive dental service during the measurement year	(1 - 20 yrs)	(1 - 18 yrs)
THSteps Care Measures:	A	
a) Percent of members (1 year - 20 years) receiving exactly one THSteps Dental Checkup per year		
b) Percent of members (1 year - 20 years) receiving at least two THSteps Dental Checkup per year		
Combined Rate=0.5*rate of one checkup + Rate of at least two checkups		
Based on recommended standards of THSteps dental checkup visits (2 visits per year), the sub-measure of one checkup will receive 50% of the weight of the sub-measure of at least two checkups.		
% of members (1 year - 20 yrs) receiving more than two THSteps Dental Checkups per year	A	
% of new members (1 year - 20 yrs) receiving at least one THSteps Dental Checkup within 90 days of enrollment	A	
% of members (6 - 9 yrs) enrolled for at least 6 continuous months who had at least one sealant service on one of the permanent first molars during the measurement year	A	A
% of members (10 - 14 yrs) enrolled for at least 6 continuous months who had at least one sealant service on one of the permanent second molars during the measurement year	A	A
Sealants in 6-9 Years – % of members (6-9 yrs) continuously enrolled for at least 180 days who are at "elevated" risk for dental caries and who received a sealant on a permanent first molar tooth within the reporting year	A	A
Sealants in 10-14 Years – % of members (10-14 yrs) continuously enrolled for at least 180 days who are at "elevated" risk for dental caries and who received a sealant on a permanent second molar tooth within the reporting year	A	A
Oral Evaluation – % of members enrolled for at least 6 months who received a comprehensive or periodic oral evaluation within the reporting year	(< 21 yrs)	(< 19 yrs)
Topical Fluoride – % of enrolled children who are at "elevated" risk (i.e. "moderate" or "high") who received at least two topical fluoride applications within the reporting year	(1 - 20 yrs)	(1 - 18 yrs)
Continuity of Care		
Care Continuity – % of members enrolled in two consecutive years for at least 6 months in each year who received a comprehensive or periodic oral evaluation in both years	(1 - 20 yrs)	(1 - 18 yrs)
Utilization of Dental Services		
% of members enrolled for at least 11 of the past 12 months who had at least one orthodontic service during the measurement year*	(< 21 yrs)	(< 19 yrs)
Utilization of Services – % of members enrolled for at least 6 months who received at least one dental service within the reporting year *	(< 21 yrs)	(< 19 yrs)
Treatment Services – % of members enrolled for at least 6 months who received a treatment service within the reporting year *	(< 21 yrs)	(< 19 yrs)
Total Amount Paid Per-Member Per-Month for Dental Services		
Utilization of Dental Services		

Ambulatory Care Sensitive Emergency Department Visits for Dental Caries in Children – Number of emergency department visits for caries-related reasons per 100,000 member-months for all enrolled children	A	A
Follow-Up after Emergency Department Visits for Dental Caries in Children – Percentage of ambulatory care sensitive Emergency Department (ED) visits for dental caries among children in the reporting period for which the member visited a dentist within 7 days of the ED visit.	(< 21 yrs)	(< 19 yrs)
Follow-Up after Emergency Department Visits for Dental Caries in Children – Percentage of ambulatory care sensitive Emergency Department (ED) visits for dental caries among children in the reporting period for which the member visited a dentist within 30 days of the ED visit.	(< 21 yrs)	(< 19 yrs)
A – Administrative methodology used		

Appendix B: Quality Assessment and Performance Improvement Recommendations

Activity	Example Recommendation
Required Documentation	Complete all sections of the Quality Assessment and Performance Improvement evaluation tool.
Role of Governing Body	All health plans received full credit on all components in this activity. Therefore, no recommendations for the 2018 QAPIs.
Structure of Quality Improvement Committee(s)	Specify which committee members have clinical and non-clinical voting rights.
Adequate Resources	All health plans received full credit on all components in this activity. Therefore, no recommendations for the 2018 QAPIs.
Opportunities for Improvement	Provide all current PIP topics for all programs.
Program Description	Develop long-term goals for overall and measure-specific quality improvement.
Overall Effectiveness	Describe barriers to the design, implementation and/or monitoring of the QAPI program encountered during the current year.
Clinical Practice Guidelines	Detail how all guidelines are disseminated to members.
Access to Care Monitoring and Results	Evaluate and report the effectiveness of actions and provide future actions for all indicators.
Clinical Indicator Monitoring and Results	Include an analysis of the effectiveness of actions such as the percentage change in measurement from the previous year.
Service Indicator Monitoring	Describe additional or future actions to monitor effectiveness of indicators.
Credentialing and Re-credentialing	Report number of providers and facilities credentialed during the measurement period as separate values. Indicate if none.
Delegation of Activities	All health plans received full credit on all components in this activity. Therefore, no recommendations for the 2018 QAPIs.
Corrective Action Plans	Provide details of Corrective Action Plans for the current year.
Previous Year's Recommendations	Address all previous year's recommendations, describe how each was incorporated into the QAPI program, and describe actions to meet the recommendation.

Appendix C: Clinical Risk Group Definitions

Below are 3M's CRG definitions.

1. **Healthy** - A healthy status is identified by the absence of any primary chronic disease (PCD) or Significant Acute Episode Diagnostic Categories (EDC) or Episode Procedure Category (EPC).
2. **Significant Acute** - A history of significant acute disease is identified by the presence within the most recent six-month period of one or more Significant Acute EDCs or one of a set of Significant Acute EPCs with no PCDs (i.e., identifiable chronic conditions) present.
3. **Single Minor Chronic** - A single minor chronic disease is identified by the presence of a single Minor Chronic PCD.
4. **Multiple Minor Chronic** - Minor chronic disease in multiple organ systems is identified by the presence of two or more Minor Chronic PCDs.
5. **Single Dominant or Moderate Chronic Disease** – Single dominant chronic disease is identified by the presence of a single dominant or moderate PCD. If a Minor Chronic PCD with a level of one is present, it is ignored.
6. **Significant Chronic Diseases in Multiple Organ Systems** - Significant chronic diseases in multiple organ systems are identified by the presence of two or more PCDs, of which at least one is a Dominant or Moderate Chronic PCD. PCDs that are a severity level 1 minor chronic disease are not considered a significant chronic disease, and are not used to identify the presence of significant chronic disease in multiple organ systems. Minor Chronic PCDs that are severity level two minor chronic diseases are used.
7. **Dominant Chronic Disease in Three or More Organ Systems** - Dominant chronic disease in three or more organ systems is identified by the presence of three or more dominant chronic PCDs or two dominant chronic PCDs with a selected moderate chronic PCD.
8. **Malignancies-Metastatic, Complicated or Dominant** - A malignancy that dominates the medical care required (e.g., brain malignancy) or a non-dominant malignancy (e.g., prostate malignancy) that is metastatic or complicated (e.g., requiring a bone marrow transplant).
9. **Catastrophic** - Catastrophic conditions include long term dependency on a medical technology (e.g., dialysis, respirator, and TPN) and life-defining chronic diseases or conditions that dominate the medical care required (e.g., persistent vegetative state, cystic fibrosis, AIDS, and history of heart transplant).
10. **Unassigned** - the member did not meet the 3-month minimum enrollment criteria.

Appendix D: PPC Groups and Categories

PPC Groups

PPC Group	Group Description
1	Extreme Complications
2	Cardiovascular-Respiratory Complications
3	Gastrointestinal Complications
4	Perioperative Complications
5	Infectious Complications
6	Malfunctions, Reactions, etc.
7	Obstetrical Complications
8	Other Medical and Surgical Complications

PPC Categories

PPC Category	Category Description	PPC Group
1	Stroke and Intracranial Hemorrhage	2
2	Extreme CNS Complications	1
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	2
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1
5	Pneumonia and Other Lung Infections	2
6	Aspiration Pneumonia	2
7	Pulmonary Embolism	2
8	Other Pulmonary Complications	2
9	Shock	1
10	Congestive Heart Failure	2
11	Acute Myocardial Infarction	2
13	Other Cardiac Complications	2
14	Ventricular Fibrillation/Cardiac Arrest	1
15	Peripheral Vascular Complications except Venous Thrombosis	2
16	Venous Thrombosis	2
17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding	3
18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding	3
19	Major Liver Complications	3
20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding	3
21	Clostridium Difficile Colitis	5
23	GU Complications except UTI	8
24	Renal Failure without Dialysis	8
25	Renal Failure with Dialysis	1
26	Diabetic Ketoacidosis and Coma	8
27	Post-Hemorrhagic and Other Acute Anemia with Transfusion	8

PPC Category	Category Description	PPC Group
28	In-Hospital Trauma and Fractures	8
29	Poisonings except from Anesthesia	6
30	Poisonings due to Anesthesia	6
31	Pressure Ulcer	8
32	Transfusion Incompatibility Reaction	6
33	Cellulitis	5
34	Moderate Infections	5
35	Septicemia and Severe Infections	5
36	Acute Mental Health Changes	8
37	Post-Operative Infection and Deep Wound Disruption without Procedure	4
38	Post-Operative Wound Infection and Deep Wound Disruption with Procedure	4
39	Reopening Surgical Site	4
40	Peri-Operative Hemorrhage and Hematoma without Hemorrhage Control Procedure or I and D Procedure	4
41	Peri-Operative Hemorrhage and Hematoma with Hemorrhage Control Procedure or I and D Procedure	4
42	Accidental Puncture/Laceration during Invasive Procedure	4
44	Other Surgical Complication - Moderate	8
45	Post-procedure Foreign Bodies and Substance Reaction	4
47	Encephalopathy	8
48	Other Complications of Medical Care	8
49	Iatrogenic Pneumothorax	6
50	Mechanical Complication of Device, Implant and Graft	6
51	Gastrointestinal Ostomy Complications	6
52	Inflammation and Other Complications of Devices, Implants or Grafts except Vascular Infection	6
53	Infection, Inflammation and Clotting Complications of Peripheral Vascular Catheters and Infusions	6
54	Infections due to Central Venous Catheters	6
59	Medical and Anesthesia Obstetric Complications	7
60	Major Puerperal Infection and Other Major Obstetric Complications	7
61	Other Complications of Obstetrical Surgical and Perineal Wounds	7
63	Post-Operative Respiratory Failure with Tracheostomy	1
64	Other In-Hospital Adverse Events	8
65	Urinary Tract Infection	5
66	Catheter-Related Urinary Tract Infection	5

Appendix E: Key Data Elements Used for Evaluating the Validity and Completeness of Data

Fields	V21 Field Name	Description
Header Fields		
Header Start Date of Service	H_FRM_SVC_DT	The date on which the first services were rendered. The format is MM/DD/YYYY.
Header End Date of Service	H_TO_SVC_DT	The date on which the last services were rendered for the header. The format is MM/DD/YYYY.
Primary Member Identification Number	H_MBR_PRMRY_MBR_ID_NO	Submitted Member Primary Identification Number: The member's primary identification number for the program (Medicaid, CHIP, or NorthSTAR) from which the encounter was submitted.
Primary Diagnosis Code	H_PRNCPL_DIAG_CD	Principal Diagnosis Code: The principal diagnosis listed on the encounter.
Type of Bill Code (TXN_TYP = I)	H_TYP_OF_BILL	This code indicates the specific type of bill. Example: Inpatient, Outpatient, Adjustments, Voids, etc. (Only checked for institutional encounters)
Adjudication Date	H_ADJCTN_DT	The date the claim was paid by the MCO. The format is MM/DD/YYYY.
Admission Date	H_ADMSN_DT	The date the member was admitted to a healthcare facility. The format is MM/DD/YYYY.
Discharge Date	H_DCHG_DT	The date the member was discharged from the provider. The format is MM/DD/YYYY.
Header Amount Paid	H_PD_AMT	The total amount paid by the MCO for the encounter.
Header Financial Arrangement Code (TXN_TYP = I)	HI_ENCR_FIN_ARNGMNT_CD	The code that indicates the MCO designated financial arrangement between the MCO and its provider/subcontractor for the submitted institutional encounter.
Primary Surgical Code (PROC_TYP_IND = 9/0)	HI_PRNCPL_PROC_CD	A code submitted on an 837 institutional encounter describing the principal procedure rendered by a provider to an enrollee.
Discharge Status (TXN_TYP = I)	HI_PTNT_STS_CD	A code submitted only on an 837 Institutional encounter, which indicates the patient status as of the end of statement date.
Claim Number	HS_ORIG_ICN + HS_ORIG_ICN_SEQ_NO	Generated by concatenating Original ICN and Original ICN Sequence Number
Billing Provider NPI	HP_BLNG_PRV_NTNL_PRV_ID	Billing Provider National Provider Identifier
Detail Fields		
Detail Start Date of Service	D_FRM_SVC_DT	The date on which the first services for the detail were rendered. The format is MM/DD/YYYY.
Detail End Date of Service	D_TO_SVC_DT	The date on which the last services were rendered for the detail. In most situations, from and to dates are the same at the detail level. The format is MM/DD/YYYY.
Procedure Code (TXN_TYP = D and P)	D_PROC_CD	A procedure code submitted by the provider to define the service(s) rendered. (Only checked for dental and professional encounters)
Revenue Code (TXN_TYP = I)	D_LN_RVNU_CD	A revenue code pertaining to the detail. (Submitted only on Institutional encounters)

Fields	V21 Field Name	Description
Place of Service Code (TXN_TYP = D and P)	D_PLC_OF_SVC_CD (TXN_TYP=D and P)	A code that identifies where the service was performed. (Only checked for dental and professional encounters)
Detail Amount Paid	D_PD_AMT	The total amount paid by the MCO for an individual detail regardless of where the service was provided and/or who provided the service.
Detail Financial Arrangement Code	D_ENCR_FIN_ARNGMNT_CD	The code that indicates the MCO designated financial arrangement between the MCO and its provider/subcontractor for the submitted encounter detail line.

Appendix F: POA Screening Criteria

The percentage of reported non-exempt primary diagnoses with POA codes on acute inpatient institutional encounter records (Transaction Type = 'I', and Type of bill in '11x', '12x', or '41x') are reported with the distribution of valid POA codes ('Y', 'N', 'U', 'W'). Most primary diagnoses are expected to be present on admission ('Y'). The percentages of POA with values 'U' and 'W' should be very low as these indicate a deficiency in the data collection process. **Table 68** shows a description of each POA code and the values the EQRO considers areas of concern for primary diagnoses:

Table 68. POA Non-Exempt Primary Diagnosis Codes

POA Code	Description ^o	EQRO Area of Concern
Y	Diagnosis was present at the time of inpatient admission	<90%
N	Diagnosis was not present at the time of inpatient admission	≥10%
U	Documentation was insufficient to determine if the condition was present at the time of inpatient admission	≥1%
W	Clinically undetermined. Provider unable to clinically determine whether the condition was present at the time of inpatient admission	≥1%

The POA codes for secondary diagnoses are most critical to calculation of PPC rates. If a hospital provider is not accurately reporting these POA, PPC rates and risk adjustment will be biased. Data are screened at the provider level for inclusion in PPC calculations, using four criteria developed by 3M. First, POA indicator value "U" (no information in the record) is mapped to "N" (not present on admission), and value "W" (clinically undetermined) is mapped to "Y" (present on admission). The distribution of POA indicators for each criterion is evaluated for all non-exempt, pre-existing, secondary diagnoses for the encounters matching the criteria. For this report, data for each MCO/SA combination were evaluated with the four screening criteria. When these data are in the grey or red zones on these criteria at the MCO/SA level, it indicates a likelihood that at least some providers in the MCO network will be excluded from PPC calculations due to the provider data screening process. **Table 69** describes the criteria for assessing secondary diagnoses.

Table 69. POA Codes for Secondary Diagnoses

Screening	Definition
Quality Screen 1: High % Non POA for secondary diagnoses on the Pre-Existing List	Identifies high percent non-POA (POA = N) for pre-existing secondary diagnosis codes (excluding exempt codes). Red Zone: % Non POA on Pre-Exist ≥ 7.5% Grey Zone: % Non POA on Pre-Exist 5% to < 7.5%
Quality Screen 2: High % POA for secondary diagnoses	Identifies extremely high percent present on admission (POA = Y) for secondary diagnosis codes (excluding exempt, pre-existing, and OB 7600x-7799x codes). Red Zone: % POA ≥ 96% Grey Zone: % POA 93% to < 96%

^o <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding.html>

Screening	Definition
Quality Screen 3: Low % POA for secondary diagnoses	<p>Identifies extremely low percent present on admission for secondary diagnoses codes (excluding exempt, pre-existing, and OB 7600x-7799x codes).</p> <p>Red Zone: % POA \leq 70%</p> <p>Grey Zone: % POA > 70% to 77%</p>
Quality Screen 4: High % POA for secondary diagnoses on the Elective Surgical List	<p>Identifies high percent POA (POA = Y) for elective surgery secondary diagnosis codes.</p> <p>Red Zone: % POA \geq 40%</p> <p>Grey Zone: % POA \leq 30% to <40%</p>

Appendix G: Measures Used in Report Card Ratings Calculations

Performance Domain	Report Card Text	Specification	Data Source
Experience with Doctors and the Health Plan	Children get care as soon as they need it	CAHPS® <i>Getting Care Quickly</i>	2018 CHIP Caregiver Annual Report Card Survey
	Doctors listen carefully, explain clearly and spend enough time with people	CAHPS® <i>How Well Doctors Communicate</i>	2018 CHIP Caregiver Annual Report Card Survey
	Parents give high ratings to their child's personal doctor	CAHPS® <i>Rating of personal doctor</i>	2018 CHIP Caregiver Annual Report Card Survey
	Parents give high ratings to the health plan	CAHPS® <i>Rating of health plan</i>	2018 CHIP Caregiver Annual Report Card Survey
Staying Healthy	Children and teens get regular checkups	Composite: HEDIS® <i>Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)</i> ; HEDIS® <i>Adolescent Well-Care Visits (AWC)</i> .	CHIP Quality of Care Tables 2017, HEDIS® 2018
	Children and teens get their vaccines	Composite: HEDIS® <i>Childhood Immunization Status (CIS)</i> , Combination 10; HEDIS® <i>Immunizations for Adolescents (IMA)</i> , Combination 2.	CHIP Quality of Care Tables 2017, HEDIS® 2018
Common Chronic Conditions	Children get medicine for asthma	Composite: HEDIS® <i>Asthma Medication Ratio (AMR)</i> ; HEDIS® <i>Medication Management for People With Asthma (MMA)</i> , 75% of days covered.	CHIP Quality of Care Tables 2017, HEDIS® 2018
	Children see the doctor for ADHD (Attention Deficit Hyperactivity Disorder)	HEDIS® <i>Follow-Up Care for Children Prescribed ADHD Medication (ADD)</i> , Initiation Phase	CHIP Quality of Care Tables 2017, HEDIS® 2018

Performance Domain	Report Card Text	Specification	Data Source
Experience with Doctors and the Health Plan	Children get care as soon as they need it	CAHPS® <i>Getting Care Quickly</i>	2018 STAR Child Caregiver Annual Report Card Survey
	Doctors listen carefully, explain clearly and spend enough time with people	CAHPS® <i>How Well Doctors Communicate</i>	2018 STAR Child Caregiver Annual Report Card Survey
	Parents give high ratings to their child's personal doctor	CAHPS® <i>Rating of personal doctor</i>	2018 STAR Child Caregiver Annual Report Card Survey
	Parents give high ratings to the health plan	CAHPS® <i>Rating of health plan</i>	2018 STAR Child Caregiver Annual Report Card Survey
Staying Healthy	Babies get regular checkups	HEDIS® <i>Well-Child Visits in the First 15 Months of Life (W15)</i> , six or more well-child visits	STAR Quality of Care Tables 2017, HEDIS® 2018
	Children and teens get regular checkups	Composite: HEDIS® <i>Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)</i> ; HEDIS® <i>Adolescent Well-Care Visits (AWC)</i> .	STAR Quality of Care Tables 2017, HEDIS® 2018
	Children and teens get their vaccines	Composite: HEDIS® <i>Childhood Immunization Status (CIS)</i> , Combination 10; HEDIS® <i>Immunizations for Adolescents (IMA)</i> , Combination 2.	STAR Quality of Care Tables 2017, HEDIS® 2018
Common Chronic Conditions	Children get medicine for asthma	Composite: HEDIS® <i>Asthma Medication Ratio (AMR)</i> ; HEDIS® <i>Medication Management for People With Asthma (MMA)</i> , 75% of days covered.	STAR Quality of Care Tables 2017, HEDIS® 2018
	Children see the doctor for ADHD (Attention Deficit Hyperactivity Disorder)	HEDIS® <i>Follow-Up Care for Children Prescribed ADHD Medication (ADD)</i> , Initiation Phase	STAR Quality of Care Tables 2017, HEDIS® 2018

Performance Domain	Report Card Text	Specification	Data Source
Experience with Doctors and the Health Plan	People get the care they need without problems or long waits	Composite: CAHPS® <i>Getting Care Quickly</i> ; CAHPS® <i>Getting Needed Care</i> .	2018 STAR Adult Member Annual Report Card Survey
	Doctors listen carefully, explain clearly and spend enough time with people	CAHPS® <i>How Well Doctors Communicate</i>	2018 STAR Adult Member Annual Report Card Survey
	People give high ratings to their personal doctor	CAHPS® <i>Rating of personal doctor</i>	2018 STAR Adult Member Annual Report Card Survey
	People give high ratings to the health plan	CAHPS® <i>Rating of health plan</i>	2018 STAR Adult Member Annual Report Card Survey
Staying Healthy	Women get checkups during pregnancy	HEDIS® <i>Prenatal and Postpartum Care (PPC)</i> , timeliness of prenatal care	STAR Quality of Care Tables 2017, HEDIS® 2018
	New mothers get checkups after giving birth	HEDIS® <i>Prenatal and Postpartum Care (PPC)</i> , postpartum care	STAR Quality of Care Tables 2017, HEDIS® 2018
	People get regular yearly checkups	HEDIS® <i>Adults' Access to Preventive/Ambulatory Health Services (AAP)</i>	STAR Quality of Care Tables 2017, HEDIS® 2018
	Women get regular screenings for cervical cancer	HEDIS® <i>Cervical Cancer Screening (CCS)</i>	STAR Quality of Care Tables 2017, HEDIS® 2018
Common Chronic Conditions	People get care for depression and constant low mood	HEDIS® <i>Antidepressant Medication Management (AMM)</i> , acute phase	STAR Quality of Care Tables 2017, HEDIS® 2018
	People get care for diabetes	Composite of three components of HEDIS® <i>Comprehensive Diabetes Care (CDC)</i> : HbA1c testing; Eye exam (retinal) performed; and Medical attention for nephropathy.	STAR Quality of Care Tables 2017, HEDIS® 2018

Performance Domain	Report Card Text	Specification	Data Source
Experience with Doctors and the Health Plan	People get the care they need without problems or long waits	Composite: CAHPS® <i>Getting Care Quickly</i> ; CAHPS® <i>Getting Needed Care</i>	2018 STAR+PLUS Member Annual Report Card Survey
	Doctors listen carefully, explain clearly and spend enough time with people	CAHPS® <i>How Well Doctors Communicate</i>	2018 STAR+PLUS Member Annual Report Card Survey
	People give high ratings to their personal doctor	CAHPS® <i>Rating of personal doctor</i>	2018 STAR+PLUS Member Annual Report Card Survey
	People give high ratings to the health plan	CAHPS® <i>Rating of health plan</i>	2018 STAR+PLUS Member Annual Report Card Survey
Staying Healthy	People get regular yearly checkups	HEDIS® <i>Adults' Access to Preventive/Ambulatory Health Services (AAP)</i>	STAR+PLUS Quality of Care Tables 2017, HEDIS® 2018
	Women get regular screenings for common types of cancer	Composite: HEDIS® <i>Breast Cancer Screening (BCS)</i> ; HEDIS® <i>Cervical Cancer Screening (CCS)</i>	STAR+PLUS Quality of Care Tables 2017, HEDIS® 2018
Common Chronic Conditions	People get care for depression and constant low mood	HEDIS® <i>Antidepressant Medication Management (AMM)</i> , acute phase	STAR+PLUS Quality of Care Tables 2017, HEDIS® 2018
	Doctors follow up after urgent treatment for alcohol, opioid or other substance use	HEDIS® <i>Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET)</i> , initiation of AOD treatment	STAR+PLUS Quality of Care Tables 2017, HEDIS® 2018
	Doctors follow up after urgent treatment for mental illness	Composite: HEDIS® <i>Follow-Up After Hospitalization for Mental Illness (FUH)</i> , 7-Day; HEDIS® <i>Follow-Up After Emergency Department Visit for Mental Illness (FUM)</i> , 7-Day	STAR+PLUS Quality of Care Tables 2017, HEDIS® 2018
	People get tests and treatment for COPD (Chronic Obstructive Pulmonary Disease)	Composite: HEDIS® <i>Pharmacotherapy Management of COPD Exacerbation (PCE)</i> ; HEDIS® <i>Use of Spirometry Testing in the Assessment and Diagnosis of COPD (SPR)</i> .	STAR+PLUS Quality of Care Tables 2017, HEDIS® 2018
	People get care for diabetes	Composite of three components of HEDIS® <i>Comprehensive Diabetes Care (CDC)</i> : HbA1c testing; Eye exam (retinal) performed; and Medical attention for nephropathy.	STAR+PLUS Quality of Care Tables 2017, HEDIS® 2018

Performance Domain	Report Card Text	Specification	Data Source
Getting Care	People get the care they need without problems or long waits	Composite: CAHPS® <i>Getting Care Quickly</i> ; CAHPS® <i>Getting Needed Care</i>	2018 STAR Kids Caregiver Annual Report Card Survey
	People get medical equipment, special therapy and behavioral counseling easily	CAHPS® <i>Parents' Experience Getting Specialized Services for their Child</i>	2018 STAR Kids Caregiver Annual Report Card Survey
	People get regular checkups	Composite: HEDIS® <i>Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (W34)</i> ; HEDIS® <i>Adolescent Well-Care Visits (AWC)</i>	STAR Kids Quality of Care Tables 2017, HEDIS® 2018
Services and Support	Doctors understand how health conditions affect day-to-day life	CAHPS® <i>Parents' Experience with the Child's Doctor or Nurse</i>	2018 STAR Kids Caregiver Annual Report Card Survey
	People get help arranging or coordinating care	2009/2010 National Survey of Children with Special Health Care Needs, C5Q12 (Care Coordination)	2018 STAR Kids Caregiver Annual Report Card Survey
	Doctors and other health providers answer questions	CAHPS® <i>Family Centered Care: Getting Needed Information</i>	2018 STAR Kids Caregiver Annual Report Card Survey
	Doctors discuss eventual transition to adult care for adolescents	2009/2010 National Survey of Children with Special Health Care Needs, C6Q07 (Transition Issues), ages 12-17	2018 STAR Kids Caregiver Annual Report Card Survey
	People give high ratings to the health plan	CAHPS® <i>Rating of Health Plan</i>	2018 STAR Kids Caregiver Annual Report Card Survey
Common Chronic Conditions	Doctors follow up after urgent treatment for alcohol, opioid or other substance use	HEDIS® <i>Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET)</i> , Initiation of AOD treatment	STAR Kids Quality of Care Tables 2017, HEDIS® 2018
	Doctors follow up after urgent treatment for mental illness	Composite: HEDIS® <i>Follow-Up After Hospitalization for Mental Illness (FUH)</i> , 7-Day follow-up; HEDIS® <i>Follow-Up After Emergency Department Visit for Mental Illness (FUM)</i> , 7-Day Follow-Up	STAR Kids Quality of Care Tables 2017, HEDIS® 2018
	Prudent use of antipsychotics in managing mental illness	Composite: HEDIS® <i>Use of Multiple Concurrent Antipsychotics in Children and Adolescents (APC)</i> ; HEDIS® <i>Metabolic Monitoring for Children and Adolescents on Antipsychotics (APM)</i> ; and HEDIS® <i>Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP)</i>	STAR Kids Quality of Care Tables 2017, HEDIS® 2018