External Quality Review of
Texas Medicaid and CHIP Managed Care
Summary of Activities

State Fiscal Year 2019

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

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Abbreviations

ACOG	American College of Obstetricians and Gynecologists		Driscoll	Driscoll Health Plan
ADA	American Dental Association		EAPG	(3M™) Enhanced Ambulatory Patient Groups
ADL	Activities of Daily Living		ED	Emergency Department
Aetna	Aetna Better Health		EDVDRR	Encounter Data Validation: Dental Record Review
AHRQ	Agency for Healthcare Research and Quality		EQR	External Quality Review
AI	Administrative Interviews		EQRO	External Quality Review Organization
AIM	Alliance for Innovation on Maternal Health		ExTrx	Excluding Transfusion Only
APR-DRG	(3M™) All Patient Refined Diagnosis-Related Groups		FFS	(Traditional Medicaid) Fee-for-Service
BCBSTX	Blue Cross Blue Shield of Texas		FirstCare	FirstCare Health Plans
CAHPS	Consumer Assessment of Healthcare Providers and Systems		FQHC	Federally Qualified Health Center
			FRB	Full Risk Broker
CATI	Computer-Assisted Telephone Interviewing		FSR	Financial Statistical Report
			GAO	(U.S.) Government Accountability Office
CCHP	Cook Children's Health Plan		HCBS	Home and Community Based Services
CDC	Centers for Disease Control and Prevention		HCC	Hepatocellular Carcinoma
CFHP	Community First Health Plans		HealthSpring	Cigna-HealthSpring
CHC	Community Health Choice		HEDIS®	Healthcare Effectiveness Data and Information Set
CHIP	Children's Health Insurance Program		Hep C	Hepatitis C
CHIPRA	Children's Health Insurance Program Reauthorization Act		HHRP	(HHSC) High-Risk Pregnancy Cohort
			HHS	U.S. Department of Health and Human Services
CHRP	Combined High-Risk Pregnancy Cohort		HHS-OIG	Health and Human Services Administration Office of the Inspector General
CMCHP	Children's Medical Center Health Plan			
CMS	Centers for Medicare and Medicaid Services		HHSC	(Texas) Health and Human Services Commission
COPD	Chronic Obstructive Pulmonary Disease		HRA	Health Risk Assessment
CRA	Caries Risk Assessment		HRSA	Health Resources & Services Administration
CRG	(3M™) Clinical Risk Group			
CSHCN	Children with Special Health Care Needs		IADL	Instrumental Activities of Daily Living
			IDD	Intellectual and Developmental Disabilities
CY	Calendar Year			
DCHP	Dell Children's Health Plan		ISP	Individual Service Plan
DM	Disease Management		KFF	Kaiser Family Foundation
DMO	Dental Maintenance Organizations		Low-Risk	Low-Risk Pregnancy Cohort
DOS	Date of Service		LTSS	Long-Term Services and Supports
DPV	Delivery Point Verification		MCO	Managed Care Organization
DQA	Dental Quality Alliance			

MDCP	Medically Dependent Children Program		PPV	(3M™) Potentially Preventable (ED) Visits
MLTSS	Managed Long-Term Services and Supports		PQI	(AHRQ) Prevention Quality Indicators
MMP	Medicare-Medicaid Plan		PX	Procedure (code)
MN-LOC	Medical Necessity Level of Care		QAPI	Quality Assessment and Performance Improvement
Molina	Molina Healthcare of Texas		QI	Quality Improvement
MPF	Master Provider File		QTR	Quarterly Topic Report
MRSA	Medicaid Rural Service Area		S&W	RightCare from Scott & White Health Plan
MSHCN	Members with Special Health Care Needs		SA	Service Area
MTO	Managed Transportation Organization		SDoH	Social Determinants of Health
NAMD	National Association of Medicaid Directors		SEV	Socioeconomic (status) Vulnerability
NCI-CFS	National Core Indicators-Child Family Survey		SFY	(Texas) State Fiscal Year
			SHCN	Special Health Care Needs
NCoA	National Change of Address		SHRP	Supervision of High-Risk Pregnancy Cohort
NCQA	National Committee for Quality Assurance		SK-SAI	STAR Kids Screening and Assessment Instrument
NEMT	Non-Emergency Medical Transportation		SMI	Serious Mental Illness
			SMM	Severe Maternal Morbidity
NHB	Non-Hispanic Black		SSI	Supplemental Security Income
NHW	Non-Hispanic White		TCHP	Texas Children's Health Plan
NPI	National Provider Identifier		THLC	Texas Healthcare Learning Collaborative
NQF	National Quality Framework			
NSCH	National Survey of Children's Health		THSteps	Texas Health Steps
NTDC	Non-Traumatic Dental Condition		TICP	Transportation for Indigent Cancer Patients
OPL	Online Provider Lookup			
P4Q	Pay-for-Quality		TMHP	Texas Medicaid & Healthcare Partnership
Parkland	Parkland Community Health Plan			
PCP	Primary Care Provider		TSDA	Transportation Service Delivery Area
PDI	(AHRQ) Pediatric Quality Indicators		UFSRC	University of Florida Survey Research Center
PIP	Performance Improvement Project			
POA	Present on Admission		UHC	UnitedHealthCare Community Plan
POS	Place of Service		UMCM	(Texas) Uniform Managed Care Manual
PPA	(3M™) Potentially Preventable Admission		USPS	United States Postal Service
			UTI	Upper Respiratory Tract Infection
PPC	(3M™) Potentially Preventable Complication		V21 provider files	Vision 21 data warehouse provider reconcile files
PPE	(3M™) Potentially Preventable Events			
PPR	(3M™) Potentially Preventable Readmission			

Executive Brief

Introduction

More than 70 million Americans receive health care coverage through Medicaid and the Children's Health Insurance Program (CHIP), funded jointly by states and the U.S. Department of Health and Human Services (HHS). Texas has the fifth largest Medicaid program in the country, serving over four million people (CMS, 2019d), over 90 percent of whom receive care through a managed care delivery model. Participation in federal funding for managed care programs requires compliance with guidelines and protocols established by the Centers for Medicare and Medicaid Services (CMS), including the provision for external quality review by an organization independent from the state. Since 2002, the Institute for Child Health Policy (ICHP) at the University of Florida has been the external quality review organization (EQRO) for Texas Medicaid and CHIP.

Each year, the EQRO follows CMS protocols to monitor access, utilization, and quality of medical and behavioral health services that individuals receive in Texas Medicaid and CHIP. The EQRO conducts activities that review the care delivery of the four statewide Medicaid managed care programs – STAR for members needing routine care; STAR+PLUS for adult members with chronic conditions and disabilities; STAR Kids for children, adolescents, and young adults with chronic conditions and disabilities; and STAR Health for members in state conservatorship – and the care delivery of CHIP (entirely managed care). The EQRO also monitors the dental care that children receive through Medicaid and CHIP. Annual evaluation activities include:

- assessment of MCO structure and process through Administrative Interview (AI) studies, Quality Assessment and Performance Improvement (QAPI) program evaluations, and performance improvement projects (PIP) validation studies;
- surveys with members and caregivers using the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey; and appointment availability studies that follow a "secret shopper" method to evaluate the timeliness of appointments against state-specified standards; and
- quality-of-care reporting on standardized performance measures, including Healthcare Effectiveness Data and Information Set (HEDIS®) measures, Agency for Healthcare Research and Quality (AHRQ) quality indicators, and 3M™ measures of Potentially Preventable Events (PPEs).

The EQRO also conducted several additional, in-depth studies to address special topics of importance to the state, including issue briefs on specific topics, more in-depth Quarterly Topic Reports (QTRs), and a multi-year focus study to evaluate the implementation of the STAR Kids program

This executive brief is an overview of the activities and findings from the state fiscal year (SFY) 2019 Summary of Activities (SOA) report meant to highlight the key findings from prior year EQRO activities. The full SOA report is a comprehensive summary of EQRO activities and findings regarding the quality of care provided to Texas Medicaid and CHIP members from September 1, 2018, through August 31, 2019. During SFY 2019, the EQRO evaluated managed care organization (MCO) activities, quality improvement programs, and administrative performance measures using calendar year (CY) 2018 data, as well as findings from member surveys and focused studies conducted in SFY 2019.

The EQRO organized this brief into five focus areas based on recurrent themes that emerged from evaluation activities in SFY 2019: (1) chronic conditions and special health care needs, (2) behavioral health, (3) maternal health, (4) potentially avoidable institutional care, and (5) dental care. Each of the focus areas includes a summary of positive findings and suggested areas for improvement. The full SOA report that follows the brief contains a comprehensive review of the SFY2019 EQRO activities.

Focus Areas

Chronic Conditions and Special Health Care Needs

Texas Medicaid provides care for many members with chronic conditions and special health care needs through STAR+PLUS and STAR Kids. Members in these programs are more likely to have co-occurring physical and behavioral health conditions, disabilities, and conditions requiring specialized services such as physical, occupational, and speech therapies. However, disease management and care coordination are available to members in all programs. The EQRO conducted several studies addressing the care of members with chronic conditions and special needs.

In a focused study of social determinants of health that impact children in Texas Medicaid, the EQRO found that rates of both childhood asthma and diabetes were higher among children living in neighborhoods with high socioeconomic vulnerability (SEV). Rates of asthma were highest for non-Hispanic black (NHB) children, while rates of diabetes were highest for Hispanic children. Notably, NHB children living in the least vulnerable neighborhoods still had asthma rates well above non-Hispanic white (NHW) and Hispanic children who lived in the most vulnerable neighborhoods. For both conditions, the study identified clusters of counties in the southern part of Texas that had both high SEV and high disease prevalence.

The prevalence and management of cirrhosis, hepatitis C (Hep C), and hepatocellular carcinoma (HCC) among adult members in Texas Medicaid are currently receiving close attention. In a SFY 2019 issue brief, the EQRO reported variations in rates and costs for these conditions according to demographic and geographic factors. Among adults aged 45 to 64 enrolled in Texas Medicaid in 2017, prevalence rates were 3.3 percent for cirrhosis, 5.9 percent for Hep C, and 0.4 percent for HCC. Across race-ethnicity groups, Hispanic members had the highest rate of cirrhosis (4.7 percent) and the lowest rate of Hep C (4.6 percent). Overall, members with cirrhosis had more than 30 times the total average care costs of healthy members. However, the study found that care for cirrhosis patients served through STAR or STAR+PLUS was less costly than in traditional fee-for-service (FFS) Medicaid. Geographic disparities included higher rates of cirrhosis in the Nueces and Bexar service areas (SAs), higher rates of Hep C in the Bexar SA, and higher rates of HCC in the Nueces SA. The Hidalgo SA had low rates of Hep C across all demographic groups.

Members with complex conditions benefit from care coordination, disease management, and service planning. Texas requires MCOs serving members in STAR, STAR+PLUS, STAR Kids, and CHIP to provide disease management services for asthma, diabetes, and other chronic conditions. Additionally, MCOs in STAR+PLUS must also provide disease management services for chronic obstructive pulmonary disease (COPD), congestive heart failure, and coronary artery disease. For STAR Health, the MCO must provide disease management services for asthma and depression. Effective management of chronic conditions in outpatient settings can reduce the occurrence of avoidable and costly emergency department (ED) visits and inpatient admissions. Analysis of administrative claims and encounter data from 2018, found that STAR+PLUS had the highest Potentially Preventable ED Visit (PPV) and Potentially Preventable Admission (PPA) rates. Although the complex healthcare needs of STAR+PLUS members likely put them at higher risk, high PPE rates signify the need for improved care for these members. For STAR+PLUS, heart failure accounted for over 15 percent of the overall PPA weight (resource utilization), having the highest PPA count and total expenditures as well, while for STAR, pneumonia had the highest total PPA weight and asthma was the most common reason for PPAs. The EQRO is conducting studies of the practices and strategies used in outpatient settings to improve care coordination for chronic conditions to identify potential target areas for intervention. For example, in a survey study with primary care providers (PCPs) to address experiences with specialty referrals, the EQRO found that PCPs tended

to focus more on diagnosis and identification of the need for a specialist, rather than on the specialty referral process itself.

The EQRO also conducted studies to identify and understand the feasibility of new measures for members needing long-term services and supports (LTSS) – for which there are few established and validated quality measures. In February 2018, CMS issued specifications for new measures of managed LTSS (MLTSS) needs assessment, care planning, and care coordination, which the National Committee for Quality Assurance (NCQA) has since adopted for inclusion in HEDIS, and which require the use of data collected in case management forms. In SFY 2019, the EQRO conducted qualitative interviews with STAR+PLUS MCOs to assess their readiness for calculating these new measures, which revealed varying levels of preparedness for implementing necessary changes to case management processes.

The STAR Kids focus study included a study to assess the feasibility of different quality-of-care measures that the state can use for performance monitoring. The study found that the most commonly reported HEDIS and CAHPS measures are relevant and feasible for use in the STAR Kids population. Other sources of feasible performance measures include the National Core Indicators Child and Family Survey (NCI-CFS) and the STAR Kids Screening and Assessment Instrument (SK-SAI). The NCI-CFS includes several questions that address the accessibility, person-centeredness, and coordination of home- and community-based services (HCBS) the state provides to children with special healthcare needs. The STAR Kids MCOs complete the SK-SAI for all STAR Kids members annually, which can be used to measure changes in physical, cognitive, and social functioning over time.

Positive Findings

Two HEDIS performance measures address obesity, which can exacerbate other chronic conditions – Adult BMI Assessments (ABA) and Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents (WCC). The majority of MCOs in STAR, (75 percent) and in CHIP (93 percent) met the Performance Indicator Dashboard high standard for the adolescent counseling for physical activity component of WCC. Overall, the positive trend includes increases over 2017 results across all WCC components and ABA for all programs. The EQRO also reported improvement for the HEDIS Asthma Medication Ratio (AMR) measure and both HEDIS measures of statin therapy, although NCQA advises caution when interpreting trends for these two measures due to specification changes.

The STAR Kids focus study included an analysis of differences in survey and administrative measure rates before and after implementation. The study found that caregiver-reported access to specialized services for STAR Kids members improved significantly when controlling for sociodemographic factors. The odds of having good access to specialized services were 1.8 times higher after implementation. Furthermore, the percentage of caregivers who said that someone helps arrange or coordinate their child's care increased significantly, from 16 percent to 31 percent. Controlling for other factors, the odds of having someone to help with care coordination were 3.3 times higher after implementation.

In a QTR to study feasibility and MCO preparedness for the new CMS MLTSS measures, the EQRO noted that all MCOs have the infrastructure needed to transmit case management records electronically, which is necessary to achieve compliance on a new MLTSS measure for adults that assesses whether MCOs are sharing members' care plans with their PCPs.

Areas for Improvement

Several EQRO activities in SFY 2019 highlighted aspects of care for chronic conditions and special healthcare needs that warrant improvement. The EQRO's CHIP Caregiver Survey reported lower than national average rates

for access to specialist care for both children and adults. In the EQRO's appointment availability studies, the STAR Kids program had the lowest compliance rate across sub-studies. For adults in STAR, less than half of the MCOs met the Performance Indicator Dashboard minimum standard on the measure of access to specialists. Primary concerns among providers who participated in the PCP Referral study included limited network coverage, lack of providers, and limited appointment availability for members needing specialty care. Furthermore, few providers in the study responded to survey questions on telehealth use, making it challenging to identify how or whether providers are using telehealth to overcome barriers to making specialty referrals.

In the EQRO's AI study to evaluate MCO compliance with state and federal regulations, MCOs showed little consistency in their processes to determine member eligibility for disease management programs. This issue affects the usability of AI reports for summarizing participation in disease management, as well as the ability of MCOs to implement statewide improvement initiatives efficiently.

Many measures on the STAR+PLUS Performance Indicator Dashboard address care for chronic conditions. Among these, only one MCO met the minimum standard for HbA1c testing for adult members with diabetes. Molina, failed to reach the minimum standard on over 40 percent of the reported measures for STAR+PLUS.

In the STAR Kids focus study, the pre/post caregiver survey found that access to physical, occupational, and speech therapies decreased for members in the Medically Dependent Children's Program (MDCP), who have more complex conditions and service needs. Among MDCP members, the percentage of caregivers who reported that it was "always" easy to get therapies dropped from 41 percent before STAR Kids implementation to 31 percent after implementation. Although rates of well-care visits increased for STAR Kids members after implementation, this change was not significantly different from changes in well-care visits in STAR or STAR Health. Concerning the cost of care, STAR Kids average monthly member health care expenditures exceeded those in STAR and STAR Health, both before and after implementation. While this is expected due to the complex needs of the STAR Kids population, the average expenditures for STAR Kids members after implementation increased by $176 per member. In contrast, expenditures decreased by $12 per member in STAR and $38 per member in STAR Health for the same period.

The EQRO's study of readiness for new MLTSS measures found that most state and STAR+PLUS MCO assessment and care-planning forms address many of the core and supplemental elements needed to calculate the measures. However, the study concluded that: (1) no single assessment form in use adequately addresses all core assessment elements; (2) no single care planning form currently in use adequately addresses all core planning elements, and; (3) certain core and supplemental elements are not present or sufficiently addressed in any of the forms. Given these issues, the EQRO noted that evaluators could use certain combinations of existing state and MCO forms to collect most of the core elements and many of the supplemental items needed to calculate the measures.

Other issues that influence performance measurement include the availability, completeness, and validity of data used to calculate measures. In data validation studies of encounter data in STAR+PLUS and STAR Kids, the EQRO found a particularly low completion rate for the rendering national provider identifier (NPI), which is essential for calculating several HEDIS measures. In the STAR Kids focus study, the EQRO found high rates of missing values in important SK-SAI fields for some MCOs, which prevents reliable comparisons at the MCO level. Measures of change in functional status that evaluators can calculate from the SK-SAI are particularly important for STAR Kids members enrolled in MDCP. The EQRO also identified areas of health care delivery in STAR kids that require further measure identification and development, including: the characteristics of health care facilities; access to hospital, institutional, and transportation services; the utilization and effectiveness of

specialist and specialty care, LTSS, and transportation services; the coordination of school services; and linkage to community resources.

Behavioral Health

Access to and quality of behavioral health services for members in Texas Medicaid and CHIP are important areas for evaluation and monitoring. Three areas that state programs and legislators have given considerable attention to in recent years are:

1. poor health outcomes and high costs of care for members with serious mental illness (SMI),
2. recent trends in opioid use and regulatory control, and
3. initiatives to integrate behavioral health and physical health services.

Delivery of behavioral health services in Medicaid and CHIP MCOs can vary based on whether members receive behavioral health services directly through their MCOs ("in-house" behavioral health services delivery) or through a behavioral health organization (BHO) contracted by their MCO ("carved-out" behavioral health services delivery). In SFY 2019, the EQRO member surveys identified slight differences in global ratings for behavioral health treatment according to delivery model, with higher ratings for behavioral health treatment delivered through the MCO model among adults in STAR and STAR+PLUS, and higher ratings for behavioral health treatment delivered through the BHO model among children in STAR and STAR Kids.

In a QTR on social determinants of health (SDoH) that affect children in Texas Medicaid, the EQRO found that children living in areas with the highest SEV had higher rates of attention-deficit hyperactivity disorder (ADHD). Children with other/unknown race-ethnicity and NHW children had a higher prevalence of ADHD than Hispanic children and children of Native American and Asian descent. In an analysis of geographic factors, the study found that ADHD prevalence in metropolitan and micropolitan counties (based on the population density parameters that HHSC uses to evaluate network adequacy) had a bimodal distribution of ADHD across SEV quintiles – showing higher rates of ADHD in both the least and the most vulnerable areas. Clusters of counties in the eastern and southern parts of the state showed both high vulnerability and high ADHD prevalence.

Members in STAR+PLUS tend to have a greater need for behavioral health care than members in STAR. In SFY 2019, the EQRO compared quality-of-care measure findings (based on 2018 data) between STAR+PLUS members with SMI and the overall STAR+PLUS population. This analysis found that, compared to members in STAR+PLUS overall, members in STAR+PLUS with SMI had significantly higher utilization rates of mental health services and alcohol and other drug services, as well as a higher risk of continued opioid use.

Children and adolescents in STAR Health also tend to have a greater need for behavioral health care than those in STAR or CHIP. The behavioral health provider network adequacy and member access to behavioral health care in STAR Health are thus areas of importance. In SFY 2019, the EQRO conducted a study of the information quality in STAR Health behavioral health provider directories, which included direct contact with many STAR Health providers during initial outreach efforts. When asked about important challenges faced when providing psychiatric care for STAR Health members, providers most frequently identified missed appointments and difficulty getting medications for members. Among rural providers, the most commonly noted challenges to psychiatric care were the limited number of specialist providers in the local area and the distance that members need to travel to receive care.

Many behavioral health conditions are responsive to consistent outpatient care. Members with behavioral health conditions are at risk for PPAs and Potentially Preventable Readmissions (PPRs), both for reasons directly related to their behavioral health condition and for physical conditions, that better care coordination might

prevent. Based on administrative claims and encounter data from 2018, the EQRO found that some form of mental health disorder was among the top ten PPA conditions for all managed care programs. Furthermore, bipolar disorders appeared among the top ten PPR conditions for all programs, accounting for the greatest percentage of PPR resource utilization. Major depressive disorders also arose among the top ten reasons for PPRs in all managed care programs. The Texas Healthcare Learning Collaborative (THLC) portal (THLCportal.com) provides HHSC and MCO users a comprehensive, comparative view of utilization for their members with SMI, including PPV and PPA rates. During 2018, the rates of both PPVs and PPAs were more than double for STAR members with SMI compared to STAR overall, and close to double for STAR+PLUS members with SMI compared to STAR+PLUS overall. These findings highlight the need for more effective management of behavioral health conditions, including initiatives to improve service coordination between inpatient and outpatient settings, improve timely access to mental health resources, and increase mental health support in primary care settings.

Many states are exploring initiatives to expand telehealth and telemedicine services to help improve access to behavioral health services in Medicaid, particularly in rural areas, which allows individuals to receive certain types of care without traveling long distances to healthcare facilities. In SFY 2019, the EQRO conducted an issue brief study of telehealth services in Texas Medicaid, finding that utilization of telehealth services for behavioral health care increased between 2017 and 2018 across all categories of age, sex, and race/ethnicity, as well as in most SAs. Overall, rural areas had higher rates of teleservice utilization than metropolitan areas, especially for behavioral health services. These findings provide an important foundation for understanding future efforts to expand telehealth services in Texas Medicaid.

Positive Findings

In SFY 2019, the EQRO found evidence of improved access to behavioral health care in Texas Medicaid and CHIP. In studies of behavioral health provider appointment availability, the EQRO reported that the percentage of behavioral health providers who were compliant with appointment timeliness standards increased between 2016 and 2018 for all MCOs. Furthermore, these studies showed an increase in the percentage of behavioral health providers who offered weekend appointments or affiliate after-hours care. This increase suggests that more members needing behavioral health care have access to additional health resources.

Several aspects of behavioral health care effectiveness for STAR+PLUS members with SMI were also positive. In 2018, compared to the STAR+PLUS population overall, STAR+PLUS members with SMI had significantly higher rates of annual monitoring for patients on persistent medications, antidepressant medication management, and initiation and engagement of alcohol and other drug dependence treatment.

The STAR Health program generally performs well on measures of access to and effectiveness of behavioral health services. The rate of continuation of antidepressant medication management in STAR Health improved from 32.3 percent in 2017 to 39.1 percent in 2018 – an increase that pushed STAR Health performance above the national 75th percentile benchmark for this measure. When controlling for other member factors, and in comparison with members in STAR Kids and STAR, the rate of metabolic testing for members in STAR Health who had two or more antipsychotic medication prescriptions improved from 46 percent in 2016 to 60 percent in 2018.

Areas for Improvement

A comparison of MCO performance to the HHSC Performance Indicator Dashboard found that only one MCO in STAR+PLUS met the minimum standard for access to behavioral health care. Superior HealthPlan (Superior), the exclusive MCO for the STAR Health program, reached the high standard for 72 percent of STAR Health performance indicators, but did not meet the minimum standard for access to behavioral health care.

In the SFY 2019 appointment availability studies, the EQRO conducted quality assurance efforts by making multiple calls to the same providers. In many cases, this revealed inconsistencies in responses from provider staff about provider availability and acceptance of Medicaid members. While findings on behavioral health appointment availability were largely positive, the EQRO noted that approximately 30 percent of callbacks to behavioral health providers resulted in different answers about plan and Medicaid acceptance compared to the responses received during the original call.

In the STAR Health psychiatry directory study, the EQRO could only verify 17 percent of the providers contacted from the Superior directory as psychiatric providers with valid directory information and confirmed participation in STAR Health. This finding highlights the need for more regular updates of the STAR Health provider directory, including audits of directory information, to ensure that members have access to the most current information.

The STAR Kids focus study found that rates of metabolic monitoring for members who had two or more antipsychotic prescriptions (HEDIS APM) changed little between the pre-implementation and post-implementation periods for members in STAR Kids and STAR. Focusing on members who were not compliant on this measure during the pre-implementation period, the EQRO reported that the odds of receiving metabolic monitoring after implementation was 66 percent lower in STAR Kids compared to STAR Health.

Maternal Health

Medicaid and CHIP provide coverage for more than half of all deliveries in Texas, as well as prenatal and postpartum care for the mothers. Emphasis on the quality of perinatal care for women in Medicaid has grown in recent years, including an increased attention to high-risk pregnancies and severe maternal morbidity (SMM). The EQRO has regularly monitored MCO compliance on the HEDIS Timeliness of Prenatal Care and Postpartum Care measures (PPC), which evaluate whether women in Medicaid are receiving recommended perinatal care following clinical guidelines. In SFY 2019, the EQRO also conducted several additional studies to understand the processes, outcomes, and costs of perinatal care in Texas Medicaid, including a QTR on high-risk pregnancy, and a report on rates of SMM and rates of Cesarean section (C-section) deliveries that complement the EQRO's regular quality-of-care reporting.

The QTR on high-risk pregnancies assessed the sensitivity of different methods for identifying high-risk pregnancies in Texas Medicaid, the extent to which MCOs are identifying members with high-risk pregnancies and adding them to their lists of members with special health care needs (MSHCN), and the relationship between having a service plan for high-risk pregnancy and pregnancy outcomes. Significant variation exists in the way that different MCOs identify a high-risk pregnancy. Some MCOs appear to be using the criteria outlined by HHSC for identifying women at risk for poor pregnancy outcomes; however, others had far more or far fewer women on their MSHCN list than were identified by the EQRO using the HHSC criteria. Among the women that were on the MCO MSHCN lists, the study found no significant differences in rates of SMM, obstetric hemorrhage, or preeclampsia based on service plan status. Compared to MSHCN without service plans, those with service plans had a greater percentage of obesity-related complications and diabetes and a lower percentage of substance use/abuse and mental health diagnoses. The study showed further benefits of service planning for members with a high-risk pregnancy; those with a service plan had significantly more days with a prenatal care encounter than those without a service plan. However, the EQRO noted that interpreting differences in perinatal care utilization and understanding their relationship to healthcare expenditures requires additional research.

In 2018, the overall rate of SMM among deliveries in Texas Medicaid was 2.9 percent. Among cases with hemorrhage (which represented 6.9 percent of all deliveries), the SMM rate was 26.2 percent; however,

hemorrhage was also associated with non-transfusion procedures and other conditions that contribute to SMM. Across programs, SMM rates reflected the same trends observed for chronic conditions and behavioral health conditions, with the highest SMM rate in STAR+PLUS (7.5 percent) and the lowest SMM rate in CHIP Perinatal (2.3 percent).

The rate of C-sections among Medicaid and CHIP deliveries was 31.3 percent in 2018, accounting for over 65,000 C-section deliveries. Although the rate was considerably higher among deliveries with complications in all programs, over 25 percent of STAR and CHIP Perinatal deliveries without complications were C-sections. In STAR+PLUS, over 40 percent of deliveries, both with and without identified complications, were C-sections. The reasons for C-sections in STAR+PLUS that are not identified with delivery complications need to be identified to better understand the care needs in this population. The EQRO also found that C-section deliveries were more frequent among NHB mothers (35.6 percent) and less frequent in Hispanic mothers (30.2 percent), and rates of C-section deliveries also varied by SA, ranging from 23.0 percent in Lubbock SA to 40.0 percent in Jefferson SA. The EQRO reported higher costs associated with C-section deliveries, with average costs approximately $1,950 higher compared to vaginal delivery. More than 90 percent of this difference was in institutional costs. With over 200,000 deliveries in a year, reducing the C-section rate by just one percent would save approximately four million dollars in claims costs.

Positive Findings

At the program level, the EQRO found that over 75 percent of MCOs in STAR met the Performance Indicator Dashboard high standard for postpartum care. Furthermore, the EQRO's quality-of-care reporting revealed several areas of high performance for care delivered to the 2018 maternal health population (women with an encounter for a delivery or with a pregnancy diagnosis). Compared to all women in Medicaid, women needing maternal health care had significantly higher rates of chlamydia screening (HEDIS CHL), access to preventive services (HEDIS AAP), and initiation and engagement of alcohol and other drug dependence treatment (HEDIS IET). Women needing maternal health care also had a significantly lower risk of continued opioid use (HEDIS COU) and the use of opioids at high dosage (HEDIS UOD).

Areas for Improvement

The EQRO also reported areas of improvement for maternal health care, including certain quality-of-care measures of the effectiveness of chronic and behavioral health care, identification of and service planning for high-risk pregnancies, and claims data completeness and validity.

Compared to all women in Medicaid, women in the maternal health care population had significantly lower rates on HEDIS measures of eye exams for Comprehensive Diabetes Care (CDC), Asthma Medication Ratio (AMR) and Medication Management for Asthma (MMA), Antidepressant Medication Management (AMM), Follow-Up after Hospitalization for Mental Illness (FUH) and Follow-Up after ED Visit for Mental Illness (FUM), and Adherence to Antipsychotic Medication for Individuals with Schizophrenia (SAA). Also, women needing maternal health care had significantly higher use of opioids from multiple prescribers (HEDIS UOP).

In the QTR addressing high-risk pregnancies, the EQRO noted that adding ICD-10 codes for the supervision of a high-risk pregnancy to the existing HHSC identification criteria might help capture more women at risk for poor pregnancy outcomes. However, significant variation exists in the way that MCOs identify a high-risk pregnancy, suggesting that MCOs either are not utilizing HHSC criteria, or are not identifying cases eligible for inclusion on MSHCN lists. Just under 60 percent of members on the MSHCN report with deliveries had an associated service plan. While some of the MCOs developed service plans for nearly all their pregnant MSHCN members, four MCOs had service plans for less than 15 percent of their MSHCN members. The study concluded that limited

information available about the criteria used by MCOs for identifying high-risk pregnancies, the small percentage of deliveries associated with MSHCN members, and the even lower percentage of MSHCN members with service plans makes it difficult to determine the quality or effectiveness of care provided to this population.

Regarding the quality of claims data for the maternal health population, the EQRO found that more than 20 percent of institutional claims in CHIP Perinatal were unpaid for almost half of the plan codes (MCO x SA) in the program. The proportion of unpaid claims in CHIP Perinatal exceeded that in other programs, which could be due to providers being unclear about coverage and payer differences. Also, the present-on-admission (POA) indicator, which is essential for calculating rates of potentially preventable hospital complications, was coded 'Y' less than 90 percent of the time in most CHIP Perinatal plan codes. This apparent deficit may be due to the high percentage of obstetric admissions for these members. In these cases, significant complications of delivery will be coded in the primary diagnosis field, although the admission was for delivery.

Potentially Avoidable Institutional Care

Institutional care delivered in hospitals, EDs, and long-term care facilities account for a large proportion of overall costs in Medicaid and CHIP. Many of these admissions are for ambulatory care sensitive conditions (ACSCs) that can be treated and effectively managed in outpatient settings, such as asthma, diabetes, and chronic obstructive pulmonary disease. Medicaid programs frequently report high rates of potentially avoidable ED visits and hospital admissions for numerous types of acute and chronic medical and behavioral health conditions. Measures of avoidable institutional care, such as the AHRQ Prevention Quality Indicators (PQIs) and Pediatric Quality Indicators (PDIs), and the 3M PPE measures, can serve as important tools for performance monitoring and pay-for-quality (P4Q) initiatives.

To evaluate potentially avoidable institutional care in Texas Medicaid and CHIP, the EQRO regularly calculates rates of AHRQ PQIs for adults, AHRQ PDIs for children, and 3M PPE measures for all members, including PPVs, PPAs, PPRs, and Potentially Preventable Complications (PPCs). The STAR+PLUS population has the highest rates of all types of PPEs in Texas Medicaid; however, the complexity of medical conditions among STAR+PLUS members may increase their risk relative to those in other programs. Certain populations in Texas Medicaid, such as STAR+PLUS members with SMI and the maternal health population, tend to have higher rates of ED, inpatient, and all-cause readmissions. Although the complexity of health conditions in these populations tends to be higher, resulting in a greater expected volume of institutional care, it is still important to study the extent to which such events are preventable with more accessible, timely, and effective outpatient care.

Of the approximately 2.2 million ED visits in Texas Medicaid and CHIP that were at risk for PPVs in 2018, the EQRO identified 1.4 million ED visits (62.7 percent) as PPVs. These PPVs accounted for $446 million in institutional costs paid. The 2018 PPV rates were much like those in 2017, although the cost per PPV increased 15 percent from $288 to $330. In 2018, upper respiratory tract infections continued to contribute to PPVs much more than any other condition, in terms of the number of PPVs, their total weight (representing resource utilization), and total expenditures.

The EQRO identified approximately 270,000 inpatient admissions in Texas Medicaid and CHIP as being at-risk for PPAs in 2018. Among these, the EQRO identified over 39,000 admissions (14.5 percent) as PPAs. These PPAs accounted for $278 million in institutional costs paid. As noted above, heart failure accounted for over 15 percent of the overall PPA weight (resource utilization) for STAR+PLUS, having the highest PPA count and total expenditures as well. For STAR and STAR Kids, pneumonia had the highest total PPA weight, while asthma was the most common reason for PPAs in STAR and bipolar disorders were the most common in STAR Kids. In STAR Health, bipolar disorders were most common and accounted for more than half of the total PPA weight

(resource use), while in CHIP, asthma was most common and accounted for the most resource use. Although the most common and resource intensive conditions varied by program, the top ten PPA conditions for every Texas Medicaid managed care program included bipolar disorders, major depressive disorders, and pneumonia.

Of the approximately 472,000 admissions in Texas Medicaid and CHIP that were at risk for PPRs in 2018, the EQRO identified over 20,000 (4.3 percent) as PPRs. These accounted for $239 million in institutional costs paid. High PPR rates underscore the need to improve care coordination for members. The PPR rate was lowest for STAR; however, this may relate to the very high percentage of obstetrical admissions among candidate admissions for the measure, which typically have low rates of readmission. As noted above, bipolar disorders and major depressive disorders appeared among the top ten PPR conditions in 2018 for all programs, which is consistent with trends from 2017. Septicemia and disseminated infections appeared among the top ten PPR conditions for all programs except CHIP and STAR Health.

Positive Findings

In the STAR Kids focus study, the EQRO observed decreases in the occurrence of PPVs among children and adolescents in STAR Kids, STAR, and STAR Health. Unlike other studies that compare aggregate rates, the focus study showed decreases in rates for the same members, followed from 2016 to 2018. There were no notable differences in the PPV rates or decreases in PPV rates across the three programs.

Areas for Improvement

When comparing quality-of-care rates with benchmarks on the HHSC Performance Indicator Dashboard, the EQRO found that fewer than half of STAR MCOs met the minimum standards for six hospital admission-related measures, and only one MCO in STAR+PLUS met the minimum standard for three of the PQI measures. In CHIP, more than half of the MCOs failed to meet the minimum standard for PPVs. The STAR Kids focus study found that among members who did not have a PPV in the pre-implementation period, the odds of having a PPV in the post-implementation period were 1.2 times higher in STAR Kids than in STAR, controlling for member-level factors.

As noted above, upper respiratory tract infections accounted for a large proportion of PPVs in 2018. Below-average performance on HEDIS measures of inappropriate antibiotic use suggests that investigating the location of treatment for upper respiratory infections might lead to improvements in care and reduction of PPVs. 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 thus have a high impact on the costs coming from PPVs. Many of the top reasons for PPVs should respond to interventions focused on prevention, such as vaccinations and the use of PCPs for common acute illnesses, such as gastroenteritis.

Dental care

Most children and young adults aged 20 and younger with Medicaid or CHIP coverage receive dental services through the two dental maintenance organizations (DMOs), MCNA Dental and DentaQuest. Since Texas began providing dental care to children and adolescents in Medicaid and CHIP, the EQRO has conducted regular quality monitoring studies using dental questions from the CAHPS survey and the HEDIS Annual Dental Visit (ADV) measure, as well as AI and QAPI studies of MCO structure and compliance with state and federal regulations. In recent years, HHSC has added several quality measures developed by the Dental Quality Alliance (DQA), including measures of oral evaluation and topical fluoride treatment.

In SFY 2019, the EQRO produced an issue brief that examined ED visits for non-traumatic dental conditions (NTDCs) among members aged 20 years and younger in Texas Medicaid and CHIP. The study found that in 2017 the rate of ED visits for NTDCs in this population was 53 per 100,000 member-months, which represents about one percent of all ED visits in this population for that year. Five-year trends showed that the rate of ED visits for NTDCs decreased by 24.1 percent between 2013 and 2017, which compares to a 6.9 percent decrease for non-dental related ED visits. The percentage of members who had at least one ED visit for NTDCs was disproportionately higher for members in the STAR program and disproportionately lower for members in CHIP.

Males visited the ED for NTDCs more frequently than females did, and rates were higher among children aged five years and younger, compared to children and adolescents in other age groups. Among members aged 13 to 20 years, the decrease in the rate of ED visits for NTDCs (39 percent) was statistically significant. The percentage of members who had at least one ED visit for NTDCs was disproportionately lower for Hispanic members.

Between 2013 and 2017, Texas Medicaid and CHIP paid about $44 million for ED visits for NTDCs. The adjusted cost per ED visit was highest in 2015 ($334 per visit) and lowest in 2017 ($308 per visit). The study findings also showed that, among members aged five years and younger, approximately 45 percent of ED visits for NTDCs were due to complications of dental caries. The proportion of visits due to complications of dental caries increased with age, reaching 65 percent of visits among members aged six to 12 years, and 69 percent of visits among members aged 13 to 20 years.

Positive Findings

Through a commendable commitment to quality in dental care, HHSC continues to see results well above the NCQA national Medicaid 95th percentile for the HEDIS Annual Dental Visit (ADV) measure. The EQRO observed this performance in all age groups in both Medicaid and CHIP.

Identifying caries risk among members receiving Medicaid or CHIP dental services is an important step in measuring the quality of dental care. In data validation studies, the EQRO found that caries risk assessment (CRA) codes were missing on dental exam encounters less than three percent of the time, which is an improvement over the previous year.

Areas for Improvement

In the SFY 2019 Medicaid and CHIP dental surveys, the EQRO found that CHIP caregiver ratings for dental plan costs and services, as well as overall dental plan ratings in CHIP, were much lower when compared to caregivers in Medicaid – highlighting areas for improvement in experience and satisfaction among parents of members who receive dental care through CHIP.

Despite having an above-average overall score on the QAPI evaluation, in SFY 2019 MCNA Dental continued to perform slightly lower than DentaQuest on all dental P4Q measures in children's Medicaid and CHIP – in particular, for rates of oral evaluation in CHIP (68 percent vs. 72 percent) and topical fluoride in CHIP (45 percent vs. 48 percent).

In the EQRO's SFY 2019 dental encounter data validation study, evaluators noted an improved record review rate; however, the lack of accurate dental provider data continues to affect the efficiency of the review process.

Conclusion

In SFY 2019, HHSC continued to work on improving the quality and efficiency of healthcare services in Texas Medicaid and CHIP through initiatives for improving network adequacy, service coordination for special populations, and behavioral health care. While there is always room for improvement, the effort that Texas put into improving the quality of care for members in Medicaid and CHIP had positive effects on several essential aspects of care. These include, coordination of services for STAR Kids and other populations with complex or special needs, the availability and effectiveness of behavioral health care, access to maternal health care, and improvement in dental care.

HHSC is also taking steps to address areas that need improvement. The full SOA report includes a list of the EQRO recommendations from the SFY 2019 evaluation activities and suggestions for targeted approaches to help continue reducing PPE rates, improving the quality of claims and provider directory data, and improving member experience and satisfaction with the quality of care, in Texas Medicaid and CHIP.

Introduction

More than 70 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. Texas has the fifth-largest Medicaid program in the country, serving over four million people (CMS, 2019d), over 90 percent of whom receive care through a managed care delivery model. Participation in federal funding for managed care programs requires compliance with the guidelines and protocols of the Centers for Medicare and Medicaid Services (CMS), 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) 2019.

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

Table 1. Texas Medicaid and CHIP managed care programs

Program	Description
STAR	Manages care for mostTexas 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 that are dual eligible Medicare beneficiaries.
STAR Kids	Manages care for children and adults aged 20 years and younger who have disabilities. This program covers the Medically Dependent Children Program (MDCP) services.
STAR Health	Manages care for children and young adults in state conservatorship, or those covered through a continuation or transition program of the foster care system.
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.

The Children's Medicaid Dental Services program provides dental services to Medicaid members aged 20 and younger, and the CHIP Dental program provides dental services to CHIP members aged 18 and younger. Two dental maintenance organizations (DMOs) serve members in both programs, with the exception of STAR Health members who receive dental coverage directly through the STAR Health program provider, Superior.

Figure 1 is a map showing the service areas (SAs) and service providers (HHSC, 2018). Texas MCOs administered services in 13 SA across the state. For CHIP MCOs, the three Medicaid rural service areas (MRSAs) and Hidalgo SA are combined into one rural service area. In all programs except STAR Health, members can choose from at least two MCOs in every SA; Superior provides all STAR Health services, statewide and Both DMOs provide services statewide.

Figure 1. Texas Medicaid and CHIP managed care service areas
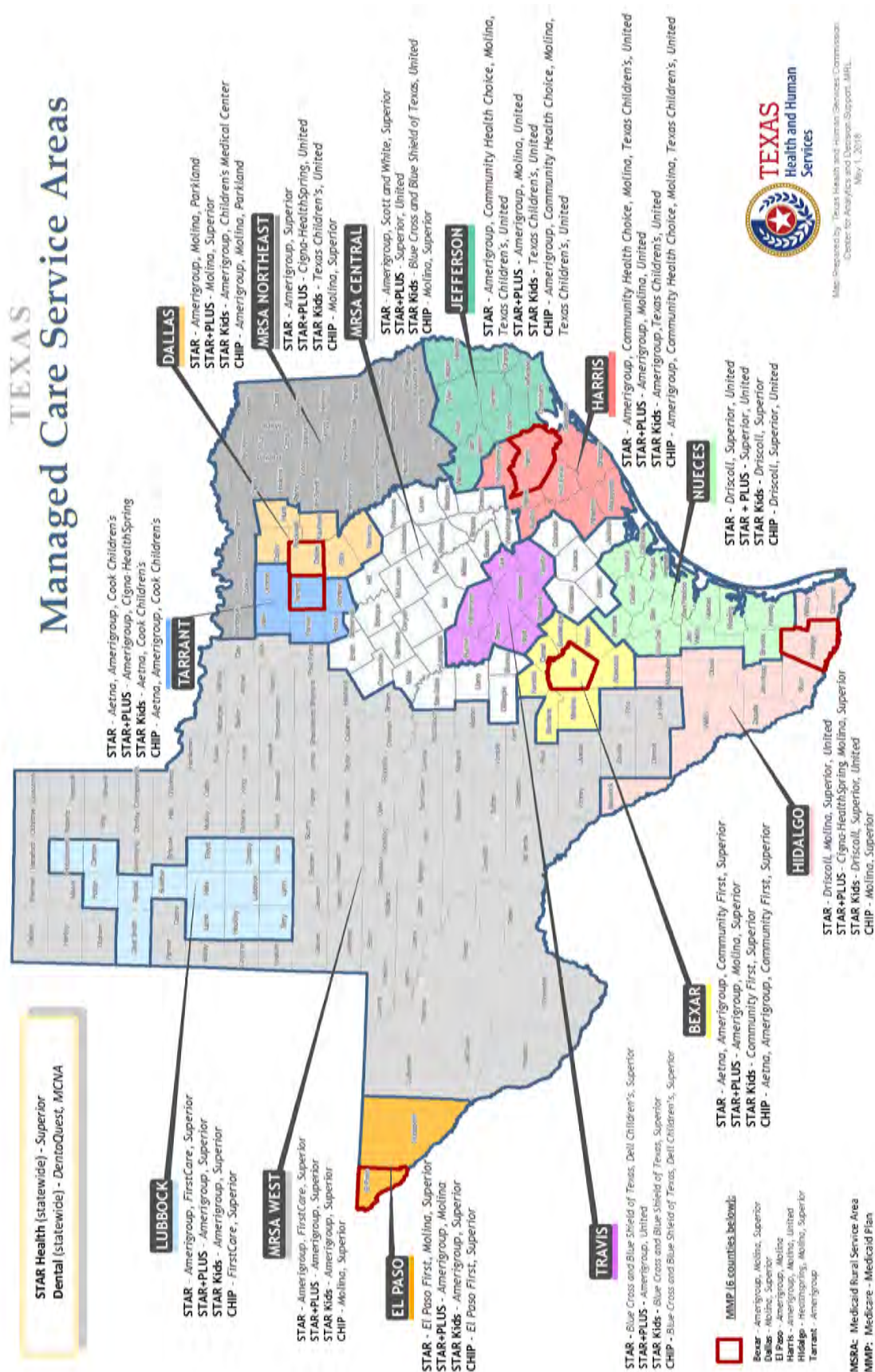
Table 2 shows Medicaid and CHIP enrollment with Texas contracted managed care organizations (MCOs) as of December 2018, excluding dual eligible members, and Table 3 shows enrollment with the two DMOs as of December 2018.

Table 2. Enrollment[1] in Texas Medicaid and CHIP managed care programs as of December 2018

MCO	STAR	STAR+PLUS	STAR Kids	STAR Health	CHIP
Aetna Better Health (Aetna)	72,703	–	4,694	–	9,693
Amerigroup	540,200	58,451	26,549	–	61,526
Blue Cross Blue Shield of Texas (BCBSTX)	31,223	–	7,871	–	5,764
Children's Medical Center Health Plan (CMCHP)	–	–	8,926	–	–
Cigna-HealthSpring (HealthSpring)	–	19,549	–	–	–
Community First Health Plans (CFHP)	109,039	–	7,745	–	17,248
Community Health Choice (CHC)	248,954	–	–	–	27,297
Cook Children's Health Plan (CCHP)	105,993	–	9,331	–	21,101
Dell Children's Health Plan (DCHP)	22,945	–	–	–	7,588
Driscoll Health Plan (Driscoll)	159,881	–	10,211	–	6,758
El Paso Health	65,725	–	–	–	9,153
FirstCare Health Plans (FirstCare)	82,016	–	–	–	4,964
Molina Healthcare of Texas (Molina)	94,562	35,159	–	–	24,030
Parkland Community Health Plan (Parkland)	161,356	–	–	–	23,800
RightCare from Scott & White Health Plan (S&W)	45,096	–	–	–	–
Superior HealthPlan (Superior)	730,526	64,894	27,832	34,702	97,857
Texas Children's Health Plan (TCHP)	352,293	–	25,958	–	58,936
UnitedHealthCare Community Plan (UHC)	140,272	56,476	30,280	–	8,980
Total	2,962,784	234,529	159,397	34,702	384,695

[1]Excludes dual eligible members.

Table 3. Enrollment in Medicaid children's and CHIP dental programs as of December 2018

DMO	Medicaid Children's Dental	CHIP Dental
MCNA Dental	1,227,566	139,300
DentaQuest	1,649,380	245,561
Total	2,876,946	384,861

The following summary figures for the STAR, STAR+PLUS, STAR Kids, STAR Health programs, and CHIP show member data as of December 2018. They represent a snapshot of the Texas Medicaid programs and CHIP as of the close of the measurement year for most of the quality measures reported by the EQRO during SFY 2018. Health status reflects members' 3M™ Clinical Risk Group (CRG) status, as assigned to Special Healthcare Needs (SHCN) groups and described in Appendix A.

STAR

As the main managed care program in Texas Medicaid, the STAR program had 2,962,784 non-dual eligible members as of December 2018. The distributions by age and sex have not changed much from 2017. Over 90 percent of adult members are women, while 50 percent of members younger than 19 years old are male.

Enrollment

Year	Enrollment
2014	3,002,643
2015	2,971,298
2016	3,009,880
2017	3,063,775
2018	2,962,784

Sex

Category	Female	Male
All Ages	1,572,461	1,390,323
<19 years	1,354,492	1,366,532
19+ years	217,969	23,791

Age

Age Group	Count
65+ years	3
45-64 years	16,882
21-44 years	200,101
19-20 years	24,774
15-18 years	413,625
6-14 years	1,278,180
1-5 years	822,481
<1 year	206,738

Race-Ethnicity

Category	Percent
White, Non-Hispanic	15.1%
Black, Non-Hispanic	14.2%
Hispanic	54.5%
American Indian or Alaskan	0.2%
Asian, Pacific Islander	1.6%
Unknown/Other	14.4%

Health Status

Category	Percent
Healthy	67%
Significant Acute Disease	11%
Minor SHCN	8%
Moderate SHCN	10%
Major SHCN	3%
Unassigned	1%

STAR+PLUS

The STAR+PLUS program had 234,529 non-dual eligible members as of December 2018. The drop in non-dual members mirrors an increase in dual-eligible members since 2017. The distributions by age, sex, race-ethnicity, and health status are similar to those in 2017. Twenty-four percent of STAR+PLUS members had an unknown/other race-ethnicity. Eighteen percent were categorized as healthy, despite the health status criteria for eligibility in this program.

Enrollment

	2014	2015	2016	2017	2018
Non-Dual	280,167	286,222	298,264	294,230	234,529
Dual-Eligible	242,360	249,398	230,252	235,599	296,038

Sex

Female 119,809

Male 114,720

Age

65+ years	3,730
45-64 years	128,652
21-44 years	102,144
19-20 years	3
0-18 years	0

Race-Ethnicity

- White, Non-Hispanic 25%
- Black, Non-Hispanic 21%
- Hispanic 28%
- American Indian or Alaskan 0%
- Asian, Pacific Islander 2%
- Unknown/Other 24%

Health Status

- Major SHCN 54.3%
- Moderate SHCN 21.2%
- Minor SHCN 4.0%
- Significant Acute Disease 2.2%
- Healthy 18.0%
- Unassigned 0.3%

STAR Kids

The STAR Kids program had 159,397 non-dually eligible members as of December 2018. Enrollment has remained relatively constant since the beginning of the STAR Kids program in November 2016. Males continue to outnumber females by about two to one, and nearly half of all members are six to 14 years of age. Over 40 percent of members had an unknown/other race-ethnicity. The SHCN category of STAR Kids members is more likely to be minor or moderate compared to that of STAR+PLUS members, which is most often major SHCN.

Enrollment

Year	Enrollment
2016	161,222
2017	161,789
2018	159,397

Sex

Sex	Count
Male	105,600
Female	53,797

Age

Age	Count
19+ years	15,832
15-18 years	42,255
6-14 years	83,583
1-5 years	16,788
<1 year	939

Race-Ethnicity

Race-Ethnicity	Percent
Asian, Pacific Islander	0.4%
White, Non-Hispanic	6.4%
Unknown/Other	41.7%
Black, Non-Hispanic	10.5%
Hispanic	40.9%
American Indian or Alaskan	0.1%

Health Status

Health Status	Percent
Significant Acute Disease	2.5%
Minor SHCN	14.8%
Moderate SHCN	30.8%
Major SHCN	25.1%
Healthy	26.8%
Unassigned	0.1%

STAR Health

December 2018 enrollment in the STAR Health program is consistent with 2017 enrollment. Equal numbers of members are male and female, and the member age distribution is relatively even across years. Although 25 percent of members are categorized as healthy, the majority of members covered in the STAR Health program have special health care needs.

Enrollment

32,305   31,703   33,010   35,007   34,702

2014   2015   2016   2017   2018

Sex

Female
17,243

Male
17,459

Age

19+ years	1,406
15-18 years	4,737
6-14 years	12,790
1-5 years	12,820
<1 year	2,949

Race-Ethnicity

White, Non-Hispanic 29.6%

Black, Non-Hispanic 26.1%

Hispanic 41.2%

Unknown/Other 2.7%

Asian, Pacific Islander 0.3%

American Indian or Alaskan 0.1%

Health Status

Significant Acute Disease 7.0%

Minor SHCN 13.4%

Moderate SHCN 35.7%

Healthy 25.3%

Major SHCN 17.0%

Unassigned 1.4%
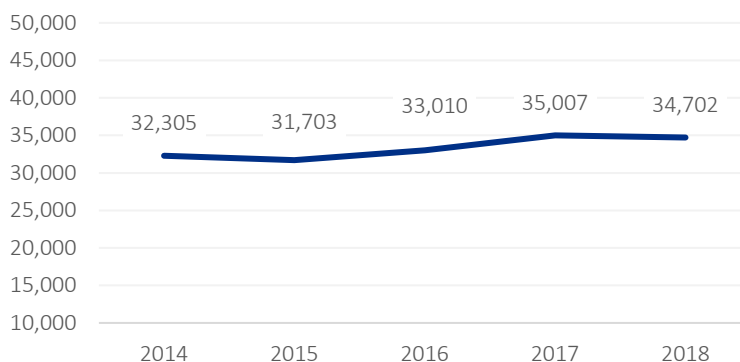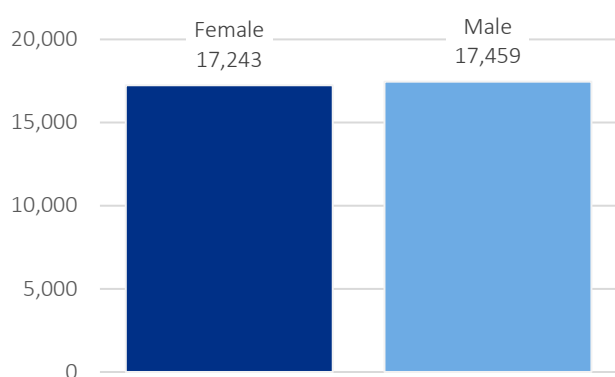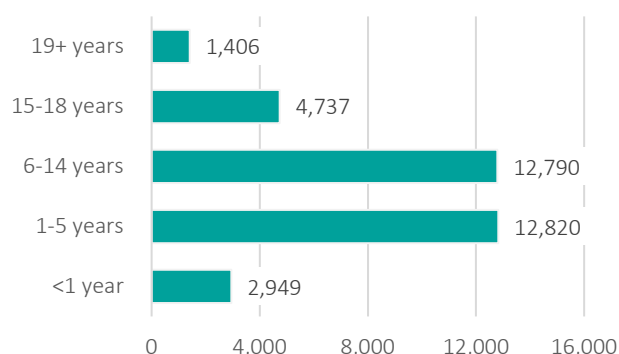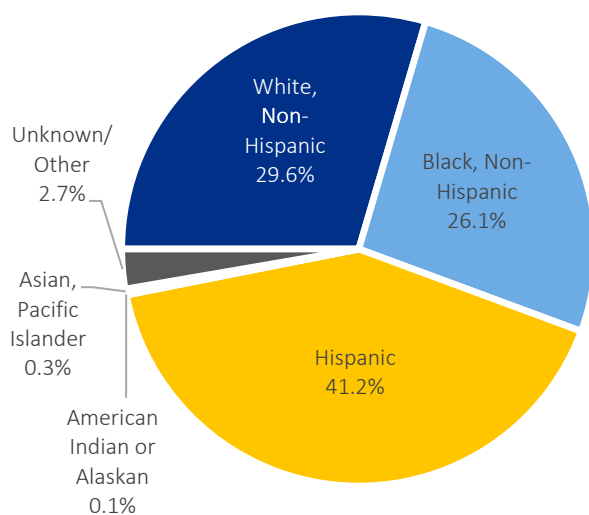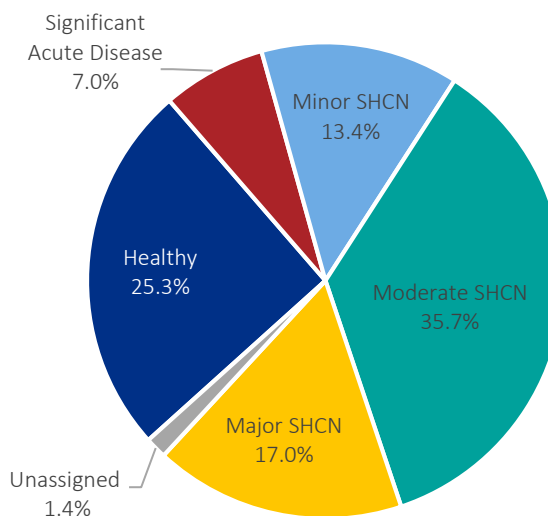
CHIP

After a substantial reduction in CHIP membership in 2014, enrollment grew annually through 2017. However, enrollment as of December 2018 was almost 10 percent lower than December 2017. Distributions by sex, age, and health status remained consistent with prior years. The percentage of members having an unknown/other race-ethnicity increased from 38 percent to 44 percent.

Enrollment

- 2014: 335,009
- 2015: 352,432
- 2016: 386,079
- 2017: 422,366
- 2018: 384,695

Sex

- Female: 188,781
- Male: 195,914

Age

- 19+ years: 1,258
- 15-18 years: 76,608
- 6-14 years: 215,822
- 1-5 years: 90,943
- <1 year: 64

Race-Ethnicity

- Unknown/Other: 44.0%
- White, Non-Hispanic: 9.9%
- Black, Non-Hispanic: 6.9%
- Hispanic: 37.0%
- American Indian or Alaskan: 0.2%
- Asian, Pacific Islander: 2.0%

Health Status

- Healthy: 73.6%
- Significant Acute Disease: 7.8%
- Minor SHCN: 7.0%
- Moderate SHCN: 8.5%
- Major SHCN: 1.4%
- Unassigned: 1.8%
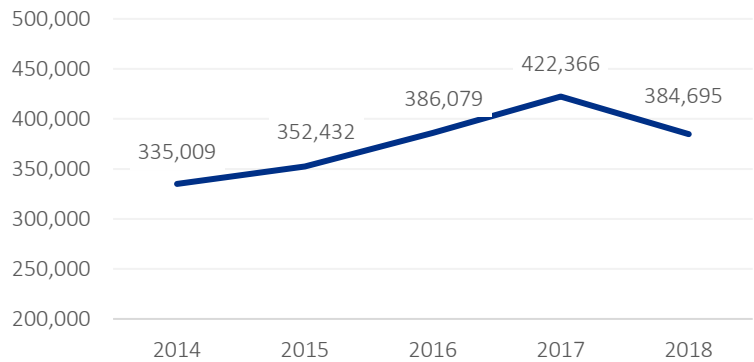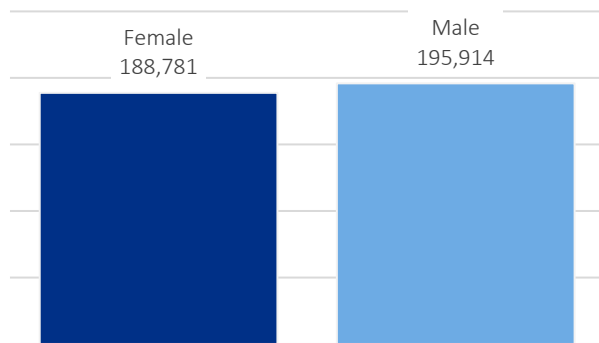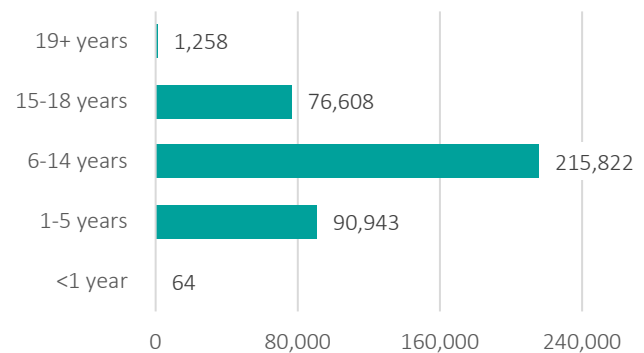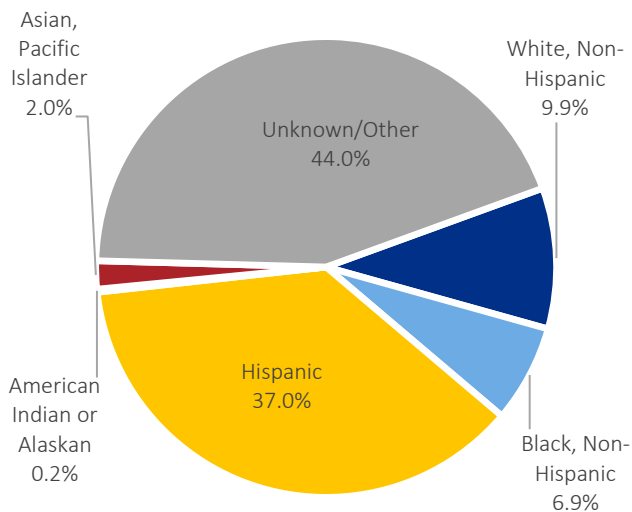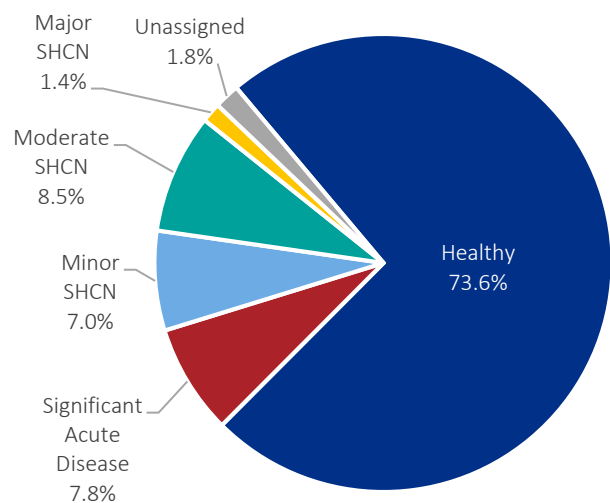
EQRO Responsibilities

This report is a summary of activities the EQRO conducted during SFY 2019, including evaluations of MCO activities, quality improvement programs, and administrative performance measures using calendar year (CY) 2018 data. It also summarizes findings from member surveys the EQRO conducted in 2019. The EQRO followed the guidance of the CMS EQR Toolkit (CMS, 2019c) and federal regulations in 42 CFR Part 438, subpart E (§438.310 - §438.370). The EQR process consisted of three mandatory and four of the five optional EQR-related activities. The EQR Toolkit provided protocols for the completion of each activity. This report covers activities found these seven EQR protocols:

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

This report is completed in accordance with §438.364 to be submitted to CMS by the State of Texas. In addition to this introduction to Texas Medicaid and CHIP managed care, the report includes an Executive Brief highlighting findings and initiatives of interest to Texas, Activity Reports for the EQR protocols listed above, and a summary of recommendations by the EQRO.

Protocol 1: Assessment of Compliance with Medicaid Managed Care Regulations

Following guidance in CMS EQR Protocol 1 (CMS, 2012a), the EQRO determines the extent to which Texas Medicaid and CHIP MCOs comply with Federal quality standards. (CMS, 2012d). The five activities included in this mandatory protocol include:

1. establishing compliance thresholds,
2. performing Preliminary reviews,
3. conducting MCO site visits,
4. compiling and analyzing findings, and
5. reporting results to the state.

The EQRO conducts two major review initiatives to fulfill the requirements of this protocol. First, the administrative interviews (AI) allow the EQRO to complete comprehensive assessments of MCO regulatory compliance and the structural strengths and weaknesses in MCO quality improvement programs. Second, the EQRO conducts a thorough review of quality improvement (QI) programs through the quality assessment and performance improvement (QAPI) program evaluations.

Administrative Interviews

The EQRO developed a web-based AI tool that allows the MCO to provide information across 10 major areas. The EQRO updates the tool annually and MCO responses support a comprehensive review of MCO compliance with Texas and the federal regulations in Title 42 C.F.R. § 438 (2018). In addition to the AI tool, the AI deliverables in the EQRO contract include the AI extracts, AI evaluations, on-site visits, and site visit reports. Each year the EQRO rotates the MCOs selected for full AI review (including all regulatory areas and an on-site visit), while all other MCOs complete an abbreviated AI. Through this rotation process, each MCO participates in the full AI process once every three years.

In 2019, five MCOs participated in full AI activities. Based on the review of the AI responses, the EQRO assigns scores in each federal regulation category and combines them into an overall score. Along with their score report, the EQRO also provides recommendations to each MCO. Table 4 shows the final scores and average across MCOs. Overall, in 2019, the average compliance scores by category ranged from 88.7 to 100 (fully compliant) across categories, and individual MCO scores within categories were all at least 85.

Table 4. 2019 administrative interview (AI) scores by federal regulation category and overall

MCO	A. General Provisions	B. State Responsibilities	C. Member Rights & Protections	D. Health Plan Standards	F. Grievance & Appeal System	Overall AI Evaluation Score
Amerigroup	95.1	100	98.3	98.5	88.9	93.3
HealthSpring	94.3	100	96.3	95.4	85.4	89.7
Molina	92.6	100	98.3	95.4	85.4	90.9
Superior	94.3	100	98.3	97.0	91.6	93.5
UHC	95.9	100	98.3	98.5	92.0	94.7
MCO Average	94.4	100	97.9	96.9	88.7	92.4

The average overall score in 2019 (92.4) was less than the average overall score for the same MCOs in the 2016 AI review (95.1). In July 2017, CMS updated regulations related to grievance and appeal timeframes, information availability, provider accessibility information in directories, and the informational materials provided to members. Failing to update documentation related to these changes affected MCO scores primarily in the General Provisions and Grievance and Appeal System categories. All five MCOs had lower average scores in these two categories in 2019 relative to their 2016 scores. During on-site visits, the EQRO addressed areas where the MCOs were non-compliant with regulations and asked the MCOs to provide additional documentation supporting compliance or to revise their policies and procedures to address the deficiencies.

In addition to the federal and state regulatory categories addressed in the full AI process, the EQRO reviews health promotion and disease management (DM) programs for all MCOs annually through either the abbreviated AI or as part of the full AI process. Texas requires MCOs serving members in STAR, STAR+PLUS, STAR Kids and CHIP to provide DM services for asthma and diabetes, and for other chronic diseases based on their prevalence in the MCO members. The MCOs serving STAR+PLUS must also provide DM services for chronic obstructive pulmonary disease (COPD), congestive heart failure, and coronary artery disease. Each MCO determines the eligibility of members based on their qualifying conditions and identifies high-risk members for active engagement (e.g., members with multiple chronic conditions, members identified as non-adherent to care, or with evidence that their condition is uncontrolled). In 2019, the EQRO identified a lack of consistency in the MCO eligibility determination processes. This affected the usability of the reported information for making comparisons across MCOs or summarizing DM participation by program.

Recommendations

- The MCOs should better monitor changes to state and federal regulations and ensure that their policies and procedures all align with the most current regulations in place.
- HHSC should examine MCO criteria used to determine DM eligibility, and the services offered through these programs. The addition of more in-depth questions on DM eligibility and management in the AI would be a step towards this goal.
- HHSC should consider establishing basic standard DM eligibility criteria for all MCOs to follow. This would improve the EQROs ability to evaluate DM programs and provide meaningful comparisons between MCOs, programs, and across time. Standardization would also increase the ability to implement statewide improvement initiatives efficiently.

Evaluation of Quality Assessment and Performance Improvement Programs

The EQRO annually reviews the Texas Medicaid MCO, DMO, and Medicare-Medicaid Plan (MMP) QI programs to evaluate aspects of structure and processes that contribute to their success, and to assess compliance as specified in 42 CFR § 438.330. The EQRO QAPI program evaluations assess compliance with federal regulations and state standards, and the presence and strength of the five essential elements of a QAPI program, as defined by CMS (CMS, 2016):

1. design and scope;
2. governance and leadership;
3. feedback, data systems, and monitoring;
4. PIPs; and
5. systematic analysis.

PIPs (element four) are fully evaluated following the guidance in EQR Protocol 3 (CMS, 2012c). The EQRO QAPI program evaluations address the other elements. Overall, the EQRO QAPI program evaluation process includes 17 activities (Table 5). Seven of these address the remaining four essential QAPI elements, and combined make up 70 percent of the final overall QAPI score. The additional ten activities combined contribute the other 30 percent of the final overall QAPI score.

Table 5. 2019 Quality assessment and performance improvement categories

Activities Addressing Essential Elements Combined Weight = 70% of Overall Score	Additional Activities Combined Weight = 30% of Overall Score
A1: Role of Governing Body (*CMS Element 2*) A3: Adequate Resources (*CMS Element 2*) A4: Improvement Opportunities (*CMS Elements 3 & 5*) B1: Program Description (*CMS Elements 1 & 3*) B5: Availability & Access to Care Monitoring & Results 　　　(*CMS Elements 3 & 5*) B6a: Clinical Indicator Monitoring (*CMS Elements 3 & 5*) B6b: Service Indicator Monitoring (*CMS Elements 3 & 5*)	Required Documentation A2: Structure of QI Committee(s) B2: Overall Effectiveness B3: Effectiveness of Long-Term Services & 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 (*not included in 　　　overall score*)

In addition to scoring plan performance across all 17 activities based on whether requirements for each component are "met" (fully), "partially met", or "not met", the EQRO provides recommendations to the MCOs on any component not fully met. The EQRO also reviews whether the MCOs fully incorporated prior year recommendations and similarly scores each recommendation, although this additional recommendation score is not included in calculating the current overall score.

Results

MCO and DMO QAPIs

Table 6 shows the overall 2019 score for each MCO or DMO. The average score was 98.1 (SD = 2.5). The lowest score was for TCHP (91.4), and this was primarily due to their not providing a response to the questions that address the MCO's quality goals and objectives. Scores more than half a standard deviation below the mean (<96.8) were considered "below average" (20 percent of plans) and scores more than half a standard deviation above the mean (>99.4) were considered "above average" (35 percent of plans).

Table 6. 2019 quality assessment and performance improvement scores, by MCO/DMO

MCO or DMO	Score	Consideration
Aetna Better Health (Aetna)	98.2	–
Amerigroup (Amerigroup)	98.3	–
Blue Cross Blue Shield of Texas (BCBSTX)	99.4	–
Children's Medical Center Health Plan (CMCHP)	92.7	Below Average
Cigna-HealthSpring (HealthSpring)	99.4	–
Community First Health Plans (CFHP)	100	Above Average
Community Health Choice (CHC)	100	Above Average
Cook Children's Health Plan (CCHP)	100	Above Average
Dell Children's Health Plan (DCHP)	100	Above Average
DentaQuest	95.2	Below Average
Driscoll Health Plan (Driscoll)	99.4	–
El Paso Health	100	Above Average
FirstCare Health Plans (FirstCare)	95.7	Below Average
MCNA Dental	100	Above Average
Molina Healthcare of Texas, Inc. (Molina)	98.7	–
Parkland Community Health Plan (Parkland)	98.2	–
RightCare from Scott & White Health Plan (S&W)	100	Above Average
Superior HealthPlan (Superior)	98.1	–
Texas Children's Health Plan (TCHP)	91.4	Below Average
UnitedHealthcare Community Plan (UHC)	97.8	–
Overall Average	**98.1**	**–**

The EQRO evaluated the QAPI program summary reports by section to identify areas of high performance and opportunities for both systematic and individual improvement. Table 7 shows the average QAPI program performance by activity. Performance on activities contributing to the final score ranged from 92.8 to 100. In the *Program Description* activity, half the MCOs failed to fully meet the criteria for listing written QI objectives, leading to the lower score in this activity (92.8). The activity with the lowest performance was, "incorporation of the previous year's recommendations" (83.3).

Table 7. 2019 quality assessment and performance improvement scores, by activity

Activity	Score
Required Documentation Overall	100
A1: Role of Governing Body	100
A2: Structure of Quality Improvement Committee(s)	99.3
A3: Adequate Resources	100
A4: Improvement Opportunities	100
B1: Program Description	92.8
B2: Overall Effectiveness	100
B3: Effectiveness of Long-Term Services and Supports (LTSS)	100
B4: Clinical Practice Guidelines	100
B5: Availability and Access to Care Monitoring and Results	99.2
B6a: Clinical Indicator Monitoring	97.9
B6b: Service Indicator Monitoring	97.9
B7: Credentialing and Re-credentialing	99.1
B8: MDCP Qualified Providers	100
B9: Delegation of QAPI Activities	100
B10: Corrective Action Plans	100
B11: Previous Year's Recommendations	83.3

MMP QAPIs

Table 8 shows the overall 2019 score for each MMP. The average score was 98.8 (SD = 1.2). The lowest score was for UnitedHealthcare (96.9), and this was primarily due to their not providing updated responses in the *Overall Effectiveness* activity. Scores more than half a standard deviation below the mean (<98.2) were considered "below average" and scores more than half a standard deviation above the mean (>99.4) were considered "above average".

Table 8. 2019 quality assessment and performance improvement scores, by MMP

MMP	Score	Consideration
MMP Average	**98.8**	–
Amerigroup	100%	Above Average
Cigna-HealthSpring (HealthSpring)	99.4%	–
Molina Healthcare of Texas, Inc. (Molina)	98.7%	–
Superior HealthPlan (Superior)	98.8%	–
UnitedHealthcare Community Plan (UHC)	96.9%	Below Average

When the EQRO summarized MMP QAPI program performance scores by activity, the scores for all activities were 100, with two exceptions. The average of MMP scores was 92.5 for Program Description and 86.7 for *Overall Effectiveness*. Overall, the MMPs showed improvement in incorporating previous year's recommendations, and *the Effectiveness of LTSS*.

Protocol 2: Validation of Performance Measures Reported by MCOs

Following guidance in CMS EQR Protocol 2 (CMS, 2012b), the EQRO validates Medicaid and CHIP performance measures reported by the MCOs. To meet the requirements of this mandatory protocol, the EQRO must assess the accuracy of MCO reported performance measures and evaluate how well the calculated measures follow Texas requirements. The Protocol 2 activities are generally like to National Committee for Quality Assurance (NCQA) HEDIS® audit procedures.

The EQRO for Texas Medicaid and CHIP calculates over a hundred performance quality measures. This reduces variability in calculations across the large number of programs and MCOs and provides standard results for use in quality evaluations and research. These calculations follow the guidance in EQR Protocol 6 (CMS, 2012f). For select HEDIS measures that use both administrative claims and medical record data (i.e., HEDIS Hybrid measures), the state requires each MCO to collect and report results to the EQRO. In addition to validation of HEDIS Hybrids, the EQRO validates THSteps (Texas Health Steps) checkup reports submitted by the MCOs.

HEDIS Hybrid Measures

The MCOs report their hybrid method results for 10 HEDIS measures for the programs listed in Table 9. Hybrid method specifications include sampling based on administrative criteria, followed by medical record review from the sample to determine compliance.

Table 9. HEDIS 2019 measures selected for hybrid reporting (2018 performance)

Abbreviation	Description	Programs
Prevention and Screening		
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
Physical Conditions		
CBP	Controlling High Blood Pressure	STAR, STAR+PLUS
CDC	Comprehensive Diabetes Care	STAR, STAR+PLUS
Access/Availability of Care		
PPC	Prenatal and Postpartum Care	STAR
Utilization		
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 requires each MCO to provide a report by an NCQA-certified HEDIS auditor, attesting to the validity of all submitted hybrid measure results. In addition, the EQRO requires each MCO to provide the member-level

data used to support the measure calculations. First, the EQRO validates the measures by verifying that each submitted rate is consistent with the submitted member data; then submitted rates are compared 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 discrepancies seen in administrative rates helped identify differences in provider specialty identification.

In addition to required hybrid measure rates, the MCOs may also submit supplemental data for use in HEDIS measures calculated by the EQRO (Protocol 6). Approval from an NCQA-certified HEDIS auditor must accompany submitted supplemental data. Submissions must conform to either standard or non-standard data types, as defined by NCQA. The most common type of submitted supplemental data is laboratory results.

THSteps Checkups Report

Following the Frew Consent Decree (Frew) of 1996 (*Frew et al v. Phillips et al*, 1996), HHSC became subject to corrective action orders, including an independent study of medical check-up completeness and required check-up reports. According to Chapter 12 of the Texas Uniform Managed Care Manual (UMCM) that covers Frew requirements (Texas HHS, 2019a), MCOs must submit annual reporting on compliance with THSteps checkup requirements. The EQRO independently calculates compliance rates using the encounter and enrollment data in the Texas Medicaid data warehouse and provides a comparative report to HHSC. The EQRO works closely with HHSC in the final development of reporting specifications and provides continuing technical assistance to HHSC and the MCO stakeholders to support these reports. In addition, the EQRO also provides ad hoc support to the MCOs if their submitted report does not pass validation. This includes phone conferences and providing member data from EQRO calculations to assist in rectifying the reporting.

Protocol 3: Validation of Performance Improvement Projects (PIPs)

Following the guidance in EQR Protocol 3 (CMS, 2012c), the EQRO evaluates the design, methodological approach, implementation, and validity of results for the mandatory performance improvement projects (PIPs) undertaken by the MCOs and DMOs. Per 42 CFR §438.358(b), PIP validation is a mandatory EQRO activity. Texas requires MCOs and DMOs to conduct PIPs over two years to provide sufficient time for project implementation and to 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. Every July, the EQRO uses progress reports to evaluate the implementation of the PIPs. The MCOs usually submit final reports for the PIPs that reached completion during the EQRO reporting year (i.e., PIPs completed in December 2018 for this reporting year) in the following October. This allows the EQRO time to review the reports and include the findings in the annual summary report, despite completing the review after the end of the reporting year.

Figure 2 provides a timeline for the PIP reporting activities. During SFY 2019, the EQRO: (a) reviewed the 2019 PIP plans, (b) reviewed the first progress reports for 2019 PIPS, (c) reviewed the second progress reports for 2018 PIPS, and (d) reviewed the final 2016 PIP reports (findings included in the EQRO SFY 2018 report).

Figure 2. EQRO timeline for PIP activities
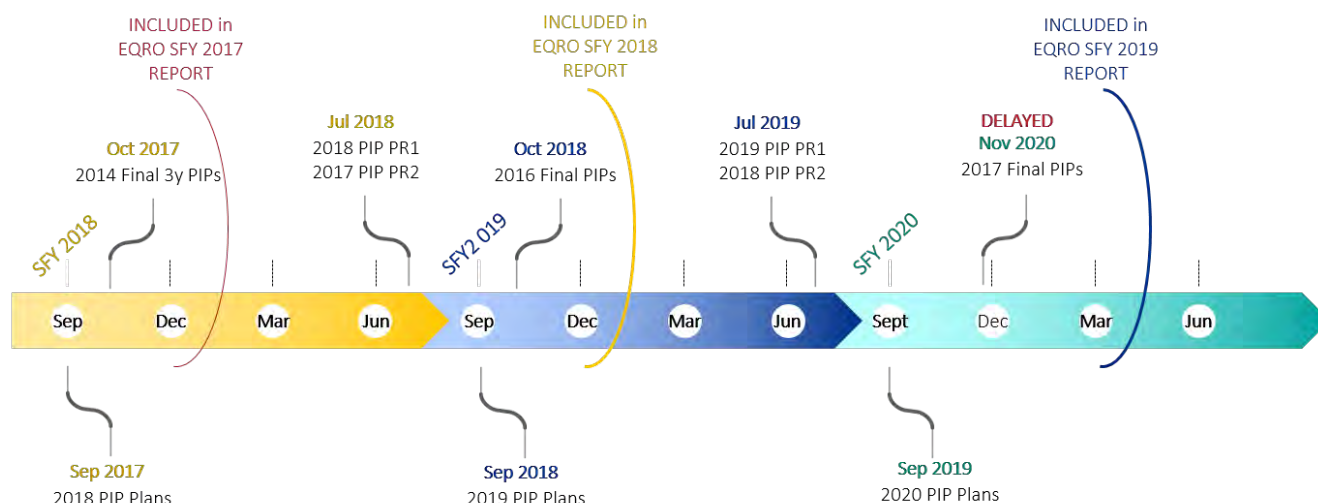
PR1 = Progress Report One; PR2 = Progress Report Two

Table 10 lists the 2017 PIPs that the EQRO evaluated. The SFY 2020 EQRO report will include the summary of the completed 2018 PIPs. Evaluation results for the 2017 Pips, by program, follow the table.

Table 10. 2017 PIP topics, by MCO and program

MCO	Program	2017 PIP Topic
Aetna Better Health (Aetna)	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
	STAR Kids	Family support services for person caring for a child with special health care needs
Amerigroup	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
	STAR+PLUS	Diabetes control
	STAR Kids	Medically dependent children program (MDCP) monitoring
Blue Cross Blue Shield of Texas (BCBSTX)	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
	STAR Kids	Develop systems to ensure screening assessments
Children's Medical Center Health Plan (CMCHP)	STAR Kids	Reduce emergency department visits for certain ambulatory care sensitive conditions (ACSC) -- asthma, diabetes, gastroenteritis, UTI
CHRISTUS[1]	CHIP	Behavioral health
	STAR	Behavioral health
Community First Health Plans (CFHP)	CHIP	Behavioral health
	STAR	Behavioral health
	STAR Kids	Coordinating care with schools
Community Health Choice (CHC)	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
Cook Children's Health Plan (CCHP)	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
	STAR Kids	Well visits
DentaQuest	CD	Preventative services for members age 6-14
	MD	Increase oral evaluation for children under three years
Driscoll Health Plan (Driscoll)	CHIP	Asthma
	STAR	Diabetes control
	STAR Kids	Service coordinator identification
El Paso Health	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
FirstCare Health Plans (FirstCare)	CHIP	Behavioral health
	STAR	Behavioral health
Cigna-HealthSpring	STAR+PLUS	Behavioral health integrated medical home project

MCO	Program	2017 PIP Topic
MCNA Dental	CD	Increase number/percent of members with a dental home. Target members are those who are going in for care, but not through a dental home.
	MD	Increase number/percent of members with a dental home. Target members are those who are going in for care, but not through a dental home.
Molina Healthcare of Texas (Molina)	CHIP	Behavioral health
	STAR	Behavioral health
	STAR+PLUS	Diabetes control
Parkland Community Health Plan (Parkland)	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
Parkland Community Health Plan (Parkland)	STAR	Asthma
Sendero Health Plans[1]	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
Seton (now Dell Children's Health Plan)	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
Superior HealthPlan (Superior)	CHIP	Well child visits in the first 15 months of life
	STAR	Well child visits in the first 15 months of life
	STAR+PLUS	Breast and cervical cancer screening
	STAR Health	PPVs related to UTI
	STAR Kids	Hospital and emergency room use
Texas Children's Health Plan (TCHP)	CHIP	Asthma
	STAR	Asthma
	STAR Kids	Transition planning
UnitedHealthCare Community Plan (UHC)	CHIP	Behavioral health
	STAR	Behavioral health
	STAR+PLUS	Breast and cervical cancer screening
	STAR Kids	Early childhood intervention services

[1]The CHRISTUS and Sendero Texas Medicaid managed care contracts ended prior to PIP completion; they did not provide final PIP reports.

STAR PIP Scores

The EQRO found variation in MCO performance across the PIP plan, final PIP, and overall PIP scores for the STAR 2017 PIPs. Table 11 shows the 2017 PIP scores for STAR MCOs. Not all MCOs with well-designed PIPs (i.e., high plan scores) followed-up with high final PIP scores. Six MCOs reported results that did not align with EQRO reported quality measure results. The second most common factor in low final PIP scores was not achieving a statistically significant improvement or sustained improvement in one or more study measures. For example, UHC scored 100 percent for their PIP plan, but had the lowest final PIP score (60.7 percent). The low score was due to the MCO having discrepancies in measure results, no significant improvement for the reported

measures, and incomplete reporting in some sections. Only BCBSTX achieved a perfect final PIP score. This PIP focused on Well-Child Visits in the First 15 Months of Life (W15) and included well-rounded interventions targeting new mothers with a comprehensive health home visit and soliciting focus group feedback at the provider level. Overall PIP scores in STAR averaged 90.4 percent.

Table 11. STAR 2017 two-year PIP plan, final PIP, and overall PIP scores by MCO

MCO	Topic	PIP Plan Score	Final PIP Score	Overall Score
Aetna Better Health (Aetna)	W15	97.2%	75.4%	86.0%
Amerigroup	W15	97.2%	86.9%	89.7%
Blue Cross Blue Shield of Texas (BCBSTX)	W15	98.6%	100%	98.5%
CHRISTUS Health Plan (CHRISTUS)[1]	BH-related[2]	87.0%	N/A	N/A
Community First Health Plans (CFHP)	BH-related	75.6%	82.1%	79.5%
Community Health Choice (CHC)	W15	87.6%	92.1%	90.5%
Cook Children's Health Plan (CCHP)	W15	97.2%	82.7%	88.2%
Dell Children's Health Plan (DCHP)	W15	89.7%	86.9%	92.6%
Driscoll Health Plan (Driscoll)	Diabetes	98.5%	77.4%	94.2%
El Paso Health	W15	98.7%	92.9%	97.0%
FirstCare Health Plans (FirstCare)	BH-related	97.5%	75.0%	91.7%
Molina Healthcare of Texas (Molina)	BH-related	85.1%	81.9%	83.3%
Parkland Community Health Plan (Parkland)	W15	97.2%	75.4%	86.0%
RightCare from Scott & White Health Plan (S&W)	Asthma	98.1%	89.3%	94.2%
Sendero Health Plans (Sendero)[1]	W15	98.3%	N/A	N/A
Superior HealthPlan (Superior)	W15	97.8%	83.3%	93.7%
Texas Children's Health Plan (TCHP)	Asthma	88.9%	90.5%	90.5%
UnitedHealthCare Community Plan (UHC)	BH-related	100%	60.7%	90.0%
Minimum	–	75.6%	60.7%	79.5%
Maximum	–	100%	100%	98.5%
Average	4 Topics	93.9%	83.3%	90.4%

[1]The CHRISTUS and Sendero Texas Medicaid managed care contracts ended prior to PIP completion; they did not provide final PIP reports.
[2]BH-related = behavioral health related

CHIP PIP Scores

As in STAR, the EQRO found variation in MCO performance on 2017 CHIP PIPs. Table 12 shows the 2017 PIP scores for CHIP MCOs. For PIP plans, CFHP had the lowest score (75.6 percent) due to submitting an incomplete plan, and deficiencies in the population and measure definitions. Final PIP scores ranged from 60.4 percent for FirstCare to 93.8 percent for BCBSTX. Low performing MCOs had discrepancies in measure results, failed to show significant improvement for the reported measures, and had incomplete reporting on some PIP sections. Overall PIP score in CHIP averaged 88.8 percent.

Table 12. CHIP 2017 two-year PIP plan, final PIP, and overall PIP scores by MCO

MCO	Topic	PIP Plan Score	Final PIP Score	Overall Score
Aetna Better Health (Aetna)	W15	95.8%	82.7%	86.8%
Amerigroup	W15	96.7%	85.8%	88.2%
Blue Cross Blue Shield of Texas (BCBSTX)	W15	98.6%	93.8%	97.1%
CHRISTUS Health Plan (CHRISTUS)[1]	BH-related[2]	87.0%	N/A	N/A
Community First Health Plans (CFHP)	BH-related	75.6%	82.1%	79.5%
Community Health Choice (CHC)	W15	87.6%	82.6%	87.3%
Cook Children's Health Plan (CCHP)	W15	96.7%	74.4%	84.6%
Dell Children's Health Plan (DCHP)	W15	89.2%	75.4%	89.0%
Driscoll Health Plan (Driscoll)	Asthma	98.5%	76.2%	93.3%
El Paso Health	W15	98.7%	83.3%	93.9%
FirstCare Health Plans (FirstCare)	BH-related	97.5%	60.7%	86.7%
Molina Healthcare of Texas (Molina)	BH-related	85.1%	90.2%	85.7%
Parkland Community Health Plan (Parkland)	W15	96.7%	82.7%	87.5%
Sendero Health Plans (Sendero)[1]	W15	98.3%	N/A	N/A
Superior HealthPlan (Superior)	W15	96.9%	82.1%	92.1%
Texas Children's Health Plan (TCHP)	Asthma	87.9%	90.5%	89.7%
UnitedHealthCare Community Plan (UHC)	BH-related	100%	60.4%	90.0%
Minimum	–	75.6%	60.4%	79.5%
Maximum	–	100%	93.8%	97.1%
Average	3 Topics	93.3%	80.2%	88.8%

[1]The CHRISTUS and Sendero Texas Medicaid managed care contracts ended prior to PIP completion; they did not provide final PIP reports.
[2]BH-related = behavioral health related

STAR+PLUS PIP Scores

STAR+PLUS PIP plan scores ranged from 78.9 percent to 100 percent (Table 13). Final PIP scores ranged from 79.5 percent to 95.8 percent. Molina had the lowest final score due to failure to achieve significant improvement on some measures and failing to complete all required sections of the PIP report. The highest scoring MCO, HealthSpring, made major revisions to their PIP based on feedback from the EQRO, and achieved significant improvement on three out of five measures. Overall PIP scores for STAR+PLUS averaged 91.6 percent.

Table 13. STAR+PLUS 2017 two-year PIP plan, final PIP, and overall PIP scores by MCO

MCO	Topic	PIP Plan Score	Final PIP Score	Overall Score
Amerigroup	Diabetes	100%	90.5%	97.0%
Cigna-HealthSpring (HealthSpring)	BH-related[1]	78.9%	95.8%	86.5%
Molina Healthcare of Texas (Molina)	Diabetes	81.2%	79.5%	84.1%
Superior HealthPlan (Superior)	BCS and CCS	99.5%	92.7%	97.2%
UnitedHealthCare Community Plan (UHC)	BCS and CCS	90.4%	94.8%	93.0%
Minimum	–	78.9%	79.5%	84.1%
Maximum	–	100%	95.8%	97.2%
Average	3 Topics	**90.0%**	**90.7%**	**91.6%**

[1] BH-related = behavioral health related

STAR Kids PIP Scores

The STAR Kids program began in November 2016. Each MCO selected their first PIP topic from a section of the STAR Kids Screening and Assessment Instrument (SK-SAI). Table 14 shows the topics and PIP scores by MCO. The lowest PIP plan scores were for Aetna (79.6 percent) and Amerigroup (79.4 percent), while BCBSTX and CCHP had the highest PIP plan scores (99.4 percent). Final PIP scores also varied, ranging from 69.0 percent for CCHP to 100 percent (Driscoll, TCHP, and UHC). Overall PIP scores for STAR Kids averaged 90.9 percent.

Table 14. STAR Kids 2017 two-year PIP plan, final PIP, and overall PIP scores by MCO

MCO	Topic	PIP Plan Score	Final PIP Score	Overall Score
Aetna Better Health (Aetna)	LARS	79.6%	71.7%	67.8%
Amerigroup	MDCP Coordination	79.4%	89.3%	81.5%
Blue Cross Blue Shield of Texas (BCBSTX)	Service Coordination	99.4%	90.5%	95.8%
Children's Medical Center Health Plan (CMCHP)	PPVs, SK-SAI ED Visits	95.0%	89.6%	94.0%
Community First Health Plans (CFHP)	Care Coordination	87.8%	92.9%	91.5%
Cook Children's Health Plan (CCHP)	Well Visits	99.4%	69.0%	92.4%
Driscoll Health Plan (Driscoll)	Service Coordination	90.9%	100%	94.9%
Superior HealthPlan (Superior)	Hospital and ED Use	94.8%	90.5%	94.1%
Texas Children's Health Plan (TCHP)	Transition Planning	94.5%	100%	97.7%
UnitedHealthCare Community Plan (UHC)	ECI Services	98.9%	100%	99.2%
Minimum	–	79.4%	69.0%	67.8%
Maximum	–	99.4%	100%	99.2%
Average	10 Topics	**92.0%**	**89.4%**	**90.9%**

STAR Health PIP Scores

Superior is the sole MCO serving the STAR Health program. Their well-designed PIP addressed preventable ED visits for upper respiratory infections. Superior lost points in the final PIP because their measure did not show significant improvement. Table 15 shows PIP score results for STAR Health.

Table 15. STAR Health 2017 two-year PIP plan, final PIP, and overall PIP scores by MCO

MCO	Topic	PIP Plan Score	Final PIP Score	Overall Score
Superior HealthPlan (Superior)	UTI PPVs	97.8%	85.4%	93.4%

Dental PIP Scores

Table below shows results for dental PIPs. The low final PIP score for DentaQuest in CHIP Dental was due to failure to achieve significant improvement in the rate of members receiving preventive dental services. The MCNA PIPs addressing members' dental home had low plan scores due to deficiencies in sampling and measurement plans, and the final PIPs failed to achieve significant improvement. Dental overall PIP scores averaged 90.0 percent.

MCO	Topic	PIP Plan Score	Final PIP Score	Overall Score
DentaQuest (CHIP Dental)	Preventative Dental Services	99.4%	83.3%	94.2%
DentaQuest (Medicaid Dental)	Preventative Dental Services	99.4%	100%	99.2%
MCNA Dental (CHIP Dental)	Dental Home	79.3%	83.3%	83.3%
MCNA Dental (Medicaid Dental)	Dental Home	79.3%	83.3%	83.3%
Minimum	–	79.3%	83.3%	83.3%
Maximum	–	99.4%	100%	99.2%
Average	2 Topics	89.4%	87.5%	90.0%

Recommendations

- The MCOs should follow HHSC guidance completing PIP processes. They should utilize the data provided in the QOC tables and on the THLC portal (thlcportal.com) to calculate rates when applicable.
- HHSC should work with the EQRO and MCOs to identify barriers to implementing impactful PIPs, and to make modifications to the PIP process that address the barriers identified.

Protocol 4: Validation of Encounter Data Reported by MCOs

Texas Medicaid and CHIP MCOs and DMOs submit encounter data to Texas Medicaid & Healthcare Partnership (TMHP), the contract administrators for Texas Medicaid and CHIP. Encounter data should include substantially the same information found on the original claims. Texas uses these data to determine capitation payment rates, assess and improve quality, and monitor program integrity (CMS, 2012d). Beginning in SFY 2019 for DMOs and SFY 2020 for MCOs, Texas may require corrective action plans for plans not meeting minimum thresholds for complete and accurate data. The five activities included in this optional CMS EQR protocol include:

1. review of Texas requirements for encounter data submissions,
2. review of MCO encounter data production capacity,
3. analysis of encounter data for accuracy and completeness,
4. review of medical/dental records for consistency with encounter data, and
5. submission of findings (completed for each step).

Encounter Data Submissions and MCO Encounter Data Production Capacity

The EQRO conducts ongoing review of the encounter data submission system. Documentation of encounter data submission requirements and processing are included in the joint interface plan (JIP) between TMHP and the MCOs. Prior to changes, HHSC and TMHP consult with the EQRO to evaluate how changes might affect encounter data quality and usability. The EQRO reviews the entire JIP annually. The EQRO also evaluates provider data in the TMHP system.

As part of EQR Protocol 1 activities, the EQRO conducts AI evaluations that include two major sections related to MCO encounter data production. Section nine of the AI tool addresses health plan information systems and section 10 addresses MCO data acquisition. Protocol 1 includes overall results of the AI evaluation.

Analysis of Encounter Data for Accuracy and Completeness

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 (U.S. GAO, 2018). The GAO recommended that: (a) CMS should provide states with information about how to meet data audit requirements; (b) CMS should provide states with information about the required content of data assessment reports, and; (c) CMS should provide states with information about why and when CMS would defer or disallow matching funds in response to encounter data submissions. The EQRO continues to work with HHSC to ensure that Texas meets current data quality criteria standards and that the state is prepared for future requirements by setting high standards for data quality assessment.

The EQRO developed procedures for annually certifying the quality of Texas Medicaid and CHIP encounter data by following guidance in the EQR Toolkit (CMS, 2012d), the CMS Encounter Data Toolkit (Byrd et al., 2013), and Texas Government Code §533.0131. The EQRO certifies data for each program by MCO or DMO and SA (i.e., by plan code). Each month, TMHP provides five types of data to the EQRO:

1. encounter data,
2. state paid claims (processed by TMHP),
3. pharmacy encounter data (processed by TMHP-Pharmacy),
4. provider data, and
5. member enrollment data.

To allow for full adjudication and processing of all claims for services during the certification period (SFY), the EQRO uses data received for at least four months beyond the end of the certification period. The SFY 2018 certification process used data received by the EQRO through January 2019.

High quality, complete encounter data are vital to calculating accurate HEDIS, Agency for Healthcare Research and Quality (AHRQ) Quality Indicators, 3M Potentially Preventable Events (PPEs), and other quality measures. Inaccurately coded data or data that are missing key elements may lead to biased or incalculable measures. MCOs or DMOs with data deficiencies are also difficult to include in quality incentive programs. The data certification completed in SFY 2019 was for services rendered during SFY 2018. The EQRO provided three types of analysis for certifying the data:

1. A volume analysis quantifying the number 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).

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 can result from normal alterations in business practices and are not necessarily cause for concern.

Overall, the EQRO found no unexpected changes or variations in the encounter volume analyses. Monthly medical volume was relatively constant or generally declining throughout SFY 2018 across plan codes (MCO x SA). The difference in volume or in the amount paid typically ranged between 10 to 25 percent. Exceptions included substantial increases in medical volume for Molina – El Paso in STAR+PLUS, for HealthSpring – Hidalgo MMP, and for both Molina – Dallas and Amerigroup – Bexar in CHIP Perinatal. The distribution of institutional vs. professional encounters within plan codes also varied substantially. In STAR, both Superior – MRSA Central and S&W – MRSA Central had 30 percent or more institutional encounters, which could be partly due to higher use of Federally Qualified Health Centers (FQHCs). In STAR+PLUS, the percentage of institutional encounters ranged from as low as seven percent (HealthSpring – Hidalgo) to as high as 51 percent (HealthSpring – Tarrant). For MMP, the percent ranged from less than 10 percent for all MCOs in Hidalgo to over 50 percent for Amerigroup in Tarrant. The differences between the distribution of institutional and professional encounters suggest underlying differences in the care delivery model that HHSC should investigate further to determine whether the quality of care is affected.

Dental claim volume was generally constant throughout SFY 2018 across plan codes. Pharmacy claim volume was also generally consistent throughout the year, although substantial declines were apparent in several plan codes, including three in STAR (Molina – Hidalgo, Superior – Hidalgo, and Superior – El Paso) and one MMP (Molina – Hidalgo). Molina – Harris in CHIP experienced a substantial increase in pharmacy claim volume.

In September 2018, the Health and Human Services Administration Office of the Inspector General (HHS-OIG) released a report addressing the denial of services under the capitated payment model used in Medicare Advantage (HHS-OIG, 2018). The Kaiser Family Foundation (KFF) followed up on this report in February 2019 with an examination of denials in ACA Marketplace plans (Pollitz & Fehr, 2019), and found that Texas had above average denial rates for in-network claims by healthcare.gov issuers (26.6 percent). The KFF report cited

multiple factors contributing to variation in denial rates between health plans, including provider knowledge, automated claims processing systems, and determination of medical necessity and limits on covered services. In addition to the potential impact on care delivery, denied and voided claims create extra volume in the claims processing system and reduce administrative efficiency. Excessive denials also raise concerns about the overall quality and integrity of the encounter records. The EQRO considers having more than 20 percent of claims unpaid as a cause for concern.

The EQRO evaluation showed that unpaid institutional claims were generally within acceptable levels, with a few exceptions. For example, in STAR Kids, more than 20 percent of institutional claims were unpaid for both BCBSTX – MRSA Central and Superior – Lubbock. In CHIP, over 20 percent of institutional claims were unpaid for both Sendero – Travis and UHC – Nueces. In CHIP Perinatal, more than 20 percent of institutional claims were unpaid for almost half the plan codes, with DCHP – Travis having the highest rate (82 percent of institutional claims unpaid). While eligibility and coverage requirements may be unique for CHIP Perinatal services, these rates suggest a need for further investigation. The percentage of unpaid professional claims is less consistent, ranging from as low as one percent (STAR+PLUS, HealthSpring – Hidalgo) to as high as 68 percent (CHIP Perinatal, Sendero – Travis) with averages above 20 percent for CHIP, CHIP Perinatal, and STAR. Some MCOs have consistently acceptable levels of unpaid claims, indicating that accurate and appropriate claims processing is achievable.

Data Validity and Completeness Analysis

The EQRO examined the encounters submitted by MCOs 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 B);
- present on admission (POA) indicators, which help calculate the Potentially Preventable Complications (PPC) measure;
- provider information, including the classification of submitted national provider identifier (NPI) and taxonomy; and
- dental specific coding.

Key Fields

The EQRO annually reexamines the fields it evaluates and the standards used for measuring overall completeness and validity. Data quality has improved over time due to advances in the data management systems of the MCOs and TMHP. Compliance with previous recommendations from the annual data certification process and prioritizing data quality also contribute to improvement. For SFY 2018 data, the EQRO included 17 encounter fields in the review and considered passing validity check rates below 99 percent to be areas of concern. In most cases, 100 percent of data passed validity checks; however, continuing to review data annually is vital 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 pass certification testing.

Among the key fields evaluated for SFY 2018 data, admission dates for BCBSTX and Sendero were missing in more than one percent of encounters for a few SAs in specific programs. Discharge dates were invalid for more than one percent of encounters for BCBSTX – MRSA Central in STAR Kids. Admission and discharge date deficiencies occurred mostly in a single bulk resubmission of encounters. The EQRO reviewed the specific

encounters and determined that the impact on quality analyses was minimal and acceptable. Prescription quantity was invalid in more than one percent of encounters for UHC – Nueces in STAR and was as high as 0.8 percent for UHC – Jefferson in STAR+PLUS. When the pharmacy dispensing-unit is 'EA' (each), the quantity should be an integer. Most records with invalid quantity were for rescue inhalers and had a unit of 'EA' with a decimal quantity (likely the drug volume). The EQRO recommends that all MCOs, and particularly UHC should review coding practices for these claims.

POA Indicators

Valid coding of POA for reported diagnoses is critical to the EQRO's efforts to calculate the 3M PPC measure. When POA codes are missing or invalid, the calculation of PPC rates may misclassify or exclude them. As a result, the EQRO may not be able to provide HHSC with accurate and complete information about PPCs for Texas Medicaid and CHIP services. 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 C provides 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 within their accepted ranges for most MCO/SAs in CHIP, STAR Kids, STAR Health, STAR+PLUS, and MMP. However, POA was coded 'Y' less than 90 percent of the time in most MCO/SAs in CHIP Perinatal, perhaps because of the high percentage of obstetric admissions for these members. Hospitals will code significant complications of delivery in the primary diagnosis, although the admission was for delivery.

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. Appendix C provides a description of POA codes and the four hospital data screening criteria. The EQRO applied these screening criteria to POA codes for secondary diagnoses aggregated by MCO and SA in each program. The results showed that data for most MCO/SAs in STAR and CHIP Perinatal failed to meet the criteria. When the aggregated data fails these overall checks, at least one and likely multiple contributing hospitals have failed the screening, leading to exclusion of all data from those hospitals from PPC calculations for both the MCO as well as the hospital-level PPC reporting. To prevent data exclusions, 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 or dental records needed to validate encounter data. When NPI and/or taxonomy codes are missing from the encounter data, or when the NPI and taxonomy code do not match an individual in the master provider data, the EQRO cannot provide HHSC with accurate and complete information about services. The EQRO assessed overall provider data completeness by checking the fill rate (percentage of records with NPI or taxonomy not blank) in professional encounter detail items for rendering NPI and taxonomy. The analysis included checking the provider information in two ways:

1. The percentage of time the NPI identified an individual (not an organization) in the Master Provider data; the EQRO expects this to be greater than 95 percent.
2. The percentage of time encounters included taxonomy for the primary NPI; the EQRO expects this to be 100 percent (less than 99 percent is considered an area of concern).

The rendering provider NPI in professional encounters should be the individual that performed the service. The frequency at which the rendering NPI identified an individual varied greatly between programs, ranging from 20 to 76 percent of the time. The percentage was particularly low across STAR Kids and STAR+PLUS. This might be partly because caregivers who are not eligible for NPI provide some common STAR Kids and STAR+PLUS services; however, no clear identifier is available in the encounters. The EQRO uses taxonomy to assign provider specialty for HEDIS measure calculation and to identify provider specialties for quality and clinical analyses; however, the taxonomy fill rate for the rendering NPI was also poor. Across programs, the percentage of professional encounters that include an individual NPI with taxonomy ranged from 17 percent for STAR+PLUS to 64 percent for CHIP. Lack of complete provider information remains an area of concern, and the EQRO will continue to monitor provider data quality.

Based on the findings, the EQRO recommends 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 and consequently affect Texas policymaking activities.

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, the quality and completeness have improved, and data is almost 100 percent complete. Several dental quality measures included in the Pay-for-Quality (P4Q) program require identification of members with elevated caries risk. Caries risk assessment (CRA) is a required part of a complete dental exam, and providers should code CRA on all dental exam encounters. The EQRO added evaluation of the risk indicator to the data certification process for SFY 2017 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, the absence of the CRA codes should result in denial of the exam claim. For SFY 2018, CRA codes were missing on dental exam encounters less than three percent of the time, which is an improvement over the previous year. The EQRO recommends that HHSC continue to 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 SFY 2018, the encounter data and the FSR must agree within three percent for the data to be certified. 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 agreement standard has gone up due to diligent work by all parties to improve data processes.

Recommendations

- The proportion of unpaid claims in CHIP Perinatal exceeds that in other programs. This is likely due to providers being unclear about coverage and payer differences, but rates were high enough for some MCOs to suggest a need for HHSC to investigate further.
- All MCOs (UHC in particular) should review coding practices for pharmacy claims for asthma inhalers.

- HHSC should investigate ways to encourage better POA reporting across all providers. Although POA coding has improved, many hospitals continue to submit data that does not pass screening criteria and is thus excluded from PPC calculations. This affects the overall quality of PPC reporting.
- HHSC should continue to prioritize improvement in provider data in encounters. Provider information on encounters continues to be incomplete on a substantial percentage of professional encounters. Except in rare circumstances, every encounter item should identify the individual who performed the service and their appropriate taxonomy.

Review of Dental Records for Consistency with Encounter Data

The EQRO annually validates encounter data for accuracy and completeness by comparing encounters against a representative sample of dental or medical records. These activities follow the guidance in optional CMS EQR Protocol 4 (CMS, 2012d). The EQRO samples either dental or medical records each year, alternating between record types. The 2019 Encounter Data Validation: Dental Record Review (EDVDRR) sample included Medicaid and CHIP dental encounters.

Methodology

The EDVDRR study examined dental encounters and records for members in Texas Children's Medicaid Dental Services and CHIP Dental managed care. The EQRO validated the dates of service (DOS), place of service (POS) codes, procedures (PX), and tooth IDs. Encounters were for services between July 1, 2017, and June 30, 2018, and the sample allowed at least three months claim lag for adjudication.

Sampling

The EQRO identified member-provider pairs having a paid encounter for a dental exam (CDT codes D01– or D06–) during the sample period in an office or FQHC. Eligible providers were those currently active with a DMO with adequate contact information for record requests. The sample pool included no more than one randomly selected qualified member-provider pair for any member. Sample size (Table 16) was determined based on the lowest match rate in the previous dental EDVDRR (77.4 percent), accounting for the expected record return rate (50 percent).

Table 16. 2019 dental encounter data validation sample size

DMO Name	Medicaid Dental	CHIP Dental
DentaQuest	538	538
MCNA Dental	538	538
Total	1,076	1,076

Record Retrieval

When identifying the currently active (in January 2019) providers using the plan provider data submitted to TMHP, the EQRO found that 50 percent of the DentaQuest Providers active in December 2018 were not active in January 2019. Subsequent communication with TMHP and DentaQuest revealed a problem with the data submitted by DentaQuest. To maintain the EDVDRR schedule, the EQRO proposed that the DMOs directly provide addresses for active providers based on ICN (claim identifiers) from qualifying encounters. Following this plan, the EQRO selected samples from the pool of qualified member-provider pairs having provider addresses returned by the DMO. For the selected member-provider pairs, the EQRO mailed record requests and followed

up by phone with unresponsive providers, particularly those with a higher volume of records requested. For each member in the sample, the EQRO requested the entire provider record for the review period.

Analysis

The EQRO EDVMRR team used a standardized review protocol and assessed inter-rater reliability on 20 percent of the sample to ensure accuracy. The reviewers had a 99 percent agreement rate.

The EQRO calculated the following final match rates:

1. Date of Service (DOS) – The denominator for this match rate is the total number of DOS in the encounters and in the dental records. A DOS was numerator compliant when the DOS in the dental record matched the DOS in the encounter data.
2. Procedure (PX) – The denominator for this match rate is the total number of PX in the encounters and in the dental records. A PX was numerator compliant when the PX in the dental record matched the PX in the encounter data.
3. Tooth ID – The denominator for this match rate is the total number of Tooth ID in the encounters and in the dental records. A tooth ID was numerator compliant when the tooth ID in the dental record matched the tooth ID in the encounter data.
4. Place of Service (POS) – The denominator for this match rate is the total number of POS in the encounters and in the dental records. A POS was numerator compliant when the POS in the dental record matched the POS in the encounter data.

The EQRO checked services found in the dental record but not matched in the sample encounters against all encounters for the member. This allowed the exclusion of records matched to encounters with another provider from the match rates. In addition, the review team matched items in the dental record to enrollment and excluded from match rates any services in the record occurring outside the member enrollment in the sampled Program-DMO.

The EQRO validated tooth ID for all procedures and calculated the match rates for the overall tooth ID and the tooth ID for select procedure codes where tooth ID is expected (i.e., sealants, restoratives, endodontic services, and extractions). The selected procedure list included updates made since the previous EDVDRR study conducted in 2017, so the EQRO also calculated match rates using the procedure codes from the previous study (EDVDRR 2017) to allow for across year comparisons. The procedure codes utilized for this study were:

1. **2019 Tooth ID 1 Procedure Codes:** D135-, D2-, D3-, D7111, D7140, D7120, D7220, D7230, D7240, D7241, D7250 or D7251.
2. **2017 Tooth ID 1 Procedure Codes:** D1351, D3110, D3120, D3220, D3221, D3230, D3240, D3310, D3330, D7111, D7140 or D7210.

The EQRO conducted statistical testing, using Chi Square, for the DOS, POS, PX data elements and the record return rate to test for significant differences between dental plans and programs. The tests accounted for clustering within providers.

Results

DOS and Procedure Match Rate Results

The DOS match rates across programs were 97.7 percent for Medicaid and 97.4 percent for CHIP (Table 17). Match rates for DMOs within the programs were all over 97 percent. Rates varied slightly from the previous EDVDRR, but were generally consistent. The match rates for PX were 90 percent or higher for both programs

and dental plans. The rates were consistent with the previous EDVDRR. The EQRO found no significant differences in DOS or PX match rates.

Table 17. 2019 EDVDRR date of service and procedure match rates by DMO and program

DMO	Medicaid Dental			CHIP Dental		
	In Record/ Not in encounter	In Encounter/ Not in Record	Match Rate	In Record/ Not in encounter	In Encounter/ Not in Record	Match Rate
Date of Service (DOS) Match Rates						
DentaQuest	0.4%	1.6%	98.0%	1.5%	1.3%	97.2%
MCNA Dental	0.8%	1.8%	97.4%	0.9%	1.5%	97.6%
Total	0.6%	1.7%	97.7%	1.1%	1.4%	97.4%
Dental Procedure (PX) Match Rates						
DentaQuest	2.3%	5.8%	92.0%	3.2%	5.2%	91.6%
MCNA Dental	1.6%	4.4%	94.0%	2.8%	6.4%	90.7%
Total	1.9%	5.0%	93.1%	3.0%	5.9%	91.1%

Tooth ID

Tooth ID match rates were nearly 100 percent using the 2019 revised codes. Using the prior EDVDRR codes match rates were at least 98.8 percent, which was consistent with prior results.

Place of Service

Over 99 percent of the dental encounters occurred in the office (POS code 11). The overall match rate for POS was greater than 97 percent. Although evaluation of POS was at the line item level, the match rate related directly to the DOS match rate; almost all unmatched POS were on encounters unmatched for DOS.

Record Availability

For the 2019 EDVDRR study, the EQRO received 1,528 reviewable records, which is 71 percent of the 2,152 records requested. The EQRO received no response to 323 (15 percent) of requests. For another 301 records (14 percent), the postal service returned the request due to a bad address, or the provider responded that they did not see the patient during the requested period or that the member was not a patient.

Record return rates by program were similar, with Medicaid and CHIP Dental at 72.7 percent and 69.3 percent, respectively. However, DentaQuest had much lower record return rates (63.0 percent in Medicaid and 59.3 percent in CHIP) than MCNA Dental (82.3 percent for Medicaid and 79.4 percent for CHIP). Differences were significant both within and across programs. DentaQuest providers indicated that the member was not a patient for 16.4 percent of records, while this response came from MCNA Dental providers for only 0.3 percent of records. The overall record review rate was 71 percent. This is substantially higher than the previous EDVDRR review rate of only 50 percent. The alternate method used to obtain current provider and contact information may explain the improvement. It is not clear why the review rate differs by DMO. This could be due to differences in the providers or differences in the provider data provided by the DMOs. The improvement in record review rate is positive, but the EQRO recommends further investigation of the provider data and the provider characteristics that contributed to this change.

Recommendations

- HHSC should continue to work with the DMOs to achieve 100 percent compliance on required CRA. Although the rate of missing assessments has gone down, this is still an area for improvement. Although the DMOs may deny claims with missing assessments, the goal should be to improve provider compliance with this requirement.
- HHSC should continue its ongoing efforts to improve provider data quality. Although record review rate in EDVDRR improved, lack of accurate provider data continues to affect the efficiency of the review process.

Protocol 5: Validation and Implementation of Surveys

This voluntary CMS EQR Protocol addresses the administration of managed care enrollee surveys (CMS, 2012e). The EQRO conducts biennial surveys to measure the experiences and satisfaction of adult members and caregivers of child and adolescent members in Texas Medicaid and CHIP. These surveys assist the EQRO in monitoring and evaluating the quality of care provided to the members. In addition, the results assist members in choosing among MCOs, inform HHSC on the impact of quality improvement initiatives, and help MCOs 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 applicable AHRQ guidelines and meets survey objectives.

During SFY 2019, the EQRO designed and conducted two biennial member surveys (STAR Child, CHIP), four behavioral health surveys (STAR Adult, STAR Child, STAR+PLUS, and STAR Kids) and two dental health surveys (Children's Medicaid Dental Services and CHIP).

Methods

Instrument and Sample Selection

The Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey is a widely used instrument for measuring and reporting consumer experiences with health plans, health services, and providers. The survey indicators of health plan performance (such as personal doctor and health plan ratings) include individual questions and composite measures that combine results from closely related survey items. 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) with the same MCO for at least six months. The stratified samples included representation from each MCO operating in the program, with target numbers of completed survey interviews at 200 per plan code or 300 per MCO operating in a single SA. 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 2019 member and caregiver experience-of-care surveys using Computer-Assisted Telephone Interviewing (CATI) systems. Each year, the EQRO carefully selects survey research firms to conduct 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 EQRO fielded the experience-of-care surveys for four to 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 18 lists the member surveys conducted by the EQRO in SFY 2019 and their enrollment and fielding periods.

Table 18.2019 member and caregiver survey enrollment and fielding periods

Survey	Enrollment Period	Fielding Period	Completed Surveys
CHIP Caregiver	October 2018 - March 2019	May 2019 - September 2019	5,461
STAR Child Caregiver	October 2018 - March 2019	May 2019 - September 2019	8,700
Dental Caregiver	November 2018 - May 2019	August 2019 - October 2019	1,200
STAR Child Behavioral Health	February 2018 - January 2019	June 2019 – September 2019	1,171
STAR Kids Behavioral Health	February 2018 - January 2019	June 2019 – September 2019	1,090
STAR Adult Behavioral Health	February 2018 - January 2019	June 2019 – September 2019	536
STAR+PLUS Behavioral Health	February 2018 - January 2019	June 2019 – September 2019	593

Results

Experience of Care – Child Surveys

Scoring for the CAHPS surveys follows AHRQ top-box reporting; Scores represent the percentage of members who rated their healthcare a "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. Rates on many of the CAHPS survey items for MCOs in Texas were higher than the 2019 National CAHPS Child Medicaid and CHIP rates. In 2019, *How Well Doctors Communicate*, and *Health Plan Information and Customer Service*, received high ratings from both STAR Child and CHIP caregivers, indicating that the plans and providers are doing well communicating information to caregivers. STAR Child caregivers also rated *Getting Needed Care* and *Getting Care Quickly* highly. CHIP results for *Getting Needed Care* and *Getting Care Quickly*, however, were lower than the national averages, suggesting improvement efforts should focus on providing timely appointments and expanding access to specialty care. All other CAHPS ratings for STAR Child and CHIP caregiver experience were well above the national averages (Table 19).

Table 19. 2019 CAHPS child caregiver experience of care results by program

Survey Question	Texas STAR Child	National Child Medicaid	Texas CHIP	National CHIP
	Positive Experience – Responses of "Always"			
Getting Needed Care	62.3%	61%	58.0%	63%
Getting Care Quickly	76.1%	73%	73.8%	75%
How Well Doctors Communicate	82.9%	79%	80.4%	80%
Health Plan Information and Customer Service	77.4%	68%	77.5%	67%
	Caregiver Ratings of "9"or "10"			
Personal Doctor Rating	79.3%	77%	77.2%	77%
Specialist Rating	79.7%	73%	75.6%	74%
Health Plan Rating	83.2%	71%	76.9%	71%
Health Care Rating	78.6%	70%	74.4%	70%

Experience of Care – Behavioral Health Surveys

Global ratings were on a scale from zero to 10. The composite ratings for *Getting Treatment Quickly*, *How Well Clinicians Communicate*, *Getting Treatment and Information from the Plan*, and *Getting Treatment and Information* from the Behavioral Health Organization (BHO) were on a scale from one to three. *Information about Treatment Options* was a dichotomous item with a yes or no response. Finally, scoring for *Perceived Improvement* was on a four-point scale. The EQRO separated ratings on behavioral health care for MCOs from ratings for BHOs.

Member ratings for MCOs and BHOs were similar across all programs. However, the global rating for *Treatment* was higher in the MCO sampling group than in the BHO sampling group for the adult STAR and STAR+PLUS populations, but lower in the MCO sampling group for the STAR child and STAR Kids populations (Table 20).

Table 20. 2019 ECHO member experience survey mean scores, by delivery organization type

ECHO Measure	Average Rating		
	MCO	BHO	Overall
STAR Adult Member Experience with Behavioral Health Care			
Getting treatment quickly	2.0	2.0	2.0
How well clinicians communicate	2.3	2.3	2.3
Getting treatment and information from the BHO	–	1.8	1.8
Getting treatment and information from the MCO	2.2	–	2.2
Perceived Improvement	2.7	2.7	2.7
Information about treatment options	0.4	0.5	0.4
Global ratings-health plan for counseling or treatment	8.3	-	8.3
Global ratings-treatment	7.8	7.3	7.6
STAR Child Member Experience with Behavioral Health Care			
Getting treatment quickly	2.2	2.2	2.2
How well clinicians communicate	2.4	2.4	2.4
Getting treatment and information from the BHO	–	2.2	2.2
Getting treatment and information from the MCO	2.4	–	2.4
Perceived Improvement	3.2	3.1	3.2
Information about treatment options	0.7	0.7	0.7
Global ratings-health plan for counseling or treatment	8.7	–	8.7
Global ratings-treatment	8.2	8.3	8.2

ECHO Measure	Average Rating		
	MCO	BHO	Overall
STAR+PLUS Member Experience with Behavioral Health Care			
Getting treatment quickly	2.3	2.2	2.3
How well clinicians communicate	2.4	2.4	2.4
Getting treatment and information from the BHO	-	2.0	2.0
Getting treatment and information from the MCO	2.3	-	2.3
Perceived Improvement	2.6	2.6	2.6
Information about treatment options	0.5	0.5	0.5
Global ratings-health plan for counseling or treatment	8.2	-	8.2
Global ratings-treatment	9.0	8.8	9.0
STAR Kids Member Experience with Behavioral Health Care			
Getting treatment quickly	2.2	2.2	2.2
How well clinicians communicate	2.5	2.5	2.5
Getting treatment and information from the BHO	-	2.0	2.0
Getting treatment and information from the MCO	2.4	-	0.6
Perceived Improvement	2.7	2.8	2.8
Information about treatment options	0.8	0.7	0.8
Global ratings-health plan for counseling or treatment	8.9	-	8.4
Global ratings-treatment	8.3	8.5	8.4

Figure 3 shows the comparison of 2019 global rating scores to 2017 scores, by program. STAR Kids was not included in the 2017 surveys; 2019 scores are included for comparison across programs.

Figure 3. Comparison of ECHO global rating scores, by year and program
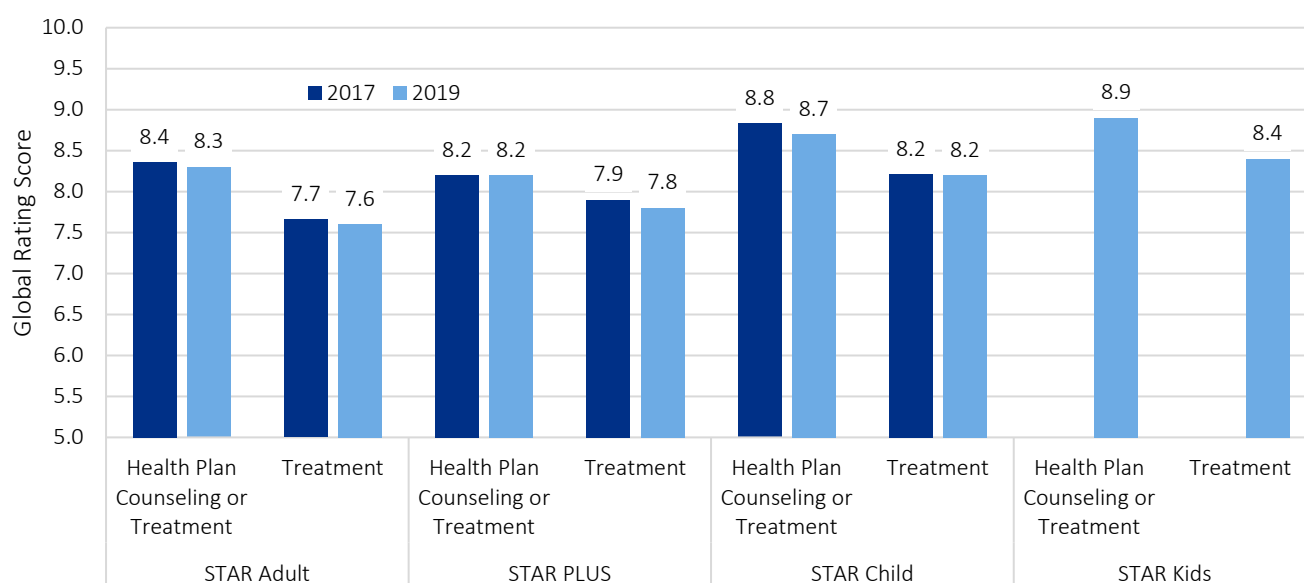
Experience of Care – Dental Surveys

Table 21 shows results for the 2019 Medicaid and CHIP dental surveys conducted by the EQRO. Member experience with dental health care was highest among Medicaid members. Both Medicaid and CHIP members indicated satisfaction with their interactions with dentists. CHIP caregiver ratings on *Dental Plan Costs and Services* and overall *Dental Plan Rating* were much lower when compared to the Medicaid group, suggesting this is an area for improvement.

Table 21. 2019 Medicaid and CHIP dental caregiver experience of care survey results

Measure	Medicaid Dental	CHIP Dental
Care from Dentists and Staff – Responses of "Always"		
Regular dentist treated patient with courtesy and respect	94.6%	92.0%
Access to Dental Care – Responses of "Always"		
Member able to get a dental appointment as soon as needed	76.7%	76.9%
Dental Plan Costs and Services - Responses of "Always		
Dental plan covered all services caregiver thought were covered	85.6%	65.0%
Caregiver Ratings of "9"or "10"		
Dentist Rating	83.2%	79.8%
Dental Care Rating	80.1%	76.9%
Access to Dental Care Rating	77.4%	82.2%
Dental Plan Rating	82.3%	47.5%

Recommendations

- Based on child caregiver survey results, the EQRO recommends that HHSC work with the MCOs to increase timely appointments and expand access to specialty care.
- Differences in ratings for behavioral health care delivery organization (MCO or BHO) and by age suggest a need for further investigation.
- Differences in member experiences between the Medicaid dental and CHIP dental programs also suggest an area for investigation and improvement.

Protocol 6: Calculation of Performance Measures

States use performance measures to monitor and compare MCOs performance over time and inform the selection and evaluation of quality improvement activities. This optional CMS EQR Protocol specifies that the EQRO should calculate measures in accordance with Texas specifications and report results compared to established benchmarks and standards (CMS, 2012f).

Measures Overview

Texas contracted with the EQRO to conduct comprehensive quality evaluations across all Medicaid programs. Appendix D provides a summary of quality measures calculated and reported by the EQRO for the 2018 measurement year, by program.

To support the calculation of quality measures and all EQRO functions, the EQRO maintains a monthly updated data warehouse including medical, dental, and pharmacy encounter extracts; enrollment extracts; and provider data. Texas selects quality measures each year to facilitate quality incentive programs, initiative planning, CMS reporting, and other program administration objectives to improve the quality of care for Texas Medicaid and CHIP members. Measures come from nationally recognized quality assessment programs.

NCQA HEDIS measures

NCQA has stewarded HEDIS for more than 20 years and more than 90 percent of health plans in the United States use HEDIS (NCQA, 2019a). Texas includes over 50 HEDIS measures in Medicaid and CHIP performance evaluations.

CHIPRA Child Core Measures

The Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA) provided for the U.S. Department of Health and Human Services (HHS) to establish a set of core quality measures for children's health care (CMS, 2019b). Many of the measures included are part of the EQRO's HEDIS measure reporting set (including the NCQA CAHPS Survey Measure described previously in EQR Protocol 5), and one is a DQA measure. In addition, the EQRO calculates the developmental screening measure stewarded by Oregon Health and Science University (OHSU), the contraceptive care measures stewarded by the U.S. Office of Population Affairs (OPA), and the CMS measure of dental services. The EQRO submits child core-measure results for Texas Medicaid and CHIP to CMS on behalf of Texas.

Adult Core Measures

The Patient Protection and Affordable Care Act of 2010 (42 U.S.C. § 1139B) required HHS to establish a core set of measures for adult health care (CMS, 2019a). As in the CHIPRA core set, many of the included measures are part of the EQRO's HEDIS and AHRQ measure reporting set (including the adult CAHPS survey). In addition, the EQRO calculates the Office of Population Affairs (OPA) contraceptive care measure for adults. The EQRO submits adult core measure results for Texas Medicaid to CMS on behalf of Texas.

3M Health Information Systems measures of PPEs

3M has been a leader in health care data processing, payment systems, and analytics for over 30 years. Their software uses administrative data to identify the occurrence and expenditures associated with PPEs (3M Health Information Services, 2016)

AHRQ PQIs and PDIs

Within HHS, AHRQ serves as the lead federal agency in improving the safety and quality of America's health care system. The Prevention Quality Indicators (PQI) and Pediatric Quality Indicators (PDI) track performance based on administrative hospital inpatient data (AHRQ, 2019c, 2019b).

DQA measures

Established by the American Dental Association (ADA), the Dental Quality Alliance (DQA) develops evidence-based performance measures for oral health care (ADA, 2020).

Severe Maternal Morbidity (SMM)

In 2017, Texas asked the EQRO to examine whether Texas could use the Alliance for Innovation on Maternal Health (AIM; AIM, 2020) outcome measures for Severe Maternal Morbidity (SMM) to evaluate maternal care across Texas Medicaid and CHIP programs. The EQRO provided two topic reports (discussed in Protocol 8) on SMM. In addition, the EQRO produced a comprehensive report of the performance measure results.

Cesarean Section (C-Section)

The CHIPRA child core measures include a measure of cesarean births stewarded by The Joint Commission (The Joint Commission, 2016) and AHRQ stewards several C-section measures in their Inpatient Quality Indicators (IQI) set (AHRQ, 2019a). These measure definitions include requirements for vital statistics or medical record review and thus it is not possible to calculate them from administrative data alone. However, Texas asked the EQRO to develop a measure of C-sections aligned with national standards but calculated using only administrative data. Texas also asked the EQRO to categorize deliveries based on the presence or absence of complications. The EQRO produced a comprehensive report on the performance measure results.

Calculations

The EQRO uses NCQA-certified software, Quality Spectrum (Inovalon 2018) for calculation of HEDIS measures and contracts with the NCQA-certified auditor DTS Group (www.dtsg.com), to fully evaluate the measure calculation process for HEDIS, AHRQ, dental quality, and other measures requested by Texas.

Some HEDIS measures rely on medical record abstraction, for example, measures requiring specific laboratory results such as blood pressure reading. Abstraction can also enhance other measures, for example, capturing immunizations documented in the medical record based on information reviewed by the provider, but not billed by the provider. For these measures, NCQA provides hybrid method specifications that include sampling based on administrative criteria, followed by medical record review from the sample to determine compliance. For 10 HEDIS measures with 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). The hybrid rates for the MCOs are weighted by their eligible populations to produce overall statewide rates for these measures.

The EQRO compares the results for the HEDIS measures to benchmark percentiles compiled by NCQA from nationally gathered Medicaid managed care plan results. These national benchmarks provide a commonly used standard for comparison, but have some limitations:

- Rates from the national benchmarks combine administrative and hybrid results and so reflect an unknown 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 programs and CHIP.
- Submission of HEDIS data to NCQA is a voluntary process; the MCOs that choose to submit HEDIS data may not accurately represent all MCOs across the industry.
- Health plans participating in NCQA HEDIS reporting tend to be older, more likely to be federally qualified, and more likely to be affiliated with a national managed care company.

The 3M measures of PPEs evaluate health outcomes, safety, efficiency, utilization rates, and costs associated with potentially avoidable care. Identified PPEs represent opportunities for improving efficiency and quality, timeliness and access to care, and better care coordination. The EQRO worked extensively with 3M to develop the most effective method for applying the 3M Core Grouping Software to the Texas Medicaid and CHIP populations, providing actionable information, and reliable metrics that support P4Q initiatives.

To calculate the AHRQ PDI and PQI measures, the EQRO uses software provided by AHRQ and adapted by the EQRO to summarize results specific to the Texas Medicaid and CHIP populations. The area measures use program enrollee populations as general denominators rather than census-based population standards provided by AHRQ. The DTS Group auditors review the software adaptations.

Dental services are an essential service and are required for children in federally supported Medicaid and CHIP. The EQRO, working closely with Texas HHS, developed an evaluation program for oral health that is scientifically sound and promotes accountability and improvement in the dental coverage programs. Some measures are adapted to reflect the age groups in specific dental programs while other measures evaluate services associated with Texas initiatives such as the THSteps program.

The CMS child and adult core 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 EQRO manages the submission of Texas Medicaid and CHIP data, monitors changes in CMS guidelines and initiatives, and provides information to HHSC as it relates to the management of Texas Medicaid and CHIP.

Performance Indicator Dashboard Measures

The Performance Indicator Dashboard for Quality Measures is a selection of measures for Texas Medicaid and CHIP programs that Texas has determined to be of greatest importance. Most of these measures are either NCQA HEDIS Measures or AHRQ Quality Indicators (PDI and PQI), but they also include survey measures, PPEs, and other measures for a holistic approach to quality evaluation.

The EQRO helps Texas select measures based on qualitative assessment and review of measure results across programs. Annual high and minimum standards for the Performance Indicator Dashboard come from EQRO calculations using measure results, annual measure trends, and publically available national benchmark data. Chapter 10 of the UMCM provides published details on these standards (Texas HHS, 2019a).

Identified MCO data quality issues may affect the following overview of the 2018 MCO performance on the Performance Indicator Dashboard measures for STAR and CHIP. The EQRO will update results following corrected data submissions from the MCO. The most current and detailed results on Performance Indicator

Dashboard measures are available to HHSC and MCO users on the Texas Healthcare Learning Collaborative (THLC) portal (thlcportal.com).

STAR Performance Indicator Dashboard

For the 2018 measurement year, the Performance Indicator Dashboard includes 68 measures for the STAR program. Driscoll achieved commendable results, reaching the high standard on 56 percent of reported measures and the minimum standard on an additional 22 percent. FirstCare failed to reach the minimum standard on over half of reported measures. For six of the hospital admission related measures (PPE, PDI, or PQI measures) and the measures of adult access to specialist and urgent care, less than half the MCOs met minimum standards. Over 90 percent of MCOs met the high standard for rating children's health plans and 75 percent met the high standard for adults rating their health plan, postpartum care, and adolescent counseling for physical activity. Figure 4 shows the percentages of measures meeting HHSC standards by STAR MCO.

Figure 4. Performance Indicator Dashboard standards met in 2018, by STAR MCO
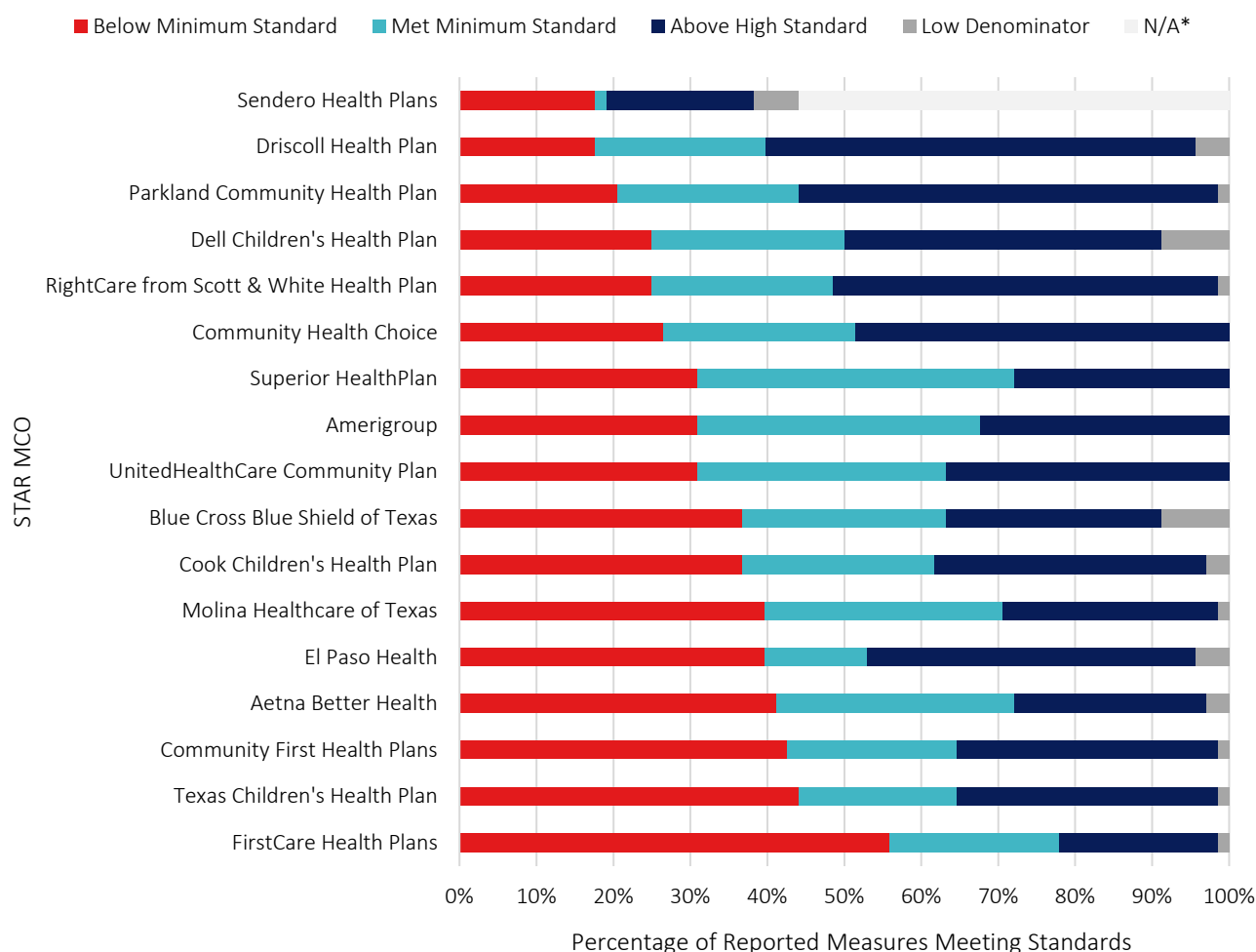
*Sendero exited May 2018 and thus did not qualify for inclusion in some measure calculations

STAR+PLUS Performance Indicator Dashboard

The 2018 Performance Indicator Dashboard included 53 measures for the STAR+PLUS program. HealthSpring achieved the minimum standard on the most measures but did not achieve the high standard as often as Superior did. Molina failed to reach the minimum standard on over 45 percent of reported measures but achieved the high standard more often than both Amerigroup and UHC. For the measures HbA1c testing, chlamydia screening, three PQI sub-measures, and access to behavioral health care, only one MCO met the minimum standard. Figure 5 shows the percentages of measures meeting HHSC standards, by STAR+PLUS MCO.

Figure 5. Performance Indicator Dashboard standards met in 2018 by STAR+PLUS MCOs
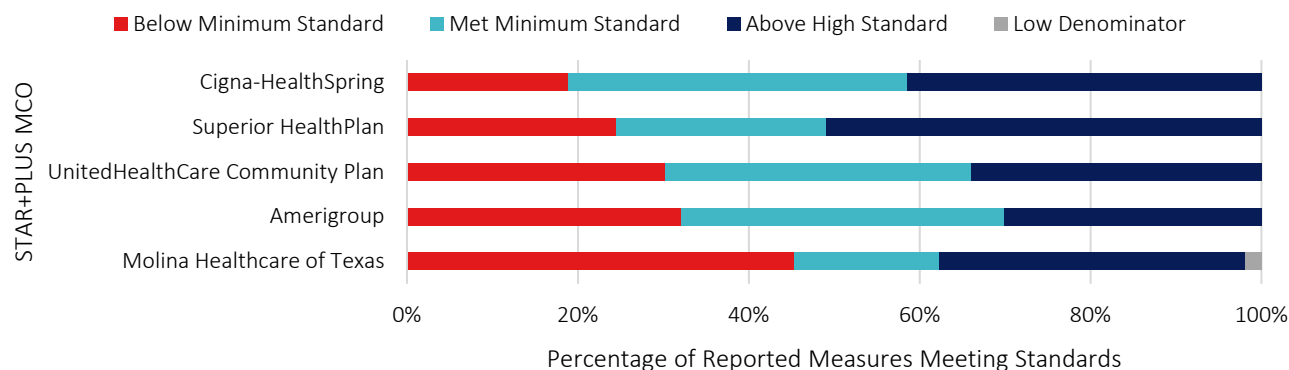
STAR Kids Performance Indicator Dashboard

The 2019 measurement year is the first time STAR Kids will appear on the Performance Indicator Dashboard. Following the procedures for calculating standards that are outlined in the UMCM (Texas HHS, 2019a), 2017 performance data (the first year available for STAR Kids) was used to set the standards for 2019 performance, and 2018 performance data was used to set performance standards for 2020.

STAR Health Performance Indicator Dashboard

For the 2018 measurement year, the STAR Health Performance Indicator Dashboard included 25 measures. Superior, the exclusive MCO for the STAR Health program, reached the high standard for 18 (72 percent) of these measures and only fell below the minimum standard for access to behavioral health care. Figure 6 show their performance across all dashboard measures.

Figure 6. Performance Indicator Dashboard standards met in 2018 for STAR Health
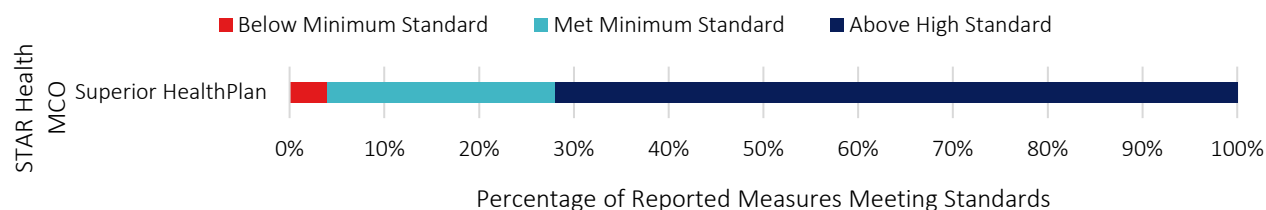
CHIP Performance Indicator Dashboard

The 2018 Performance Indicator Dashboard included 33 measures for CHIP. As in STAR, Driscoll achieved the high standard on the most measures with 22 (67 percent); however, CHC had more measures meeting at least the minimum standard. Both Superior and BCBSTX failed to meet the minimum standard on over 40 percent of measures. For all but seven measures, at least two thirds of MCOs met at least the minimum standard. However, more than half the MCOs failed to meet the minimum standard for Potentially Preventable Emergency Department (ED) Visits (PPVs) and chlamydia screening. Figure 7 shows the percentages of measures meeting HHSC standards, by CHIP MCO.

Figure 7. Performance Indicator Dashboard standards met in 2018 by CHIP MCOs
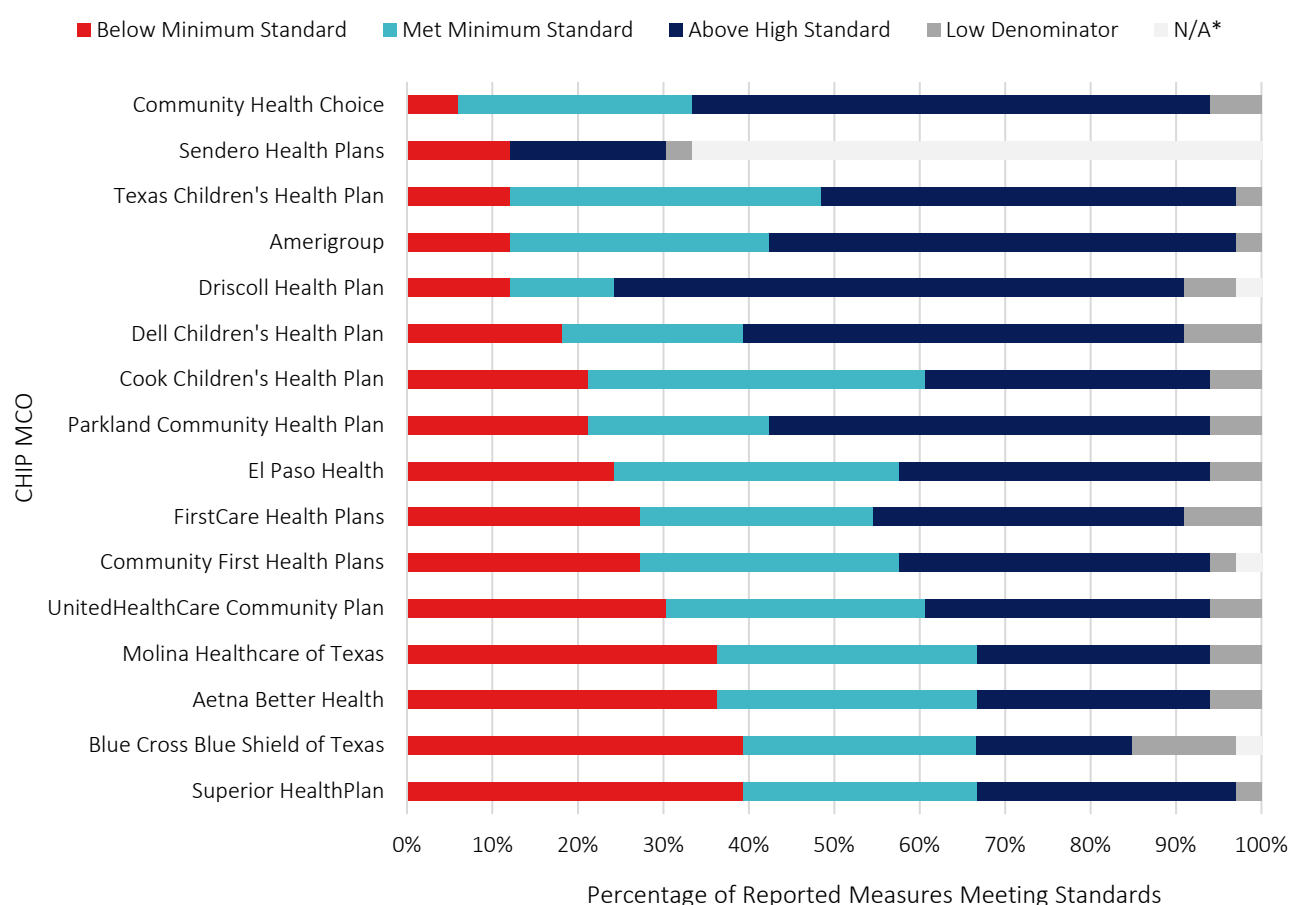
*Sendero exited May 2018 and thus did not qualify for inclusion in some measure calculations.
Three other MCOs had no HIV Viral Suppression (HVL) rate reported; these also show as N/A.

Noteworthy Trends in Quality Measure Performance

This section provides a closer look at measures whose statewide program results changed substantially over last year. For measures reported as percentages, the EQRO looks at rate changes greater than 5 percentage points as potentially noteworthy. In some cases, rates may be consistent when considering multiple years, or across reporting populations. Changes in measure specifications can lead to changes in expected rates. For these measures, the EQRO considers NCQA guidance and evaluation of Texas results to determine whether trends should be broken or considered with caution.

For the six measures that had specification changes, NCQA suggests not trending 2018 performance against prior years (Ottone, 2019). These measures are Controlling High Blood Pressure (CBP), Follow-Up after Emergency Department Visit for Mental Illness (FUM), Use of Opioids at High Dosage (UOD), Use of Opioids from Multiple Providers (UOP), Identification of Alcohol and Other Drug Services (IAD), and Mental Health Utilization (MPT). All measures contribute to a robust quality evaluation program. For a comprehensive look at performance measure results for 2018, visit the THLC portal (thlcportal.com).

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

Two measures addressing widespread obesity showed improvement in 2018: Adult BMI Assessments (ABA) and Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents (WCC). Figure 8 shows program-level results for these measures. The 2018 CHIP P4Q program included the counseling for nutrition and counseling for physical activity sub-measures of WCC. The positive trend includes greater than five percentage point increases over 2017 results across all sub-measures, and programs.

Figure 8. 2018 HEDIS weight management measure results, by program
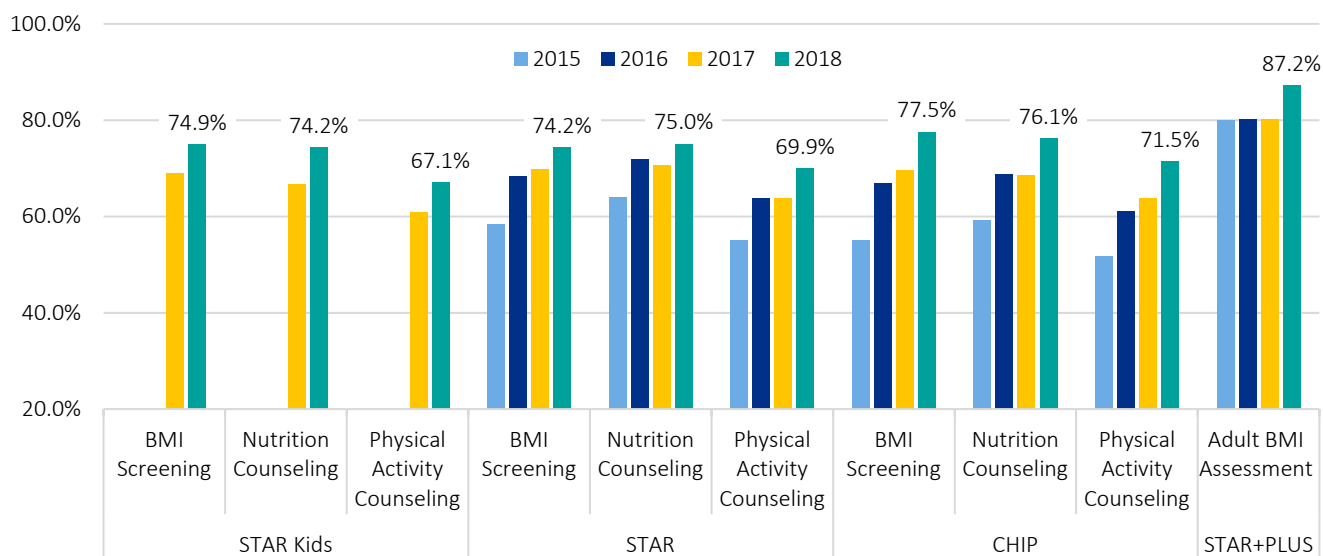
Asthma Medication Ratio (AMR)

In 2018, the STAR, STAR Health, and CHIP statewide rates for AMR increased by more than 5 percentage points over 2017, mostly recovering after similar decreases in rates from 2016 to 2017. Due to the addition of telehealth in the measure specifications, NCQA recommends caution in trending for this measure.

Statin Therapy for Patients with Cardiovascular Disease (SPC) and Statin Therapy for Patients with Diabetes (SPD)

Both the SPC and SPD measures include sub-measures for (1) receiving statin therapy and (2) adherence. For SPC, the STAR statewide rate for receiving therapy increased by 6.9 percentage points from 71.6 percent in 2017 to 78.5 percent in 2018. For SPD, the STAR statewide rate for adherence increased by 7.2 percentage points from 45.6 percent in 2017 to 52.8 percent in 2018. Due to specification changes, including the addition of telehealth and exclusions for advanced illness and frailty, NCQA recommends caution in trending for both statin therapy measures.

Antidepressant Medication Management (AMM)

Performance in STAR Health improved from 32.3 percent in 2017 to 39.1 percent in 2018 for the continuation phase sub-measure of the AMM measure. This increase moved STAR Health performance above the national 75th percentile benchmark. Changes in other programs were not noteworthy.

Diabetes Monitoring for People with Diabetes and Schizophrenia (SMD)

The STAR statewide rate for SMD decreased from 81.6 percent in 2017 to 68.0 percent in 2018. Due to the addition of telehealth in the measure specifications, NCQA recommends caution in trending for this measure. All MCOs and SA had low denominators for this measure and the overall statewide denominator was only 103.

Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis (AAB)

The STAR statewide rate for AAB increased from 26.5 percent in 2017 to 32.2 percent in 2018. Changes among the individual MCOs varied greatly, with Parkland's rate increasing by over 15 percentage points. Only two MCOs performed worse in 2018 than in 2017, and all but three met the Performance Indicator Dashboard minimum standard. Due to the addition of telehealth to the measure specification, NCQA suggests caution when trending with previous years. Figure 9 shows performance in 2017 and 2018, by MCO.

Figure 9. STAR HEDIS Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis (AAB), by MCO and year
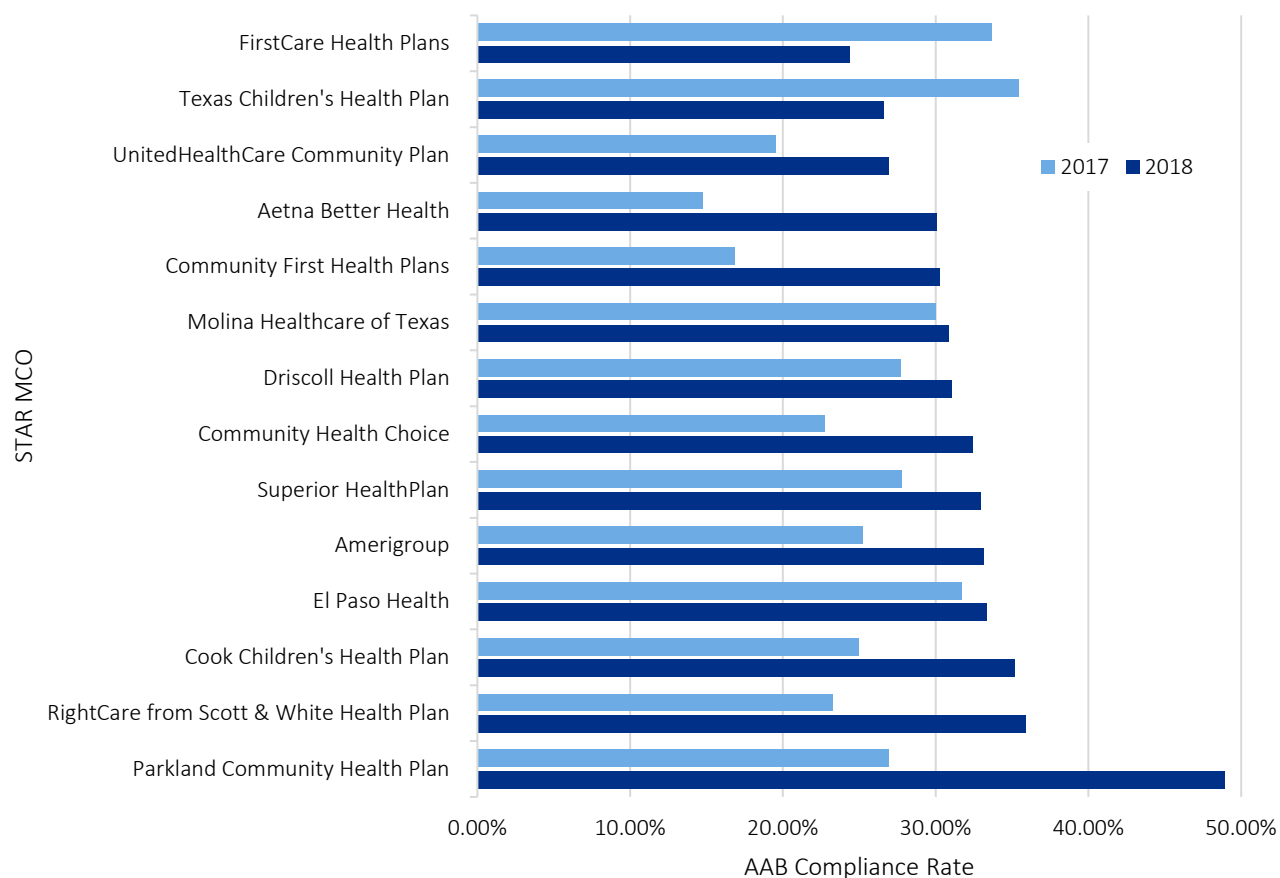
Quality of Care for Members with Serious Mental Illness (SMI)

The EQRO conducted additional analyses of HEDIS measures for members of the STAR+PLUS population with Serious Mental Illness (SMI). During 2018, the EQRO identified over 80,000 STAR+PLUS members with a diagnosis of SMI, or approximately one in three STAR+PLUS members. People with SMI are more likely to have other chronic medical conditions and they receive care for acute health problems more often (Gerrity, 2014). Substance abuse disorders (Rossheim et al., 2018), obesity (Bradshaw & Mairs, 2014), other physical conditions (De Hert et al., 2011) are also more common, along with other health risk factors including smoking (Cook et al., 2014), homelessness, unemployment, and poverty (Gates, 2019).

The EQRO calculated results for the SMI population for all the HEDIS measures that they report for STAR+PLUS using the administrative methodology (i.e., hybrid reported measures are excluded). The report of results included the overall STAR+PLUS program results for comparison. Using Pearson's chi-square test to compare SMI and overall results, the EQRO identified significant ($p<0.05$) differences in rates for 18 sub-measures. Table 22 provides a summary of the findings. The Utilization Dashboard on the THLC Portal (thlcportal.com) provides HHSC and the MCOs a tool for exploring this population further.

Table 22. 2018 HEDIS results for STAR+PLUS members with SMI compared to overall STAR+PLUS results

Measure	Description	STAR+PLUS Rate	SMI Rate	p-Value
Prevention and Screening				
BCS	Breast Cancer Screening - Total	50.6%	53.2%	**.001**
CHL	Chlamydia Screening in Women - Total	44.2%	50.7%	**.038**
Chronic Conditions				
SPC	Statin Therapy for Patients with Cardiovascular Disease - Statin Therapy	76.0%	75.3%	.769
SPC	Statin Therapy for Patients with Cardiovascular Disease - Adherence	60.0%	59.6%	.869
CDC	Comprehensive Diabetes Care - Eye Exam	50.0%	50.3%	.584
CDC	Comprehensive Diabetes Care - Monitoring for Nephropathy	91.4%	92.7%	.253
SPD	Statin Therapy for Patients with Diabetes - Statin Therapy	65.5%	64.9%	.629
SPD	Statin Therapy for Patients with Diabetes - Adherence	58.0%	59.2%	.356
MPM	Annual Monitoring for Patients on Persistent Medication - ACE or ARB	93.3%	96.0%	**.026**
MPM	Annual Monitoring for Patients on Persistent Medication - Diuretics	93.7%	96.5%	.052
AMR	Asthma Medication Ratio - Age 5 to 64 Ratios > 0.50	57.2%	56.0%	.586
MMA	Medication Mgmt. for People with Asthma - Age 5 to 64 50% Covered	73.0%	73.1%	.975
MMA	Medication Mgmt. for People with Asthma - Age 5 to 64 75% Covered	49.0%	49.9%	.711
PCE	Pharmacotherapy Mgmt. for COPD Exacerbation - Systemic Corticosteroids	69.4%	68.5%	.665
PCE	Pharmacotherapy Mgmt. for COPD Exacerbation - Bronchodilators	86.8%	86.3%	.835
SPR	Use of Spirometry Testing in the Assessment and Diagnosis of COPD	25.3%	25.5%	.888

Measure	Description	STAR+PLUS Rate	SMI Rate	p-Value
Behavioral Health				
AMM	Antidepressant Medication Mgmt. - Effective Acute Phase Treatment	50.8%	54.4%	**.007**
AMM	Antidepressant Medication Mgmt. - Effective Continuation Phase Treatment	36.3%	40.8%	**< .001**
FUA	Follow-Up after Emergency Department Visit for Alcohol and Other Drug Dependence - 7 Day Total	3.8%	3.8%	.999
FUA	Follow-Up After Emergency Department Visit for Alcohol and Other Drug Dependence - 30 Day Total	5.7%	6.2%	.467
FUH	Follow-Up after Hospitalization for Mental Illness - 7 Day Total	22.3%	22.4%	.926
FUH	Follow-Up after Hospitalization for Mental Illness - 30 Day Total	40.5%	40.6%	.910
FUM	Follow-Up after Emergency Department Visit for Mental Illness - 7 Day Total	32.8%	35.3%	.088
FUM	Follow-Up after Emergency Department Visit for Mental Illness - 30 Day Total	49.0%	52.7%	.052
SAA	Adherence to Antipsychotic Medications for Individuals with Schizophrenia - 80% Coverage	58.2%	58.2%	.997
SMC	Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia	77.8%	77.8%	1.000
SMD	Diabetes Monitoring for People with Diabetes and Schizophrenia	71.8%	71.8%	.998
SSD	Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who are Using Antipsychotics	82.7%	82.7%	.993
Overuse/Appropriateness				
AAB	Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis	28.8%	28.7%	.955
COU	Risk of Continued Opioid Use - Members having >= 15 Days Coverage	23.6%	24.0%	.499
COU	Risk of Continued Opioid Use - Members having >= 31 Days Coverage	9.8%	10.8%	**.002**
UOD	Use of Opioids at High Dosage	2.0%	1.8%	.117
UOP	Use of Opioids from Multiple Providers - Multiple Pharmacies	5.3%	6.7%	**< .001**
UOP	Use of Opioids from Multiple Providers - Multiple Prescribers	18.4%	23.2%	**< .001**
UOP	Use of Opioids from Multiple Providers - Multiple Prescribers and Pharmacies	2.9%	4.2%	**< .001**
Access/Availability of Care				
AAP	Adults' Access to Preventive/Ambulatory Health Services - All Members	84.9%	98.0%	**< .001**
IET	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment - Initiation Total	38.0%	40.9%	**< .001**
IET	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment - Engagement Total	6.0%	7.2%	**< .001**
PPC	Prenatal and Postpartum Care - Timeliness of Prenatal Care	62.9%	65.9%	.557
PPC	Prenatal and Postpartum Care - Postpartum Care	43.8%	44.0%	.953

Measure	Description	STAR+PLUS Rate	SMI Rate	p-Value
Utilization and Risk-Adjusted Utilization				
AMB	Ambulatory Care - Outpatient Visits per 1000 Member Months	595.8	765.2	**< .001**
AMB	Ambulatory Care - ED Visits per 1000 Member Months	115.1	176.9	**< .001**
AWC	Adolescent Well-Care Visits	29.0%	38.6%	.257
IAD	Identification of Alcohol and Other Drug Services - All Ages, Any Service in Percent per Member Years	15.6%	28.8%	**< .001**
IPU	Inpatient Utilization - General Hospital/Acute Care - Discharges per 1000 Member Months	22.1	32.7	**< .001**
MPT	Mental Health Utilization - All Ages, Any Service Total	25.5%	64.6%	**< .001**
PCR	Plan All-Cause Readmission - Medicaid All Ages O/E Ratio	0.796	0.867	**< .001**

Maternal Health

The EQRO conducted additional analyses of HEDIS measures for members of the STAR population and overall Texas Medicaid, having at least one medical encounter with either a delivery or pregnancy diagnosis during the measurement year. The maternal health quality of care report included relevant measures reported for STAR or Medicaid overall using the administrative methodology, with results for the maternal populations and the all-females populations for comparison. Using Pearson's chi-square test to compare maternal and all-female results for Texas Medicaid, the EQRO identified significant ($p<0.05$) differences in rates for 26 sub-measures. Table 23 provides a summary of the findings. For a comprehensive look at maternal health results, visit the Utilization Dashboard on the THLC Portal (thlcportal.com).

Table 23. 2018 HEDIS results for Medicaid maternal health population and for all Medicaid females

Measure	Description	Medicaid Female Rate	Medicaid Maternal Rate	P-Value
Prevention and Screening				
CHL	Chlamydia Screening in Women - Total	55.5%	69.3%	**< .001**
Chronic Conditions				
CDC	Comprehensive Diabetes Care - Eye Exam	47.6%	31.1%	**< .001**
CDC	Comprehensive Diabetes Care - Monitoring for Nephropathy	89.9%	93.0%	.190
AMR	Asthma Medication Ratio - Age 5 to 64 Ratios > 0.50	65.0%	47.1%	**< .001**
MMA	Medication Mgmt. for People with Asthma - Age 5 to 64 50% Covered	51.2%	45.7%	.213
MMA	Medication Mgmt. for People with Asthma - Age 5 to 64 75% Covered	26.7%	20.8%	**.042**
Behavioral Health				
AMM	Antidepressant Medication Mgmt. - Effective Acute Phase Treatment	51.7%	40.7%	**< .001**
AMM	Antidepressant Medication Mgmt. - Effective Continuation Phase Treatment	35.5%	22.3%	**< .001**
FUA	Follow-Up after Emergency Department Visit for Alcohol and Other Drug Dependence - 7 Day Total	3.8%	4.9%	.312

Measure	Description	Medicaid Female Rate	Medicaid Maternal Rate	P-Value
FUA	Follow-Up After Emergency Department Visit for Alcohol and Other Drug Dependence - 30 Day Total	5.8%	7.4%	.198
FUH	Follow-Up after Hospitalization for Mental Illness - 7 Day Total	30.2%	22.6%	**< .001**
FUH	Follow-Up after Hospitalization for Mental Illness - 30 Day Total	50.7%	39.9%	**< .001**
FUM	Follow-Up after Emergency Department Visit for Mental Illness - 7 Day Total	32.4%	22.1%	**< .001**
FUM	Follow-Up after Emergency Department Visit for Mental Illness - 30 Day Total	47.1%	32.9%	**< .001**
SAA	Adherence to Antipsychotic Medications for Individuals with Schizophrenia - 80% Coverage	56.3%	31.2%	**< .001**
SSD	Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who are Using Antipsychotics	85.0%	91.9%	.065
Overuse/Appropriateness				
AAB	Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis	36.7%	43.6%	**.049**
COU	Risk of Continued Opioid Use - Members having >= 15 Days Coverage	10.1%	2.9%	**< .001**
COU	Risk of Continued Opioid Use - Members having >= 31 Days Coverage	4.0%	0.5%	**< .001**
UOD	Use of Opioids at High Dosage	1.7%	0.5%	**< .001**
UOP	Use of Opioids from Multiple Providers - Multiple Pharmacies	5.9%	6.4%	.242
UOP	Use of Opioids from Multiple Providers - Multiple Prescribers	20.8%	23.4%	**.007**
UOP	Use of Opioids from Multiple Providers - Multiple Prescribers and Pharmacies	3.6%	4.8%	**.001**
Access/Availability of Care				
AAP	Adults' Access to Preventive/Ambulatory Health Services - All Members	79.5%	94.9%	**< .001**
IET	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment - Initiation Total	39.1%	43.6%	**< .001**
IET	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment - Engagement Total	10.3%	14.5%	**< .001**
Utilization and Risk-Adjusted Utilization				
AMB	Ambulatory Care - Outpatient Visits per 1000 Member Months	372.3	822.8	**< .001**
AMB	Ambulatory Care - ED Visits per 1000 Member Months	59.5	141.5	**< .001**
IAD	Identification of Alcohol and Other Drug Services - All Ages, Any Service in Percent per Member Years	2.1%	5.9%	**< .001**
IPU	Inpatient Utilization - General Hospital/Acute Care - Discharges per 1000 Member Months	10.1	72.8	**< .001**
MPT	Mental Health Utilization - All Ages, Any Service Total	7.8%	6.1%	**< .001**
PCR	Plan All-Cause Readmission - Medicaid All Ages O/E Ratio	0.790	0.992	**< .001**

Severe Maternal Morbidity (SMM)

Broadly defined, SMM refers to maternity outcomes that result in significant consequences to a woman's health (Kilpatrick & Ecker, 2016). Sometimes cases are described as 'near misses' because without identification and treatment they could lead to maternal death. As part of their mission to improve patient safety in women's health care, AIM curates a collection of maternal safety bundles, which are comprehensive action systems for providers, each addressing a critical area of maternity care. The obstetric hemorrhage and severe hypertension bundles include measures of SMM based on HDD. The EQRO adapted these measures for the evaluation of SMM on the state level.

The EQRO calculated overall SMM rates for 2018 deliveries among all deliveries, among deliveries with hemorrhage, and among deliveries with severe hypertension. For all three cohorts, the EQRO reported rates for all SMM cases and rates excluding SMM cases identified only by transfusion. This approach is consistent with The Centers for Disease Control and Prevention (CDC) reporting on SMM and the American College of Obstetricians and Gynecologists (ACOG) recommendations (CDC, 2020a).

The overall SMM rate for 2018 deliveries was 2.87 percent. Excluding transfusion only cases (ExTrx), the rate was 1.3 percent. Among cases with hemorrhage (6.9 percent of all deliveries), the overall SMM rate was 26.24 percent. While most deliveries with SMM were hemorrhage cases, and 85 percent of these were identified by transfusion only, within this hemorrhage cohort, the SMM rate for the ExTrx sub-group was 4.1 percent (more than three times greater than the overall ExTrx rate), indicating that hemorrhage is associated with non-transfusion procedures and other conditions that contribute to SMM.

The overall SMM rate was highest for STAR+PLUS deliveries (7.5 percent), and lowest for CHIP Perinatal deliveries (2.3 percent). Figure 10 shows program-level SMM rates and SMM ExTrx rates for 2018 deliveries.

Figure 10. 2018 SMM rates, overall and excluding hemorrhage only SMM, by program
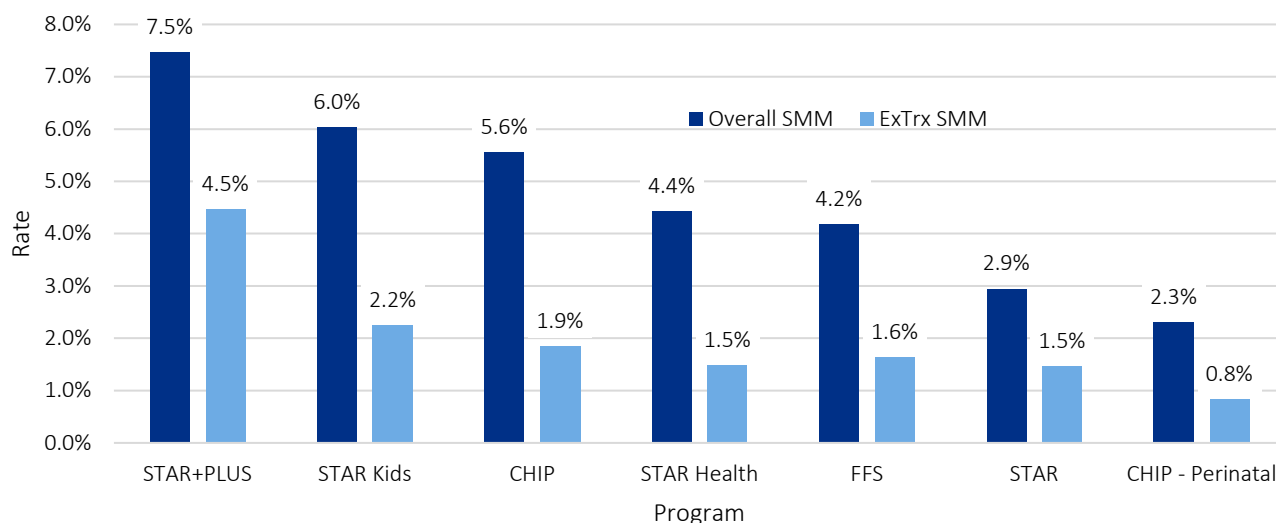
Cesarean Section Deliveries

The EQRO provided a comprehensive report on C-section rates among live births to mothers covered by Texas Medicaid Managed Care and CHIP, stratified by program, race-ethnicity, and SA. This analysis accounted for the presence of delivery complications (abnormal presentations, preterm deliveries, multiple gestations, and breech procedures). The report also included a summary of Institutional and provider costs from claims associated with the deliveries.

The rate of C-sections among Medicaid and CHIP deliveries was 31.3 percent in 2018, with over 65,000 C-section deliveries. The STAR+PLUS program had the highest (42.4 percent) C-section rate, though this population accounted for less than one percent of all deliveries. Approximately one in eight deliveries had a complication. As expected, C-section rates were considerably higher among deliveries with complications (Figure 11). Efforts to improve overall rates should focus on deliveries without complications where C-sections are less often medically necessary.

Figure 11. 2018 C-section rates, for deliveries with or without complications, by program
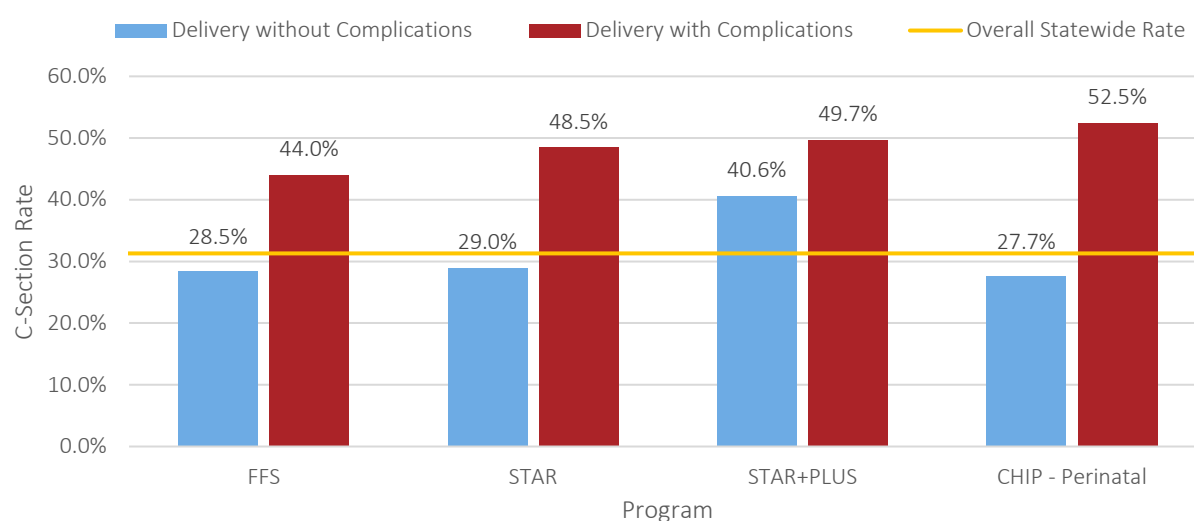
C-sections were most frequent among non-Hispanic black mothers (35.6 percent), while the rate among Hispanic mothers was 30.2 percent. This difference in rates accounts for more than 1,600 additional black women having C-sections. Across SAs, C-section rates varied from 23.0 percent in Lubbock to 40.0 percent in Jefferson. Multiple counties in the Jefferson and Hidalgo SAs had rates exceeding 45 percent. These differences suggest a need for further investigation.

C-sections are expensive. On average, the costs associated with a C-section delivery were approximately $1,950 higher than for a vaginal delivery. More than 90 percent of this difference is in the institutional costs, while professional costs varied only minimally. These costs present a substantial opportunity to decrease the burden on Texas's healthcare system. With over 200,000 deliveries in the year, reducing the C-section rate by just one percent would save approximately four million dollars in claims costs. Figure 12 shows the total costs for C-section and other deliveries, with and without complications.
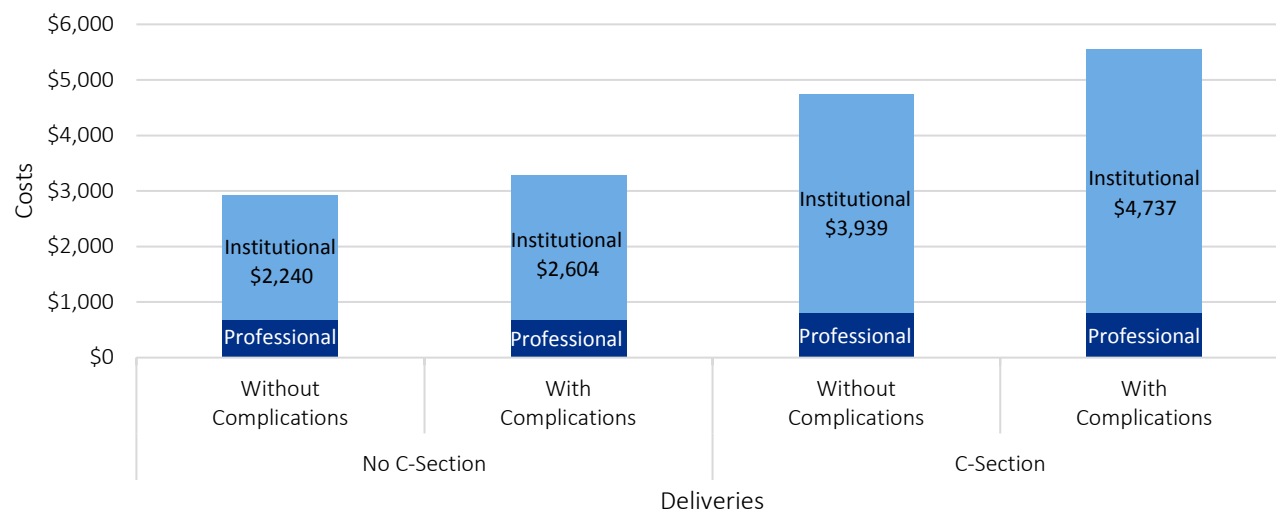
Dental Measures

Dental care is a required benefit for children in federally funded Medicaid and CHIP. Texas HHS 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 evaluations by the EQRO, Texas developed a panel of dental quality measures including the HEDIS annual dental visit measure (ADV), 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 D.

Through a commendable commitment to quality in dental care, Texas continues to achieve results well above the NCQA national Medicaid 95th percentile for the HEDIS Annual Dental Visit (ADV) measure for all age groups. Figure 13 shows Medicaid and CHIP performance since 2015.

Figure 13. Overall annual performance in Texas Medicaid and CHIP for the HEDIS ADV measure, since 2016
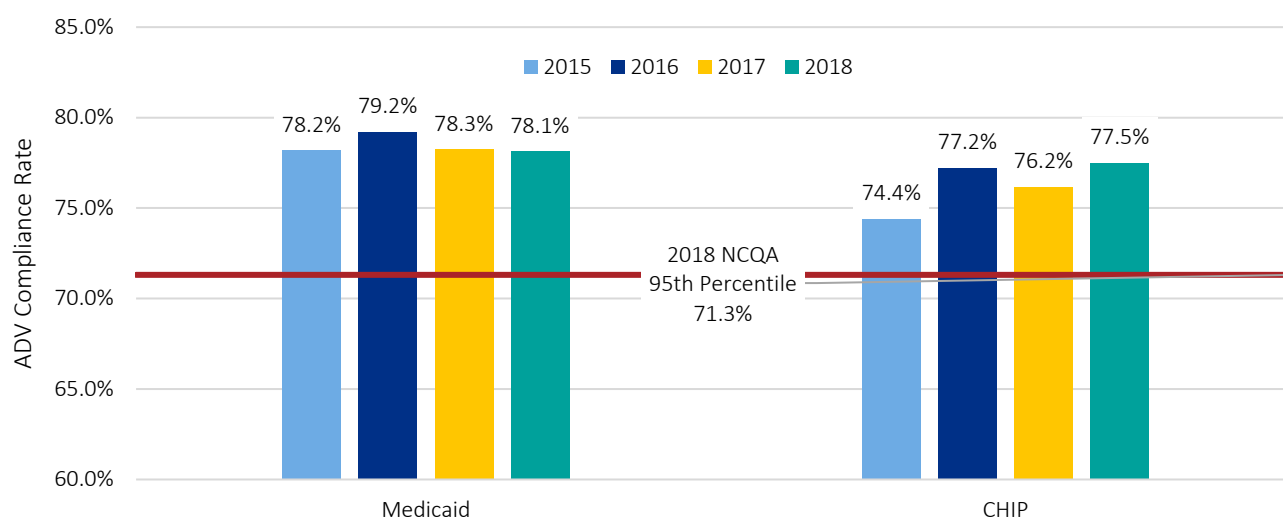
Dental P4Q Measures

Four measures from the dental quality evaluation are part of the Texas Medicaid Dental P4Q program for measurement years 2018 and 2019. These measures relate to topical fluoride and dental sealants for children with elevated caries risk and oral evaluation. Table 24 and Table 25 show the 2018 overall program rate and DMO rates for Medicaid and CHIP, respectively, along with their changes from 2017 results.

Table 24. 2018 Children's Medicaid Dental Services P4Q performance measure results

Children's Medicaid Dental P4Q Measure	Program Rate	DentaQuest	MCNA Dental
Oral Evaluation – Percentage of enrolled children (aged 20 years and younger) who received a comprehensive or periodic oral evaluation within the measurement year	71.0% (+ 0.0%)	72.5% (- 0.1%)	69.0% (+ 0.1%)
Topical Fluoride – Percentage of enrolled children (aged 1 to 20 years) who are at an "elevated" risk for cavities (i.e. "moderate" or "high") and received at least 2 topical fluoride applications within the measurement year	50.0% (+ 0.3%)	51.1% (+ 0.2%)	48.3% (+ 0.4%)
Sealants - aged 6 to 9 years – Percentage of enrolled children (aged 6 to 9 years)who are at an "elevated" risk for cavities (i.e. "moderate" or "high") and received a sealant on a permanent first molar tooth within the measurement year	23.8% (- 0.3%)	24.7% (+ 0.3%)	23.0% (- 1.3%)
Sealants - aged 10 to 14 years – Percentage of enrolled children (aged 10 to 14 years) who are at an "elevated" risk for cavities (i.e. "moderate" or "high") and received a sealant on a permanent second molar tooth within the measurement year	16.8% (+ 0.1%)	17.1% (+ 0.1%)	16.6% (+ 0.0%)

Table 25. 2018 CHIP Dental P4Q performance measure results

CHIP Dental P4Q Measure	Program Rate	DentaQuest	MCNA Dental
Oral Evaluation – Percentage of enrolled children (aged 18 years and younger) who received a comprehensive or periodic oral evaluation within the measurement year	67.7% (- 0.2%)	72.1% (+ 0.0%)	68.2% (- 0.5%)
Topical Fluoride – Percentage of enrolled children (aged 1 to 18 years) who are at an "elevated" risk for cavities (i.e. "moderate" or "high") and received at least 2 topical fluoride applications within the measurement year	44.9% (+ 1.7%)	48.3% (+ 1.4%)	44.9% (+ 0.9%)
Sealants - aged 6 to 9 years – Percentage of enrolled children (aged 6 to 9 years) who are at an "elevated" risk for cavities (i.e. "moderate" or "high") and received a sealant on a permanent first molar tooth within the measurement year	20.0% (- 0.4%)	22.6% (- 0.3%)	22.1% (- 0.6%)
Sealants - aged 10 to 14 years – Percentage of enrolled children (aged 10 to 14 years) who are at an "elevated" risk for cavities (i.e. "moderate" or "high") and received a sealant on a permanent second molar tooth within the measurement year	13.6% (+ 0.0%)	15.3% (- 0.1%)	14.7% (- 0.2%)

Potentially Preventable Events

Since the 2011 passage of Senate Bill 7 (Texas 82nd legislature, regular session), Texas has required a quality-based outcomes payment program for Texas Medicaid to contain costs while improving patient outcomes. Specifically, §354.1445 and §354.1446 address Potentially Preventable Readmissions (PPRs) and complications (PPCs), respectively. This 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 (NAMD) recognized the Texas legislation for incentivizing innovations and improvements in hospital-based care, patient management, and follow-up (NAMD, 2015).

The EQRO analyzed 2018 encounter and eligibility data for non-dual Texas Medicaid and CHIP members using 3M Health Information Systems software (3M Health Information Services, 2016). This software classifies events as PPEs based on the 3M grouping systems for (1) ambulatory care using Enhanced Ambulatory Patient Groups (EAPGs) or (2) inpatient care using 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 (ED) 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 are avoidable 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 (thlcportal.com). Statewide results are available publicly. Detailed results by MCO are available to HHSC and 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 insufficient 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 2018, the EQRO identified 1.4 million ED visits (62.7 percent) as PPVs. These PPVs account for $446 million in institutional costs paid (excluding the associated professional costs). Table 26 summarizes 2018 PPV results, by program.

Table 26. 2018 PPV results for Texas Medicaid and CHIP, by program

Measure	STAR	STAR+ PLUS	STAR Kids	STAR Health	FFS	CHIP
Member-Months at Risk for PPVs	31,976,144	2,694,015	1,902,401	378,824	3,672,328	4,471,403
ED Visits at Risk of being PPVs	1,569,266	303,019	104,760	23,526	134,446	99,468
Total PPVs	988,846	194,289	65,467	15,116	75,481	61,841
Total PPV Weights	281,303	57,761	18,847	4,265	22,129	17,938
Total PPV Expenditure ($Millions)	$286.98M	$95.21M	$23.86M	$3.65M	$14.66M	$21.36M
PPV Rate (Total PPV Weights per 1,000 Member-Months)	8.80	21.44	9.91	11.26	6.03	4.01

The PPV rate was highest in the STAR+PLUS program and lowest in CHIP. This difference is understandable given that STAR+PLUS manages care for a population with complex healthcare needs while CHIP manages care for a relatively younger and healthier population. Table 27 shows the top 10 PPV conditions across Texas Medicaid and CHIP in 2018 based on EAPG categories ranked by total PPV weight.

Table 27. Top ten reasons (EAPGs) for 2018 PPVs, ranked by total PPV weight.

EAPG	Description	PPVs (n)	Percent of Total PPVs	Percent of Total PPV Weights	PPV Expenditures	Percent of Total PPV Expenditures
00562	Infections of upper respiratory tract and otitis media	339,873	24.26%	18.35%	$68,164,302	15.29%
00627	Non-bacterial gastroenteritis, nausea, and vomiting	104,195	7.44%	9.61%	$38,082,939	8.54%
00808	Viral illness	78,057	5.57%	7.13%	$18,006,070	4.04%
00628	Abdominal pain	70,745	5.05%	6.71%	$41,350,639	9.28%
00674	Contusion, open wound & other trauma to skin & subcutaneous tissue	81,566	5.82%	6.69%	$22,546,534	5.06%
00675	Other skin, subcutaneous tissue, and breast diagnosis	83,197	5.94%	4.37%	$14,764,157	3.31%
00807	Fever	46,404	3.31%	4.19%	$15,920,856	3.57%
00576	Level I other respiratory diagnoses	49,658	3.54%	3.86%	$13,367,920	3.00%
00727	Acute lower urinary tract infections	41,511	2.96%	3.57%	$17,256,533	3.87%
00661	Level II other musculoskeletal system and connective tissue diagnoses	47,358	3.38%	3.41%	$14,019,130	3.15%

Upper respiratory tract infections contributed to PPVs in 2018 much more than any other condition not only in the number of PPVs, but also in total weight (representing resource utilization), and by total expenditures. The results were similar in 2017. Not only do these PPVs represent an overuse of hospital resources, but also the conditions that lead to PPVs may receive better treatment in a primary care setting. A recent study found that

antibiotic prescription was twice as likely during an ED visit than during an office visit (Fiore et al., 2017). 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 the 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 prevention-focused care, such as vaccinations and the use of primary care providers for common acute illnesses, such as gastroenteritis.

Potentially Preventable Admissions (PPAs)

Admissions that are avoidable with proper outpatient care are identified as PPAs. They may result from inefficient hospital 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) that are avoidable with adequate monitoring and follow-up, such as proper medication management. 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 270,000 inpatient admissions from Texas Medicaid and CHIP as being at risk for being PPAs in 2018. Of these, over 39,000 admissions (14.5 percent) were identified as PPAs. These PPAs account for $278 million in institutional costs paid. Table 28 summarizes 2018 PPA results, by program.

Table 28. 2018 PPA results for Texas Medicaid and CHIP, by program

Measure	STAR	STAR+ PLUS	STAR Kids	STAR Health	FFS	CHIP
Member-Months at Risk for PPAs	31,976,144	2,694,015	1,902,401	378,824	3,672,328	4,471,403
Admissions at Risk of being PPAs	156,222	68,871	19,788	4,768	15,688	5,031
Total PPAs	13,460	16,790	3,991	1214	2,484	1,173
Total PPA Weights	9,674	24,515	3,854	821	2,889	888
Total PPA Expenditure ($Millions)	$74.22M	$139.42M	$34.54M	$8.60M	$13.81M	$7.81M
PPA Rate (Total PPA Weights per 1,000 Member-Months)	0.30	9.10	2.03	2.17	0.79	0.20

The PPA rate was highest for STAR+PLUS and lowest for CHIP. Table 29 shows the top 10 PPA conditions across Texas Medicaid and CHIP in 2018 based on APR-DRG categories and ranked by total PPA weight.

Table 29. Top ten reasons (APR-DRGs) for 2018 PPAs, ranked by total PPA weight.

APR-DRG	Description	PPAs (n)	Percent of Total PPAs	Percent of Total PPA Weights	PPA Expenditures	Percent of Total PPA Expenditures
194	Heart failure	3,122	7.98%	10.88%	$26,739,815	9.60%
139	Other pneumonia	4,173	10.67%	10.35%	$28,470,134	10.23%
140	Chronic obstructive pulmonary disease	2,011	5.14%	6.19%	$14,741,752	5.29%
161	Cardiac defibrillator and heart assist implant	180	0.46%	5.23%	$13,801,986	4.96%
753	Bipolar disorders	3,570	9.13%	5.08%	$17,887,288	6.42%
141	Asthma	3,482	8.90%	5.08%	$16,238,235	5.83%
720	Septicemia and disseminated infections	666	1.70%	4.58%	$10,610,622	3.81%
053	Seizure	1,885	4.82%	4.47%	$13,062,276	4.69%
304	Dorsal and lumbar fusion procedure except for curvature of back	393	1.00%	4.23%	$11,184,584	4.02%
751	Major depressive disorders & other/unspecified psychoses	2,973	7.60%	4.04%	$12,563,678	4.51%

Heart failure accounted for the greatest percentage of PPA resource utilization (weights) overall and was the most common reason for PPAs in STAR+PLUS. However, as the most common reason for PPAs in STAR, other pneumonia accounted for a greatest overall percentage of PPA counts and expenditures. Other pneumonia was among the top five reasons for PPAs across all programs, while heart failure is not among the top ten reasons in any program besides STAR+PLUS. Overall, asthma and bipolar disorders also occurred more frequently than heart failure as PPA conditions. 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 for the effective treatment of bipolar disorder. Some form of mental health disorder was among the top ten PPA conditions for 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) an 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 472,000 admissions from Medicaid and CHIP that were at risk for PPRs in 2018, the EQRO identified over 20,000 (4.3 percent) as PPRs. These account for $239 million in institutional costs paid. Table 30 summarizes 2018 PPR results, by program.

Table 30. 2018 PPR results for Texas Medicaid and CHIP, by program

Measure	STAR	STAR+ PLUS	STAR Kids	STAR Health	FFS	CHIP
Admissions at Risk for PPRs	316,115	54,478	16,575	4,807	75,305	4,495
Initial Admissions Resulting in PPRs	5,908	8,354	1,845	738	2,330	305
Total PPRs	7,143	12,386	2,693	1,096	2,824	410
Total PPR Weights	6,618	16,737	3,640	828	4,220	380
Total PPR Expenditure ($Millions)	$54.12M	$97.05M	$40.50M	$9.58M	$19.86M	$3.93M
PPR Rate (Total PPR Weights per 1,000 Admissions)	20.94	307.23	219.63	172.24	56.04	84.57

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 31 shows the top 10 PPR conditions across Texas Medicaid and CHIP in 2018 based on APR-DRG categories and ranked by total PPR weight.

Table 31.Top ten reasons (APR-DRGs) for 2018 PPRs, ranked by total PPR weight

APR-DRG	Description	PPRs (n)	Percent of Total PPRs	Percent of Total PPR Weights	PPR Expenditures	Percent of Total PPR Expenditures
753	Bipolar disorders	2,505	12.43%	7.56%	$22,704,101	9.50%
720	Septicemia and disseminated infections	824	4.09%	7.29%	$14,831,334	6.21%
750	Schizophrenia	1,772	8.79%	7.06%	$17,402,115	7.28%
751	Major depressive disorders and other/unspecified psychoses	1,870	9.28%	5.33%	$14,865,713	6.22%
194	Heart failure	594	2.95%	4.05%	$7,060,247	2.95%
133	Respiratory failure	437	2.17%	3.40%	$9,939,638	4.16%
540	Cesarean delivery	693	3.44%	2.04%	$3,618,537	1.51%
140	Chronic obstructive pulmonary disease	300	1.49%	2.01%	$3,784,415	1.58%
420	Diabetes	379	1.88%	1.83%	$3,708,325	1.55%
560	Vaginal delivery	603	2.99%	1.63%	$2,935,595	1.23%

A readmission considered potentially preventable reflects poor clinical care or 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 to any hospital stay, 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) in 2018, followed by schizophrenia. Major

depressive disorders appeared among the top ten PPR reasons for all managed care programs. Septicemia and disseminated infections appeared among the top ten for all programs except CHIP and STAR Health. As in 2017, three of the top ten PPR conditions overall in 2018 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 an 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 an admission can have multiple complications. Unlike the other PPEs that rely on administrative condition groupings (i.e., EAPG and APR-DRG) to categorize events, 3M defined PPC conditions specifically for the identification of PPEs. Appendix E provides definitions for PPC groups. The EQRO evaluated over 384,000 admissions from Texas Medicaid and CHIP that were at risk for PPCs in 2018. The identification of PPCs 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. The EQRO excludes from PPC calculations all data from hospitals failing to meet data quality standards. In the annual data quality reports described under EQR Protocol 4, the EQRO addressed the quality of POA data at the MCO level, and Appendix C provides a summary of the screening criteria. The 2018 PPC analysis identified approximately 4,000 eligible admissions (1.1 percent) as having PPCs. Table 32 summarizes PPC results by program.

Table 32.2018 PPC results for Texas Medicaid and CHIP, by program

Measure	STAR	STAR+ PLUS	STAR Kids	STAR Health	FFS	CHIP
Admissions at Risk for PPCs	221,791	49,782	13,894	3,397	92,397	3,699
Admissions with PPCs	918	1,698	86	8	1,321	13
Total PPCs	1,089	2,203	97	8	1,725	14
Total PPC Weights	708	1,891	105	9	1,406	10
PPC Rate (Total PPC Weights per 1,000 Admissions)	3.19	37.98	7.57	2.54	15.21	2.80

As with other PPEs, the PPC rate was highest for the medically fragile population served by STAR+PLUS; however, the PPC rate was lowest for STAR Health. The high number of complications in the FFS population, which includes undocumented immigrants who may require emergency Medicaid services, merits further exploration. Table 33 shows the top 10 PPC conditions across Texas Medicaid and CHIP in 2018 based on PPC categories and ranked by total PPC weight.

Table 33.Top ten reasons (PPC categories) for 2018 PPCs, ranked by total PPC weight

PPC Category	Description	Total PPCs (n)	Percentage of Total PPCs	Percentage of Total PPC Weights
35	Septicemia and severe infections	338	6.58%	9.68%
09	Shock	339	6.60%	8.69%
24	Renal failure without dialysis	753	14.66%	8.15%
04	Acute pulmonary edema and respiratory failure with ventilation	149	2.90%	5.94%
65	Urinary tract infection	337	6.56%	5.56%
05	Pneumonia and other lung infections	156	3.04%	4.82%
03	Acute pulmonary edema and respiratory failure without ventilation	352	6.85%	3.67%
20	Other gastrointestinal complications without transfusion or significant bleeding	123	2.39%	3.22%
52	Inflammation and other complications of devices, implants or grafts except vascular infection	113	2.20%	3.15%
39	Reopening surgical site	74	1.44%	2.83%

Septicemia and severe infections accounted for the greatest percentage of PPC resource utilization (weights) for Texas Medicaid and CHIP in 2018. Although Septicemia and severe infections contributed to PPCs more than any other condition in terms of weights, two PPC conditions occurred more frequently: renal failure without dialysis, and shock. Because most PPC categories do not apply to children, some conditions of high importance in STAR and STAR+PLUS do not apply in STAR Kids, STAR Health, or CHIP. Collectively, the 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 relate directly 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.

Recommendations

- The Performance Indicator Dashboards provide an excellent way to identify MCOs that are struggling to meet state standards across multiple service dimensions and identifies areas of care that challenge many MCOs or programs. HHSC should leverage this information to develop targeted improvement initiatives and to share best practices from the higher performing MCOs.

- HHSC should continue to work with the EQRO to understand the needs of members with SMI. In many cases, performance on HEDIS measures is better for these members; however, an increased number of PPEs among those with SMI suggests deficiencies in care. Discovering more about how these members interact with the health care system could lead to better measures of quality and performance.

- The EQRO suggests developing a maternal care dashboard, which brings measures of general health care quality and measures specific to maternal health together into a comprehensive picture of maternal care. The significant differences in quality measure results for the maternal health population suggest the need for continuing to focus on this population.

- The EQRO suggests investigating treatment patterns, specifically treatment location, for upper respiratory infections and acute illnesses such as gastroenteritis. Reducing the dependence on emergency care and promoting appropriate primary care could improve AAB and URI rates and both PPV and PPA rates.

- HHSC interventions should emphasize preventive primary care. Many of the top reasons for PPV and PPAs should respond to prevention-focused care, such as vaccinations, management of patient medications, and counseling and resources to help reduce tobacco use in patient households.

- HHSC should work to develop better medication management programs and programs to coordinate care after discharge for patients with SMI. Medication management is critical to effectively treating bipolar and other mental health disorders. Some form of mental health disorder was among the top ten PPA and PPR conditions for all managed care programs.

- Improving POA reporting should still be a priority. The EQRO must exclude approximately 40 percent of discharges from PPC calculations because hospital data does not pass POA quality screening. Information is lost from evaluation of MCO and program performance because the EQRO cannot accurately measure performance in the excluded hospitals. Certain conditions are still identifiable as areas for concern, including septicemia, pneumonia, respiratory failure, renal failure, and urinary tract infections.

Protocol 8: Conducting Focused Studies of Health Care Quality

States may elect to conduct Medicaid and CHIP health care quality studies for administrative, legislative, or other purposes. When conducted as part of EQRO activities, CMS recommends that the studies should target relevant areas of MCO clinical care and non-clinical services that the state identifies as needing improvement. Samples selected for study should reflect MCO enrollment in terms of demographic characteristics, and the topic of studies of clinical conditions should reflect the prevalence of and risk from disease (CMS, 2012g). Furthermore, study questions must be clearly defined and answerable with available or obtainable data using sound sampling, reliably accurate data collection, and appropriate analytic methodology.

During SFY 2018, the EQRO carried out multiple studies of Texas Medicaid and CHIP programs, initiatives, and areas of specific interest to the state. Table 34 provides a summary of the studies described in this report.

Table 34. EQRO Studies of Texas Medicaid and CHIP Conducted During SFY 2018

Study	Description
Focus Study	
STAR Kids Implementation Study	This summary of the final year of a multi-year focus study evaluated the implementation of the STAR Kids program and developed a set of health care performance measures and recommendations appropriate to the STAR Kids population.
Quarterly Topic Reports (QTR)	
Provider Data Quality	This study described the current provider directory information system used in Texas Medicaid, and outlined key challenges associated with ensuring the quality of existing provider directories.
Managed Long-Term Services and Supports	This study examined case management documentation in STAR+PLUS and recommended ways that HHSC could add the new **Managed Long-Term Services and Supports** (MLTSS) measures to its overall quality assessment strategy for STAR+PLUS.
High Risk Pregnancy	This study examined differences in maternal care utilization, pregnancy outcomes, and the cost of maternal care for women enrolled in the STAR Program, to better understand how outcomes vary by pregnancy risk and service plan enrollment.
Social Determinants of Health	This study identified social determinants that contribute to diagnoses rates of asthma, type 2 diabetes, and attention-deficit hyperactivity disorder (ADHD).
Issue Briefs (IB)	
Cirrhosis, Hepatitis C Virus, and Liver Cancer	This report explored the burden of cirrhosis, hepatitis C, and liver cancer in Texas Medicaid.
ED Visits Related to Dental Conditions	This report examined trends in ED visits related to non-traumatic dental conditions (NTDC).
Teleservices and Network Adequacy	This report outlined federal and state initiatives that advance health teleservices, focusing on how programs account for teleservices in measures of network adequacy.
Other Quality Studies	
MCO Report Cards	Each year, the EQRO conducts a comparative analysis of MCO performance on a selected panel of quality measures, then converts MCO rankings into a practical guide for Texans to use in selecting an MCO based on personal health needs and preferences.

Study	Description
Appointment Availability Study	These studies assess MCO compliance with requirements to provide timely access to care. The EQRO completed three appointment availability sub-studies between September 2018 and August 2019: Vision Care, Primary Care, and Behavioral Health Care.
PCP Referral Study	The Primary Care Provider (PCP) Referral Study was a statewide study that examined PCP experiences in referring members for specialty care.
STAR Health Psychiatry Directory Study	This study assessed the accuracy of STAR Health behavioral health provider directory information.
Non-Emergency Medical Transportation Client Satisfaction Study	The EQRO conducted a statewide telephone member survey to evaluate member experience and satisfaction with Non-Emergency Medical Transportation (NEMT) services across all 13 transportation regions in Texas.

Focus Study: STAR Kids Implementation

Introduction

In November 2016, Texas Medicaid implemented the STAR Kids program, which provides managed care services to Medicaid members aged 20 years and younger who receive Supplemental Security Income (SSI) benefits or benefits through state programs for children with disabilities, such as the home- and community-based services (HCBS). STAR Kids aims to improve care coordination, access to care, and cost-effectiveness of care for children, adolescents, and young adults in Medicaid with complex needs, who previously received health services through traditional Medicaid (FFS) or STAR+PLUS.

From 2016 to 2019, the EQRO conducted a multi-year focus study to evaluate the implementation of the STAR Kids program and develop a set of health care performance measures appropriate to the STAR Kids population. The STAR Kids Focus Study was a comprehensive evaluation effort that included reviews of academic and policy literature, in-depth interviews with STAR Kids MCO administrators, a feasibility study of selected performance measures, and a pre- and post-implementation analysis to evaluate the impact of program implementation on health care access, cost, effectiveness, and satisfaction.

The overall STAR Kids Focus Study had four aims:

Aim 1: Refine the measure set and conceptual framework for STAR Kids evaluation studies.

Aim 2: Assess changes in utilization and quality of care among STAR Kids members by comparing pre- and post-implementation findings.

Aim 3: Provide baseline STAR Kids MCO profiles on member characteristics, service groups, utilization, quality of care, and satisfaction in the program's first two years.

Aim 4: Provide recommendations to HHSC and the STAR Kids MCOs for targeting improvements to health care delivery and care coordination for STAR Kids members.

Figure 14 illustrates the integration of the various data sources and activities in the STAR Kids Focus Study used to achieve these study objectives.

This summary focuses on the STAR Kids Focus Study activities that occurred during SFY 2019. During that time, the EQRO completed the final phases of the study, including the feasibility study of selected performance measures; and the pre/post analysis of survey and administrative measures. The EQRO documented these activities in two technical reports – the STAR Kids Measures Feasibility Report and the STAR Kids Focus Study Summary Report.

Figure 14.STAR Kids Focus Study activities and deliverables
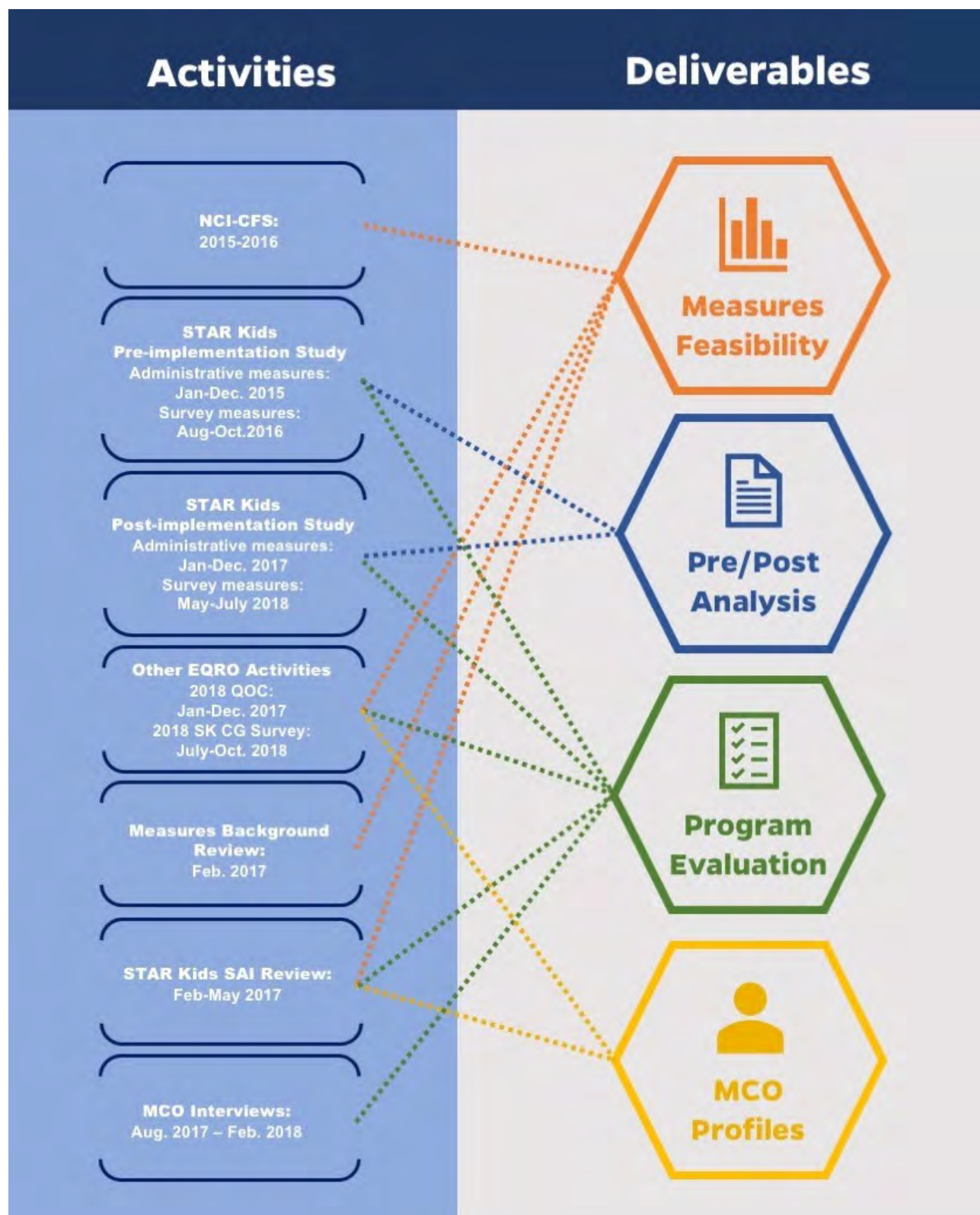
NCI-CFS = National Core Indicators Child Family Survey
SK CG Survey = STAR Kids Caregiver Survey
STAR Kids SAI = STAR Kids Screening and Assessment Instrument

STAR Kids Measures Feasibility Report

The STAR Kids Measures Feasibility Report provided findings on an array of potential performance measures from national measure sets – including HEDIS, CAHPS, the National Survey of Children's Health (NSCH), and the National Core Indicators-Child Family Survey (NCI-CFS) – as well as measures derived from the STAR Kids Screening and Assessment Instrument (SK-SAI). The report also presented a conceptual framework developed by the EQRO for performance measurement in STAR Kids.

Methods

In November 2018, the EQRO conducted a literature review and assessed performance measures from nationally recognized measure sets to develop an appropriate measurement framework for STAR Kids to guide performance monitoring efforts. The feasibility study evaluated the suitability of measures for performance monitoring and considered how well the measures addressed the health conditions and service needs of STAR Kids members, the availability of national standards or performance benchmarks, and parameters necessary to reliably compare performance across MCOs (such as data quality and MCO-level denominators).

Findings

The feasibility study found that the most commonly reported HEDIS and CAHPS measures are relevant and feasible for use in the STAR Kids population. In addition, evaluators can calculate feasible performance measures from both the NCI-CFS and the SK-SAI to address aspects of care not captured using other tools. The NCI-CFS includes several questions that address the accessibility, person-centeredness, and coordination of HCBS. The MCOs should complete the SK-SAI annually for all STAR Kids members and HHSC could use responses to measure changes in physical, cognitive, and social functioning over time. However, effective implementation of these tools into regular quality monitoring efforts requires that HHSC address several additional considerations.

First, high rates of missing values in important SK-SAI fields for some MCOs prevent reliable comparisons at the MCO level and can bring the validity of overall rates into question. In April 2018, the STAR Kids MCOs received training in the SK-SAI process that emphasized the use of the SK-SAI manual to address common issues, including missing information and inconsistent completion of fields. HHSC should reinforce these guidelines.

Secondly, measures of change in functional status are particularly important for STAR Kids members enrolled in the Medically Dependent Children's Program (MDCP), who have more complex conditions and service needs. The simple measures of impairment in activities of daily living (ADLs) and instrumental activities of daily living (IADLs) that are present in the core SK-SAI may not be sufficient for these members. However, the number of SK-SAI records received for MDCP members (N = 521) was only a small subset of MDCP members enrolled in STAR Kids in October 2017 (N = 4,239). The small numbers of records available at the MCO level prevented reliable assessment of more specific functional status measures from the MDCP module. The low number of records received may stem from issues with implementation, in which determinations for medical necessity for MDCP extended over one year, MCOs could have prioritized completing SK-SAIs for non-MDCP members, and the no-show rate for SAIs in this population may have been high due to mistrust. Issues with SK-SAI data transfer or MCO procedures may also have contributed to the low record numbers.

Finally, to use the NCI-CFS as a source of performance measures for the STAR Kids program, open discussions with the state and other stakeholders may be necessary. The current study design collects data on a biennial schedule, which would need to change to an annual survey schedule to be useful for performance measurement. The sampling strategy used in prior Texas NCI-CFS studies, while representative of programs across the state, could require expansion to allow for sufficient representation of members in all STAR Kids

MCOs. Furthermore, the EQRO would need current NCI-CFS data, collected using the 2017-2018 version of the tool, to assess the feasibility of measures that the EQRO could not include in this study.

Findings from this study also highlight areas of health care delivery that require further identification and development of measures. These include:

- the characteristics of health care facilities;
- access to (1) hospital, (2) institutional, and (3) transportation services;
- utilization and effectiveness of (1) specialist and specialty care, (2) long-term services and supports, and (3) transportation services;
- coordination of school services; and
- linkage to community resources.

Although the EQRO requested and received STAR Kids ISP forms for this study, the number of forms received was not sufficient to support a reliable assessment of data completeness or quality at the MCO level.

STAR Kids Focus Study Summary Report

The STAR Kids Focus Study Summary Report provided findings from an analysis comparing results from a set of administrative and survey measures collected before and after the implementation of the STAR Kids program. Additionally, the summary report synthesized all focus study activities from 2016 to 2019 to produce actionable recommendations for the STAR Kids program, and a separate appendix of MCO-level profiles showing baseline performance during the first year of implementation for each of the ten STAR Kids MCOs.

Pre- and Post-Implementation Comparison Methods

The EQRO compared survey results to understand how the implementation of the STAR Kids program affected caregiver experiences and satisfaction with health services, and administrative data to understand how implementation affected the utilization, cost, and effectiveness of care for STAR Kids members. The EQRO used different analytic methods and different sets of control variables to compare the pre- and post-implementation survey results and the pre- and post-implementation administrative results. The survey analysis used a general estimating equation regression model that estimated the average response of the population and produced odds ratios defined by the odds of having a high survey score in the post-implementation period compared to the odds of having a high survey score in the pre-implementation period. The models also produced odds ratios for all control variables. The administrative measure analysis used a combination of logistic regression models that produced odds ratios for dichotomous administrative measures, and general linear models for continuous variables (such as monthly health care expenditures and PPV counts) that produced coefficients for factors and predictors that represented the association of the predictor with the outcome. Specific details for each data set follow.

Pre- and Post-Implementation Survey Analysis

To understand the experiences and satisfaction of caregivers with health services received by their children before STAR Kids implementation, the EQRO conducted a telephone survey from August to October 2016 with caregivers of STAR Kids-eligible members. The EQRO selected survey participants from random samples of members in four service groups: (1) MDCP; (2) HCBS waivers for children with intellectual and developmental disabilities (IDD); (3) FFS-SSI; and (4) STAR+PLUS-SSI. Overall, 986 caregivers of STAR Kids-eligible members participated in the pre-implementation survey, which included questions from the CAHPS Health Plan Survey for

Medicaid and the NSCH. The overall response rate for the pre-implementation survey was 26 percent and did not vary notably by service group.

The EQRO fielded the post-implementation survey with the same caregivers approximately 18 months following program implementation (from May to July 2018). This fielding period allowed the survey to capture experiences and satisfaction with care delivered after the end of STAR Kids continuity of care provisions, which allowed MCOs to reimburse members' established providers, even if they were out-of-network. This approach ensured that post-implementation findings applied to caregivers' experiences and satisfaction with STAR Kids network providers. Among the caregivers who had participated in the baseline survey, 400 completed the follow-up survey. The overall response rate for the post-implementation survey was 58 percent and did not vary notably by service group.

The analysis of survey findings included descriptive statistics showing pre- and post-implementation changes and statistical models that controlled for the caregiver's socio-demographic factors, race-ethnicity, language, education level, single- and two-parent households, and waiver program enrollment. The EQRO selected 15 survey outcome measures for analysis. These included:

- seven key CAHPS composite and single-item measures (*Getting Needed Care*, *Getting Care Quickly*, *How Well Doctors Communicate*, *Prescription Medicines*, *Getting Specialized Services*, *Personal Doctor*, and *Getting Needed Information*);
- three CAHPS ratings measures (*Health Care Rating*, *Personal Doctor Rating*, and *Specialist Rating*); and
- five NSCH measures addressing care coordination (availability of care coordination help, need for extra help, getting as much care coordination as the caregiver wanted, satisfaction with care coordination, and access to specialist referrals).

Pre- and Post-Implementation Administrative Analysis
To assess changes in utilization, cost, and effectiveness of care before and after implementation of STAR Kids, the EQRO tested statistical models on a retrospective cohort of STAR Kids members enrolled during 2017 (post-implementation) and previously enrolled in another Medicaid program (e.g., FFS, STAR+PLUS) during 2015 (pre-implementation). The study also included members, aged 20 years and younger, enrolled in STAR and STAR Health during the same time periods as comparison groups.

The EQRO tested models for five utilization and cost measures: (1) monthly health care expenditures; (2) PPV occurrence; (3) PPV counts; (4) PPV weights (which adjust for the severity or complexity of the ED visit); and (5) PPV costs. The EQRO also analyzed HEDIS measures that address well-care visits for children and adolescents (W34 and AWC), metabolic monitoring for children and adolescents on antipsychotics (APM), and follow-up after hospitalization for mental illness (FUH). All models included member age, sex, race-ethnicity, health status, MCO, SA, and county-level rurality as control variables.

Findings from the Pre- and Post-Implementation Comparison
Table 35 shows the CAHPS measures overall results. The rates represent the percentage of respondents who "always" had positive experiences with their child's health care. Descriptive findings showed no significant changes in caregiver experiences following implementation. However, access to specialized services improved significantly when controlling for other factors. The odds of having good access to specialized services were 1.8 times higher after implementation than before implementation. The rates represent the percentage of respondents who rated their child's health care a "9" or "10" on a scale from zero to 10. Although caregivers' ratings decreased for personal doctors (from 87 percent to 75 percent) and increased for specialists (71 percent

to 77 percent), these differences were not statistically significant. Furthermore, the EQRO found no significant differences in the odds of high ratings for any measure when controlling for other factors.

Table 35. Pre- and post-implementation CAHPS response rates

CAHPS Measure	Pre-implementation	Post-implementation[1]	Odds ratio[2]	p-value
Positive Experience – Responses of "Always"				
Getting Needed Care	56.3%	58.5%	n.s.	0.279
Getting Care Quickly	78.1%	73.3%	n.s.	0.774
How Well Doctors Communicate c	76.7%	78.1%	–	–
Prescription Medicines	64.8%	67.6%	n.s.	0.670
Getting Specialized Services	36.5%	44.1%	1.83	0.033
Personal Doctor	91.2%	90.3%	n.s.	0.289
Getting Needed Information c	77.0%	75.9%	–	–
Caregiver Ratings of "9"or "10"				
Health Care	72.7%	73.6%	n.s.	0.146
Personal Doctor[3]	86.7%	75.4%	–	–
Specialist	70.6%	77.3%	n.s.	0.807

[1] Differences between pre-implementation and post-implementation rates were not statistically significant in descriptive analyses

[2] Odds ratios above 1.00 suggest that caregiver experiences/ratings improved between the pre- and post-implementation periods, controlling for other factors. Only Getting Specialized Services had a statistically significant odds ratio (p < 0.05; all others were not significant (n.s.).

[3] No model findings are reported for How Well Doctors Communicate, Getting Needed Information, or rating of the child's personal doctor because the estimation procedures for these models were not successful in generating odds ratios.

Table 36 shows the overall results for the five NSCH care coordination measures. The percentage of caregivers who said that someone helps arrange or coordinate their child's care increased significantly from 16 percent to 31 percent (p = 0.01). The analysis also revealed an increase in the percentage who said getting specialist referrals for their child was "not a problem" and a decrease in the percentage who said they "usually" or "always" got as much care coordination help as they wanted. However, these decreases were not statistically significant. Caregiver responses about the availability of help with care coordination improved significantly when controlling for other factors. The odds of having someone to help with care coordination were 3.3 times higher after implementation than before implementation.

Table 36. Pre- and post-implementation NSCH response rates

NSCH Care Coordination Measure	Pre-implementation	Post-implementation[1]	Odds ratio[2]	p-value
Responses of "Yes"				
Someone helps arrange or coordinate the child's care	16.0%	31.3%	3.28	0.046
Caregiver did not need extra care coordination help in the past 6 months	66.1%	65.9%	n.s.	0.543
Caregiver usually or always got as much care coordination help as she/he wanted[3]	52.4%	40.1%	n.s.	0.130
Caregiver was very satisfied with care coordination help	58.7%	61.6%	n.s.	0.072
If child needed a specialist, getting a referral was not a problem[4]	52.0%	64.9%	–	–

[1] Descriptive analysis found a statistically significant difference in the percentage of caregivers who reported having someone to help arrange or coordinate their child's care (p = 0.01). Differences for other measures were not statistically significant at p < 0.05.

[2] Odds ratios above 1.00 suggest that caregiver experiences improved between the pre- and post-implementation periods, controlling for other factors. Only the Availability of Care Coordination Help had a statistically significant odds ratio. P-values less than 0.05 were considered statistically significant. Odds ratios for all other measures were not statistically significant (n.s.).

[3] In statistical models, Extra Care Coordination Help Needed was reverse-coded (testing outcome responses of "No") to allow higher odds ratios to indicate better performance.

[4] No odds ratio is reported for Access to Referrals because the estimation procedures for this model were not successful in generating an odds ratio.

Table 37 shows the comparison of rates for the HEDIS utilization of preventive well-care visits in STAR Kids, STAR, and STAR Health, including changes in rates between the pre- and post-implementation periods. Rates of well-care visits for children aged three to six years and for adolescents increased among STAR Kids members between the pre- and post-implementation periods. In contrast, rates for these measures decreased between 2015 and 2017 in both STAR and STAR Health. Differences across programs were greatest for adolescent well-care, which showed an increase by five percentage points among STAR Kids members and decreases by four percentage points in STAR and 12 percentage points in STAR Health.

However, when controlling for other factors, pre- and post-implementation changes in well-child visits among STAR Kids members were not significantly different from the changes in well-child visits observed for STAR or STAR Health members. Furthermore, there was a reversed association of implementation with adolescent well-care visits in STAR Kids. Although the overall rate for STAR Kids improved among members who did not have an adolescent well-care visit in the pre-implementation period, the odds of having an adolescent well-care visit after implementation were 20 percent lower in STAR Kids compared to STAR and 45 percent lower in STAR Kids compared to STAR Health.

Table 37. Pre- and post-implementation HEDIS well-care measures, by program

	Pre-implementation	Post-implementation[1]	Change
HEDIS Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life[2]			
STAR Kids	57.7%	64.1%	↑ 6.4%
STAR	75.1%	73.4%	↓ 1.7%
STAR Health	88.7%	86.2%	↓ 2.5%
HEDIS Adolescent Well-Care[3]			
STAR Kids	43.6%	48.8%	↑ 5.2%
STAR	66.8%	62.5%	↓ 4.3%
STAR Health	78.0%	65.7%	↓ 12.3%

[1] Descriptive analyses show changes in measure rates for the population of eligible members and do not include tests for statistical significance.

[2] Differences in odds of measure compliance between STAR Kids and the other programs were not statistically significant for HEDIS W34 in statistical models controlling for other factors.

[3] Among members who were not compliant on HEDIS AWC in the pre-implementation period, the odds of compliance in the post-implementation period for STAR Kids members were 20 percent lower than for STAR members and 45 percent lower than for STAR Health members.

Table 38 shows that average monthly health care expenditures in STAR Kids were considerably higher compared to STAR and slightly higher compared to STAR Health, both before and after implementation. Between the pre- and post-implementation periods, average monthly expenditures increased among STAR Kids members by approximately $176 per member. During the same period, average monthly expenditures decreased in STAR (by $12 per member) and STAR Health (by $38 per member).

Table 38. Pre- and post-implementation average monthly health care expenditures, by program

	Pre-implementation	Post-implementation	Change
Average Monthly Expenditures[1]			
STAR Kids	$980.13	$1,156.07	↑ $175.94
STAR	$110.76	$99.16	↓ $11.60
STAR Health	$821.63	$784.13	↓ $37.50

[1] Descriptive analyses show changes in average monthly health care expenditures for the population of eligible members and do not include tests for statistical significance.

Table 39 shows the comparison of rates for selected HEDIS behavioral health care measures (APM, FUH) in STAR Kids, STAR, and STAR Health, including changes in rates between the pre- and post-implementation periods. Overall, rates for the behavioral health care effectiveness measures tended to be higher in STAR Health than in STAR Kids or STAR. Among members one to 17 years old who had two or more antipsychotic medication prescriptions (APM), the percentage who had recommended metabolic testing showed little change between the pre- and post-implementation periods for STAR Kids and STAR. During the same period, the rate for this measure improved in STAR Health, from 46 percent to 60 percent. Although rates of Follow-Up after Hospitalization for Mental Illness (FUH) decreased across programs, specifications for this measure changed in HEDIS 2018 to exclude visits that occur on the date of discharge. This study did not address the extent to which this change in measure specifications may have contributed to the observed decreases.

For both behavioral health care measures analyzed, the pre- and post-implementation changes in STAR Kids were significantly lower than those in STAR Health, when controlling for other factors. Among members taking two or more antipsychotics who did not have metabolic monitoring in the pre-implementation period, the odds of receiving metabolic monitoring after implementation were 66 percent lower in STAR Kids compared to STAR Health. Among members who did not receive 30-day follow-up after hospitalization for mental illness in the pre-implementation period, the odds of compliance on this measure were 69 percent lower in STAR Kids compared to STAR Health.

Table 39. Pre- and post-implementation HEDIS behavioral health care measures, by program

	Pre-implementation	Post-implementation[1]	Change
HEDIS Metabolic Monitoring for Children and Adolescents on Antipsychotics[2]			
STAR Kids	30.1%	33.8%	↑ 3.7%
STAR	28.2%	31.0%	↑ 2.8%
STAR Health	45.7%	59.5%	↑ 13.8%
HEDIS Follow-Up after Hospitalization for Mental Illness (7-day follow-up)[3]			
STAR Kids	35.8%	36.1%	↑ 0.3%
STAR	39.3%	35.0%	↓ 4.3%
STAR Health	63.6%	57.4%	↓ 6.2%
HEDIS Follow-Up after Hospitalization for Mental Illness (30-day follow-up)[4]			
STAR Kids	61.6%	59.2%	↓ 2.4%
STAR	58.7%	56.9%	↓ 1.8%
STAR Health	82.0%	74.1%	↓ 7.9%

[1] Descriptive analyses show changes in measure rates for the population of eligible members and do not include tests for statistical significance.

[2] Among members who were not compliant on HEDIS APM in the pre-implementation period, the odds of compliance in the post-implementation period for STAR Kids members were 66 percent lower than for STAR Health members.

[3] Differences in odds of measure compliance between STAR Kids and the other programs were not statistically significant for HEDIS FUH (7-day follow-up) in statistical models controlling for other factors.

[4] Among members who were not compliant on HEDIS FUH (30-day follow-up) in the pre-implementation period, the odds of compliance in the post-implementation period for STAR Kids members were 69 percent lower than for STAR Health members.

Table 40 provides comparison of pre- and post-implementation PPV occurrence rates, among members with a candidate ED visit during the period. The EQRO observed decreases in the occurrence of PPVs in STAR Kids, STAR, and STAR Health. The EQRO found no notable differences in the PPV occurrence rates or the decreases in PPV occurrence rates across the three programs. About seven in 10 members with a candidate ED visit in both periods had one or more PPVs in the post-implementation period. Among members who had a candidate ED visit, but did not have a PPV in the pre-implementation period, the odds of having a PPV in the post-implementation period were 1.2 times higher in STAR Kids than in STAR, when controlling for other factors.

Table 40.Pre- and post-implementation PPV occurrence rate, by program

	Pre-implementation	Post-implementation	Change
PPV Occurrence Rate Among Members with Candidate Admissions in Both Periods[1,2]			
STAR Kids	76.6%	70.6%	↓ 6.0%
STAR	78.5%	71.0%	↓ 7.5%
STAR Health	74.8%	69.6%	↓ 5.2%

[1] The PPV rate is based on members who had a candidate ED visit during the measurement period. Descriptive analyses show changes in PPV rates for the population of eligible members and do not include tests for statistical significance.
[2] Among members who did not have a PPV during the pre-implementation period, the odds of having a PPV during the post-implementation period were 1.2 times higher in STAR Kids than in STAR. Differences in odds of having a PPV between STAR Kids and STAR Health were not statistically significant.

Overall STAR Kids Focus Study Findings

Overall, the STAR Kids Focus Study revealed positive findings and areas for improvement in STAR Kids, new opportunities for quality-of-care measurement, and several areas for further study. Unless otherwise noted, the findings below were statistically significant after controlling for other factors, suggesting that the changes are attributable to the implementation of STAR Kids.

Positive Findings

Access to specialized services. The study showed an increase in access to specialized services in STAR Kids, including special medical equipment and devices, special therapies (physical, occupational, and speech therapies), and behavioral health treatment and counseling. The percentage of caregivers who "always" had positive experiences getting specialized services for their child increased from 36.5 percent to 44.1 percent.

Access to care coordination. Access to care coordination improved significantly after implementation, particularly for members in MDCP and members not in a waiver program. Between the pre- and post-implementation periods, the percentage of caregivers who reported that someone helped arrange or coordinate their child's care increased from 16 percent to 31 percent. The EQRO calculated this percentage out of all caregivers; the survey did not assess whether caregivers declined assistance with care coordination.

Areas for Improvement

Access to special therapies. While STAR Kids members generally had improved scores for CAHPS *Getting Specialized Services*, access to physical, occupational, and speech therapies for members in the MDCP waiver decreased. Among MDCP members, the percentage of caregivers who said it was "always" easy to get these therapies dropped from 41 percent before implementation to 31 percent after implementation. While this decrease was not statistically significant, access to these special therapies remains an important area for continued monitoring.

Effectiveness of care coordination. Survey findings showed that slightly more than one-third of caregivers reported having someone to help coordinate their child's care. Given that MCOs assign STAR Kids members a service coordinator on enrollment, there is room for improvement in this rate.

Health care expenditures. STAR Kids members tend to have higher health care expenditures than children and adolescents in other Medicaid managed care programs. Although this difference is due primarily to the medical complexity of STAR Kids members, the study found that health care expenditures increased with program implementation, independently from other factors (such as inflation). The increase in expenditures was highest among MDCP members.

Recommendations

Feasibility study recommendations

- The EQRO suggests additional training with MCOs to ensure that they populate SK-SAI data fields correctly and consistently.
- HHSC should review and improve upon procedures for obtaining SK-SAI data, as needed, to facilitate the identification and sharing of these data to ensure a sufficient number of MDCP records for future studies.
- The EQRO recommends additional study of STAR Kids ISP forms for MDCP members, which if cross-referenced with claims data, could be used to validate whether members in MDCP are receiving authorized services.
- HHSC should implement or continue existing efforts to identify and develop measures in domains that were outside the scope of this study, such as provider network adequacy and grievances and appeals.

Overall recommendations

- The EQRO recommends additional study of MCO approval processes for physical, occupational, and speech therapies to understand barriers to access that caregivers may be experiencing, such as low availability of therapy services in specific service areas.
- To address concerns about the shift to managed care for MDCP members, the EQRO recommends a mixed-methods study involving closed-ended surveys combined with focus groups or qualitative interviews with caregivers and families of MDCP members. This design can elicit the most important services for families and the most common barriers to receiving these services, and then explore the context in which families experience barriers to care to reveal practical solutions for addressing these barriers.
- HHSC should focus on high- and low-performing MCOs. Statistical models of administrative measures showed some variation in performance by STAR Kids MCO, controlling for other factors. Driscoll performed well in all statistical models, showing higher performance on measures and lower costs. Conversely, Children's Medical Center showed lower performance on measures than the other MCOs. HHSC and STAR Kids MCOs should consider collaborative training sessions with these MCOs to encourage the dissemination of best practices.
- HHSC should prepare for high- and low-risk member assessments. In the STAR Kids MCO Interview Report, the EQRO recommended that MCOs have documented practices for service coordinators to prepare families for MDCP eligibility determinations. For example, service coordinators should inform families about steps they can take if TMHP denies the MCO request for medical necessity status, including their right to a fair hearing. Service coordinators should also help families identify alternative services if they lose their fair hearing. Concerning lower-risk members, MCOs should monitor the participation of members who have less complex needs to encourage engagement with service coordinators and improve the rates and timeliness of completing the SK-SAI (at both initial assessment and reassessment).

- The EQRO suggests regular NCI-CFS studies with families of STAR Kids members. The EQRO identified the NCI-CFS as a source of meaningful long-term services and supports (LTSS) measures and recommended that HHSC conduct regular NCI-CFS studies with families of STAR Kids members, stratified by MCO to allow for comparisons.
- The EQRO suggests HEDIS hybrid studies for MDCP members. Members in MDCP, who have higher rates of third-party insurance, may show lower utilization and performance because HHSC and the EQRO do not have access to third-party claims data. To address this concern, HHSC should consider conducting hybrid studies of HEDIS well-care measures among STAR Kids members enrolled in MDCP to test the extent to which third-party insurance may influence administrative measure findings.

QTR 1: Provider Directory Data Quality – Key Issues and Recommendations for Best Practices

The healthcare industry spends more than $2 billion annually to maintain provider data (CAQH, 2011). Despite these costs and the importance of accurate information about health care providers, the error rate in provider directories continues to be a problem for both public and private health care systems. Common provider data problems include incorrect addresses and phone numbers, wrong provider types, outdated network provider lists, and inaccurate identification of providers accepting new patients. Errors in provider data create significant problems when connecting patients and doctors, verifying provider credentials, assessing network adequacy, calculating quality of care measures, and billing for services.

Maintaining the consistency and completeness of provider records is a priority for HHSC and the EQRO. Completeness and validity of provider directory data fields are critical for the calculation of network adequacy metrics and other healthcare quality assessments that require: (1) accurate data on the health plan networks that contract with specific providers, (2) the physical location of provider offices, and (3) the taxonomy (i.e., provider type) codes ascribed to each provider.

This study described the current provider directory information system used in Texas Medicaid, outlined key challenges associated with ensuring the quality of existing provider directory data, and made recommendations for best practices for managing provider data quality based on the analysis of provider directory information. The four study aims were:

Aim 1: Assess the completeness and validity of Texas Medicaid provider directory data.

Aim 2: Describe the current provider directory information system used in Texas Medicaid.

Aim 3: Outline key challenges associated with ensuring the quality of existing provider directory data.

Aim 4: Outline recommendations for best practices for managing provider data quality based on the analysis of current provider directory information.

Methods

To address the first aim and assess the variation in and accuracy of provider directory records, the EQRO selected sample records for comparison from:

1. the master provider file (MPF; state records),
2. the Vision 21 data warehouse provider reconcile files (V21 provider files),
3. the TMHP online provider lookup (OPL), MCO/DMO member-facing directories (e.g., downloadable PDF), and,
4. online MCO/DMO directories (i.e., web interactive).

The goal of the sampling strategy was to provide a broad overview of the provider directory information landscape. The EQRO used these record samples to examine three domains of provider directory information: consistency and completeness of data elements, record linkage (match) rates across multiple sources of provider information, and accuracy of provider address information.

The MPF contains a list of all providers approved to provide Medicaid and CHIP services. The enrollment broker (MAXIMUS) uses the MPF to verify eligibility information for the providers that the plans submit for Medicaid and CHIP certification. The enrollment broker also uses this file to verify provider information when processing

the provider network files from the MCOs and DMOs. The provider network files are plan-based rosters of all active providers in the MCO/DMO Medicaid and CHIP provider network. Plans send these files to the enrollment broker as frequently as necessary to establish the current list of providers that are active with the health or dental plan and the parameters for enrolling recipients with active PCPs or main dentists. The provider-reconcile files list all the providers that the enrollment broker currently recognizes as active in the Medicaid Managed Care and CHIP provider networks. The enrollment broker and HHSC expect the plans to verify that the information in the reconcile file agrees with the provider network information in their system. If there are discrepancies between the two files, the plan should submit a corrected provider network file to the enrollment broker as quickly as possible to ensure congruency between the plan and the enrollment broker provider networks.

The EQRO assessed consistency and completeness of data elements by identifying the number of null attributes in three key fields of each provider information file– the NPI, zip code, and phone number. Then the EQRO used NPI to link the provider information files and compared three physical address fields– address, city, and zip code – across files to assess record match rates and consistency in address elements between files. The EQRO first compared the original unstandardized address fields across provider records to identify the total number of address matches, and then standardized the address elements and compared the provider records a second time. The EQRO compared unstandardized and standardized address information to identify how many of the problems with record linkage were due to inconsistency in data standards (use of Poplar Ave. instead of Poplar Avenue, for example) and how many were due to a mismatch in address information (Poplar Avenue instead of Poplar Road, for example). Record match rates for standardized address comparisons and unstandardized address comparisons used the number of unique records from each source. Data standardization included capitalizing all letters in the address and city fields, truncating the city field to 12 characters, limiting the ZIP code to 5-digits, removing all non-alphanumeric characters and replacing inconsistencies in abbreviation with a standard attribute. To match the truncation of the city field in the MPF, the EQRO truncated the city field to 12 characters. Since providers often have multiple records, the EQRO then deduplicated the records in each file based on the standardized address, first 12 characters of the city, and 5-digit ZIP code. The EQRO compared the unique address lists for record matches and identified the match rate as the percent of matching records out of total unique records for each set of files. Figure 15 represents the record comparison strategy.

Figure 15. Provider records comparison strategy
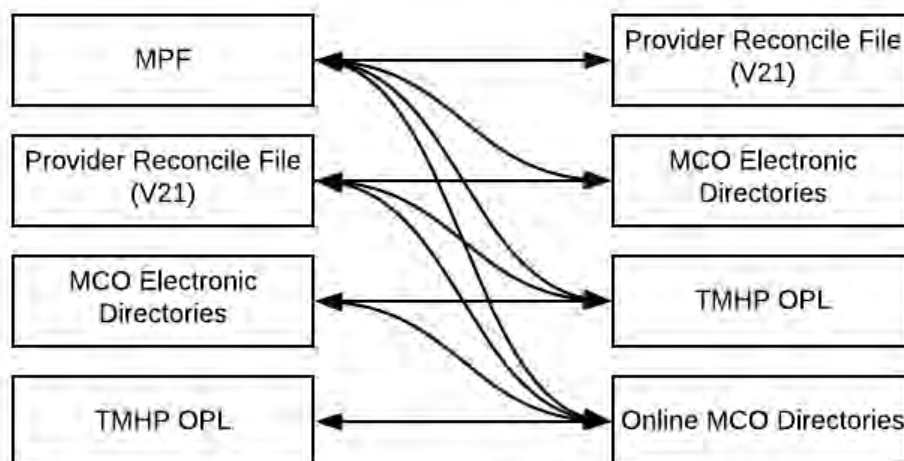
To assess the accuracy of directory information, the EQRO ran all complete address information for a sample of providers from the MCO electronic member-facing directories and the information in the TMHP reconcile files against United States Postal Service (USPS) information for delivery point verification (DPV) and National Change of Address (NCoA) data.

To address the second aim and identify the cause of inconsistencies in provider information across record sources, the EQRO held meetings and phone calls with key information stakeholders at HHSC, reviewed federal and state policies for guidelines on the quality of provider directory information, and systematically examined scientific and trade literature to identify best practices for improving provider data quality.

Results

Record Completion and Consistency in Data Fields

The EQRO found instances where the provider record information was incomplete. For example, out of 2,907,521 V21 provider file records, 14,434 (0.5 percent) included a non-numeric or blank entry for NPI. The EQRO also found inconsistencies and mismatches when comparing the address attributes between sources. Four types of inconsistencies commonly appeared in comparisons of address data across all the provider record sources.

- **Type 1:** Street, boulevard, or avenue attribute omitted in one of the address records.
- **Type 2:** Suite, floor, or building attribute omitted in one of the address records.
- **Type 3:** Spelling inconsistencies/mistakes in address attributes.
- **Type 4:** Address components are out of order (PO Box or suite listed before the street address; or provider name, PO Box, or floor appear in a different order).

The EQRO also found cases where a PO Box (possibly a billing address), appeared in physical address field for a provider. For example, 1,447 unique STAR provider physical addresses in the MPF included a PO Box in the address field (1.9 percent of 76,101 unique addresses).

Record Linkage Rates

The number of unique address records that the EQRO could match also varied by source. For example, only about half of the unique address records matched between the V21 provider files and the MPF. In theory, there should be few differences between what the plans have in their provider network files and what is in the MPF because the enrollment broker and HHSC expect the MCOs to verify that the information in the reconcile file agrees with the provider network information in their system. The MCO should submit a corrected provider network file to the enrollment broker as quickly as possible to address any discrepancies found between the two networks, ensuring congruency between the MCO and the enrollment broker provider networks. However, while the data reconcile files are comprised of MPF-verified provider information, they are only as accurate as the information entering the MPF. If providers update their information with the MCO but do not update their information with TMHP (and thus the MPF), they will not be recognized in the reconcile files, even if they are accurate in the MCO provider network file.

Table 41 shows the number of standardized unique address matches between the V21 provider files and the MPF for STAR providers. The record match rate varied by MCO; CCHP had the highest match rate (67.9 percent) and CFHP had the lowest match rate (22.5 percent).

Table 41. STAR unique address matches between V21 provider files and the MPF, by MCO

MCO	Unique Records	Unique Matched Records	Record Match Rate
Aetna Better Health (Aetna)	4,397	1,888	42.9%
Amerigroup	30,181	14,097	46.7%
Blue Cross Blue Shield of Texas (BCBSTX)	4,306	2,547	59.2%
Community First Health Plans (CFHP)	2,447	550	22.5%
Community Health Choice (CHC)	8,253	4,454	54.0%
Cook Children's Health Plan (CCHP)	1,679	1,140	67.9%
Dell Children's Health Plan (DCHP)	1,853	591	31.9%
Driscoll Health Plan (Driscoll)	3,942	2,521	64.0%
El Paso Health	731	479	65.5%
FirstCare Health Plans (FirstCare)	3,393	2,211	65.2%
Molina Healthcare of Texas (Molina)	12,782	6,882	53.8%
Parkland Community Health Plan (Parkland)	2,037	843	41.4%
RightCare from Scott & White Health Plan (S&W)	1,717	936	54.5%
Superior HealthPlan (Superior)	51,958	29,385	56.6%
Texas Children's Health Plan (TCHP)	4,539	1,622	35.7%
UnitedHealthCare Community Plan (UHC)	11,375	5,955	52.4%
Total	145,590	76,101	52.3%

Accuracy of Provider Address Information

The EQRO sent 97,984 records to the vendor for USPS validation. Of those, 4,739 records failed the NCoA and DPV validation, 1,381 required a change of address, and approximately 17 percent (16,801 records) required correction. Table 42 shows the overall distribution of USPS validation outcomes for the electronic plan directory records and the V21 provider file records. Slightly more of the plan directory records remained unchanged compared to the addresses from the V21 provider files.

Table 42. USPS address validation results

	Plan Directory File	V21 Provider File
Verified address records	45,125	48,120
Remained unchanged	37,361	35,529
Required correction	4,958	11,843
Required change of address	633	748
Failed address records	2,806	1,933

Ongoing Provider Directory Information Challenges

HHSC has taken several important steps to improve the quality of provider directory information. For example, HHSC is implementing robust MCO validation requirements and conducting an analysis of critical processes that impact directory accuracy. HHSC is working to streamline the provider enrollment process by developing a new

Provider Management and Enrollment System (PMES). As of November 2019, the PMES system was on hold, but the final goal is a system that will centralize all provider enrollment and management reporting processes.

Despite these important advances, the EQRO noted that HHSC faces several interconnected challenges associated with improving the quality of provider directory data:

- The misalignment of provider information across data sources and the low record linkage rates are largely the result of poorly defined data standards. Because the UMCM does not outline a specific data accuracy standard for provider directory information, MCOs and DMOs use various approaches to validate directory information. This diversity in approaches contributes to a lack of standardized data elements, which limit how well a machine can read and validate provider information; they also create a significant administrative burden for HHSC, the MCOs, and providers. To date, no established uniform approach exists across HHSC, MAXIMUS, TMHP, and the MCOs to validate provider information.
- Data governance responsibilities are also scattered across the HHSC information landscape. The system needs reliable mechanisms to ensure that updates to crucial provider information occur consistently. Currently, there is no centralized process for monitoring and enforcing standards for data quality. Although Texas identifies TMHP's MPF as an authoritative data source, the MCO/DMO provider directory update process provides more timely information, which creates numerous data alignment problems. HHSC staff and the EQRO rely on MAXIMUS-validated provider files for reporting and monitoring, but the enrollment broker cannot validate contact information for providers who do not update their information with TMHP.

Recommendations

- HHSC should collaborate with plans and providers to improve the quality and completeness of provider data and improve data accuracy standards. Accurate provider data elements are critical for objective evaluation, rate-setting activities, monitoring network adequacy, and ensuring member access to appropriate providers.
- The EQRO recommends establishing enforceable data accuracy standards and enhancing the current guidelines for required critical directory elements with a set of rules to standardize address information (such as using USPS standards for address information). In addition, HHSC should establish a standard approach and timeline for monitoring whether plans follow up with inactive providers and whether the plans remove them from provider directories.

QTR 2: New Measures for Managed Long-Term Services and Supports

Evaluating performance in the STAR+PLUS program, which serves adults who have special health care needs, requires measures that address aspects of care specific to individuals with chronic and complex conditions. The EQRO conducts regular quality-of-care and performance monitoring of STAR+PLUS MCOs using HEDIS measures of utilization, access, and effectiveness of care for acute and chronic conditions, including both physical and behavioral health. However, until recently, no standardized measures addressed the quality of LTSS that are a prevalent need in STAR+PLUS.

In February 2018, CMS issued specifications for four new measures of managed LTSS (MLTSS), which address a gap in quality-of-care measurement for adults with disabilities and complex conditions (CMS, 2018a). These measures use case management records to provide information about assessment and care-planning processes for individuals who receive LTSS through capitated managed care programs. More recently, the NCQA added these measures to the HEDIS 2019 measure set (NCQA, 2019b), which will help create performance standards, enable comparison of LTSS quality across programs, and establish national benchmarks.

The new MLTSS measures are:

1. LTSS Comprehensive Assessment and Update (LTSS-CAU)
2. LTSS Comprehensive Care Plan and Update (LTSS-CPU)
3. LTSS Reassessment/Care Plan Update After Inpatient Discharge (LTSS-RAC)
4. LTSS Shared Care Plan with Primary Care Practitioner (LTSS-SCP)

In Texas Medicaid managed care, the MLTSS measures can address an important and missing area of regular performance monitoring for the STAR+PLUS program related to MLTSS. However, the feasibility of using these measures in STAR+PLUS depends on the extent to which STAR+PLUS MCOs document all the required measure elements in case management records. To address this question, the EQRO conducted a study of case management documentation in STAR+PLUS in February 2019 and recommended ways that HHSC could add the new MLTSS measures to its overall quality assessment strategy for STAR+PLUS.

Study Methods

The EQRO requested case management forms used by the STAR+PLUS MCOs for members who receive LTSS, including: (1) standardized forms developed and implemented by the state to assess and plan LTSS for STAR+PLUS members and (2) health risk assessment (HRA) and care planning forms that the STAR+PLUS MCOs have developed to use for their member populations. The EQRO received and reviewed six state case management forms (five assessment forms and one care planning form), five MCO HRA forms (one from each MCO), and five MCO care planning forms (one from each MCO).

Reviewers developed form-by-element crosswalks to identify fields in the assessment forms important for calculating the LTSS-CAU and LTSS-RAC measures, and fields in care planning forms important for calculating the LTSS-CPU, LTSS-RAC, and LTSS-SCP measures. Following NCQA specifications for the measures, the EQRO developed rubrics for rating the forms as having "met," "partially met," or "not met" the criteria for collecting each of the core and supplemental elements required to calculate the measures.

Reviewers summarized findings across forms and STAR+PLUS MCOs, with an emphasis on fields that address the core elements for comprehensive LTSS assessment and comprehensive LTSS care plans (Table 43).

Table 43. Core elements for review of case management forms

Core Elements for Comprehensive LTSS Assessment	Core Elements for Comprehensive LTSS Plans
1. Activities of daily living 2. Health conditions 3. Medications 4. Cognitive functions 5. Mental health status 6. Home safety risks 7. Living Arrangement 8. Family or friend caregiver 9. Current providers	1. Individualized member goals 2. Plan of care for medical needs 3. Plan of care for functional needs 4. Plan of care for cognitive impairment 5. List of all LTSS received or planned 6. Plan for care manager follow-up 7. Emergency plan 8. Family or friend caregivers 9. Agreement to care plan

The EQRO also collaborated with experts in MLTSS and qualitative research at the University of Texas Health Science Center to conduct audio-recorded in-depth interviews with four of the STAR+PLUS MCOs: Amerigroup, HealthSpring, Molina, and UHC. The interviews focused on practices for completing assessment and care plan forms, practices for sharing care plans with members' PCPs, assistance the MCOs may need to collect data for the MLTSS measures, and critical outcomes relevant to MLTSS quality.

Results

The EQRO found that most state and MCO assessment and care planning forms addressed many of the core and supplemental elements of the MLTSS measures. However, findings revealed three overall shortcomings.

- No single assessment form in use fully addresses all core assessment elements.
- No single care planning form in use fully addresses all core care planning elements
- Certain core and supplemental elements are not present or sufficiently addressed, in any form.

Forms for Comprehensive MLTSS Assessment

To evaluate where assessment forms most need revisions and additions, the EQRO calculated the percentage of all assessment forms (across the five state forms and the five MCO forms) that included fields sufficient to address each core element (Figure 16).

Figure 16. MLTSS assessment of core elements: overall coverage by state and MCO form

Horizontal bar chart. X-axis: "Forms fully meeting the element reporting requirements" (0% to 100%).

- Activities of daily living (ADLs): 80%
- Health conditions: 20%
- Medications: 60%
- Cognitive function: 20%
- Mental health status: 40%
- Home safety risks: 10%
- Living arrangement: 50%
- Family or friend caregiver: 10%
- Current providers: 40%
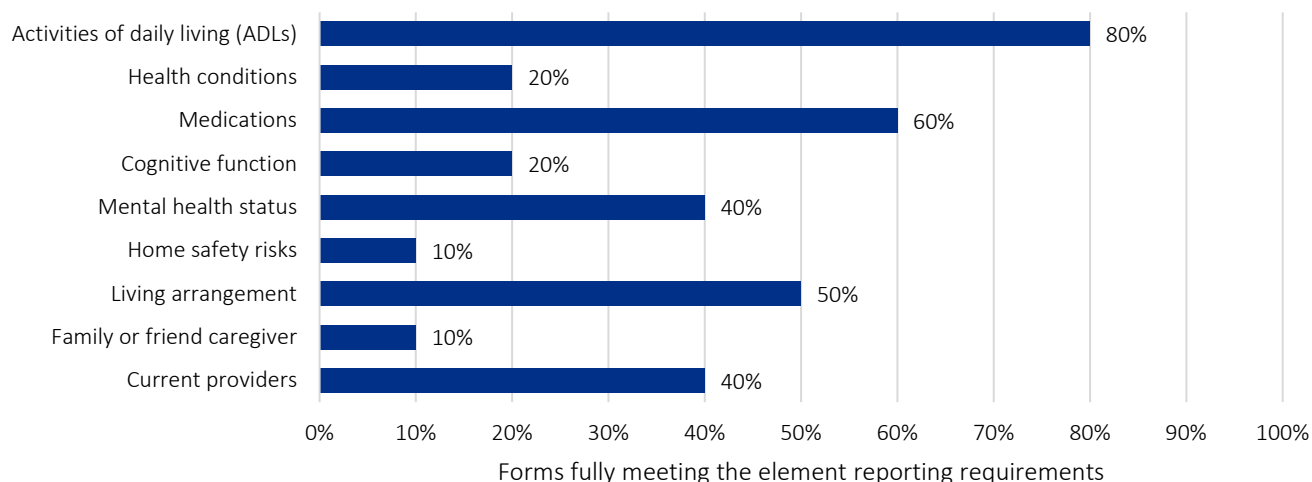
Forms for Comprehensive MLTSS Care Planning

To evaluate where care plan forms most need revisions and additions, the EQRO calculated the percentage of all care plan forms (one state form and the five MCO forms) that included fields sufficient to address each core element (Figure 17).

Figure 17.MLTSS care plan core elements: overall coverage by state and MCO form

Forms fully meeting the element reporting requirements
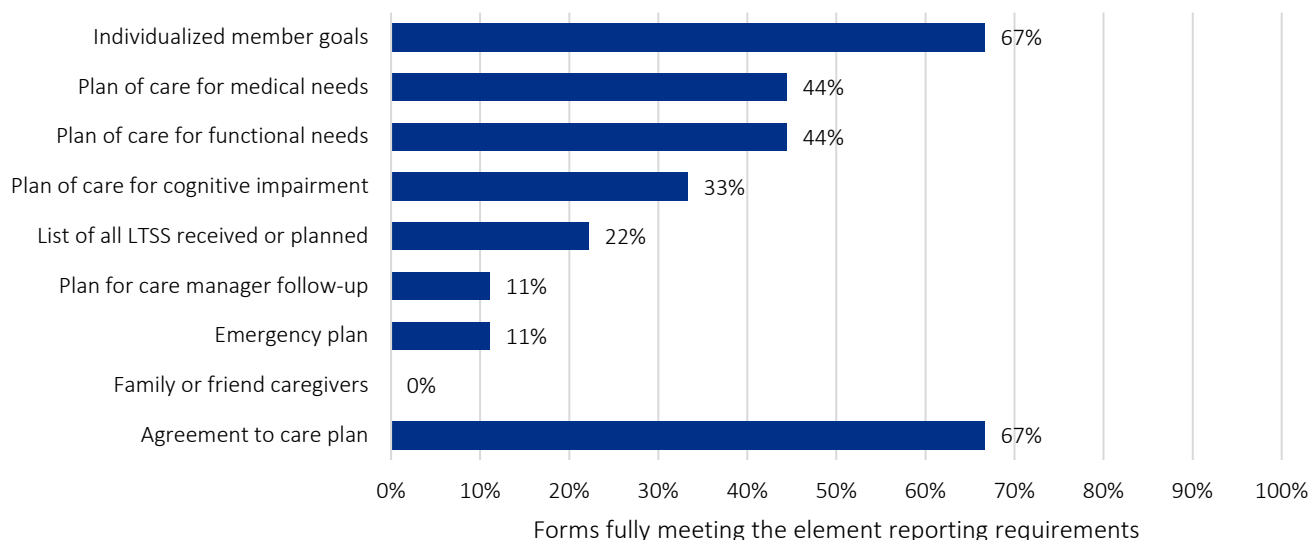
MCO Interviews

Interviews with the STAR+PLUS MCOs revealed varying levels of readiness for implementing changes needed to calculate the new measures. MCOs that use national data collection platforms noted that standardized forms developed by the state would be a challenge to implement. Regarding the sharing of members' care plans with their PCPs, all MCOs have the infrastructure needed to transmit case management records electronically. However, there are challenges to regular use of electronic portals, including low rates of portal use by providers and limitations on the member populations that MCOs include in their portals. To calculate the *LTSS-SCP* measure, MCOs can transmit care plans to PCPs via mail, fax, e-mail, or an electronic portal.

Overall MLTSS Measure Readiness

The EQRO found that evaluators can use certain combinations of the state and STAR+PLUS MCO forms to collect most of the core elements and many of the supplemental elements needed to calculate the new MLTSS measures. The state Medical Necessity Level of Care (MN-LOC) form and the STAR+PLUS MCO HRAs can be used to address LTSS assessment, and the state STAR+PLUS Home and Community Based Services (HCBS) program ISP form and the STAR+PLUS MCO care plan forms can be used to address LTSS care planning. However, substantial deficits remain in the forms that can result in missing data elements required for LTSS HEDIS measure calculation.

Recommendations

- HHSC should ensure that the MN-LOC includes fields to collect: (1) Home safety risk assessment; (2) Family and friend caregiver names, availability, and contact information; (3) Member's living arrangement; and (4) List of the member's current providers. Additionally, HHSC could revise the MN-LOC to collect supplemental assessment elements such as information on social risk resources and social support.

- HHSC should consider modifying the STAR+PLUS HCBS Program ISP form to collect the frequency at which members receive authorized LTSS and expanding the use of this form to include other STAR+PLUS members who receive LTSS but are not in the STAR+PLUS HCBS program. In addition, HHSC should consider more extensive revisions to the ISP form to collect other core elements that are missing from the form, including: individualized member goals; plans of care for medical needs, functional needs, and cognitive impairment; plan for care manager follow-up; emergency plan; and involvement of family or friend caregivers in care planning.

- HHSC should add indicators or check boxes that care managers can use to specify when a member does not have a need, condition, or circumstance related to the measure element. This will ensure that forms meet the requirements for documenting "negative findings."

- For MCOs that use national data systems, HHSC should conduct further studies to understand the challenges these MCOs face in integrating state-specific forms.

- The EQRO recommends electronic transmission as the preferred mode for MCOs to share care plans. To facilitate this, HHSC and STAR+PLUS MCOs should consider provider education and incentives to encourage use of electronic portals by PCPs.

QTR 3: Pregnancy Risk, Service Management, and Delivery Outcomes among Pregnant Women in the Texas STAR Medicaid Managed Care Program

Research consistently shows that timely, high-quality prenatal care leads to better health outcomes for both mother and baby. This is especially true for women with high-risk pregnancies, who may need to see an obstetrician frequently to detect complications, receive appropriate care, and prevent a life-threatening event. HHSC works with MCOs in the STAR Medicaid Managed Care Program to coordinate care delivery to members with special health care needs (MSHCN) including pregnant women with high-risk pregnancies, promoting maternal health through high quality, affordable care.

HHSC requires STAR MCOs to provide service management to MSHCN. Care coordination for pregnant MSHCN aims to reduce barriers that prevent or disrupt timely maternal care. To achieve this goal, MCOs help develop a service plan with a member for coordinating services among a member's primary care provider, specialty providers, and non-medical providers. This helps ensure that members have access to, and appropriately utilize, medically necessary covered services and other services and support. However, limited information exists about the effectiveness of service management for women with high-risk pregnancies, and it is unclear (a) whether all MCOs use the same criteria to identify a high-risk pregnancy, (b) how service management may affect prenatal and postpartum care utilization, and (c) how service management may affect the cost of maternal care and delivery. The EQRO conducted a study to examine differences in maternal care utilization, pregnancy outcomes, and the cost of maternal care for women enrolled in the STAR Program, with the goal of better understanding how these outcomes vary by pregnancy risk and with service plan enrollment.

Aim 1: Identify pregnancy risk cohorts for comparison

Use prenatal and postpartum encounters associated with deliveries to identify and categorize pregnancies into low-risk pregnancies and high-risk pregnancies based on:

1. HHSC high-risk criteria,
2. an encounter with an ICD-10 code for *Supervision of a high-risk pregnancy*, and
3. pregnancies that met both high-risk definitions.

Aim 2: Compare MSHCN delivery outcomes based on service plan status

Stratify the MSHCN high-risk deliveries based on service plan status and examine differences in care utilization, pregnancy outcomes, and costs for maternal care between women with a service plan and women without a service plan.

Methods

The delivery cohort included all women in STAR that delivered between February 2018 and July 2018. The EQRO flagged information from associated institutional and professional encounter records for the period nine months prior to delivery and two months after delivery. The sample included only members enrolled in STAR for the month of delivery.

The EQRO constructed delivery event chains using the method developed for the 2018 EQRO Quarterly Topic Report on severe maternal morbidity.[1] This method involved linking all continuous dates of service (DOS) from

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[1] ICHP 2018. Estimating Severe Maternal Morbidity among Women Enrolled in Texas Medicaid and CHIP. Prepared for the Texas Health and Human Services Commission. Gainesville, FL: Institute for Child Health Policy.

encounters that met the AIM delivery inclusion criteria, with no exclusion encounter in the chain. The EQRO included the first delivery event chain without exclusions that began between February 1, 2018, and July 31, 2018, for each woman.

The mother's Medicaid ID linked professional and institutional encounters associated with the delivery for the period nine months (240 days) prior to delivery and two months (60 days) after delivery. The study also used the mother's Medicaid ID to link the delivery to demographic information in the enrollment data and information on whether the member was included on the MSHCN list during pregnancy and had a service plan.

The EQRO used the demographic information included in the enrollment files and the encounter information associated with the 240-day prenatal period and 60-day postpartum period for each delivery to categorize the deliveries into five pregnancy risk cohorts.

- *Low-risk pregnancy cohort* (**Low-risk**) – This cohort included all deliveries that did not have any encounters that met the criteria for a high-risk pregnancy.
- *HHSC high-risk pregnancy cohort* (**HHRP**) – This cohort included all deliveries that met at least one of the following criteria:
    1. maternal age 14 years and younger or 36 years and older;
    2. the presence of at least one associated encounter with an ICD-10 code identifying a mental health diagnosis, a substance use or abuse diagnosis, diabetes, hypertension (including preeclampsia) based on ACOG identification guidelines for high blood pressure, diabetes, mental health, and substance use during pregnancy (ACOG, 2018c, 2016, 2018a, 2018b); or,
    3. a prior preterm delivery.
- *Supervision of high-risk pregnancy cohort* (**SHRP**) – This cohort included all deliveries with at least one encounter during the prenatal or postpartum period with an ICD-10 code associated with Supervision of high-risk pregnancy.
- *Combined high-risk pregnancy cohort* (**CHRP**) – This cohort included all deliveries that qualified for both the HHRP cohort and the SHRP cohort.

The EQRO also compared the deliveries for women that were on the MCOs MSHCN list to the HHRP deliveries, by MCO.

To fulfill the second aim, the EQRO assessed maternal care utilization using total prenatal and postnatal encounter days, total prenatal screenings, and total screening follow-ups, and assessed expenditures using the total paid for delivery and overall paid costs[1] as outcome measures. The analyses for the second aim were limited to MSHCN, since only those members had the opportunity to have a service plan. The maternal care utilization variables included:

1. the total number of prenatal screening diagnoses during pregnancy,
2. the number of days with a prenatal or postpartum encounter (based on the HEDIS-PPC value sets for visits or bundled services), and
3. the total number of *SHRP*-risk encounters during the prenatal and postpartum periods (based on the presence of a *Supervision of high-risk pregnancy* code).

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[1] Overall paid cost is the sum of paid costs for encounters in the antenatal period, postpartum period, and all encounters in the delivery event span.

To assess pregnancy outcome, the EQRO followed the method developed in 2018 and used all encounters beginning from seven days prior through 15 days after the initial delivery event chain to identify cases of severe maternal morbidity, obstetric hemorrhage, and preeclampsia for each delivery. The EQRO included institutional and professional claims in the 240 days prior to delivery, the claims included in the delivery event, and the claims included in the 60 days after the delivery event to estimate the total amounts paid for the prenatal and postpartum periods, the delivery event, and a combined total. The EQRO used descriptive statistics (count and valid percent for categorical variables; mean, median, maximum, and minimum) and non-parametric statistics (Chi-square, Mann Whitney U, and Kruskal Wallace one-way analysis) to assess and describe the variation between and within groups (risk cohorts and outcome categories), and natural log transformation for non-normally distributed cost data. Log (logarithmic) transformation is a data transformation technique used to reduce the skew in a data distribution by making it more symmetric and helps ensure that data meet the assumption of normality for statistical analysis.[1]

Key Findings

Adding the ICD-10 codes for *Supervision of a high-risk pregnancy* (SHRP) to the present HHSC criteria for identifying high-risk pregnancies may help capture more women at risk for poor pregnancy outcomes. For example, the mean and maximum numbers of high-risk pregnancy encounters were higher for the CHRP cohort than for the SHRP cohort (Table 44), suggesting that the deliveries captured by the combined risk criteria may represent more complex high-risk pregnancy cases. Also, the CHRP cohort also had the highest percent of deliveries with a C-section, severe maternal morbidity, obstetric hemorrhage, and preeclampsia. This indicates that including the SHRP criteria along with the current HHSC criteria for high-risk pregnancy may help capture more at-risk pregnancies. It also helps support the argument that the high-risk cases captured using the combined criteria may be more complex than those captured in other cohorts.

Table 44. High risk encounters, by pregnancy cohort

Pregnancy Cohort	Risk Encounter Category	Mean	Median	Standard Deviation	Min	Max
SHRP	Total prenatal high-risk pregnancy encounters	7.5	6.0	6.3	0.0	56.0
	Total postpartum high-risk pregnancy encounters	0.1	0.0	0.4	0.0	17.0
CHRP	Total prenatal high-risk pregnancy encounters	9.8	8.0	8.3	0.0	66.0
	Total postpartum high-risk pregnancy encounters	0.1	0.0	0.8	0.0	32.0

Significant variation exists in the way that different MCOs identify a high-risk pregnancy. Some MCOs appear to be using the criteria outlined by HHSC for identifying women at risk for poor pregnancy outcomes; however, others have far more or far fewer women on their MSHCN list than were identified in the HHRP cohort. For example, Driscoll and RightCare from Scott & White (S&W) had almost twice as many members on the MSHCN list compared to those identified in the HHRP cohort (Driscoll: 173 percent; S&W: 183.5 percent), while FirstCare only had 2.4 percent of HHRP members on their list. The variation in the percent of eligible deliveries

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[1] Log transformations cannot be used with data that is equal to or less than zero, so 0.5 was added to all paid delivery chain costs and overall costs prior to transformation. Zero-dollar claims were not excluded from analyses because they represented less than five percent of claims and their removal did not shift median costs for delivery or medians for overall cost.

on the MSHCN list suggests that the MCOs either are not utilizing HHSC criteria for identifying high-risk pregnancies or are not identifying eligible cases for MSHCN inclusion.

Just under 60 percent of the members on the MSHCN report with deliveries in the study cohorts were associated with a service plan. While some of the MCOs had developed service plans for nearly all their pregnant MSHCN members, four MCOs stood out because less than 15 percent of their MSHCN members had service plans (Figure 18).

Figure 18. Percentage of pregnant MSHCN with a service plan during the measurement period
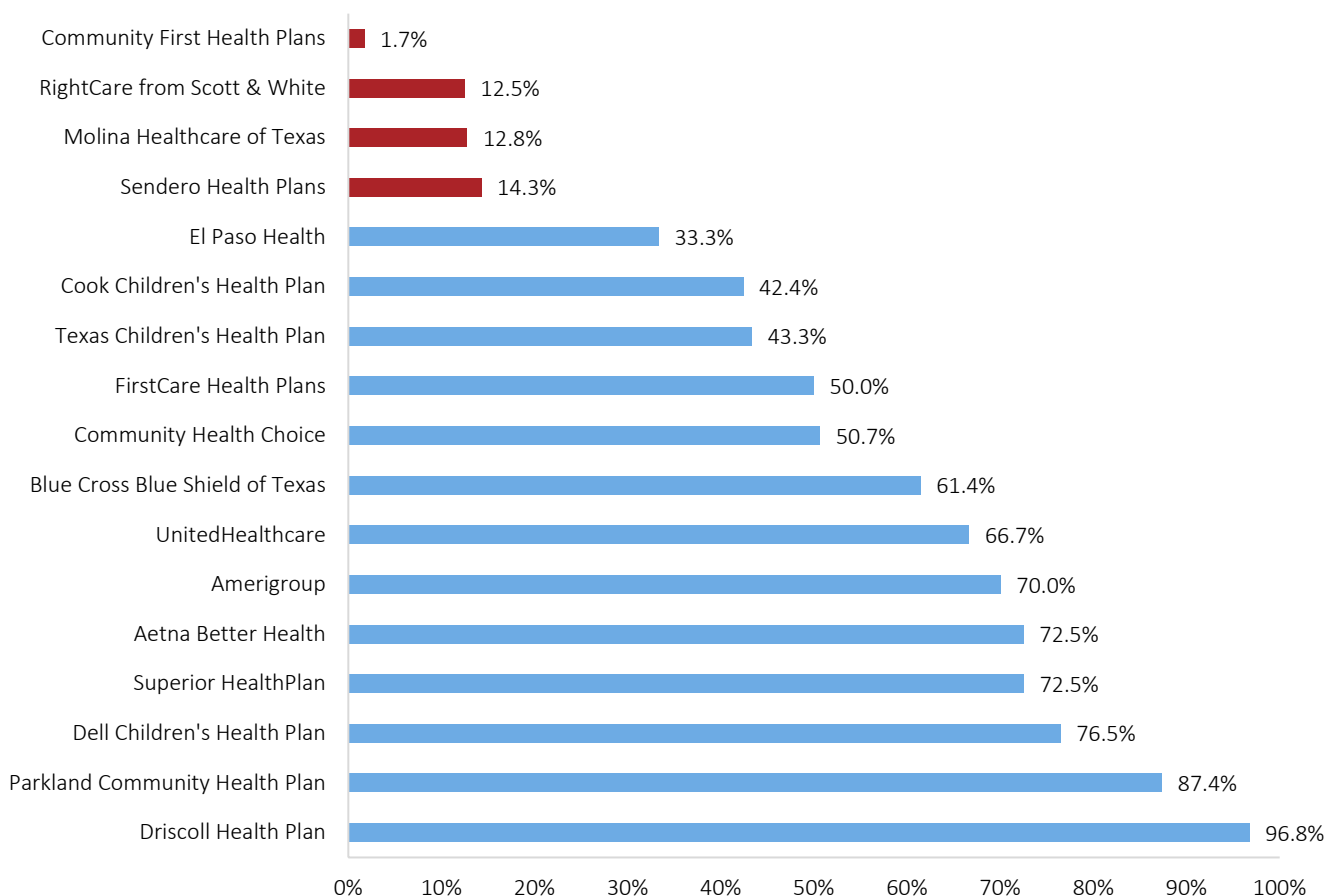
Ultimately, the limited information available about the criteria used by MCOs for identifying high-risk pregnancies for MSHCN list inclusion, the small percent of deliveries associated with MSHCN members, and even lower percent of MSHCN members with service plans makes it difficult to determine the quality or effectiveness of the care provided to MSHCN with high-risk pregnancies (Table 45).

Table 45. Distribution of MSHCN inclusion and service plans, by pregnancy risk group

MSHCN Service Plan		All Deliveries		All High-Risk Deliveries	
Not MSHCN		67,389	93.2%	47,719	66.0%
MSHCN	*No Plan*	2,014	2.8%	1,721	2.4%
	Service Plan	2,922	4.8%	2,625	3.6%

The EQRO found no significant differences in the rates of severe maternal morbidity, obstetric hemorrhage, or preeclampsia based on service plan status. However, plan status was associated with a significant difference in the frequency of pregnancy complications. The percentage of women diagnosed with obesity-related pregnancy complications and diagnosed with diabetes was higher among MSHCN members with service plans while the percentage of women with substance use or abuse, or mental health diagnoses was lower among those with service plans. Given the complex needs of MSHCN, understanding the linkages between care patterns and maternal health outcomes requires a more in-depth analysis on the specific types of care coordination received by pregnant MSHCN with service plans, across different MCOs.

Significant differences existed based on service plan status in the overall paid expenditures for MSHCN, which may be due to differences in rates of care utilization. MSHCN with a service plan had a statistically significant increase in the number of days with a prenatal care encounter compared to MSHCN without a service plan, across all cohorts. However, interpreting the differences in care utilization and understanding their relationship to healthcare expenditures requires additional research.

Recommendations

- The EQRO recommends including the ICD-10 codes for *Supervision of high-risk pregnancy* in the HHSC criteria for identifying high-risk pregnancy.
- HHSC should work with the MCOs to gain a better understanding of how each MCO identifies women with high-risk pregnancies for MSHCN inclusion. Then, HHSC should consider using this information to refine and standardize the criteria for all MCOs to use for identifying high-risk pregnancy.
- HHSC should work with the MCOs to identify barriers to implementing service plans for high-risk pregnancies and develop successful approaches to overcome these barriers.
- HHSC should consider additional in-depth studies to identify specific ways that service plans affect the timeliness, quality, and cost of care that MSHCN receive during pregnancy.

QTR 4: Social Determinants of Health: Asthma, Type 2 Diabetes, and ADHD among Children in Texas Medicaid

The World Health Organization's Commission on the Social Determinants of Health (SDoH) defines SDoH as the conditions in which people live, work, and age (Commission on SDoH, 2008). The unequal distribution of power, income, goods, and services in some groups leads to consequent inequities in access to health care, education, quality of living and work conditions. The conditions of daily life that constitute SDoH are the major driving factors, outside of the health system, that influence differences in injury, illness, and early death. Addressing SDoH leads the discussion about health outcomes and health disparities and is one of the four overarching goals listed in Healthy People 2020 (Breen, 2017). In August 2019, the Texas EQRO conducted a study to identify the social determinants that contribute to asthma, type 2 diabetes, and attention-deficit hyperactivity disorder (ADHD) diagnoses rates among children in Texas Medicaid managed care programs (STAR, STAR Health, and STAR Kids).

Methods

The study population included all children and adolescents aged 17 years and younger, enrolled in the STAR, STAR Health, or STAR Kids programs during 2017. Enrollment data provided information on members' sex, race, ethnicity, and age as of December 31, 2017. The EQRO identified members with diagnoses of asthma, type 2 diabetes, or ADHD during 2017 using encounter data and calculated rates for each condition for all sociodemographic populations within each Medicaid program and SA. The report classified counties into metropolitan, micropolitan, and rural categories based on the population density parameters that HHSC uses to evaluate network adequacy.

To characterize the social vulnerability of the study population, the EQRO used the socioeconomic component of the CDC's Social Vulnerability Index (Flanagan et al., 2018). The index is a composite of four individual indices that ranks census tracts on 15 social factors, including poverty, employment, income, education, lack of vehicle access, and crowded housing, and then groups them into four individual indices (Figure 19). The socioeconomic status vulnerability (SEV) component incorporates poverty, income, employment, and education.

Figure 19. CDC Social Vulnerability Index
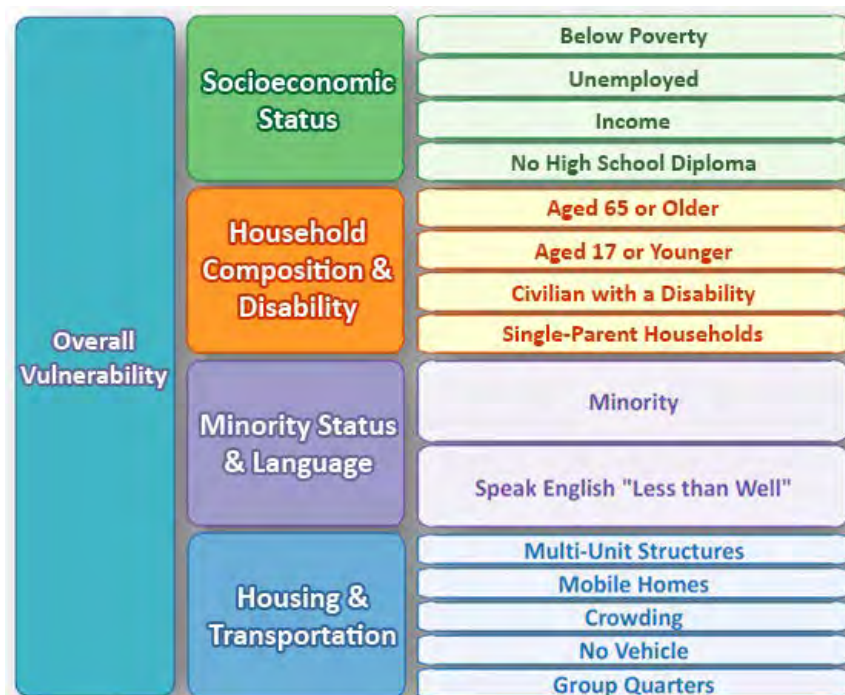
After ranking all children in the study population based on their census tract SEV, the EQRO:

1. graphed populations of each racial, ethnic and rurality category based on SEV,
2. created bivariate map displays of the prevalence of each condition (e.g., asthma, type 2 diabetes, or ADHD) and SEV at the county and census tract level.

Results

The study identified 2,874,162 Texas Medicaid children younger than 18 years enrolled for at least six months in calendar year 2017. Females comprised 48.8 percent of this group; 56.5 percent were Hispanic, 14.1 percent were non-Hispanic white (NHW), 13.3 percent were non-Hispanic black (NHB), and 14.3 percent did not have a race-ethnicity identified. Most of the children and adolescents in Texas live in metropolitan counties (83.4 percent), while 10.4 percent reside in rural counties, and 5.7 percent reside in micropolitan counties. Overall, NHW children live in communities that are less vulnerable than those of Hispanic children, while NHB children live in communities that are mid-level in terms of vulnerability relative to other demographic groups within Texas Medicaid. Hispanic child members, who comprise 56 percent of all children and adolescent members, are strongly concentrated in the highest vulnerability quintiles.

Asthma

In 2017, 160,233 Texas Medicaid members aged 17 years and younger had a diagnosis of asthma. Rates of asthma were highest for NHB children who lived in the most vulnerable communities. These findings echo previous literature, which demonstrated a clear link between race, poverty, and rates of asthma (Beck et al., 2016). Figure 20 compares overall state rates of asthma prevalence to the prevalence of asthma for children by SEV quintile and across race-ethnicity and rurality categories. Generally, asthma is more prevalent in children from higher SEV neighborhoods; children in the highest vulnerability neighborhoods had higher rates of asthma (6.1 percent), compared to children in the lowest vulnerability neighborhoods (5.3 percent). Asthma rates in every SEV quintile exceeded state Medicaid rates and NHB children had the highest prevalence of asthma (6.9 percent). In fact, NHB children living in the lowest vulnerability neighborhoods still had asthma rates well above NHW, Hispanic, Native American, and rural children living in the highest vulnerability neighborhoods.

Figure 20. 2017 prevalence of asthma among children aged 17 years and younger, by socioeconomic quintile
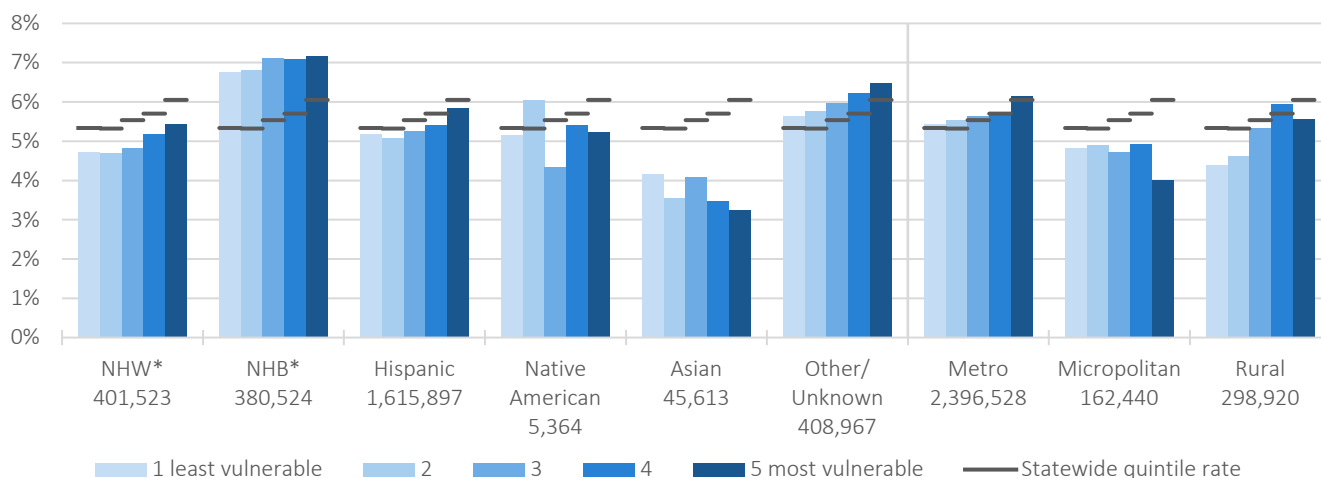
*NHW = non-Hispanic white; NHB = non-Hispanic black

As shown in Figure 21, however, SEV alone was not strongly associated with asthma prevalence; the number of counties in each category ranged from 27 to 32, distributed equally across the SEV by prevalence gradient.

Counties with both high vulnerability and high asthma prevalence (colored burgundy) appear throughout the state but primarily cluster in the southern part of Texas. Counties with lower vulnerability and high asthma prevalence (colored dark blue) are more common in large urban areas.

Figure 21. 2017 county asthma prevalence and socioeconomic vulnerability
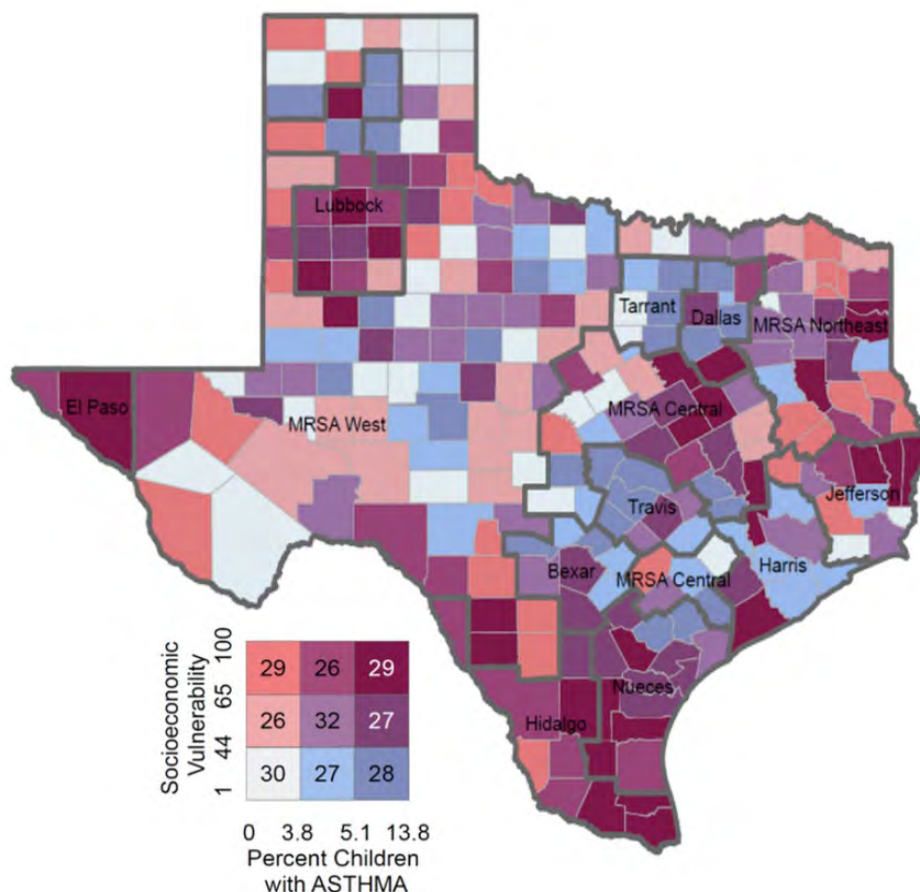
Type 2 Diabetes

In 2017, 2,890 Texas Medicaid members aged 17 years and younger had a type 2 diabetes diagnosis. The incidence of type 2 diabetes is rare in children aged nine years and younger; therefore, the EQRO evaluated the burden of type 2 diabetes for children aged 10 to 17 years as of December 31, 2017.

The EQRO found that higher neighborhood SEV correlated to higher prevalence of type 2 diabetes, and this held true for all demographic groups in this study, except for the highest vulnerability quintiles of NHW children (Figure 22). Hispanic children drove the statewide rates and had higher type 2 diabetes prevalence in higher vulnerability quintiles. Hispanic children comprise approximately 56 percent of Texas Medicaid children. The high rates of type 2 diabetes for children with other/unknown race-ethnicity across all SEV quintiles, demonstrates the vulnerability of this group. The populations of Texas Medicaid children with type 2 diabetes and Asian or Native American descent were too small to represent in this graph. The trend in micropolitan counties shows a much higher rate of type 2 diabetes among the highest vulnerability quintiles. Rural counties show a bimodal distribution, with high rates of type 2 diabetes in the highest and lowest vulnerability quintiles.

Figure 22. 2017 prevalence of type 2 diabetes among members aged 10 to 17 years, by socioeconomic quintile
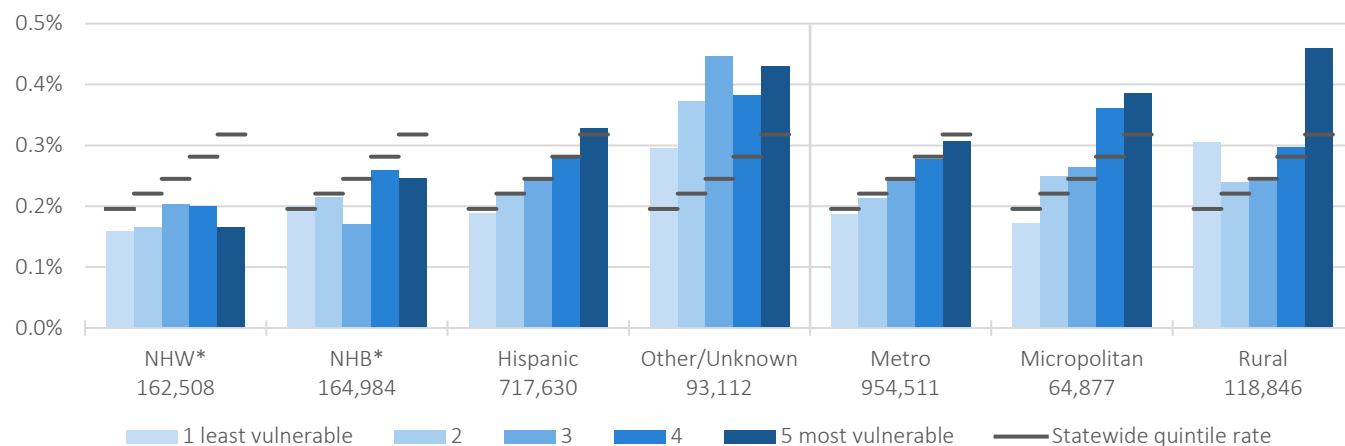
*NHW = non-Hispanic white; NHB = non-Hispanic black

Figure 23 shows the co-occurrence type 2 diabetes with high SEV in 2017. The largest category includes 29 counties with a co-occurrence of higher SEV and a higher percentage of children with type 2 diabetes. Although scattered throughout the state, these counties primarily cluster in the southern part of Texas. Eighteen counties, mostly in the east, had high vulnerability but low rates of type 2 diabetes. Many rural counties, mostly in the western and northern parts of the state, had fewer than 300 children aged 10 to 17 years with diabetes.

Figure 23. 2017 county diabetes prevalence and socioeconomic vulnerability
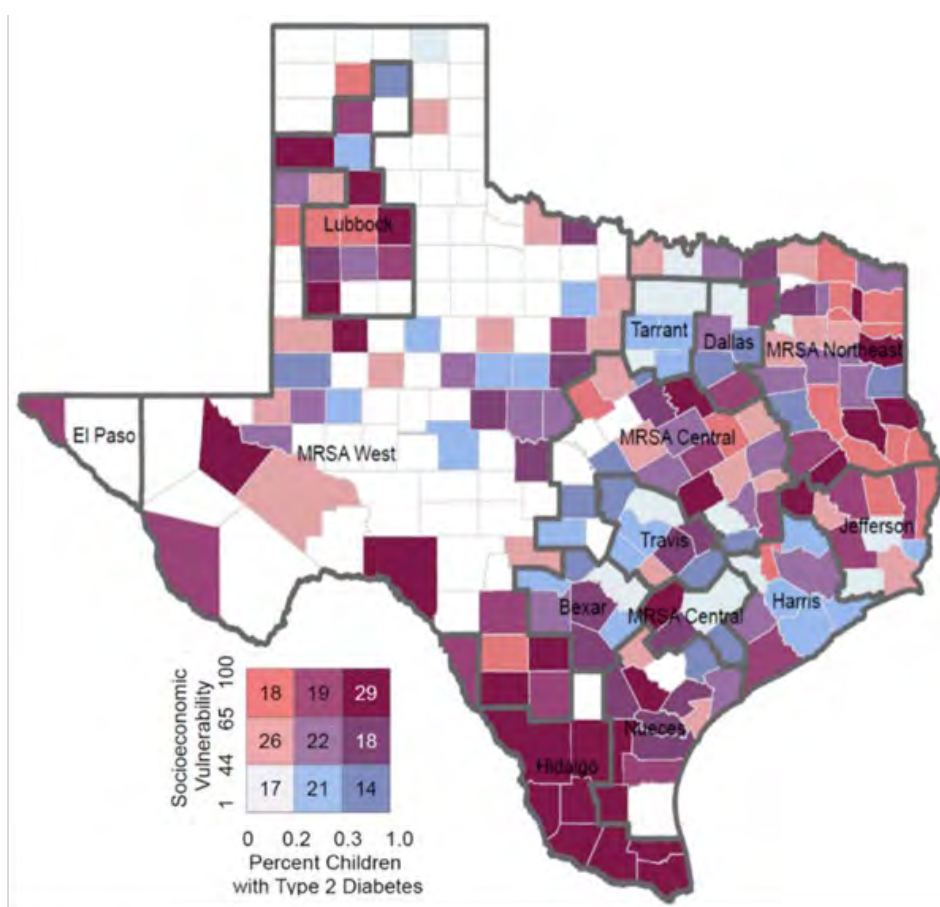
Counties with fewer than 300 children aged 10-to-17 years with diabetes are unshaded.

Attention-Deficit/Hyperactivity Disorder (ADHD)

In 2017, 172,263 Texas Medicaid members aged 17 years and younger had a diagnosis of ADHD. The EQRO determined the ADHD prevalence among children aged two to 17 years, following standards used by the CDC and the National Center for Health Statistics. Children in the highest vulnerability SEV tended to have higher rates of ADHD (Figure 24). NHW children had above average ADHD prevalence for most SEV quintiles, and equal to the state rate for the most vulnerable. Conversely, Hispanic children had an ADHD prevalence below the state rate for all quintiles except the most vulnerable. Children of unknown/other race-ethnicity had the highest prevalence of ADHD in all vulnerability quintiles. Children of Native American and Asian descent display lower rates of ADHD in higher vulnerability quintiles. Metropolitan children, who comprise 85 percent of the Texas Medicaid child and adolescent population, had an ADHD prevalence distribution that mirrored the state, with a higher percentage of children with ADHD in the higher vulnerability quintiles. The trend in metropolitan and micropolitan counties shows a bimodal distribution, with higher rates of ADHD in the lowest and the highest vulnerability quintiles.

Figure 24. 2017 prevalence of ADHD, by socioeconomic vulnerability quintile
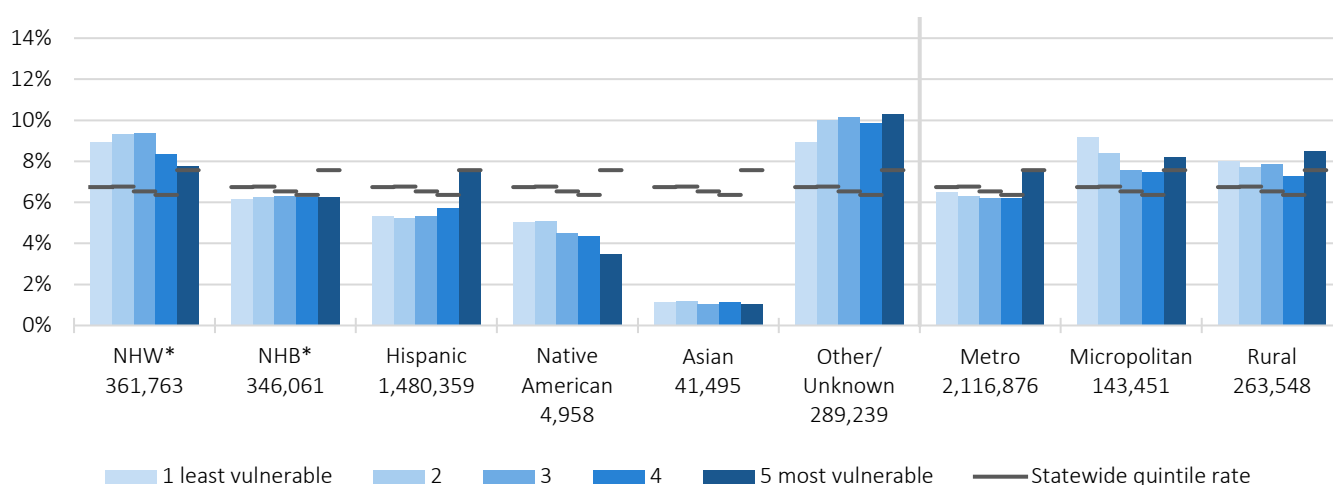
NHW = non-Hispanic white; NHB = non-Hispanic black

As shown in Figure 25, the EQRO found little association between SEV and prevalence of ADHD; the distribution of counties ranging by prevalence and SEV categories ranging from 24 to 32. Although, as with asthma and type 2 diabetes, counties with both high vulnerability and high ADHD prevalence (colored burgundy) clustered primarily in the eastern southern part of Texas. Counties with low ADHD prevalence and low SEV are located adjacent to urban cores and throughout the rural west.

Figure 25. 2017 county ADHD prevalence and socioeconomic vulnerability
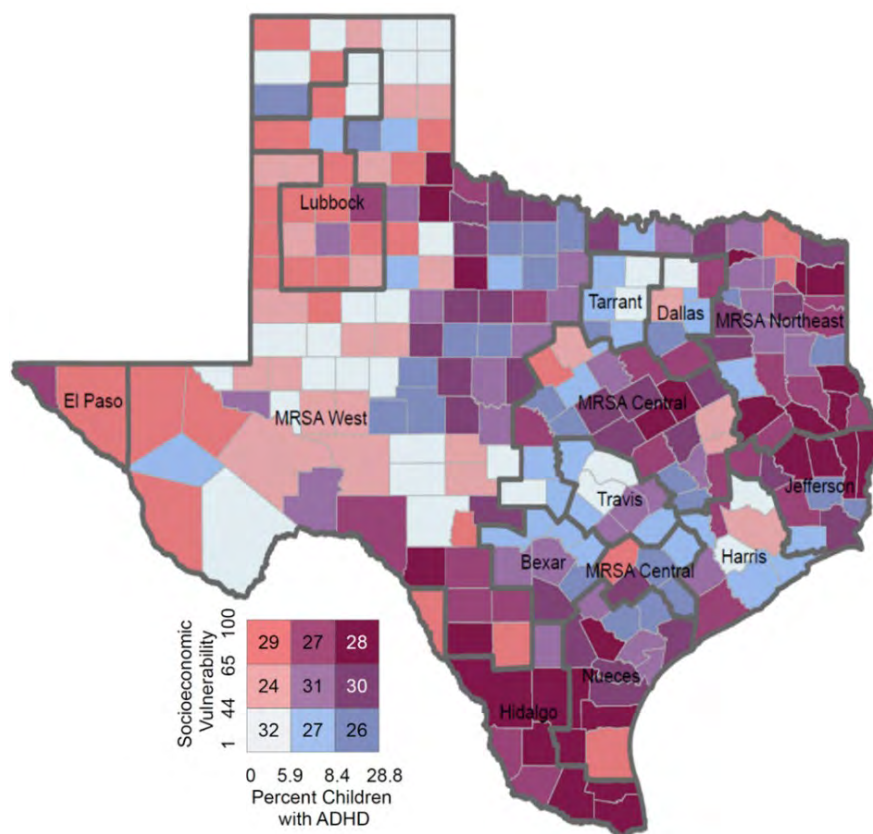
Recommendations

- MCOs should ensure that their SDoH screening tools include questions related to economic stability, education, food security, health and clinical care, neighborhood and physical environment, and social and community context including perceived racial discrimination, to develop interventions targeting vulnerable sociodemographic groups. MCOs can address these topics using standardized screening tools, such as the Protocol for Responding to and Assessing Patients' Assets, Risk, and Experiences (NACHC, 2020).
- HHSC should consider incentivizing the implementation of SDoH focused interventions.
- HHSC and the MCOs should analyze geographic network adequacy separately for each sociodemographic group to better address geographic disparities and ensure that they meet Medicaid contract standards for all members.
- The EQRO recommends conducting further studies in Nueces and Hidalgo to identify the factors that are contributing to the higher rates of asthma, type 2 diabetes, and ADHD in these SAs.
- MCOs should collaborate with community partners (e.g. local libraries, HeadStart) to promote health literacy through health education programs (Jacobs et al., 2016). Two promising interventions are: (a) eHealth educational interventions tailored to people with low health and tech literacy skills (Han et al., 2017); and (b) community-based educational interventions led by community health workers to help improve health literacy.
- Children in the unknown/other category for race-ethnicity now comprise the largest group after Hispanics, which warrants further investigation to help develop and implement successful demographic-specific interventions for this group.

Issue Brief 1: Texas Medicaid: Brief Analysis of Adult Cirrhosis, Hepatitis C Virus, and Liver Cancer

Cirrhosis is a serious degenerative disease that scars liver tissue and can lead to liver failure, liver cancer, and ultimately death. It is an important issue for state Medicaid programs because 43 percent of all cirrhosis patients in the United States likely have Medicaid coverage (Ho et al., 2015). The most common causes of cirrhosis are chronic alcohol abuse, obesity, and hepatitis C virus (Hep C), which also contribute to the development of hepatocellular carcinoma (HCC), the most common type of liver cancer (Kochanek et al., 2019). Annually, two to seven percent of patients with cirrhosis develop HCC. As of 2017, chronic liver disease was the 11th leading cause of death in the United States and rates of chronic liver disease and cirrhosis are rising (Kochanek et al., 2019). Additionally, research shows likely underestimation of death related to liver disease, especially among Hispanics (Ha et al., 2017), and predicts that these rates and associated costs will continue to increase (Volk & Kanwal, 2016). By 2030, HCC will likely become the third leading cause of cancer deaths in the United States (Rahib et al., 2014). Texas has one of the nation's highest rates of liver cancer mortality (Asrani et al., 2013; CDC, 2020b), in part because the Hispanic adults of South Texas have the highest incidence of HCC in the country (Islami et al., 2017).

In 2018, the EQRO conducted a study to explore the burden of cirrhosis, Hep C, and liver cancer in Texas Medicaid. The study had two main objectives:

1. describe the prevalence of cirrhosis, hepatitis C, and liver cancer in Texas Medicaid, and
2. estimate the cost of cirrhosis in Texas Medicaid

Prevalence

In 2017, the overall prevalence of cirrhosis in Texas Medicaid among members aged 45 to 64 years was 3.3 percent. Hispanics had the highest rate of cirrhosis diagnosis (4.7 percent). The NHB members had the lowest rate of cirrhosis diagnosis (1.7 percent), although in the Hidalgo SA, the rate for this group was strikingly high (5.3 percent). The Nueces and Bexar SAs had higher cirrhosis rates across most demographic groups.

In 2017, the overall prevalence of Hep C in Texas Medicaid among members aged 45 to 64 years was 5.9 percent. Members whose race-ethnicity was unknown/other had the highest rate of diagnosed Hep C (7.6 percent), followed by non-Hispanic black members (6.3 percent). Although Hispanics had the highest rates of cirrhosis, they had the lowest rate of diagnosed Hep C (4.6 percent), and the Hidalgo SA stood out with low rates of Hep C across all demographic categories. Conversely, the Bexar SA had higher rates across most categories, especially the Hispanic population, while the Travis SA also had higher rates, most notably the non-Hispanic black population.

The overall prevalence of HCC in Texas Medicaid among members aged 45 to 64 years was 0.4 percent in 2017. Older adults (age 55-64), and men had higher rates of HCC. Hispanic members had a higher rate than non-Hispanic members and members with other/unknown race-ethnicity. The Nueces SA had the highest overall rate among SAs, and above average rates across demographic groups. Members whose race and ethnicity were unknown had much higher rates of HCC than members of other demographic groups, as well as higher rates of cirrhosis and Hep C than non-Hispanic members.

An unexpected number of members in the study had race-ethnicity reported as unknown/other, most particularly, 23 percent of STAR+PLUS members. Prevalence of liver conditions in this group varied from other race-ethnicity groups, and across other demographic categories.

Hispanics had the highest prevalence of HCC in Texas Medicaid. However, members of southwest border counties had a lower prevalence of HCC (Figure 26).

Figure 26 2017 county level prevalence of hepatocellular carcinoma in Texas adults, aged 45 to 64 years
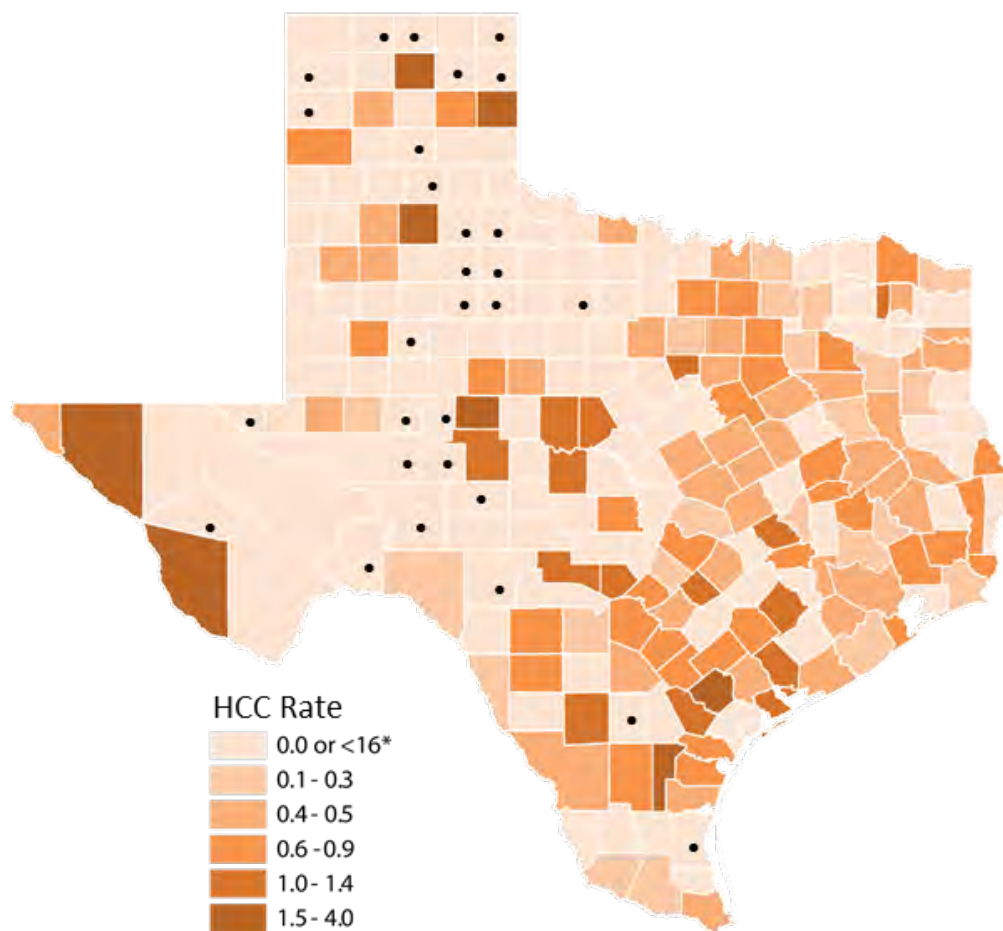
Other studies have found that Hispanics in South Texas have the highest rate of new HCC diagnoses and the highest incidence of HCC in the United States (Ha et al., 2017). This discrepancy may be due to an under-diagnosis of HCC in the border region or an underestimate of deaths related to liver disease among Hispanics (Asrani et al., 2013). It is also possible that cancer patients requiring significant advanced health care relocate to areas with greater health care resources (i.e. the regions of Corpus Christi, Victoria, San Antonio etc.), thus giving their home counties the appearance of having lower rates of HCC.

Cirrhosis Costs

In 2017, expenditures for 6,853 members aged 25 to 64 years with cirrhosis totaled $279,909,086. Care for cirrhosis patients served through traditional Medicaid (FFS) was costlier than care for patients served by the STAR or STAR+PLUS managed care programs. Table 46 shows the average total care costs for cirrhosis patients and healthy Medicaid members. Health status was determined using 3M CRG (Appendix A), comparing healthy members (CRG 1) and those with major or multiple chronic conditions (CRG 6, 7, 8, or 9; SHCN – Major), with or without cirrhosis. Members with cirrhosis had more than 30 times the total average care costs of healthy members. Even among members with serious special healthcare needs (SHCN – Major), members with cirrhosis had more than twice the costs of those members without cirrhosis.

Table 46. 2017 average total care costs by health status and cirrhosis diagnosis

Member Group	FFS	STAR	STAR+PLUS	All Programs
	Number of Members			
Members with Cirrhosis	691	392	5,770	6,853
	Average Total Healthcare Costs			
Healthy Members (CRG = 1)	$934	$1,809	$450	$1,202
Diagnosed Cirrhosis (Any CRG)	$54,743	$32,136	$39,772	$40,845
	Average Total Healthcare Costs			
SHCN – Major, without Cirrhosis Diagnosis	$24,836	$12,879	$21,975	$20,594
SHCN – Major, with Cirrhosis Diagnosis	$60,494	$37,564	$42,141	$43,571

Recommendations

- Efforts to improve public health outcomes through early diagnosis should focus on improving access to care for border populations and increasing screening for Hep C among Hispanic members, who may be under-diagnosed for Hep C.
- The EQRO recommends further investigation into prevalence and the populations with Hep C and HCC, particularly in southern Texas, and non-Hispanic blacks in the Hidalgo SA.
- The EQRO saw an increase in members having unknown/other race-ethnicity in enrollment data across multiple studies. Without understanding the makeup of this population, demographic analyses are challenging. HHSC should investigate this trend further.

Issue Brief 2: Trends in Emergency Department Visits for Non-Traumatic Dental Conditions in Texas Medicaid and the Children's Health Insurance Program, 2013-2017

Approximately one percent of all ED visits in the United States are related to non-traumatic dental conditions (NTDCs), including dental pain and complications from untreated dental caries(Rui et al., 2016). Dental caries is a prevalent and usually preventable condition. ED visits for non-traumatic dental conditions are costly, and most patients will need a dentist referral for appropriate treatment because emergency services often only alleviate pain and infection (Kelekar & Naavaal, 2019). In February and March 2019, the EQRO conducted an issue brief study to examine trends in ED visits related to NTDC.

Methods

The EQRO examined ED visits related to NTDC for the years 2013-2017 among members 20 years old or younger in Texas Medicaid and CHIP. Researchers examined administrative claims and encounter data for the five study years to show:

1. changes in rates of ED visits and ED visit costs for NTDCs;
2. differences in rates of ED visits for NTDCs according to member sociodemographic characteristics; and
3. the distribution of ED visits for NTDCs according to the type of condition treated.

Results

Rate of ED Visits for NTDC, 2013-2017

In 2017, the rate of non-dental related ED visits among Texas Medicaid and CHIP members 20 years and younger was 4,895 per 100,000 member months. The rate of ED visits for NTDCs was 53 per 100,000 member months (i.e., about one percent of ED visits were related to NTDC). When compared to comparable rates from 2013, the 2017 non-dental related ED visit rates in this age group decreased by 6.9 percent and ED visits for NTDCs showed a substantially larger decrease of 24.1 percent.

Trends in ED Visits for NTDCs by Sex, 2013-2017

Among Texas Medicaid and CHIP members aged 20 years and younger, males visited the ED for NTDCs more frequently than females did each year. Year-to-year changes were nearly the same for both sexes.

Trends in ED Visits for NTDCs by Age, 2013-2017

Overall, rates of ED visits for NTDCs were higher among children aged five years and younger, compared to rates in other age groups. All age groups showed a decrease in rates of ED visits for NTDCs, with the greatest decrease among members aged 13 to 20 years (39 percent; p-value < 0.001).

Demographic Distribution of Members with ED Visits for NTDCs

The percentage of members who had at least one ED visit for NTDCs was disproportionately higher for members aged 0 to 5 years and for members in the STAR program. In contrast, the percentage of members who had an ED visit for NTDCs was disproportionately lower for members aged six to 12 years, Hispanic members, and members in CHIP.

Cost of ED Visits for NTDCs

During the years 2013 to 2017, Medicaid and CHIP paid approximately $44 million for ED visits for NTDCs. The adjusted cost per ED visit was highest in 2015 ($334 per visit) and lowest in 2017 ($308 per visit).

Diagnoses Associated with ED Visits for NTDCs

Results show that among members aged five years and younger, approximately 45 percent of ED visits for NTDCs were due to complications of dental caries. The proportion of visits due to complications of dental caries increased with age, reaching 65 percent of visits among members aged 6 to 12 years, and 69 percent of visits among members 13 to 20 years old.

Conclusions

Findings from this report indicate that a substantial number of ED visits for NTDCs are due to complications of dental caries, which is a potentially preventable oral disease that dental offices can more appropriately treat at a lower cost.

Recommendations

- MCOS and DMOs should focus efforts on educating Medicaid and CHIP members about preventive oral health care and the resources for dental treatment available in their communities.
- HHSC should work with the DMOs to improve access to preventive dental services, which may increase rates of early diagnosis and dental treatment and reduce the number of ED visits related to NTDCs.
- The EQRO suggests continuing to monitor the number of ED visits related to potentially preventable dental conditions. The diagnosis codes used in this study align with specifications for the Dental Quality Alliance (DQA) measure of ED visits for dental caries in children (DQA, 2019), which the EQRO reports for Texas Medicaid and CHIP annually. Texas approved the DQA measure for inclusion in the 2020 dental P4Q program. Future studies may use this measure to examine the association of ED visits for NTDCs with the frequency of regular preventive dental visits.

Issue Brief 3: Accounting for Health Teleservices in Measures of Network Adequacy

Health teleservices use electronic information and telecommunication technologies to deliver health care remotely. In the digital age, health teleservices offer a way to improve access to care and network adequacy, especially in medically underserved areas. Texas is poised to benefit from expanding state and federal initiatives that expand teleservices across all areas of clinical care. The teleservices initiatives may help alleviate shortages in acute care and behavioral health care, especially in rural areas that may lack teleservices.

The EQRO reviewed federal and state initiatives to advance teleservice, focusing on how programs account for teleservices in measures of network adequacy. To describe teleservice utilization patterns in Texas Medicaid managed care and CHIP, the EQRO:

1. examined ratios of teleservice to outpatient visits for three HEDIS utilization measures (IAD, MPT, and AMB), and
2. compared teleservice utilization rates in behavioral health care between 2017 and 2018 using HEDIS 2019 teleservice value sets and procedure codes promoted by CMS.

Federal Initiatives

Currently, the Health Resources & Services Administration (HRSA) offers eight federal programs that aim to expand teleservices. Through 2019 appropriations, the Federal government designated $1 million for mental and other health services, including teleservices, to veterans and residents of rural areas (HRSA, 2017). In addition, in November 2018, CMS proposed to make it optional for states to use travel time and distance standards to assess network adequacy (CMS, 2018b); if finalized, this rule would allow states to use other quantitative standards, such as minimum provider-to-enrollee ratios or maximum wait times for an appointment, to assess the adequacy of networks that use teleservices.

State Initiatives

Federal guidelines for Medicaid allow each state to determine how to support teleservices. As a result, some states use more broad qualitative standards, such as "timely" access to providers, and others use a more specific set of quantitative standards, such as minimum provider-to-enrollee ratio and minimum travel time (MACPAC, 2018; Wishner & Marks, 2017). Currently, all states except Massachusetts have rules governing Medicaid teleservice reimbursement based on service modality. While live video is the most predominantly reimbursed modality, many states impose varying restrictions on reimbursement according to specialty type, type of service, type of provider, and the patient's location at the time of service, also known as the originating site (Public Health Institute, 2018).

Telehealth Utilization in Texas

In 2017, the ratios of teleservice to outpatient visits for the HEDIS measures Mental Health Utilization (MPT) and Identification of Alcohol and Other Drug Services (IAD) were higher in rural areas, especially in MRSA West and MRSA Northeast. For MPT, teleservice utilization rates ranged from 0.02 percent in El Paso to 0.38 percent in MRSA West. MRSA Northeast, Hidalgo, and MRSA West had the highest teleservice utilization rates for both MPT and IAD. Teleservice rates in the Ambulatory Care (AMB) measure were too low to make reliable conclusions.

Behavioral health teleservice utilization in Texas increased between 2017 and 2018 across all categories of age, sex, race-ethnicity, and most SAs. For example, the increase among NHW members (+30 percent) was greater than that for NHB members (+20 percent), and lower than the increase among Hispanic members (+38 percent).

In both years, utilization was highest for members aged 35 to 64 years and increased by 25 percent between 2017 and 2018. The rate of increase in utilization between 2017 and 2018 was similar for all age groups, ranging from 23 percent for members aged 18 to 24 years, to 30 percent for members aged 12 years and younger.

Rural areas showed the greatest increase in teleservice utilization between 2017 and 2018. The MRSA West SA had the highest utilization rates in both years. While the El Paso SA had the lowest utilization in 2017, it had higher utilization than the Harris SA in 2018. The top three SAs with the highest rates of increase were: El Paso (266 percent), Tarrant (122 percent), and Bexar (50 percent).

Based on claims and encounter data, since 2017, when the Texas Legislature implemented initiatives to expand teleservice adoption, teleservice utilization in Texas has increased across all age groups, race-ethnicity groups, and SAs. Overall, rural areas had higher rates of teleservice utilization than metropolitan areas, especially for behavioral health care services. Systematic reviews show high patient satisfaction with teleservice interventions for behavioral health treatment however, methodological differences in interventions limit the scope of conclusions on effectiveness of teleservices for behavioral health services (Basit et al., 2020; Lin et al., 2019; Steinkamp et al., 2019). Additional research targetted at understanding the effectiveness of tailored behavioral health teleservices interventions for populations in Texas could help determine where teleservice expansion and improvement in Texas are most needed.

Discussion

At present, there is no reliable way to identify providers that offer teleservices since many MCOs offer them to members as a value-added service, such as Teledoc (Goodman, 2016). Providers in such cases do not submit claims; capitation payments cover services provided. If MCOs can flag providers that offer teleservices, then the EQRO can measure provider-to-enrollee ratios using data collected in the AI tool, which would help account for teleservices in measures of network adequacy.

In a future study, researchers could add specific questions about each MCO's teleservice programs to the EQRO's existing AI; the MCOs' responses could be stratified by program and population. Questions about teleservice outreach and education, number of teleservices offered, and specific services for members in rural areas would also reveal key insights into how MCOs are using teleservices across Texas, and identify best practices that can be disseminated to other MCOs.

The National Quality Framework (NQF) uses four domains – access to care, financial impact or cost, experience, and effectiveness – for comprehensive evaluation of access and effectiveness of teleservices. These standards may need to differ based on rurality. Rural areas with high provider shortages may benefit from flexible standards that assume a more qualitative approach. For example, instead of minimum provider-to-enrollee ratio to measure access to care, rural areas may require broader qualitative standards such as "timely" or "reasonable" access to care. For quantitative measures that require more rigid specifications, like maximum wait times, rural areas may need a wider range of acceptable thresholds for wait time until providers across the state adopt teleservices.

Because no specific teleservice measures are available in the literature, the EQRO has identified measure concepts from the NQF model that apply to teleservices (Table 47). The EQRO can gather data on Texas Medicaid member experience with teleservice access and efficiency by incorporating these measure concepts into new, teleservice specific member surveys. The drawbacks to this approach include an increased respondent burden, additional costs for a separate survey, and low denominators for questions due to limited teleservice utilization by members. Other promising approaches include measuring provider-to-enrollee ratios and MCOs'

utilization of teleservices using data collected in the AI tool. Collectively, these methods will provide key insights into teleservice use across Texas, enabling HHSC, MCOs, and other stakeholders to make strategic changes that improve access to care in Texas Medicaid.

Table 47. Network adequacy measure concepts from the NQF framework for new member surveys

Domain(s)	Measure Concept
Access to Care	Was there any travel to a medical facility because of a telehealth diagnosis?
Access to Care	Was there any travel involved because telehealth facilitated transitions of care?
Experience	Decrease in wait times for patients
Effectiveness	The amount of time it takes to schedule a visit
Effectiveness	The amount of time it takes to check-in for a visit
Effectiveness	How closely the system meets the scheduled time of the appointment versus the actual appointment time
Effectiveness	Amount of time it took to log off from the visit
Effectiveness	Amount of provider's time used during a telehealth consultation
Effectiveness	Time interval from when information is received to when it is acted upon
Effectiveness Experience	Amount of patient's time used during a telehealth consultation
Access to Care Experience Effectiveness	Percentage of patients enrolled in a telehealth program for at least three months

Recommendations

- The EQRO recommends further studies to understand how MCOs are expanding teleservice delivery in areas like El Paso, Tarrant, and Bexar, which had the highest increase in utilization rates.
- HHSC should work with the EQRO to develop a way to calculate teleservice provider-to-enrollee ratios at the SA level, and better measure teleservices utilization.
- HHSC should consider a flexible approach to measuring network adequacy that incorporates a combination of qualitative and quantitative standards. At minimum, Texas should continue to allow MCOs to use telemedicine as a mitigating factor in any network adequacy corrective actions.

MCO Report Cards

The EQRO began producing annual MCO report cards in 2013 to support the state's ongoing efforts to improve health care quality and support consumer choice in Texas Medicaid and CHIP. Texas is one of many states, including California, New York, Florida, Illinois, and Ohio, using report cards to provide decision support for Medicaid and CHIP enrollees and their caregivers in selecting a health plan. The MCO report cards meet federal requirements for the provision of accessible information on health care quality for consumers.

The EQRO produced 62 unique report cards, by SA for CHIP, STAR (child members), STAR (adult members), STAR+PLUS, and STAR Kids for distribution in 2020. The Medicaid and CHIP enrollment packets for new members include the appropriate report card by SA, in English and Spanish, with an accompanying information sheet that explains the report card and shows the URL for the online version. The MCO report cards are available on the HHSC website in §508-compliant format. The reverse side of each report card includes names, telephone numbers, and websites for the MCOs operating in the area; contract requirements stipulate that each MCO publish and maintain a website with the MCO's member handbook, regularly updated provider directory, and other information.

The report cards organize information about MCO performance using a three-tiered hierarchical structure to allow new enrollees and their caregivers to compare MCOs at the desired level of detail and make an informed decision. Ratings on each report card reflect the MCO's performance only in a new member's area, providing a more accurate picture of the care available where the member lives. The EQRO collapses the raw performance scores to a uniform, consumer-friendly five-star rating system, with five stars representing the highest performance. The STAR Kids report card includes different domains, but the structure and methods are otherwise the same for all programs. Appendix F details the individual measures included in each domain.

Methods

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

1. CAHPS surveys that the EQRO conducts to ascertain member perspectives of and experiences with MCO and provider quality, and
2. Administrative data for select HEDIS measures on MCO performance.

The report cards rely on CAHPS member and caregiver survey data collected by the EQRO following guidance in Texas Government Code § 533.059., on using EQRO-produced surveys to monitor MCO performance. The CAHPS member survey data provide information on member experience of care and interaction with the MCO. The EQRO selects measures for report cards based on HHSC priorities, the impact of the measure for the population, CMS/NCQA recommendations, observed differences in performance, and feedback from enrollees and other stakeholders.

The MCO report cards for CHIP, STAR (child members), STAR (adult members), and STAR+PLUS begin with an overall composite summary of relative MCO performance that equally weights each of the three domains:

- *Experience of Care* summarizes member and caregiver experience measures from a subset of the CAHPS surveys and provides information on what members think about the quality of the MCO (e.g., *How Well Doctors Communicate* or *Rating of Health Plan*).
- *Staying Healthy* summarizes measures of preventive healthcare (e.g., well-care visits for CHIP or prenatal visits for STAR Adult).

- *Common Chronic Conditions* summarizes measures relating to managing select chronic conditions (e.g., asthma for STAR Child or diabetes for STAR+PLUS).

Domain ratings appear below the overall rating, and finally, ratings for the individual measures the domain comprises appear under each domain rating.

Similarly, the MCO report cards for STAR Kids begin with an overall composite rating of relative MCO performance that assigns equal weight to each of the three domains:

- *Getting Care* summarizes measures of member and caregiver experience of care and access to routine primary care.
- *Services and Support* summarizes measures of member and caregiver experience discussing and coordinating care, and for the MCO overall.
- *Mental and Behavioral Health* summarizes experience of getting emotional and behavioral counseling, follow-up care after a hospitalization for mental illness, and metabolic monitoring for members taking antipsychotic medication.

Figure 27 illustrates the tiered structure of the report cards and how the five most natural performance clusters map to ratings of one to five stars. The prominent placement of the overall composite rating guides users to the broadest and most generally applicable information on the report card, while the individual item ratings allow users with specific needs to select the MCO that will best meet them. Standardization at each tier allows the EQRO to composite measures with different natural scales and variation without biasing the result.

Figure 27. Conceptual diagram of 2019 MCO report card structure

Individual items

- *Individual item scores:* calculation specific to the measures used
- *Star rating for individual items*: *k*-means cluster analysis of item scores

Performance domains

- *Domain scores:* Equally-weighted average of standardized individual items in the domain
- *Star rating for each domain*: *k*-means cluster analysis of domain scores

Overall score

- *Overall score:* Equally-weighted average of standardized domain scores
- *Overall star rating:* *k*-means cluster analysis of overall scores

K-means Clustering for STAR Ratings

The EQRO uses iterated k-means clustering to assign star ratings based on similarities in performance: given the observed distribution of performance scores for each measure, cluster assignment minimizes within-cluster variance and maximizes between-cluster variance. The rating levels are thus maximally different, supporting consumer choice by highlighting performance contrasts among MCOs as they are available in the consumer's service delivery area.

The MCO report cards created for distribution in 2020 used the results of member and caregiver surveys conducted in spring and summer of 2019 and administrative measure results for measurement year 2018 (calculated in 2019) described in Protocol 6. Per the survey plan detailed in Protocol 5, the EQRO fielded abbreviated 15-minute surveys for each report card type, supplementing the longer biennial survey to meet plan code level sample size requirements, or when the EQRO did not conduct the biennial survey during the timeframe. The EQRO targeted at least 200 completed interviews per plan code and collected 29,082 completed interviews after attempting to contact 268,580 members or caregivers. Appendix F provides details on the domain structure and content for each of the five report card types.

Table 48 shows the number of plan codes in each star rating category for the overall MCO quality composite for each type of report card. Not every plan code received an overall rating; plan code totals are therefore not necessarily equal to the total number of plan codes in a program. 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. Plan codes may receive ratings for domain composites and individual measures without receiving an overall rating.

Table 48. Distribution of 2019 report card ratings, by program

Program	5 Star	4 Star	3 Star	2 Star	1 Star	Total[a] Plan Codes
CHIP	6	7	7	5	2	32
STAR Child	5	9	20	5	3	44
STAR Adult	8	15	12	3	1	44
STAR+PLUS	5	4	7	13	1	30
STAR Kids	3	5	5	14	1	28

[a] Includes plans receiving no rating due to insufficient information.

The following charts show the distribution of scores for the Overall Quality composite for each type of report card, mapping scores to the corresponding rating for CHIP (Figure 28), STAR Child (Figure 29), STAR Adult (Figure 30), STAR+PLUS (Figure 31), and STAR Kids (Figure 32). Ratings for domain composites and individual items on the five types of report card likewise depend on the distribution of scores among all plan codes in a program for that composite or item. The top row in each chart shows program performance by plan code. The remaining rows present the same performance scores sorted by SA to show variations within and among SAs. The five vertical bands indicate the five performance clusters the EQRO calculated. Each cluster corresponds to a rating of one to five stars on the consumer-facing report cards; star ratings appear at the bottom of each chart. The k-means clusters depend solely on the distribution of performance data, and vary across measures, programs, and years.

Figure 28. 2020 CHIP Child Report Card Score Clusters and Star Ratings
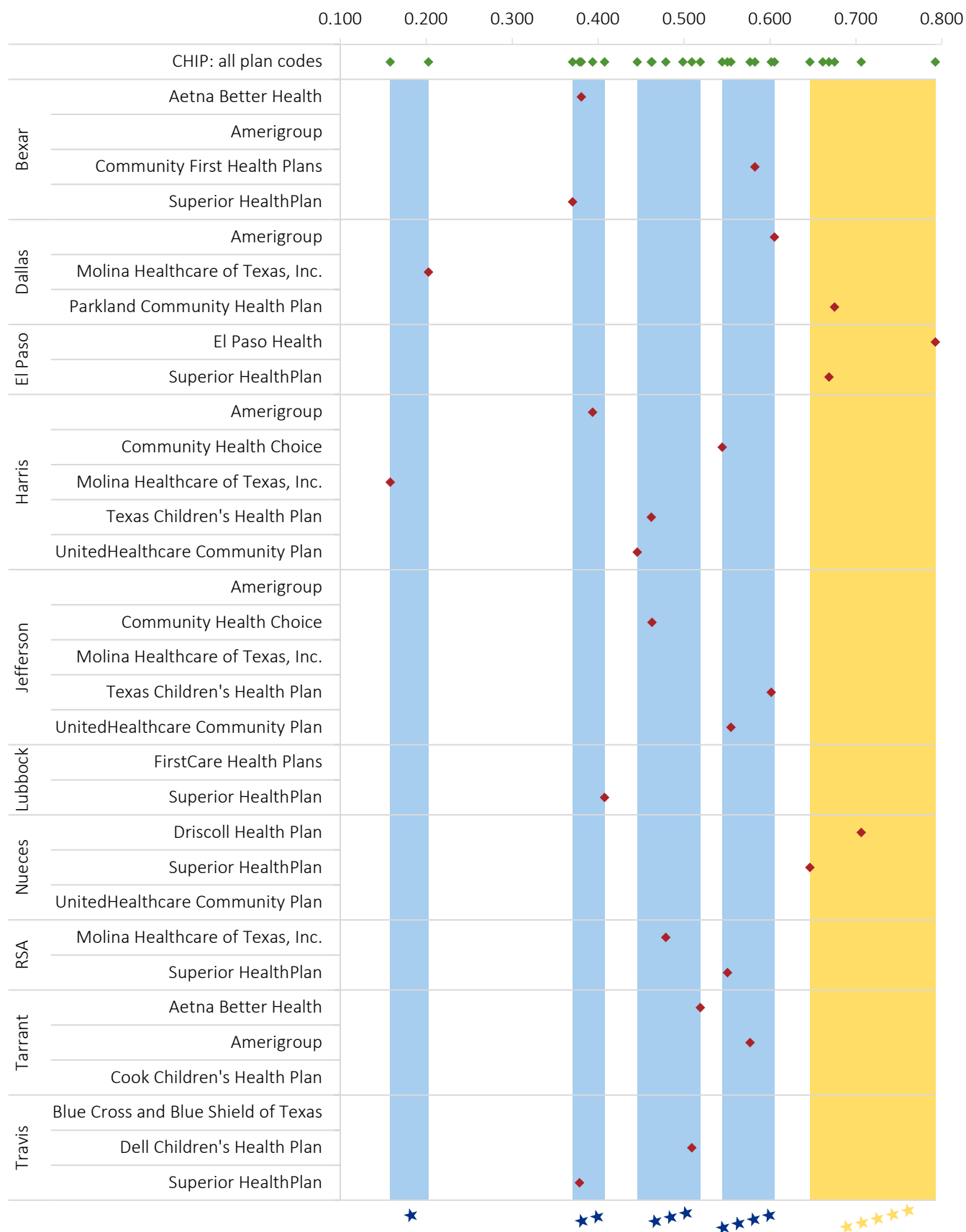
Figure 29. 2020 STAR Child Report Card Score Clusters and Star Ratings

Figure 30. 2020 STAR Adult Report Card Score Clusters and Star Ratings
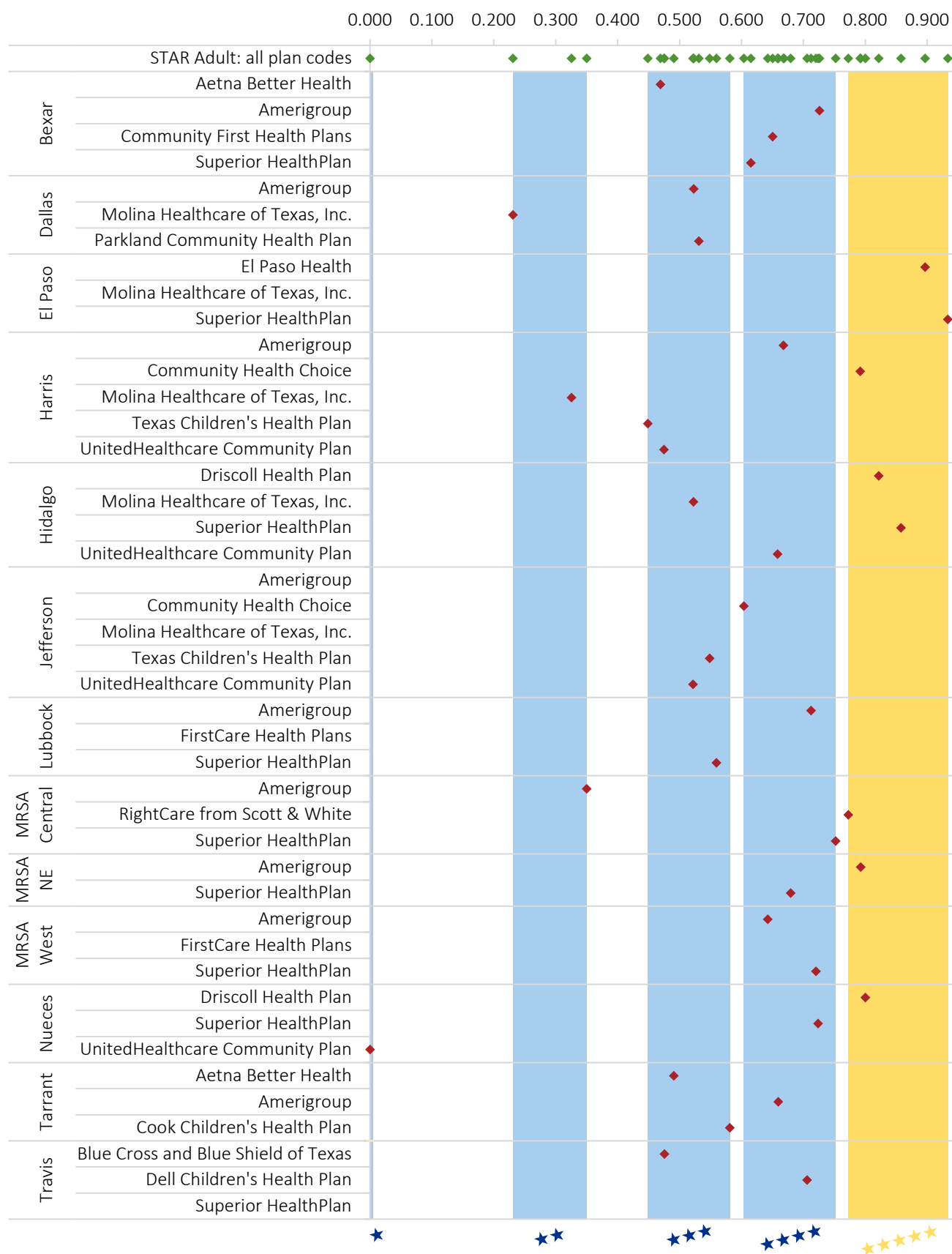
Figure 31. 2020 STAR+PLUS Report Card Score Clusters and Star Ratings
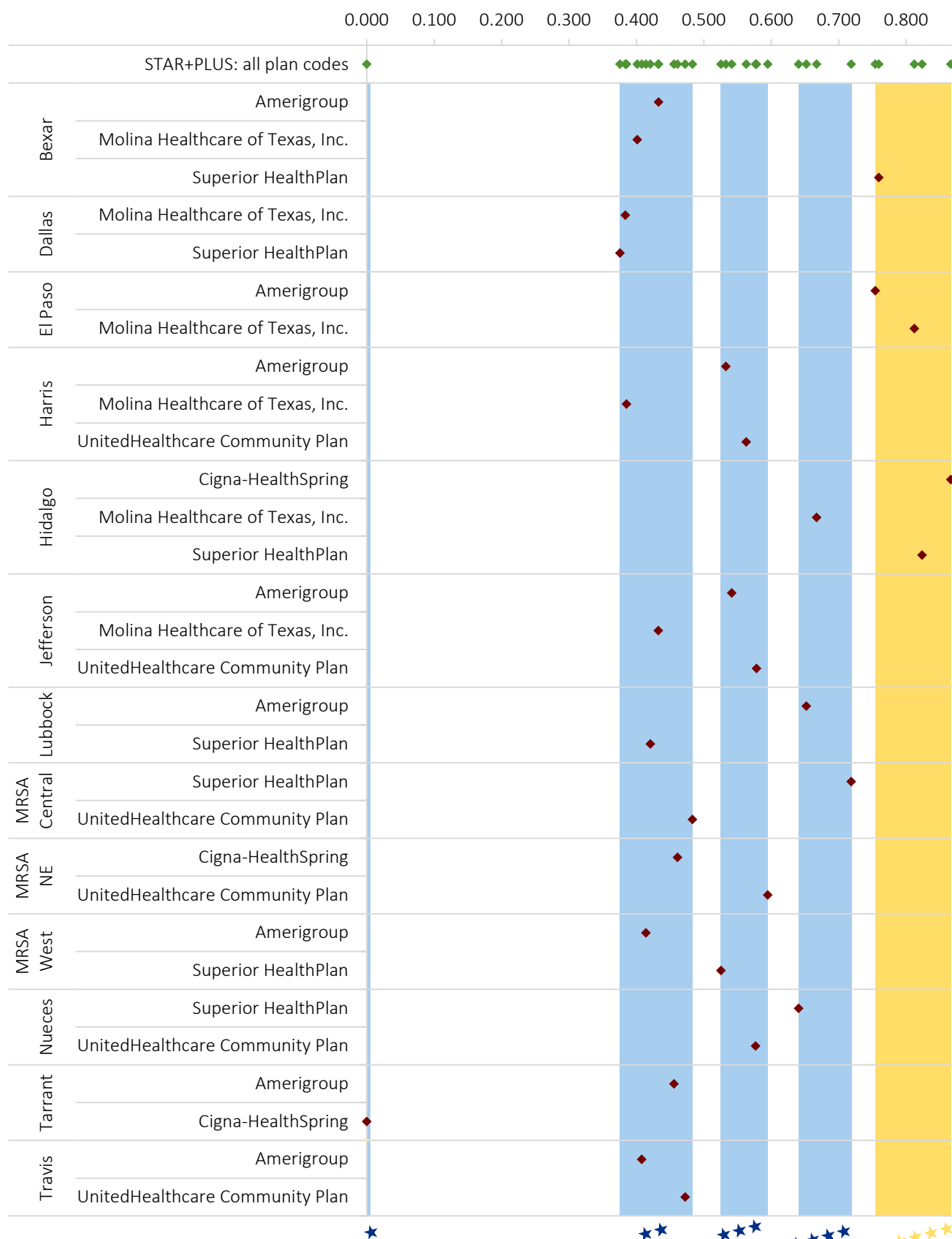
Figure 32. 2020 STAR Kids Report Card Score Clusters and Star Ratings
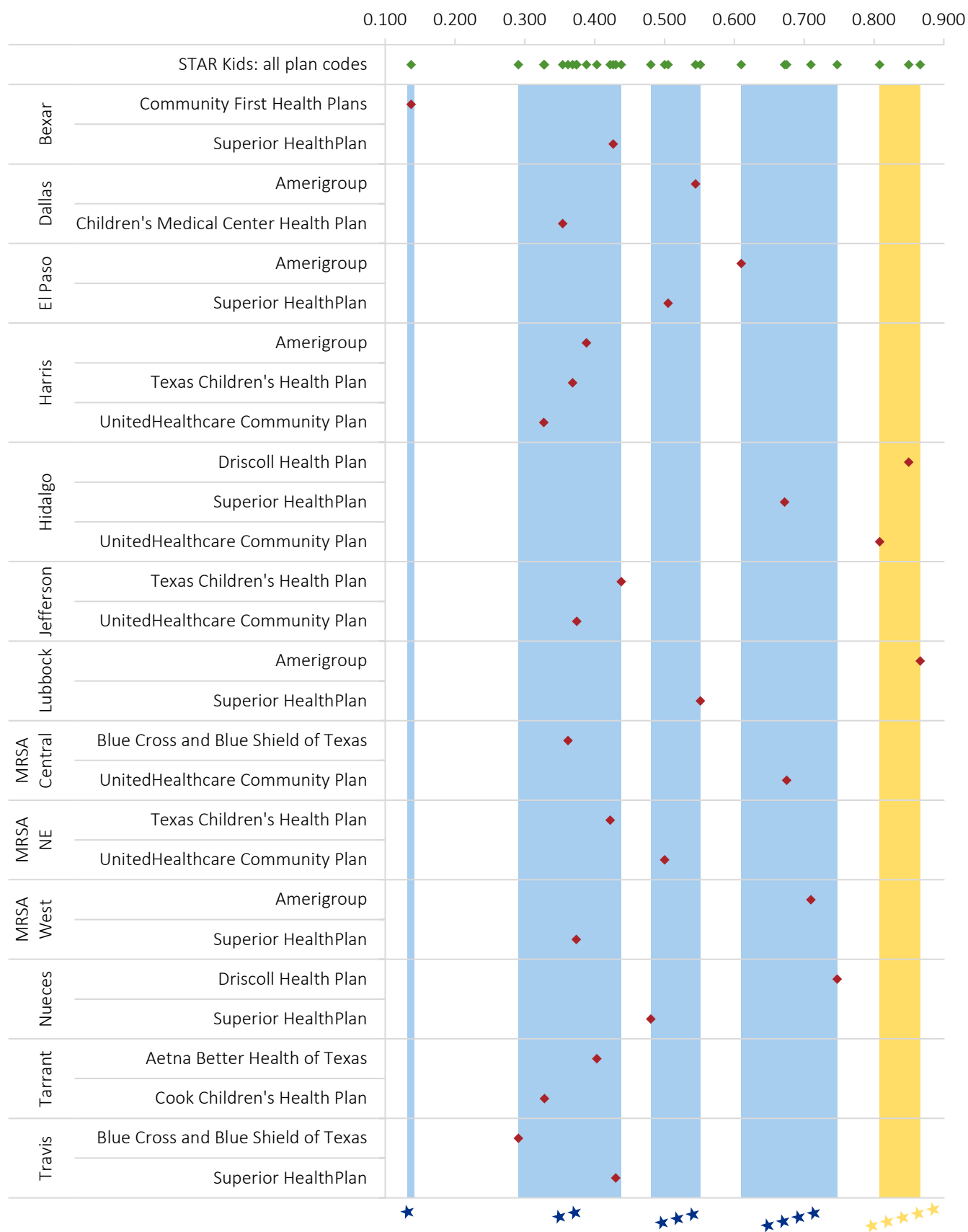
Appointment Availability Studies

The Texas Uniform Managed Care Terms & Conditions, Section 8.1.3 (Texas HHS, 2019c) requires MCOs that participate in Texas Medicaid and CHIP to ensure that all members have timely access to all covered services. Table 49 provides the standards for wait times set by Texas for different care types or levels.

Table 49. Texas standards for Medicaid and CHIP 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 care 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

To help HHSC assess compliance with these standards, the EQRO conducts appointment availability studies. Four sub-studies focus on timeliness of appointments for primary care, behavioral health care, prenatal care, and vision care in Texas Medicaid and CHIP. The EQRO completed three appointment availability sub-studies between September 2018 and August 2019: vision care, primary care, and behavioral health care. The following is an overview of the basic methods for the study and the results from each sub-study. Detailed information on the research design and methods used in each study are available in the associated full-length sub-study reports.

Overall Methods

The appointment availability studies used a "mystery shopper" method, which research shows to be both a valid and reliable way to assess the availability of appointments at provider offices (HHS-OIG, 2014; Steinman et al., 2012). The EQRO trained callers to act as Medicaid and CHIP members. Callers used HHSC-approved scripts, which helped them elicit and record the information needed to assess compliance with UMCM appointment standards (Texas HHS, 2019a). The EQRO monitored the calls for quality and consistency each day by listening in on several of the live calls and conducting second independent mystery shopper calls to verify initial results for ten of the providers.

The EQRO weights results at the program level to ensure that MCOs with large provider populations have greater representation in program-level rates than data from MCOs with smaller provider populations. The EQRO calculates weights for each MCO within a program by dividing the total number of unique providers in each MCO by the total number of confirmed calls in each MCO. The EQRO also applies a finite population correction when calculating the confidence intervals for MCO compliance with appointment standards for each program.

Provider Call Outcomes

Providers excluded from compliance calculations

Inaccurate and incomplete provider directory information led to many calls where an appointment could not be made; either because the provider could not be reached, the provider was not accepting patients, or the provider was inappropriate for the study type. The EQRO excludes these providers from compliance calculation because these are not providers with whom a member would normally be expected to be able to schedule an appointment (i.e., the deficiency is likely in the directory, and should not be attributed to the provider). The numbers of exclusions vary by sub-study and program, described in detail below. Table 50 includes a list of final call disposition codes and the status of their inclusion in compliance calculations for the overall appointment availability study.

Table 50. Final call disposition and inclusion in the 2018 Appointment Availability Studies

Disposition	Compliance Calculation Inclusion
No contact after three attempts	X
Wrong number/ unreachable	X
Not accepting Medicaid/CHIP	X
Not accepting the plan	X
Not accepting new patients	X
Needs additional information	X
Specialist/wrong provider type	X
Does not accept adult/child	X
Does not perform the exam	X
Needs additional information	✓ (Vision only)
Needs referral	✓ (Vision only)
Appointment available	✓
Appointment available with a different provider	✓

In all three SFY 2018 sub-studies, the percentage calls excluded because the provider did not answer after three attempts or was otherwise not reachable (e.g., wrong number), increased over prior years. These call outcomes suggest problems with the accuracy of member-facing directories. While the EQRO excluded calls that did not reach providers when calculating compliance rates for appointment standards, it is important to note that directory deficiencies reduce a member's ability to contact providers to schedule an appointment. Figure 33 shows the percentage of all calls excluded from each 2018 study because the call resulted in a wrong number or there was no answer after three attempts to call the provider office.

The EQRO also noted higher than anticipated inconsistency in responses from provider staff about provider availability and acceptance of Medicaid members when multiple calls were made to the same provider for quality assurance. For example, in the behavioral health care sub-study approximately 30 percent of callbacks resulted in the EQRO being given a different answer from the one they received during the original call.

Figure 33. Inclusion of 2018 provider calls, by sub-study
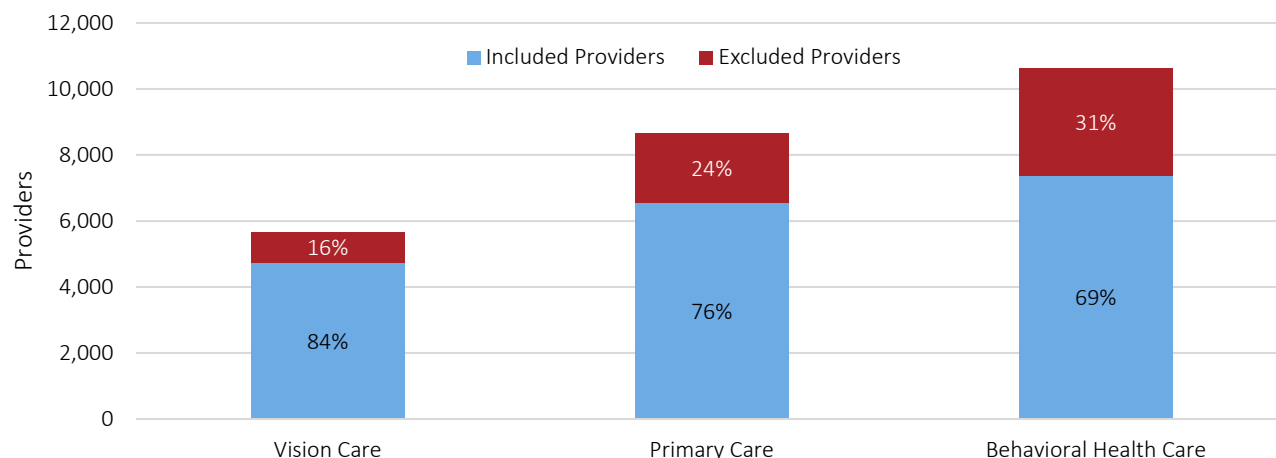
Compliance with Appointment Standards

Vision Care Sub-Study

The EQRO conducted calls for the SFY 2018 vision care sub-study from February through May 2018. EQRO callers posed as adult members newly enrolled in STAR+PLUS and STAR, and as caregivers for children newly enrolled in STAR, STAR Health, STAR Kids, and CHIP.

The EQRO calculated vision-care compliance rates based on the percent of providers offering a vision appointment without a primary care referral. Although wait times are not included in compliance, the EQRO also reported the wait time (in days) for an appointment, and weekend appointment availability. The percentage of available appointments without referral was greater in the SFY 2018 vision care sub-study compared to the SFY 2016 vision care sub-study, and compliance with appointment standards for all the programs was above 90 percent (Table 51).

Table 51. Vision care providers compliant with standards for appointment availability, by program and year

	STAR	CHIP	STAR+PLUS	STAR Health	STAR Kids
SFY 2016	92.7%	93.8%	96.1%	–	–
SFY 2018	96.1%	98.9%	99.0%	95.6%	92.9%

Results also demonstrated that fewer than 30 percent of providers with an available appointment in the SFY 2018 vision care sub-study offered weekend appointments, and the number of vision providers offering weekend appointments decreased between the SFY 2016 vision care sub-study and the SFY 2018 vision care sub-study (Table 52).

Table 52. Vision care providers with appointments that offered weekend appointments, by program

	STAR	CHIP	STAR+PLUS	STAR Health	STAR Kids
SFY 2016	46.1%	43.0%	39.2%	–	–
SFY 2018	27.7%	32.4%	25.3%	35.7%	21.2%

Primary Care Sub-Study

The EQRO conducted calls for the SFY 2018 primary care sub-study from August 2018 to January 2019. Callers posed as members enrolled in STAR+PLUS and STAR, or as caregivers looking for a PCP for their child enrolled in STAR, STAR Health, STAR Kids, and CHIP.

The EQRO calculated primary care appointment compliance rates based on UMCM standards, which state that members should have access to a PCP within 90 days for preventive care, within 14 days for routine care, and within 24 hours for urgent care. The percent of compliant providers in all MCOs increased in the SFY 2018 primary care sub-study compared to the SFY2 016 primary care sub-study (Table 53)

Table 53. Compliance with primary care appointment availability standards, by program and year

Program	SFY 2016		SFY 2018	
	Percent Compliant with Standard	Median Wait Time (days)	Percent Compliant with Standard	Median Wait Time (days)
Preventive Care Standard				
STAR Adult	97.6%	5.3	99.9%	4.0
STAR Child	99.6%	3.6	100%	3.0
CHIP	98.6%	3.5	100%	4.1
STAR+PLUS	97.0%	6.2	99.2%	5.4
STAR Kids	–	–	99.9%	4.9
STAR Health	–	–	100%	6.0
Routine Care Standard				
STAR Adult	93.5%	0.0	100%	0.0
STAR Child	89.6%	0.0	100%	0.0
CHIP	87.4%	0.0	100%	0.0
STAR+PLUS	87.8%	0.0	100%	0.0
STAR Kids	–	–	100%	0.0
STAR Health	–	–	100%	0.0
Urgent Care Standard				
STAR Adult	98.9%	0.0	100%	0.0
STAR Child	99.6%	0.0	100%	0.0
CHIP	98.5%	0.0	100%	0.0
STAR+PLUS	99.1%	0.0	100%	0.0
STAR Kids	–	–	100%	0.0
STAR Health	–	–	100%	0.0

Results also demonstrated that the percentage of providers with an available appointment in the SFY 2018 primary care sub-study that offered weekend appointments, and the overall number of PCPs offering weekend appointments, increased between the SFY 2016 primary care sub-study and the SFY 2018 primary care sub-study (Table 54).

Table 54. PCPs with appointments that offered weekend appointments, by program

	STAR	CHIP	STAR+PLUS	STAR Health	STAR Kids
SFY 2016	37.4%	34.2%	35.2%	–	–
SFY 2018	41.7%	41.4%	33.0%	29.4%	34.1%

Behavioral Health Care Sub-Study

The EQRO conducted calls for the behavioral health care sub-study from February through June 2019. Callers posed as members enrolled in STAR+PLUS and STAR, or as caregivers looking for a behavioral health provider for their child enrolled in STAR, STAR Health, STAR Kids, and CHIP.

The EQRO calculated behavioral health care appointment compliance rates based on UMCM standards, which state that members should have access to an initial behavioral health care appointment within 14 days. The percentage of compliant providers in all MCOs increased in the SFY 2018 behavioral health care sub-study compared to the SFY 2016 behavioral health care sub-study (Table 55).

Table 55. Behavioral health care appointment availability standards, by program and year

Program	SFY 2016		SFY 2018	
	Percent Compliant with Standard	Median Wait Time (days)	Percent Compliant with Standard	Median Wait Time (days)
Behavioral Health Care Standard				
STAR Adult	76.0%	5.4	85.6%	2.0
STAR Child	77.4%	5.1	84.2%	2.6
CHIP	79.2%	4.0	89.4%	0.6
STAR+PLUS	81.7%	5.1	91.1%	0.0
STAR Kids	–	–	88.5%	2.2
STAR Health	–	–	93.9%	0.0

Results also demonstrated that the percentage of providers with an available appointment in the SFY 2018 behavioral health care sub-study that offered weekend appointments decreased between SFY 2016 and SFY 2018, while the percentage of providers with weekend appointments or affiliate after-hours care increased between SFY 2016 and SFY 2018 (Table 56). Affiliates are other health facilities that can access member records from the primary behavioral health care provider. The increase in the percentage of providers with affiliate after-hours means that members have access to additional health resources if their provider is not available.

Table 56.Behavioral health providers offering weekend appointments or affiliate after-hours care, by program

Provider	SFY 2016		SFY 2018	
	Weekend Appointments	Affiliate After-Hours Care	Weekend Appointments	Affiliate After-Hours Care
STAR	18.2%	42.5%	16.5%	64.3%
CHIP	19.3%	24.2%	14.0%	63.9%
STAR+PLUS	22.6%	41.4%	18.1%	47.2%
STAR Kids	–	–	16.0%	62.7%
STAR Health	–	–	18.2%	36.4%

Recommendations

- The EQRO recommends that HHSC continue implementing strategies put into place to improve the quality of directory information, including maintaining a dialog with the MCOs about the barriers to updating provider information and the importance of timely updates to provider information. The decrease in the number of unreachable providers and providers with incorrect directory information between the SFY 2016 behavioral health care study and the SFY 2018 behavioral health care study is a positive change.
- Many of the plans have clear guidelines for handling member calls that come directly to the MCO. The EQRO recommends that HHSC encourage plans to develop similar call guidelines and training for their network provider offices to help reduce the inconsistency in call responses and potential confusion about provider availability.
- While not required, offering weekend appointments and affiliate after-hours can help improve access to care for members. The EQRO recommends that MCOs work with their providers to encourage the use of affiliate after-hours and weekend appointments to help improve the availability of care for members.

Primary Care Provider Specialty Referral Study

The PCP Specialty Referral Study is an ongoing statewide study that examines PCP experiences in referring members in Texas Medicaid managed care (STAR, STAR Health, STAR+PLUS, STAR Kids) and CHIP for specialty care. The study first began in 2016 and continued annually as part of HHSC's ongoing efforts to monitor provider network adequacy in Texas. The purpose of this study was to identify the key barriers providers face when making specialty referrals and use these findings to develop targeted strategies to improve access to care for Medicaid and CHIP beneficiaries.

This study had three specific aims:

Aim 1: Gain a better understanding of how PCPs use telemedicine to overcome barriers to specialty referrals.

Aim 2: Gain a better understanding of how PCPs navigate the referral process and their strategies for following up after referrals.

Aim 3: Use qualitative interviews with a subsample of PCPs to identify the most salient barriers to coordination with specialists.

Methods

The EQRO requested copies of the 2018 member-facing primary care provider directories maintained by each MCO in CHIP and Medicaid managed care. Once de-duplicated across all MCOs, the EQRO identified 19,761 unique records. The EQRO contracted with the UFSRC to validate contact and other vital directory information for a sample of 10,400 records (10 quotas based on program and county rurality). The goal of the directory verification calls was twofold: to identify inaccuracies in contractually required directory information, including provider name, physical address, phone number, and other member-facing directory contact information; and to obtain up-to-date provider name and address information before mailing the surveys.

19,761 unique PCP across all MCO directories

10,400 selected in 10 sample quotas

2,209 validated addresses (surveys mailed)

183 returned surveys

175 valid surveys
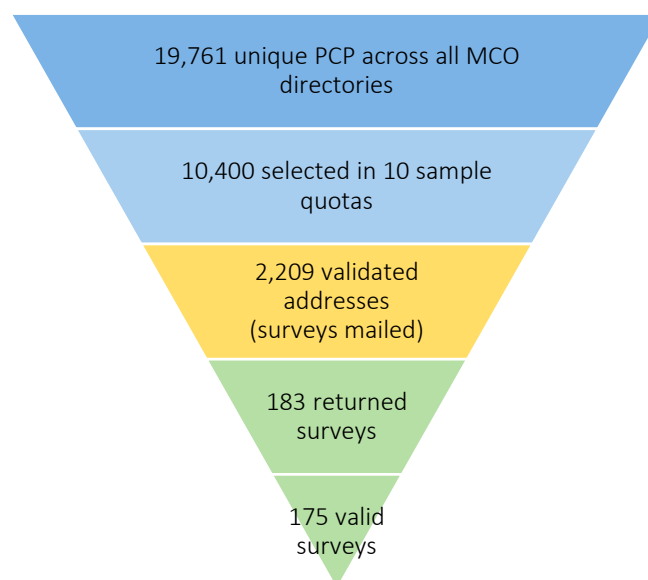
The EQRO mailed out surveys to 2,209 providers with validated address information. Providers received a paper survey and an invitation to complete the survey online instead. The provider survey tool collected information about the respondent's practice, difficulties with member referral, and the amount of time needed to refer pediatric and adult members for specialty care, telehealth utilization, and provider satisfaction in interactions with Medicaid and CHIP MCOs. Providers returned 183 surveys; after excluding duplicates and specialist responses, the final dataset included 175 valid and complete surveys.

Twenty-three of the participating providers also agreed to participate in an in-depth semi-structured qualitative interview with EQRO personnel to explore the specialty referral process and measure salience of the barriers to specialty referral that providers experience. During a free list exercise, EQRO staff asked providers to list all items related to the question: "Please list all the barriers that PCPs encounter when coordinating care with a specialist for a Medicaid or CHIP member." The staff member then recorded provider responses verbatim for

coding and qualitative analysis. The EQRO coded the provider responses using an independent iterative coding method where two members of the research team: (a) independently coded the provider responses, (b) discussed the differences in coded responses and agreed on a standard code list, and (c) recoded the provider free-list responses using the standardized list and ranked the results by frequency.

Results

Very few providers responded to the questions on the use of telehealth. This made it challenging for the EQRO to identify how or if providers were using telehealth to overcome barriers to arranging specialty referrals. Also, the responses to qualitative interview questions suggest that providers focused more on identifying members who need specialty referrals rather than on the specialty referral process. For example, the providers discussed the symptoms they use to make decisions about referral and often said they were unaware of the actual referral process because their staff handled logistics. Process awareness may be one key area where the provider and the office manager or staff differ in their perspectives on barriers to care based on their specific roles in providing specialty referrals. Limited access to care, including limited network coverage, lack of providers, and limited appointment availability, continues to be the primary concern for providers. The return rate for the surveys also continued to decline despite adding the option to email survey links to providers and verifying the directory information before mailing.

STAR Health Psychiatry Directory Study

The STAR Health Provider Directory study assessed the accuracy of STAR Health provider directory information and asked providers to suggest ways to improve the quality of care for Texas Medicaid members. More specifically, the study aimed to verify critical directory information for psychiatrists (M.D. and D.O.) in the SHP member-facing provider directory, including the presence/absence of required provider attributes and the accuracy of the information listed for providers. The study followed-up with verified STAR Health psychiatrists to identify ways to improve the quality of behavioral health care for STAR Health members and access to behavioral health services.

Methods

This mixed-mode study included two phases: (1) calling providers to verify critical provider directory information for psychiatrists, and (2) two waves of mailed and online provider surveys to identify ways to improve the quality of behavioral health care for members. The study began in December 2018, with directory verification calls to each individual psychiatrist (M.D. and D.O.) listed under behavioral health in the SHP member-facing directory. The EQRO grouped multiple providers at the same location to reduce call burden and made 1,454 calls to 654 providers (callers made up to five call attempts to reach providers). During the directory verification calls, the survey vendor (UFSRC) crosschecked all required critical directory elements for each provider.[1] After UFSRC verified the provider directory information, the EQRO mailed follow-up surveys to verified providers once in January 2019, and again in March 2019 because of low response rates. Verified providers were providers with validated directory information and confirmed participation in STAR Health. The EQRO only mailed surveys to providers with validated directory information to ensure that the survey was mailed to a correct provider address.
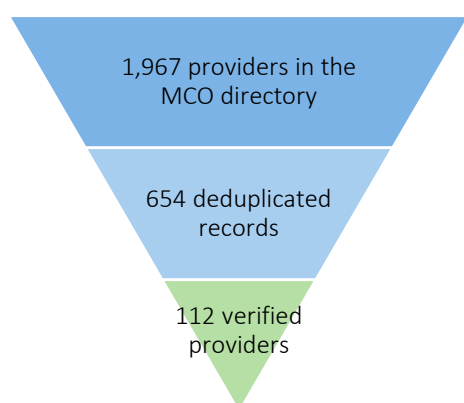
1,967 providers in the MCO directory

654 deduplicated records

112 verified providers

Results

Phone Survey Findings: Provider Directory Accuracy

Out of the 654 providers, only 112 were verified providers with valid directory information and confirmed participation in STAR Health. Callers were unable to reach the remaining providers or the providers were ineligible for the study for other reasons. Figure 34 shows the

Figure 34. Final call disposition for 654 contacted providers

- Verified provider
- No longer practicing at that location
- Not in STAR Health
- Answering machine/no message
- Incomplete call
- Non-working/disconnected number
- Other

112 17%
190 29%
81 12%
99 15%
70 11%
38 6%
64 10%

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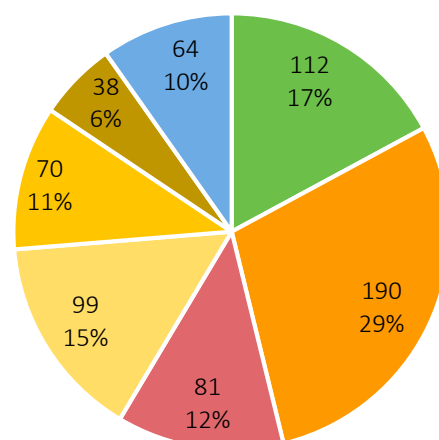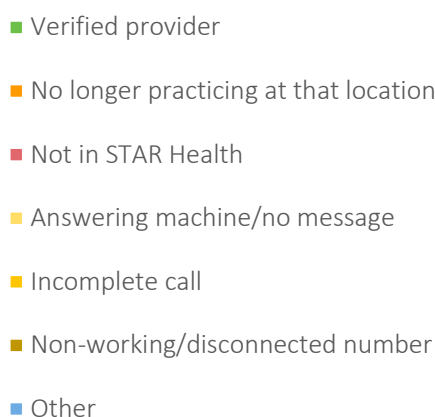
[1] The Uniform Managed Care Manual (UMCM) requires the following critical elements for each provider in the member-facing directory: provider name, address, phone number, office hours, days of operation, practice limits, languages spoken, whether the provider is accepting new patients, whether the provider is a Texas Health Steps provider, and whether the provider offers telemedicine, telehealth, or telemonitoring services.

final call disposition for all 654 providers.

Mailed Survey Findings: Access and Quality of Care

The EQRO had a very low survey return rate for the STAR Health care follow-up survey with validated providers. The EQRO mailed 111 surveys,[1] to verified providers but only ten providers (11.2 percent) completed the survey.

The survey asked providers a series of multiple-choice questions about how frequently they were asked to update their directory information. Half of the respondents reported that the either the MCO or Texas Medicaid and Healthcare Partnership (TMHP) asked them to update their directory information quarterly. One respondent reported that the request only asked them to update their information when it changed. When asked about the approach that would be most likely to encourage doctors to update their directory information, six of the providers preferred phone and email reminders from the MCO or TMHP, and three providers favored being asked to re-attest information. Four providers reported that they were unsure of when to update their directory information. None of the providers reported problems with knowing whom they should contact about updates, knowing how to update information, knowing whether the information had been updated, or problems with it being too difficult to update the information.

When asked about important challenges faced when caring for STAR Health members, providers most frequently identified missed appointments and difficulty getting medications. Among rural providers, the most frequently noted challenge was the limited number of specialists or providers in the local area and the distance a member needs to travel to receive care. These responses are like those the EQRO has received in other provider surveys. For example, in the 2018 PCP Specialty Referral Study, rural providers indicated that location and access were important factors when choosing a specialist.[2]

Providers had mixed responses when asked about their satisfaction with SHP. None of the providers replied that they were "very satisfied" with the credentialing process, prior authorization process, or the timeliness of claim payments. Half of the respondents said they were "dissatisfied" or "very dissatisfied" with credentialing, 80 percent were "dissatisfied" or "very dissatisfied" with prior authorization, and 40 percent were "dissatisfied" or "very dissatisfied" with the timeliness of claim payments (Figure 35).

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[1] An additional provider was verified during a second round of directory verification calls (making 112 verified provider addresses), but this was after surveys were mailed and thus that provider was not included in mailings.
[2] CY2018 *Texas Medicaid Managed Care Primary Care Provider Referral Study Report*.

Figure 35. Overall provider satisfaction with Superior HealthPlan (n=10)
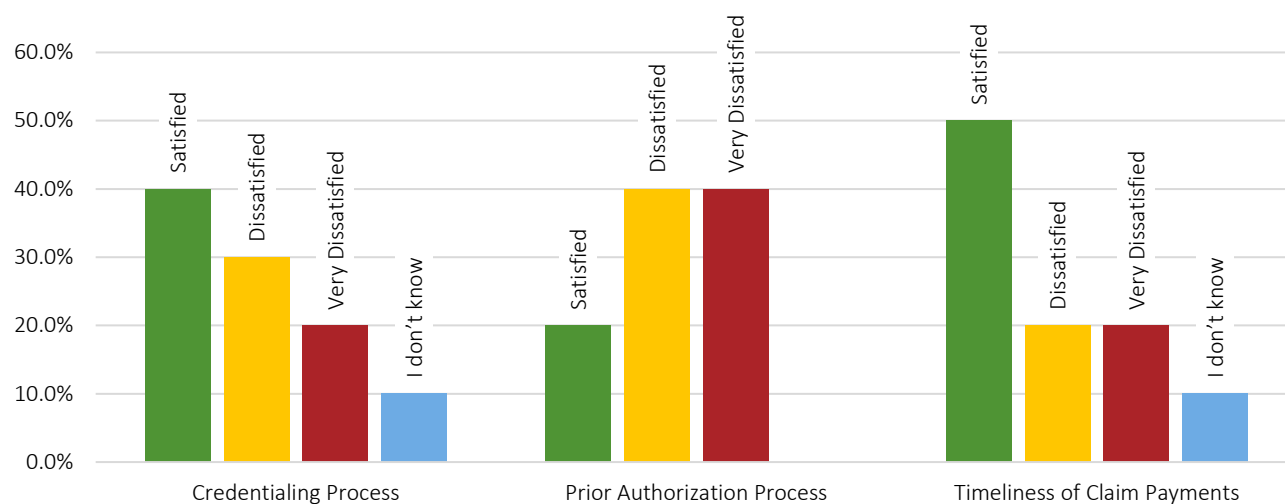
The low return rate limits the generalizability of the findings from provider surveys, but the results from the verification of directory information concur with previous studies that the EQRO has conducted on the availability of providers in Texas Medicaid and CHIP.[1]

Recommendations

- The EQRO recommends that HHSC work with Superior on targeted outreach initiatives to ensure providers know how and when to update their directory information.
- The EQRO also recommends that HHSC examine the processes used by Superior and other MCOs for updating provider information, identify the most effective strategies for maintaining timely and accurate directory information, and encourage Superior and the other MCOs to implement best practices for improving the quality of provider directory information.

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[1] The SFY2016 and SFY2018 Primary Care Provider Specialty Referral Study report and several SFY2016 and SFY2018 Appointment Availability Sub-study reports indicate a high frequency of inaccurate provider records in the member-facing directories.

Non-Emergency Medical Transportation Client Satisfaction Study

Lack of transportation can be a barrier to accessing health care, particularly for elderly, disabled, or low-income individuals. Federal Medicaid regulations (42 CFR § 431.53) require that states ensure transportation to and from certain health services, a benefit known as non-emergency medical transportation (NEMT).

The Texas Medical Transportation Program provides NEMT services through a regionalized full-risk brokerage model, which utilizes a pre-payment methodology (capitation) to reimburse the brokers. In addition, HHSC is responsible for arranging and coordinating NEMT services in Managed Transportation Organization (MTO) Region 4 under the Medicaid Managed Care Authority Section 1915(b)(4) waiver. NEMT services in all regions include eligible transportation (non-emergency ambulance services are excluded from NEMT) and other travel-related services for members needing transportation assistance for medically necessary covered health care services per 42 CFR § 440.170.

Before 2018, each MTO and Full Risk Broker (FRB) contracted with a third party to conduct customer satisfaction surveys, which led to significant variation in questions, methods, and reporting. To reduce this variation, the EQRO conducted a statewide telephone member survey to evaluate member experience and satisfaction with NEMT services across all 13 transportation regions in Texas-including the 11 MTO Service Regions (MTO Regions 1 through 11) and two transportation service delivery areas (TSDA 1 and 2). The 2019 NEMT Client Satisfaction Study aims to describe Medicaid member familiarity and experience with NEMT services across all transportation regions, including knowledge of available services, experience interacting with NEMT providers, and overall satisfaction with transportation processes and services.

Research Design

In consultation with HHSC, the EQRO developed a telephone survey tool to assess member experience and satisfaction with NEMT services. The NEMT survey questions focused on three types of transportation services (mass transit, demand-response, and mileage reimbursement), and two types of supplementary services (advanced funds and meals/lodging). The survey asked questions about member utilization and experience with each of these services and asked members to rate their overall satisfaction with each of the NEMT services. The EQRO excluded members (or caregivers) who had NEMT services covered under the Children with Special Health Care Needs (CSHCN) Services Program or the Transportation for Indigent Cancer Patients (TICP) Program from the sample because these programs provide additional resources for members.

The EQRO selected survey participants for the NEMT Client Satisfaction Survey from a stratified random sample of children and adults (ages 0-99), who were enrolled in Medicaid for 12 continuous months between September 1, 2017 and August 31, 2018, with no more than one 30-day break in enrollment, and who used NEMT services in the previous 12-month period. The stratified samples included representation from each of the 13 MTOs operating in the program, with target numbers of completed survey interviews at 200 per service region.

The EQRO contracted with UFSRC to conduct the 2019 NEMT Client Satisfaction Survey using a Computer-Assisted Telephone Interviewing (CATI) system. The EQRO sent advance notification letters written in English and Spanish to members or caregivers requesting their participation. The 2019 NEMT Client Satisfaction Survey fielded from June to August 2019.

Results

Survey Responses

A total of 2000 members and caregivers participated, representing an overall response rate of 18 percent. Tests for participation bias showed statistically significant differences in participation by age. To facilitate inference from the survey results to the larger Medicaid member population, the EQRO adjusted for age-based non-response bias by weighting the survey results based on the full set of eligible beneficiaries in the enrollment dataset. Reports included survey results organized by survey sections and stratified by transportation region, MTO, and survey type (child member, adult member, and adult proxy member). Figure 36 shows the different Medicaid MTO regions for Texas (Texas HHS, 2019b), while Table 57 summarizes the survey responses by MTO region.

Figure 36. Texas MTO regions
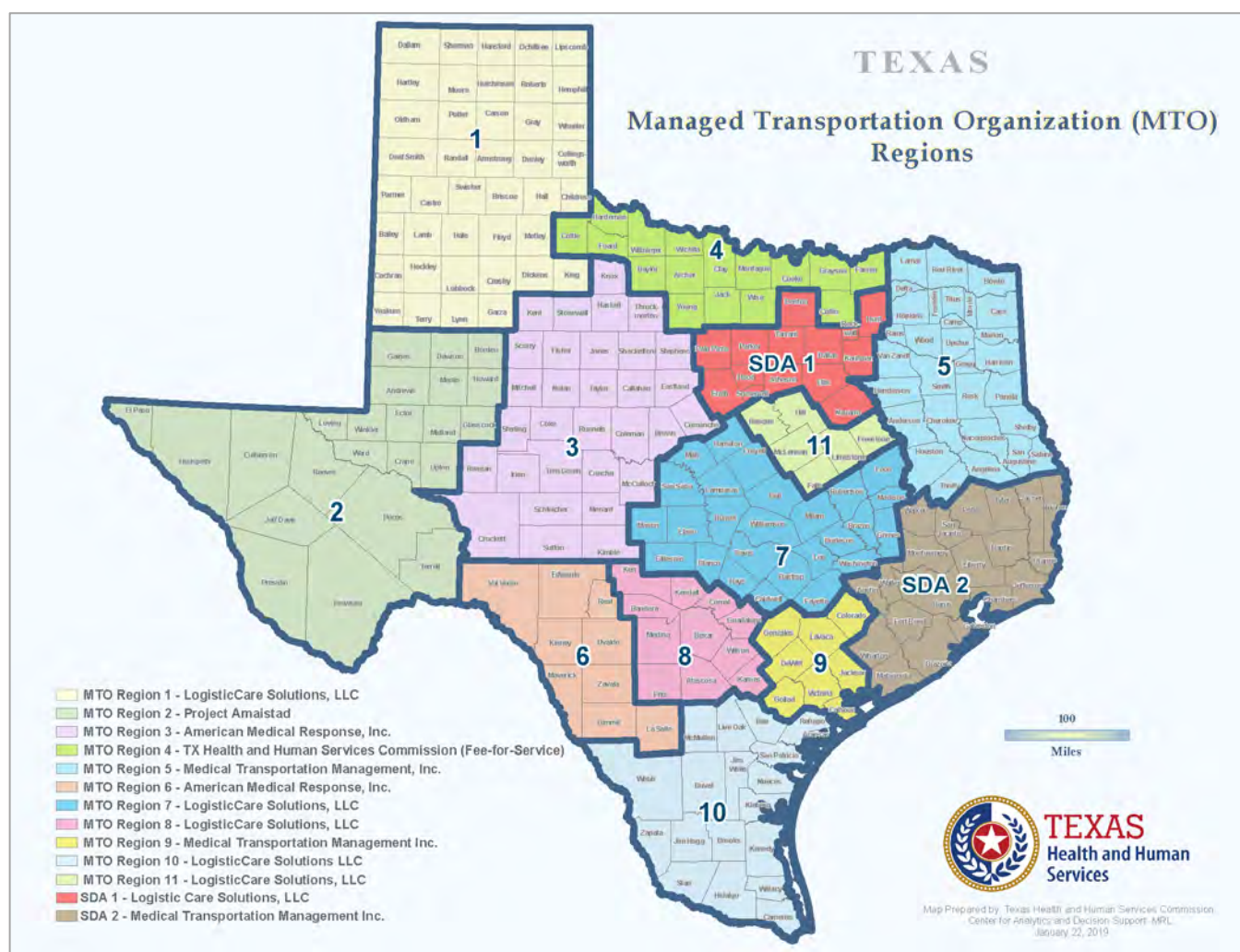
Table 57. Total completed surveys and valid responses to satisfaction questions

Region		Completed Surveys	Total Valid Responses to Satisfaction Questions[1]				
			Mass Transit	Demand Response	Mileage Reimbursement	Meals and Lodging	Advanced Funds
MTO Region 1	Panhandle	160	79	87	19	11	1
MTO Region 2	W Texas	188	103	90	38	24	5
MTO Region 3	NW Central	144	121	91	48	40	10
MTO Region 4	N Texas	165	88	61	50	21	8
MTO Region 5	E Texas	145	90	98	46	14	3
MTO Region 6	SW Texas	160	88	81	46	25	7
MTO Region 7	Central Texas	149	112	54	79	33	14
MTO Region 8	S Central Texas	155	100	91	23	20	4
MTO Region 9	SE Texas	140	96	78	38	27	8
MTO Region 10	S Texas	171	98	82	36	16	2
MTO Region 11	NE Central Texas	138	104	98	27	22	5
(T)SDA 1	Dallas/Ft Worth	132	102	89	57	32	4
(T)SDA 2	Houston	153	110	93	50	43	5
All Regions	Statewide	2,000	1,291	1,093	557	328	76

[1] Representing raw counts prior to weighting.

Familiarity with NEMT Services

Figure 37 shows the overall percentage of members that reported familiarity with each of the NEMT services. Most members (89.6 percent) were familiar with NEMT demand response services, while the smallest percent of members (20.4 percent) were familiar with the advanced funds services. More members know about and use demand response transportation services because they are one of the main ways MTP assists members who lack transportation to access health services. Fewer members are eligible for advance funds, meals, and lodging services because of age, diagnosis, and distance requirements; therefore, fewer members are likely to be aware of or use those services.

Figure 37. Member familiarity with specific NEMT services
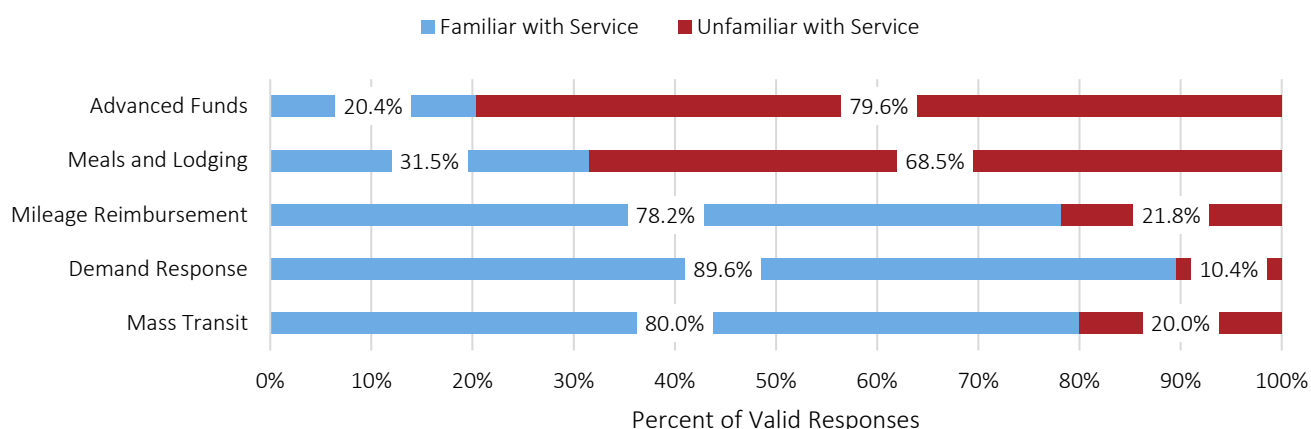
Overall, most members said they received their information on NEMT services from either their health plan or a health provider. The principal source of information varied based on the type of NEMT service. For example, 40.8 percent of members received information on mileage reimbursement from their transportation broker, while 40.8 percent received information about demand response services from their health plan.

Satisfaction with NEMT Services

The EQRO calculated a composite satisfaction score based on member responses to five questions about satisfaction with each of the NEMT services shown in Figure 38. Members could respond to multiple satisfaction questions, depending on the types of services they used. The EQRO constructed the composite by calculating an equally weighted mean of the valid percent of members that responded "satisfied" or "very satisfied" to each of the five satisfaction questions.

Figure 38 shows the composite results for member satisfaction with all NEMT services. HHSC assigns a corrective action plan to MTOs and FRBs that receive less than a 95 percent satisfaction rating. Although all the MTO member satisfaction ratings were above 80 percent, only two MTOs met the 95 percent benchmark. American Medical Response, Inc. (AMR) in NW Central Texas had the lowest percentage of members (82.3 percent) that said they were "satisfied" or "very satisfied" with NEMT services.

Figure 38. Composite member satisfaction results for NEMT services, by MTO region
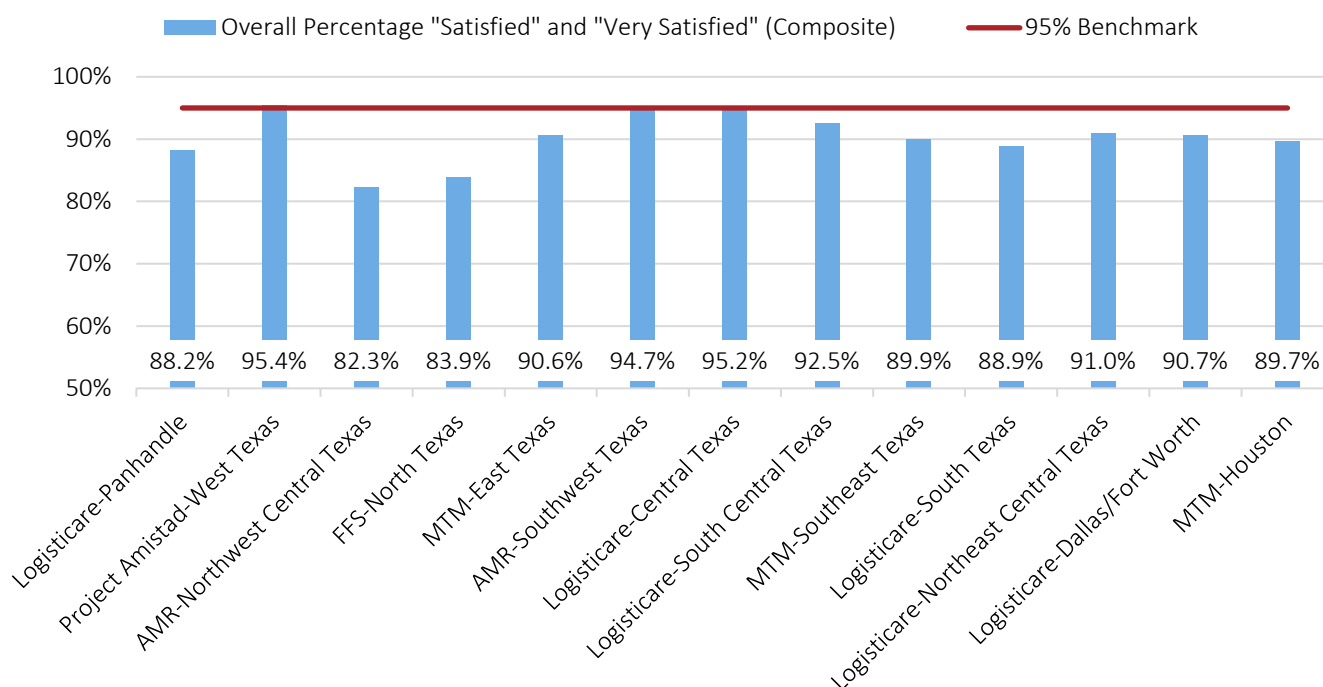
Recommendation

- HHSC should consider adding questions to the SFY 2020 NEMT surveys that help assess stakeholder priorities for NEMT services. These items could include questions about how members use NEMT services, questions about the challenges to timely service delivery for transportation providers, and questions about the availability of services for special needs populations.

Overall Compilation of Recommendations

Protocol 1: Assessment of Compliance with Medicaid Managed Care Regulations

Administrative Interviews

Key Findings	MCOs failed to update documentation related to CMS regulations.
Significance	Texas may fail to meet Federal standards if MCOs fail to keep up with regulations.
Recommendations	The MCOs should better monitor changes to state and federal regulations and ensure that their policies and procedures align with the most current regulations in place.
Key Findings	MCO DM eligibility determination processes were inconsistent.
Significance	EQRO is unable to evaluate DM programs fully without better information from the MCOs, and comparisons between MCOs would improve with more standardized criteria.
Recommendations	- HHSC should examine MCO criteria used to determine DM eligibility, and the services offered through these programs. The addition of more in-depth questions on DM eligibility and management in the AI would be a step towards this goal. - HHSC should consider establishing basic standard DM eligibility criteria for all MCOs to follow. This would improve the EQROs ability to evaluate DM programs and provide meaningful comparisons between MCOs, programs, and across time. Standardization would also increase the ability to implement statewide improvement initiatives efficiently.

Protocol 2: Validation of Performance Measures Reported by MCOs

Recommendations	None

Protocol 3: Validation of Performance Improvement Projects (PIPs)

Key Findings	MCOs lost points due to incomplete reporting, or due to discrepancies between the data reported on the final PIP report and the data available on the QOC tables and THLC portal (thlcportal.com).
Significance	- Incomplete reporting hinders the EQRO PIP validation process - Data discrepancies result in misinterpretation of results and make it difficult to assess the overall effectiveness of the PIP.
Recommendations	- The MCOs should follow HHSC and EQRO guidance on completing PIPs and PIP reporting. - The MCOs should utilize the data provided in the QOC tables and on the THLC portal (thlcportal.com) to calculate rates when applicable.
Key Findings	Some well-planned PIPs (with high PIP plan scores) failed to produce significant improvements.
Significance	Each PIP represents a large investment by the MCO, HHSC, and the EQRO, with the purpose of improving quality of care.
Recommendations	HHSC should work with the EQRO and MCOs to identify barriers to implementing impactful PIPs and to make modifications to the PIP process that address the barriers identified.

Protocol 4: Validation of Encounter Data Reported by MCOs

Analysis of Encounter Data for Accuracy and Completeness

Key Findings	Some MCOs had more than expected unpaid claims. Rates were high in CHIP perinatal, which could be due to submission of claims for services payable through FFS.
Significance	Unpaid claims may show problems with MCO coverage or care delivery indicating a possible need for further investigation. At a minimum, high volume of unpaid claims represents inefficiency in MCO administrative processes.
Recommendations	The proportion of unpaid claims in CHIP Perinatal exceeds that in other programs. This is likely due to providers being unclear about coverage and payer differences, but rates were high enough for some MCOs to suggest a need for HHSC to investigate further.
Key Findings	• The EQRO found dispensing information (units and amounts) incorrectly coded on pharmacy encounters more often than expected. • POA reporting continues to be of poor quality from many providers. • Rendering provider information continues to be incomplete or fails to identify an individual with appropriate taxonomy.
Significance	Data quality deficiencies impair or potentially bias the quality evaluations.
Recommendations	• All MCOs (UHC in particular) should review coding practices for pharmacy claims for asthma inhalers. • HHSC should investigate ways to encourage better POA reporting across all providers. Although POA coding has improved, many hospitals continue to submit data that does not pass screening criteria and is thus excluded from PPC calculations. This affects the overall quality of PPC reporting. • HHSC should continue to prioritize improvement in provider data in encounters. Provider information on encounters continues to be incomplete on a substantial percentage of professional encounters. Except in rare circumstances, every encounter item should identify the individual who performed the service and their appropriate taxonomy.

Review of Dental Records for Consistency with Encounter Data

Key Findings	Providers continue to submit claims for exams without including CRA.
Significance	CRA are used in calculating dental P4Q measures.
Recommendations	HHSC should continue to work with the DMOs to achieve 100 percent compliance on required CRA. Although the rate of missing assessments has gone down, this is still an area for improvement. Although the DMOs may deny claims with missing assessments, the goal should be to improve provider compliance with this requirement.
Key Findings	Poor provider data impeded data collection.
Significance	Poor provider data in the EQRO warehouse also reflects problems in provider directories, thus affecting not only EQRO and administrative functions, but also affecting up members' access to care.
Recommendations	HHSC should continue its ongoing efforts to improve provider data quality. Although record review rate in EDVDRR improved, lack of accurate provider data continues to affect the efficiency of the review process.

Protocol 5: Validation and Implementation of Surveys

Key Findings	Although performance on child caregiver surveys were generally good, CHIP ratings for *Getting Needed Care* and *Getting Care Quickly* were below national averages.
Significance	Access to timely needed care improves health outcomes.
Recommendations	Based on child caregiver survey results, the EQRO recommends that HHSC focus on providing timely appointments and expanding access to specialty care.
Key Findings	Although ratings for MCO and BHO behavioral health care delivery were similar across most categories, global treatment rating was notably higher for adults in MCOs but higher for BHOs in STAR Kids.
Significance	All delivery systems should provide consistent delivery of the high quality treatment.
Recommendations	Differences in ratings for behavioral health delivery organization (MCO or BHO) and by age suggest a need for further investigation.
Key Findings	*Dental Plan Costs and Services* and overall *Dental Plan Rating* had lower ratings in CHIP compared to Medicaid.
Significance	Member satisfaction is equally Important to CHIP and Medicaid dental coverage recipients.
Recommendations	Differences in member experiences between the Medicaid dental and CHIP dental programs also suggest an area for investigation and improvement.

Protocol 6: Calculation of Performance Measures

Key Findings	MCO performance across Performance Indicator Dashboard measures varies; Some MCOs achieve the high standard on more than 60 percent of measures while others fail to meet the minimum standard on more than 40 percent of measures.
Significance	HHSC can use tools like the Performance Indicator Dashboard to identify areas of consistently high performance and areas for improvement across or among MCOs.
Recommendations	The Performance Indicator Dashboards provide an excellent way to identify MCOs that are struggling to meet state standards across multiple service dimensions and identifies areas of care that challenge many MCOs or programs. HHSC should leverage this information to develop targeted improvement initiatives and to share best practices from the higher performing MCOs.
Key Findings	Although performance was better on many HEDIS measures for members with SMI, these members have higher PPEs.
Significance	HEDIS measures rates may be higher when overall utilization is higher. PPEs are costly and represent deficiencies in care.
Recommendations	HHSC should continue to work with the EQRO to understand the needs of members with SMI. In many cases, performance on HEDIS measures is better for these members; however, an increased number of PPEs among those with SMI suggests deficiencies in care. Discovering more about how these members interact with the health care system could lead to better measures of quality and performance.

Key Findings	The maternal health population had higher utilization and higher rates for some HEDIS measures, but lower rates for most behavioral health measures.
Significance	Better birth outcomes require attention to comprehensive care during pregnancy.
Recommendations	The EQRO suggests developing a maternal care dashboard, which brings measures of general health care quality and measures specific to maternal health together into a comprehensive picture of maternal care. The significant differences in quality measure results for the maternal health population suggest the need for continuing to focus on this population.
Key Findings	- Upper respiratory tract infections contributed to PPVs in 2018 much more than any other condition. - Many conditions that lead to PPVs may receive better treatment in a primary care setting.
Significance	- Better primary care for applicable conditions could reduce PPEs, and increase the appropriate treatment for these conditions. - Better primary care could increase effective preventive care.
Recommendations	- The EQRO suggests investigating treatment patterns, specifically treatment location, for upper respiratory infections and acute illnesses such as gastroenteritis. Reducing the dependence on emergency care and promoting appropriate primary care could improve AAB and URI rates and both PPV and PPA rates. - HHSC interventions should emphasize preventive primary care. Many of the top reasons for PPV and PPAs should respond to prevention-focused care, such as vaccinations, management of patient medications, and counseling and resources to help reduce tobacco use in patient households.
Key Findings	At least one mental health disorder was among the top ten PPA and PPR conditions for all managed care programs.
Significance	Managing behavioral health outside of the hospital improves many aspects of overall patient health. Often, patients have co-occurring conditions Hospitalizations for mental health reasons are expensive.
Recommendations	HHSC should work to develop better medication management programs and programs to coordinate care after discharge for patients with SMI. Medication management is critical to effectively treating bipolar and other mental health disorders. Some form of mental health disorder was among the top ten PPA and PPR conditions for all managed care programs.
Key Findings	The EQRO must exclude approximately 40 percent of discharges from PPC calculations because hospital data does not pass POA quality screening.
Significance	PPC rates are potentially biased because of missing data.
Recommendations	Improving POA reporting should still be a priority. The EQRO must exclude approximately 40 percent of discharges from PPC calculations because hospital data does not pass POA quality screening. Information is lost from evaluation of MCO and program performance because the EQRO cannot accurately measure performance in the excluded hospitals. Certain conditions are still identifiable as areas for concern, including septicemia, pneumonia, respiratory failure, renal failure, and urinary tract infections.

Protocol 8: Conducting Focused Studies of Health Care Quality

Focus Study: STAR Kids Implementation

Feasibility study recommendations

Key Findings	The EQRO found high rates of missing values in important SK-SAI fields for some MCOs.
Significance	Missing and invalid data in important SK-SAI fields can prevent reliable comparisons at the MCO level, and can bring the validity of overall rates into question.
Recommendations	The EQRO suggests additional training with MCOs to ensure that they populate SK-SAI data fields correctly and consistently.
Key Findings	The EQRO received only one-quarter of the SK-SAI or ISP records for MDCP members requested for this study. Causes could include issues with implementation such as the extension of determinations of medical necessity for MDCP, or issues with MCO procedures for data transfer.
Significance	The low number of records received for MDCP members prevented reliable assessment of more specific functional status measures from the MDCP module, as well as important service plan fields in the ISP records.
Recommendations	• HHSC should review and improve upon procedures for obtaining SK-SAI data, as needed, to facilitate the identification and sharing of these data to ensure a sufficient number of MDCP records for future studies. • The EQRO recommends additional study of STAR Kids ISP forms for MDCP members, which if cross-referenced with claims data, could be used to validate whether members in MDCP are receiving authorized services.
Key Findings	Because of limited access to data sources, this study did not address certain domains in the STAR Kids measurement framework that are relevant to managed care – such as provider network adequacy and grievances and appeals.
Significance	Provider network adequacy is an important factor in availability and access to care. Measures based on grievances and appeals are important for understanding member experience and satisfaction with care, particularly in cases of denied authorizations or services.
Recommendations	HHSC should implement or continue existing efforts to identify and develop measures in domains that were outside the scope of this study, such as provider network adequacy and grievances and appeals.

Overall recommendations

Key Findings	Potential reductions in access to special therapies, such as physical, occupational, and speech therapy, presented concerns for STAR Kids MCOs during the transition. The pre/post-implementation study subsequently showed decreases in access to special therapies for members in MDCP.
Significance	MDCP members have the greatest need for special therapies and are at risk of negative health and functional outcomes from reduced or interrupted access. Changes to approval processes for special therapies that may have occurred in the transition between fee-for-service and STAR Kids posed serious potential risks for these members.
Recommendations	• The EQRO recommends additional study of MCO approval processes for physical, occupational, and speech therapies to understand barriers to access that caregivers may be experiencing, such as low availability of therapy services in specific service areas. • To address concerns about the shift to managed care for MDCP members, the EQRO recommends a mixed-methods study involving closed-ended surveys combined with focus groups or qualitative interviews with caregivers and families of MDCP members. This design can elicit the most important services for families and the most common barriers to receiving these services, and then explore the context in which families experience barriers to care to reveal practical solutions for addressing these barriers.
Key Findings	STAR Kids MCO performance on administrative measures showed significant variation in models controlling for other factors. Driscoll performed well in all statistical models, showing higher performance on measures and lower costs. Conversely, Children's Medical Center showed lower performance on measures than the other MCOs.
Significance	Statistically significant differences across MCOs on certain measures suggest that MCO practices play a role in performance.
Recommendations	HHSC should focus on high- and low-performing MCOs. Statistical models of administrative measures showed some variation in performance by STAR Kids MCO, controlling for other factors. Driscoll performed well in all statistical models, showing higher performance on measures and lower costs. Conversely, Children's Medical Center showed lower performance on measures than the other MCOs. HHSC and STAR Kids MCOs should consider collaborative training sessions with these MCOs to encourage the dissemination of best practices.

Key Findings	Some families of low-risk members 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 FFS Medicaid. For high-risk members, such as those in MDCP, some MCOs reported that denials of medical necessity could occur due to the more stringent assessment criteria of the SK-SAI.
Significance	Challenges related to the SK-SAI may vary according to the needs of STAR Kids members. It is important to tailor approaches to assessment to ensure that all members receive a timely assessment, regardless of acuity, to avoid hindering delivery of needed services.
Recommendations	HHSC should prepare for high- and low-risk member assessments. In the STAR Kids MCO Interview Report, the EQRO recommended that MCOs have documented practices for service coordinators to prepare families for MDCP eligibility determinations. For example, service coordinators should inform families about steps they can take if TMHP denies the MCO request for medical necessity status, including their right to a fair hearing. Service coordinators should also help families identify alternative services if they lose their fair hearing. Concerning lower-risk members, MCOs should monitor the participation of members who have less complex needs to encourage engagement with service coordinators and improve the rates and timeliness of completing the SK-SAI (at both initial assessment and reassessment).
Key Findings	The measures feasibility study identified the NCI-CFS as a potential source of meaningful long-term services and supports (LTSS) measures for STAR Kids members.
Significance	The NCI-CFS is one of the only validated and reliable sources of caregiver experience and satisfaction with LTSS received by children with chronic illness and disability. This domain of health care quality is particularly important to assess in STAR Kids.
Recommendations	The EQRO suggests regular NCI-CFS studies with families of STAR Kids members. The EQRO identified the NCI-CFS as a source of meaningful long-term services and supports (LTSS) measures and recommended that HHSC conduct regular NCI-CFS studies with families of STAR Kids members, stratified by MCO to allow for comparisons.
Key Findings	Members in MDCP, who have higher rates of third-party insurance, may show lower utilization and performance because HHSC and the EQRO do not have access to third-party claims data.
Significance	Accurate calculation of administrative measures of access to and quality of care requires all relevant data sources. Accounting for third-party insurance for STAR Kids members in MDCP, will allow for more meaningful comparison to other Medicaid populations and national benchmarks.
Recommendations	The EQRO suggests HEDIS hybrid studies for MDCP members. Members in MDCP, who have higher rates of third-party insurance, may show lower utilization and performance because HHSC and the EQRO do not have access to third-party claims data. To address this concern, HHSC should consider conducting hybrid studies of HEDIS well-care measures among STAR Kids members enrolled in MDCP to test the extent to which third-party insurance may influence administrative measure findings.

QTR 1: Provider Directory Data Quality – Key Issues and Recommendations for Best Practices

Key Findings	The EQRO found incomplete provider records, records that failed USPS validation, and much more commonly a lack of agreement between provider data sources.
Significance	The lack of data standards and of centralized data governance responsibilities creates numerous deficiencies in data quality and alignment. These failures in the system create barriers for members trying to access appropriate care.
Recommendations	• HHSC should collaborate with plans and providers to improve the quality and completeness of provider data and improve data accuracy standards. Accurate provider data elements are critical for objective evaluation, rate-setting activities, monitoring network adequacy, and ensuring member access to appropriate providers. • The EQRO recommends establishing enforceable data accuracy standards and enhancing the current guidelines for required critical directory elements with a set of rules to standardize address information (such as using USPS standards for address information). In addition, HHSC should establish a standard approach and timeline for monitoring whether plans follow up with inactive providers and whether the plans remove them from provider directories.

QTR 2: New Measures for Managed Long-Term Services and Supports

Key Findings	• No single assessment form in use fully addresses all core MLTSS assessment elements. • No single care planning form in use fully addresses all core MLTSS care planning elements • Certain core and supplemental elements are not present or sufficiently addressed, in any form.
Significance	Complete information on MLTSS forms is essential for accurate quality measurement of MLTSS.
Recommendations	• HHSC should ensure that the MN-LOC includes fields to collect: (1) Home safety risk assessment; (2) Family and friend caregiver names, availability, and contact information; (3) Member's living arrangement; and (4) List of the member's current providers. Additionally, HHSC could revise the MN-LOC to collect supplemental assessment elements such as information on social risk resources and social support. • HHSC should consider modifying the STAR+PLUS HCBS Program ISP form to collect the frequency at which members receive authorized LTSS and expanding the use of this form to include other STAR+PLUS members who receive LTSS but are not in the STAR+PLUS HCBS program. In addition, HHSC should consider more extensive revisions to the ISP form to collect other core elements that are missing from the form, including: individualized member goals; plans of care for medical needs, functional needs, and cognitive impairment; plan for care manager follow-up; emergency plan; and involvement of family or friend caregivers in care planning. • HHSC should add indicators or check boxes that care managers can use to specify when a member does not have a need, condition, or circumstance related to the measure element. This will ensure that forms meet the requirements for documenting "negative findings."
Key Findings	The EQRO found that evaluators can use certain combinations of the state and STAR+PLUS MCO forms to collect most of the core elements and many of the supplemental elements needed to calculate the new MLTSS measures.
Significance	Substantial deficits remain in the forms that can result in missing data elements required for LTSS HEDIS measure calculation. Finding a comprehensive solution will require understanding how MCOs currently integrate and use care plan forms.
Recommendations	For MCOs that use national data systems, HHSC should conduct further studies to understand the challenges these MCOs face in integrating state-specific forms.

Key Findings	All MCOs have the infrastructure needed to transmit case management records electronically, but face challenges to regular use of electronic portals, including low rates of portal use by providers.
Significance	Reliable and timely transmission of care plans to PCPs is necessary for compliance on the LTSS Shared Care Plan with PCPs measure.
Recommendations	The EQRO recommends electronic transmission as the preferred mode for MCOs to share care plans. To facilitate this, HHSC and STAR+PLUS MCOs should consider provider education and incentives to encourage use of electronic portals by PCPs.

QTR 3: Pregnancy Risk, Service Management, and Delivery Outcomes among Pregnant Women in the Texas STAR Medicaid Managed Care Program

Key Findings	Adding the ICD-10 codes for *Supervision of a high-risk pregnancy* (SHRP) to the present HHSC criteria for identifying high-risk pregnancies may help capture more women at risk for poor pregnancy outcomes.
Significance	Identifying at-risk and complex pregnancies allows for earlier interventions that could prevent poor outcomes.
Recommendations	The EQRO recommends including the ICD-10 codes for *Supervision of high-risk pregnancy* in the HHSC criteria for identifying high-risk pregnancy.
Key Findings	Significant variation exists in the way that different MCOs identify a high-risk pregnancy.
Significance	Determining the quality or effectiveness of care is difficult when information about risk and intervention is limited.
Recommendations	• HHSC should work with the MCOs to gain a better understanding of how each MCO identifies women with high-risk pregnancies for MSHCN inclusion. Then, HHSC should consider using this information to refine and standardize the criteria for all MCOs to use for identifying high-risk pregnancy. • HHSC should work with the MCOs to identify barriers to implementing service plans for high-risk pregnancies and develop successful approaches to overcome these barriers. • HHSC should consider additional in-depth studies to identify specific ways that service plans affect the timeliness, quality, and cost of care that MSHCN receive during pregnancy.

QTR 4: Social Determinants of Health: Asthma, Type 2 Diabetes, and ADHD among Children in Texas Medicaid

Key Findings	The EQRO found differences in prevalence of asthma, type 2 diabetes, and ADHD by SEV.
Significance	Interventions could be more successful when they account for SDoH.
Recommendations	• MCOs should ensure that their SDoH screening tools include questions related to economic stability, education, food security, health and clinical care, neighborhood and physical environment, and social and community context including perceived racial discrimination, to develop interventions targeting vulnerable sociodemographic groups. MCOs can address these topics using standardized screening tools, such as the Protocol for Responding to and Assessing Patients' Assets, Risk, and Experiences (NACHC, 2020). • HHSC should consider incentivizing the implementation of SDoH focused interventions.

Key Findings	Social vulnerability factors such as employment, income, and vehicle access can directly affect whether a provider network can meet the needs of members.
Significance	When access to care is limited, management of controllable conditions like asthma, type 2 diabetes, and ADHD, may be ineffective.
Recommendations	HHSC and the MCOs should analyze geographic network adequacy separately for each sociodemographic group to better address geographic disparities and ensure that they meet Medicaid contract standards for all members.
Key Findings	Prevalence of asthma, type 2 diabetes, and ADHD were higher in Nueces and Hidalgo.
Significance	Differences may be due to social vulnerability factors, or other demographic differences.
Recommendations	The EQRO recommends conducting further studies in Nueces and Hidalgo to identify the factors that are contributing to the higher rates of asthma, type 2 diabetes, and ADHD in these SAs.
Key Findings	Addressing SDoH is one of the four overarching goals listed in Healthy People 2020 (Breen, 2017).
Significance	The conditions of daily life that constitute SDoH are the major driving factors, outside of the health system, that influence differences in injury, illness, and early death.
Recommendations	MCOs should collaborate with community partners (e.g. local libraries, HeadStart) to promote health literacy through health education programs (Jacobs et al., 2016). Two promising interventions are: (a) eHealth educational interventions tailored to people with low health and tech literacy skills (Han et al., 2017); and (b) community-based educational interventions led by community health workers to help improve health literacy.
Key Findings	The EQRO saw an increase in members having unknown/other race-ethnicity in enrollment data across multiple studies.
Significance	Without understanding the makeup of this population, demographic analyses are challenging.
Recommendations	Children in the unknown/other category for race-ethnicity now comprise the largest group after Hispanics, which warrants further investigation to help develop and implement successful demographic-specific interventions for this group.

Issue Brief 1: Texas Medicaid: Brief Analysis of Adult Cirrhosis, Hepatitis C Virus, and Liver Cancer

Key Findings	In 2017, the overall prevalence of Hep C in Texas Medicaid among members aged 45 to 64 years was 5.9 percent and the overall prevalence of cirrhosis in the same group was 3.3 percent.
Significance	As of 2017, chronic liver disease was the 11th leading cause of death in the United States and rates of chronic liver disease and cirrhosis are expected to continue rising (Kochanek et al., 2019).
Recommendations	Efforts to improve public health outcomes through early diagnosis should focus on improving access to care for border populations and increasing screening for Hep C among Hispanic members, who may be under-diagnosed for Hep C.
Key Findings	The EQRO found differences in prevalence of liver disease by race/ethnicity and geographic area.
Significance	Texas has one of the nation's highest rates of liver cancer mortality (Asrani et al., 2013; CDC, 2020b), in part because the Hispanic adults of South Texas have the highest incidence of HCC in the country (Islami et al., 2017).
Recommendations	The EQRO recommends further investigation into prevalence and the populations with Hep C and HCC, particularly in southern Texas, and non-Hispanic blacks in the Hidalgo SA.

Key Findings	The EQRO saw an increase in members having unknown/other race-ethnicity in enrollment data across multiple studies.
Significance	Without understanding the makeup of this population, demographic analyses are challenging.
Recommendations	The EQRO saw an increase in members having unknown/other race-ethnicity in enrollment data across multiple studies. Without understanding the makeup of this population, demographic analyses are challenging. HHSC should investigate this trend further.

Issue Brief 2: Trends in Emergency Department Visits for Non-Traumatic Dental Conditions in Texas Medicaid and the Children's Health Insurance Program, 2013-2017

Key Findings	About one percent of pediatric ED visits related to NTDCs. The rate was higher for members aged five years and younger compared to other age groups. During the years 2013 to 2017, Medicaid and CHIP paid approximately $44 million for ED visits for NTDCs.
Significance	Improvements that address preventive dental health – including member education and access to preventive dental services – can help reduce the incidence and costs associated with ED visits for NTDCs.
Recommendations	• MCOS and DMOs should focus efforts on educating Medicaid and CHIP members about preventive oral health care and the resources for dental treatment available in their communities. • HHSC should work with the DMOs to improve access to preventive dental services, which may increase rates of early diagnosis and dental treatment and reduce the number of ED visits related to NTDCs.
Key Findings	Among members aged five years and younger, approximately 45 percent of ED visits for NTDCs were due to complications of dental caries. The proportion of visits due to complications of dental caries increased with age, reaching 65 percent of visits among members aged 6 to 12 years.
Significance	Dental caries is a potentially preventable disease, and more appropriately treated in the dental office than in the ED.
Recommendations	The EQRO suggests continuing to monitor the number of ED visits related to potentially preventable dental conditions. The diagnosis codes used in this study align with specifications for the Dental Quality Alliance (DQA) measure of ED visits for dental caries in children (DQA, 2019), which the EQRO reports for Texas Medicaid and CHIP annually. Texas approved the DQA measure for inclusion in the 2020 dental P4Q program. Future studies may use this measure to examine the association of ED visits for NTDCs with the frequency of regular preventive dental visits.

Issue Brief 3: Accounting for Health Teleservices in Measures of Network Adequacy

Key Findings	Rural areas showed the greatest increase in teleservice utilization between 2017 and 2018.
Significance	Despite increases, teleservice utilization is less than one percent that of outpatient visits. Expanding the positive impact of teleservices requires understanding the care patterns that drive teleservice use or disuse.
Recommendations	• The EQRO recommends further studies to understand how MCOs are expanding teleservice delivery in areas like El Paso, Tarrant, and Bexar, which had the highest increase in utilization rates. • HHSC should work with the EQRO to develop a way to calculate teleservice provider-to-enrollee ratios at the SA level, and better measure teleservices utilization.

Key Findings	The EQRO has identified measure concepts from the NQF model that apply to teleservices.
Significance	The EQRO can gather data on Texas Medicaid member experience with teleservice access and efficiency by incorporating these measure concepts into new, teleservice specific member surveys. Similarly, the EQRO could add specific questions about each MCO's teleservice programs to the EQRO's existing AI. Collectively, these methods will provide key insights into teleservice use across Texas, enabling HHSC, MCOs, and other stakeholders to make strategic changes that improve access to care in Texas Medicaid.
Recommendations	HHSC should consider a flexible approach to measuring network adequacy that incorporates a combination of qualitative and quantitative standards. At minimum, Texas should continue to allow MCOs to use telemedicine as a mitigating factor in any network adequacy corrective actions.

MCO Report Cards

Recommendations	None

Appointment Availability Studies

Key Findings	In all three SFY 2018 sub-studies, the percentage calls excluded because the provider did not answer after three attempts or was otherwise not reachable (e.g., wrong number), increased over prior years.
Significance	Members depend on the MCO provider directories to reach needed resources. Poor quality directories are a barrier to receiving care.
Recommendations	The EQRO recommends that HHSC continue implementing strategies put into place to improve the quality of directory information, including maintaining a dialog with the MCOs about the barriers to updating provider information and the importance of timely updates to provider information. The decrease in the number of unreachable providers and providers with incorrect directory information between the SFY 2016 behavioral health care study and the SFY 2018 behavioral health care study is a positive change.
Key Findings	Providers and staff gave inconsistent responses when the EQRO made multiple calls to the same office.
Significance	Inconsistent information causes confusion for members and inaccurate information can create barriers to care.
Recommendations	Many of the plans have clear guidelines for handling member calls that come directly to the MCO. The EQRO recommends that HHSC encourage plans to develop similar call guidelines and training for their network provider offices to help reduce the inconsistency in call responses and potential confusion about provider availability.
Key Findings	Between 29 and 42 percent of providers, by program, offered weekend appointments.
Significance	After-hours services improve access to care. The number of providers offering these services suggests that wider adoption of these models is possible.
Recommendations	While not required, offering weekend appointments and affiliate after-hours can help improve access to care for members. The EQRO recommends that MCOs work with their providers to encourage the use of affiliate after-hours and weekend appointments to help improve the availability of care for members.

Primary Care Provider Specialty Referral Study

Recommendations	None

STAR Health Psychiatry Directory Study

Key Findings	Out of the 654 providers in the MCO directory, the EQRO could only verify 112 with valid directory information and confirmed participation in STAR Health. Although providers responding to the follow-up survey reported no problems when asked about updating provider information, only 10 providers responded.
Significance	Over 80 percent of the providers in the MCO directory had flawed directory information. Members depend on the MCO provider directory to reach needed resources. Poor quality directories are a barrier to receiving care.
Recommendations	• The EQRO recommends that HHSC work with Superior on targeted outreach initiatives to ensure providers know how and when to update their directory information. • The EQRO also recommends that HHSC examine the processes used by Superior and other MCOs for updating provider information, identify the most effective strategies for maintaining timely and accurate directory information, and encourage Superior and the other MCOs to implement best practices for improving the quality of provider directory information.

Non-Emergency Medical Transportation Client Satisfaction Study

Key Findings	Only two MTOs met the 95 percent benchmark for member satisfaction.
Significance	Lack of transportation can be a barrier to accessing health care, particularly for elderly, disabled, or low-income individuals. Federal Medicaid regulations require provision of transportation for certain health services.
Recommendations	HHSC should consider adding questions to the SFY 2020 NEMT surveys that help assess stakeholder priorities for NEMT services. These items could include questions about how members use NEMT services, questions about the challenges to timely service delivery for transportation providers, and questions about the availability of services for special needs populations.

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Appendix A: 3M™ Clinical Risk Group (CRG) Classification[1]

The 3M™ Clinical Risk Groups (CRG) classification system describes the health status and burden of illness of individuals in an identified population. The CRG system is a categorical clinical model that classifies each member of the population based on his or her burden of medical conditions, assigning everyone to a single mutually exclusive risk category. The system classifies individuals with one or more chronic conditions based on those conditions or combinations of conditions, with further breakouts for condition-specific severity of illness. Individuals without a chronic condition are assigned to groups for one or more significant acute illness, or other significant health event such as delivery or newborn birth, and those without a significant acute condition, to various groups for "healthy." The CRG system can be used for stratifying populations, risk adjustment, predicting healthcare utilization and cost, tracking health outcomes, and analyzing the health of populations.

Status 9 - *Catastrophic Conditions*. Catastrophic conditions include long term dependency on a medical technology (e.g., dialysis, respirator, total parenteral nutrition) and life-defining chronic diseases or conditions that dominate the medical care required (e.g., acquired quadriplegia, severe cerebral palsy, cystic fibrosis, history of heart transplant).

Status 8 - *Malignancy, Under Active Treatment*. A malignancy under active treatment.

Status 7 - *Dominant Chronic Disease in Three or More Organ Systems*. Three or more (usually) dominant Primary Chronic Diseases (PCDs). In selected instances, criteria for one of the three PCDs may be met by selected moderate chronic PCDs.

Status 6 - *Significant Chronic Disease in Multiple Organ Systems*. Two or more dominant or moderate chronic PCDs.

Status 5 - *Single Dominant or Moderate Chronic Disease*. A single dominant or moderate chronic PCD.

Status 4 - *Minor Chronic Disease in Multiple Organ Systems.* Two or more minor chronic PCDs.

Status 3 - *Single Minor Chronic Disease*. A single minor chronic PCD.

Status 2 - *History of Significant Acute Disease*. For the Prospective Model,[2] this is defined by the presence, within the most recent six months of the analysis period, of one or more significant acute Episode Diagnostic Categories (EDCs) or significant Episode Procedure Categories (EPCs) along with the absence of any validated PCDs present. For the Concurrent Model, this definition is similar but different in that certain acute EDCs, i.e., pregnancy, can override the assignment to chronic illness CRGs in Status 3-6 or Status 3-4.

Status 1 - *Healthy*. For the Prospective Model, the Healthy Status is defined by the absence of any significant acute EDCs or EPCs occurring within the last six months of the analysis period along with the absence of any validated PCDs reported at any time during the analysis period.

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[1] Extracted from the 3M™ Clinical Risk Groups (CRG) Classification Methodology, Methodology overview, Software version 2.0 February 2019.

[2] Both the Prospective and Concurrent models classify individuals based on the same information from the same base period or "analysis period," and most of the grouping logic and specifications are the same, but there are differences that sometimes result in an assignment to a different base CRG or severity level.

For some reports, the EQRO further groups these categories based on levels (minor, moderate, and major) of special health care needs (SHCN). Table C1 shows the definitions of these groups.

Table C1. Special health care needs (SHCN) grouping based on 3M CRG status

3M CRG Status	Special Health Care Need (SHCN) group
Status 1 -*Healthy*	Healthy
Status 2 - *History of Significant Acute Disease*	Significant Acute Disease
Status 3 - *Single Minor Chronic Disease* Status 4 - *Minor Chronic Disease in Multiple Organ Systems*	SHCN – Minor (Minor Chronic Disease)
Status 5 - *Single Dominant or Moderate Chronic Disease*	SHCN – Moderate (Moderate Chronic Disease)
Status 6 - *Significant Chronic Disease in Multiple Organ Systems* Status 7 - *Dominant Chronic Disease in Three or More Organ Systems* Status 8 - *Malignancy, Under Active Treatment* Status 9 - *Catastrophic Conditions*	SHCN – Major (Major or Catastrophic Disease)

Appendix B: Key Data Elements Used for Evaluating the Validity and Completeness of Managed Care Organization (MCO) Encounter Data

Fields	V21 Field Name	Description
Header Fields		
Member ID	H_MBR_PRMRY_MBR_ID_NO	Submitted member primary identification number.
Start Date of Service	H_FRM_SVC_DT	The date on which the first services were rendered.
End Date of Service	H_TO_SVC_DT	The date on which the last services were rendered.
Adjudication Date	H_ADJDCTN_DT	The date the claim was paid by the MCO.
Amount Paid	H_PD_AMT	The total amount paid by the MCO for the encounter.
Primary Diagnosis (TXN_TYP = I or P)	H_PRNCPL_DIAG_CD	Principal Diagnosis Code: The principal diagnosis (ICD-10-CM) listed on the encounter. (Excludes dental encounters)
Type of Bill (TXN_TYP = I)	H_TYP_OF_BILL	This code indicates (1) the type of facility (e.g., hospital), (2) the type of care (e.g., inpatient), and (3) the frequency code (e.g., interim) for the submitted institutional encounter. (Institutional encounters only)
FAC (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. (Institutional encounters only)
Admission Date	H_ADMSN_DT	The date the member was admitted to a healthcare facility.
Discharge Date	H_DCHG_DT	The date the member was discharged from the facility.
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. (Institutional encounters only)
Billing Provider NPI	HP_BLNG_PRV_NTNL_PRV_ID	Billing Provider National Provider Identifier

Fields	V21 Field Name	Description
Detail Fields		
Start Date of Service	D_FRM_SVC_DT	The date on which the first services for the detail were rendered.
End Date of Service	D_TO_SVC_DT	The date that the last services were rendered for the detail. In most situations, from and to dates are the same for details.
Amount Paid (TXN_TYP = P or D)	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. (Dental or professional encounters only)
Place of Service (TXN_TYP = P or D)	D_PLC_OF_SVC_CD	A code that identifies where the service was performed. (Dental or professional encounters only)
FAC (TXN_TYP = P or D)	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 (Dental or professional encounters only)
Service Code (TXN_TYP = P or D)	D_PROC_CD	A procedure code submitted by a provider to define the service(s) rendered. (Dental or professional encounters only)
Revenue Code (TXN_TYP = I)	D_LN_RVNU_CD	A revenue code pertaining to the detail. (Institutional encounters only)

Appendix C: Present on Admission (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'). Expectation is that most primary diagnoses are 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 C1 shows a description of each POA code and the values the external quality review organization (EQRO) considers areas of concern for primary diagnoses:

Table C1. Non-exempt primary diagnosis present on admission (POA) codes

POA Code	Description[1]	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 critical to the calculation of PPC rates. When hospital providers do not accurately report these POA, PPC rates and risk adjustment are biased. For inclusion in PPC calculations, data screening at the provider level uses 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 EQRO then evaluates the distribution of POA indicators (Y/N) for all non-exempt pre-existing secondary diagnoses for the encounters indicated for each criterion. Table C2 describes the criteria for assessing secondary diagnoses.

Table C2. Secondary diagnoses present on admission (POA) codes

Screening	Definition	Thresholds	
		Grey zone	**Red zone**
1	Identifies high percent non-POA (POA = N) for pre-existing secondary diagnosis codes (excluding exempt codes).	5% to < 7.5%	≥ 7.5%
2	Identifies extremely high percent present on admission (POA = Y) for secondary diagnosis codes (excluding exempt, pre-existing, and OB 7600x-7799x codes).	93% to < 96%	≥ 96%
3	Identifies extremely low percent present on admission (POA = Y) for secondary diagnosis codes (excluding exempt, pre-existing, and OB 7600x-7799x codes).	> 70% to 77%	≤ 70%
4	Identifies high percent present on admission (POA = Y) for elective surgery secondary diagnosis codes.	≤ 30% to < 40%	≥ 40%

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[1] https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding.html

Appendix D: Summary of Quality Measures Calculated and Reported by the EQRO by Measurement Year and Program

HEDIS Effectiveness of Care – 2018 Measurement Year

Measures		CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS	Medicaid
Prevention and Screening								
ABA	Adult BMI Assessment			Hª				
WCC	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents							
	BMI Percentile	Hª	Hª		A	Hª	A	
	Counseling for Nutrition	Hª	Hª		A	Hª	A	
	Counseling for Physical Activity	Hª	Hª		A	Hª	A	
CIS	Childhood Immunization Status	Hª	Hª		A	Hª	A	
IMA	Immunizations for Adolescents	A	A		A	A	A	A
BCS	Breast Cancer Screening		A	Aª			A	A
CCS	Cervical Cancer Screening		Aª	Hª			A	
CHL	Chlamydia Screening in Women	Aª	Aª	Aª	A	A	A	A
Respiratory Conditions								
CWP	Appropriate Testing for Children with Pharyngitis	Aª	Aª		A	Aª	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	Aª	Aª	Aª	Aª	Aª	A	A
AMR	Asthma Medication Ratio	Aª	Aª	Aª	A	Aª	A	A
Cardiovascular Conditions								
CBP	Controlling High Blood Pressure		Hª	Hª				
SPC	Statin Therapy for Patients with Cardiovascular Disease		A	A			A	A
Diabetes								
CDC	Comprehensive Diabetes Care							
	Hemoglobin A1c (HbA1c) Testing		Hª	Hª				
	HbA1c Control (<8.0%)		Hª	Hª				
	BP Control (<140/90 mmHg)		Hª	Hª				
	Eye Exam		Aª	Aª			A	A
	Medical Attention for Nephropathy		Aª	Aª			A	A
SPD	Statin Therapy for Patients with Diabetes		A	A			A	A

Measures		CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS	Medicaid
Behavioral Health								
AMM	Antidepressant Medication Management		Aª	Aª	A		A	A
ADD	Follow-Up Care for Children Prescribed ADHD Medication	Aª	Aª		Aª	Aª	A	A
FUH	Follow-Up after Hospitalization for Mental Illness	Aa	Aa	Aa	Aa	Aa	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	Aa	Aa		Aa	Aa	A	A
SSD	Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications		Aa	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	Aa	Aa		A	Aa	A	A
AAB	Avoidance of Antibiotic Therapy for Adults With Acute Bronchitis		Aa	Aa			A	A
APC	Use of Multiple Concurrent Antipsychotics in Children and Adolescents	A	A		A	A	Aa	A
UOD	Use of Opioids at High Dosage		A	A			A	A
UOP	Use of Opioids from Multiple Providers		A	A			A	A
COUᵇ	Risk of Continued Opioid Use		A	A			A	A

A - Calculated using administrative data; H - Calculated using HEDIS hybrid methodology;

ª Included on the HHSC performance dashboard (prospective for STAR Kids);
ᵇ Indicates a new measure or added reporting

HEDIS Access/Availability of Care – 2018 Measurement Year

Measures		CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS	Medicaid
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	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	A

A - Calculated using administrative data; H - Calculated using HEDIS hybrid methodology;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids)

HEDIS Utilization and Risk Adjusted Utilization

Measures		CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS	Medicaid
Utilization								
W15	Well-Child Visits in the First 15 Months of Life	A[a]	H[a]		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]	A	
AWC	Adolescent Well-Care Visits	H[a]	H[a]	A	A[a]	H[a]	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	A

A - Calculated using administrative data; H - Calculated using HEDIS hybrid methodology;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids)

AHRQ Quality Indicators – Area Measures

Measures	CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS
Prevention Quality Indicators (PQI)						
1: Diabetes short-term complications		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
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
Pediatric Quality Indicators (PDI)						
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
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

A - Calculated using administrative data;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids)

Other CHIPRA Core and CMS Adult Core Measures

Measures		CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS	Medicaid
DEV	Developmental Screening in the First 3 Years of Life	A	A		A	A[a]	A	A
CCP	Contraceptive Care - Postpartum Women		A	A	A	A	A	
CCW	Contraceptive Care - All Women		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	
HVL	HIV Viral Suppression	T[a]	T[a]	T[a]	T	T		

A - Calculated using administrative data; S - Survey Methodology; T - Calculated by HHSC;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids)

3M Health Information Systems Measures of PPEs

Measures	CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS
Potentially Preventable Events (PPE)						
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
PPS: Potentially preventable ancillary services	A	A	A	A	A	A

A - Calculated using administrative data;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids)

Dental Quality Measures

Measures		Medicaid Dental	CHIP Dental
Quality of Care			
ADV	Annual Dental Visits		
	% of members (aged 2 to 3 years) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
	% of members (aged 4 to 6 years) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
	% of members aged 7 to 10 years enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
	% of members (aged11 to 14 years) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
	% of members (aged 15 to 18 years) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	A
	% of members (aged 19 to 20 years) enrolled for at least 11 of the past 12 months who had at least one annual dental visit	A	

Measures		Medicaid Dental	CHIP Dental
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	A (aged 1 to 20 years)	A (aged 1 to 18 years)
THSteps	THSteps Care Measures a) Percent of members (aged 1 to 20 years) receiving exactly one THSteps Dental Checkup per year b) Percent of members (aged 1 to 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.	A	
THSteps	% of members (aged 1 to 20 years) receiving more than two THSteps Dental Checkups per year	A	
THSteps	% of new members (aged 1 to 20 years) receiving at least one THSteps Dental Checkup within 90 days of enrollment	A	
	% of members (aged 6 to 9 years) 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 (aged 10 to 14 years) 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
DQA	Sealants in Years 6 to 9- % of members (aged 6 to 9 years) 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
DQA	Sealants in Years 10 to 14 - % of members (aged 01 to 14 years) 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
DQA	Oral Evaluation - % of members enrolled for at least 6 months who received a comprehensive or periodic oral evaluation within the reporting year	A (aged 20 years and younger)	A (aged 18 years and younger)
DQA	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	A (aged 1 to 20 years)	A (aged 1 to 18 years)
Continuity of Care			

Measures		Medicaid Dental	CHIP Dental
DQA	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	A (aged 1 to 20 years)	A (aged 1 to 18 years)

A - Calculated using administrative data;

ªIncluded on the HHSC performance dashboard

DQA Utilization of Dental Services

Measures		Medicaid Dental	CHIP Dental
DQA	% of members enrolled for at least 11 of the past 12 months who had at least one orthodontic service during the measurement year*	A (aged 20 years and younger)	A (aged 18 years and younger)
DQA	Utilization of Services - % of members enrolled for at least 6 months who received at least one dental service within the reporting year *	A (aged 20 years and younger)	A (aged 18 years and younger)
DQA	Treatment Services -- % of members enrolled for at least 6 months who received a treatment service within the reporting year *	A (aged 20 years and younger)	A (aged 18 years and younger)
DQA	Total Amount Paid Per-Member Per-Month for Dental Services	A (aged 20 years and younger)	A (aged 18 years and younger)

A - Calculated using administrative data;

ª Included on the HHSC performance dashboard

DQA Emergency Department Visits for Dental Caries

Measures		Medicaid Dental	CHIP Dental
DQA	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
DQA	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.	A (aged 20 years and younger)	A (aged 18 years and younger)
DQA	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.	A (aged 20 years and younger)	A (aged 18 years and younger)

A - Calculated using administrative data;

ª Included on the HHSC performance dashboard

CAHPS Experience of Care

Measures		CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids[c]	FFS	Medicaid-Statewide[b]	CHIP-Statewide[b]
CPA	CAHPS Health Plan Survey 5.0H, Adult Version		S (B)	S (B)				S (A)	
	Rating of All Health Care		S (B)	S (B)				S (A)	
	Rating of Personal Doctor		S (A)[a]	S (A)[a]				S (A)	
	Rating of Specialist Seen Most Often		S (B)	S (B)				S (A)	
	Rating of Health Plan		S (A)[a]	S (A)[a]				S (A)	
	Customer Service		S (B)	S (B)				S (A)	
	Getting Care Quickly		S (A)	S (A)				S (A)	
	% good access to urgent care		S (A)[a]	S (A)[a]				S (A)	
	% good access to routine care		S (A)[a]	S (A)[a]				S (A)	
	Getting Needed Care		S (A)	S (A)				S (A)	
	% good access to specialist appointments		S (A)[a]	S (A)[a]				S (A)	
	% good access to non-specialist appointments		S (A)	S (A)				S (A)	
	How Well Doctors Communicate (good experience with doctors' communication)		S (A)[a]	S (A)[a]				S (A)	
	Shared Decision Making		S (B)	S (B)				S (A)	
	Health Promotion and Education		S (B)	S (B)				S (A)	
	Coordination of Care		S (B)	S (B)				S (A)	
CPC	CAHPS Health Plan Survey 5.0H, Child Version				S (B)	S (B)		S (A)	S (A)
	Rating of All Health Care				S (B)	S (B)		S (A)	S (A)
	Rating of Personal Doctor	S (A)[a]	S (A)[a]		S (B)[a]	S (B)[a]		S (A)	S (A)
	Rating of Specialist Seen Most Often				S (B)	S (B)		S (A)	S (A)
	Rating of Health Plan	S (A)[a]	S (A)[a]		S (B)[a]	S (A)[a]		S (A)	S (A)
	Customer Service				S (B)	S (B)		S (A)	S (A)
	Getting Care Quickly	S (A)	S (A)		S (B)	S (A)		S (A)	S (A)
	% good access to urgent care	S (A)[a]	S (A)[a]		S (B)[a]	S (A)[a]		S (A)	S (A)
	% good access to routine care	S (A)[a]	S (A)[a]		S (B)[a]	S (A)[a]		S (A)	S (A)
	Getting Needed Care				S (B)	S (A)		S (A)	S (A)
	% good access to specialist appointments				S (B)[a]	S (A)[a]		S (A)	S (A)

Measures		CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids[c]	FFS	Medicaid-Statewide[b]	CHIP-Statewide[b]
CPC	% good access to non-specialist appointments				S (B)	S (A)		S (A)	S (A)
	How Well Doctors Communicate (good experience with doctors' communication)	S (A)[a]	S (A)[a]		S (B)[a]	S (B)[a]		S (A)	S (A)
	Shared Decision Making				S (B)	S (B)		S (A)	S (A)
	Health Promotion and Education				S (B)	S (B)		S (A)	S (A)
	Coordination of Care				S (B)	S (A)		S (A)	S (A)
CCC	CAHPS Health Plan Survey 5.0H, Child Version with Children with Chronic Conditions				S (B)	S (B)			
	Access to Specialized Services				S (B)	S (B)			
	Access to medical equipment				S (B)	S (B)			
	Access to special therapy				S (B)	S (A)			
	Access to behavioral health treatment or counseling				S (B)	S (A)			
	Family Centered Care: Personal Doctor Who Knows Child				S (B)	S (B)			
	Coordination of Care for Children with Chronic Conditions				S (B)	S (B)			
	Access to Prescription Medicines				S (B)	S (A)			
	Family Centered Care: Getting Needed Information				S (B)	S (A)			

S(A) - Conducted annually; S(B) - Conducted biennially;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids);

[b] Only on the CMS Core Survey;

[c] Indicates a new measure or added reporting

CAHPS Supplemental Measures

Measures	CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids[c]	FFS	Medicaid-Statewide[b]	CHIP-Statewide[b]
% good access to behavioral health treatment or counseling		S (B)[a]	S (B)[a]	S (B)[a]	S (B)[a]			
% good access to special therapies			S (B)[a]					
% with good access to service coordination			S (B)[a]		S (B)			

S(A) - Conducted annually; S(B) - Conducted biennially;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids);

[b] Only on the CMS Core Survey;

[c] Indicates a new measure or added reporting

CAHPS Effectiveness of Care

Measures		CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS	Medicaid-Statewide[b]	CHIP-Statewide[b]
MSC	Medical Assistance with Smoking Cessation and Tobacco Use		S (B)[a]	S (B)[a]				S (A)	
FVA	Flu Vaccinations for Adults Ages 18-64		S (B)	S (B)				S (A)	

S(A) - Conducted annually; S(B) - Conducted biennially;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids);

[b] Only on the CMS Core Survey

Survey Measures from the National Survey of Children's Health

Measures	CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS	Medicaid-Statewide[b]	CHIP-Statewide[b]
Help arranging or coordinating child's care (any source)					S (A)[a]			
Discussion of transition to care as an adult (ages 12-17)					S (A)			
Forgone health care (Indicator 4.18)					S (A)			
% very satisfied with communication among child's providers					S (B)[a]			

S(A) - Conducted annually; S(B) - Conducted biennially;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids);

[b] Only on the CMS Core Survey

Use of Consumer Directed Services Reported by MCOs

Measures	CHIP	STAR	STAR+ PLUS	STAR Health	STAR Kids	FFS	Medicaid-Statewide[b]	CHIP-Statewide[b]
% Members Utilizing Consumer Directed Services (CDS) Personal Care			T[a], S[a]		T[a], S[a]			
% Members Utilizing Consumer Directed Services (CDS) MDCP Respite			T[a], S[a]		T[a], S[a]			

S - Survey Methodology; T - Calculated by HHSC;

[a] Included on the HHSC performance dashboard (prospective for STAR Kids));

[b] Only on the CMS Core Survey

Appendix E: 3M™ Potentially Preventable Complications (PPC) Classification System Definitions[1]

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 Level

PPC Level	Group Description	
1	Other	Potentially serious complications that do not rise to the same level of clinical significance as major complications because they are not as consistently likely to pose a serious or sustained threat to health or to result in as great an increase in hospital resource use.
2	Major	Those complications that have the most consistent and significant impact on acute and chronic health and cause the largest increase in hospital resource use.
3	Monitor	Complications that can vary in their association with problems in quality of care, due to inconsistency in the application and interpretation of coding criteria from one hospital to another. This level contains just two PPCs – Renal failure without dialysis and Clostridium Difficile Colitis. Although these complications should not be used for definitive assessments of quality, they should be monitored to check for changes in occurrence.

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[1] Extracted from the 3M™ Potentially Preventable Complications (PPC) Classification System Definitions Manual v36. Copyright © 2013–2018, 3M. All rights reserved. GRP-370 October 2018.

PPC Categories

PPC Category	Category Description	PPC Group	Level
1	Stroke and Intracranial Hemorrhage	2	2
2	Extreme CNS Complications	1	2
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	2	2
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1	2
5	Pneumonia and Other Lung Infections	2	2
6	Aspiration Pneumonia	2	2
7	Pulmonary Embolism	2	2
8	Other Pulmonary Complications	2	1
9	Shock	1	2
10	Congestive Heart Failure	2	2
11	Acute Myocardial Infarction	2	2
13	Other Acute Cardiac Complications	2	1
14	Ventricular Fibrillation/Cardiac Arrest	1	2
15	Peripheral Vascular Complications except Venous Thrombosis	2	2
16	Venous Thrombosis	2	2
17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding	3	2
18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding	3	2
19	Major Liver Complications	3	2
20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding	3	1
21	Clostridium Difficile Colitis	5	3
23	Genitourinary Complications Except Urinary Tract Infection	8	1
24	Renal Failure without Dialysis	8	3
25	Renal Failure with Dialysis	1	2
26	Diabetic Ketoacidosis and Coma	8	1
27	Post-Hemorrhagic and Other Acute Anemia with Transfusion	8	1
28	In-Hospital Trauma and Fractures	8	1
29	Poisonings except from Anesthesia	6	1
30	Poisonings due to Anesthesia	6	1
31	Pressure Ulcer	8	2
32	Transfusion Incompatibility Reaction	6	1
33	Cellulitis	5	1
34	Moderate Infections	5	1

PPC Category	Category Description	PPC Group	Level
35	Septicemia and Severe Infections	5	2
36	Acute Mental Health Changes	8	1
37	Post-Procedural Infection and Deep Wound Disruption without Procedure	4	1
38	Post-Procedural Wound Infection and Deep Wound Disruption with Procedure	4	2
39	Reopening Surgical Site	4	2
40	Peri-Operative Hemorrhage and Hematoma without Hemorrhage Control Procedure or I&D Procedure	4	1
41	Peri-Operative Hemorrhage and Hematoma with Hemorrhage Control Procedure or I&D Procedure	4	2
42	Accidental Puncture/Laceration during Invasive Procedure	4	2
44	Other Surgical Complication - Moderate	8	1
45	Post-Procedural Foreign Bodies and Substance Reaction	4	2
47	Encephalopathy	8	2
48	Other Complications of Medical Care	8	1
49	Iatrogenic Pneumothorax	6	2
50	Mechanical Complication of Device, Implant and Graft	6	1
51	Gastrointestinal Ostomy Complications	6	1
52	Infection, Inflammation and Other Complications of Devices, Implants or Grafts except Vascular Infection	6	1
53	Infection, Inflammation and Clotting Complications of Peripheral Vascular Catheters and Infusions	6	1
54	Central Venous Catheter-Related Blood Stream Infection	6	2
59	Medical and Anesthesia Obstetric Complications	7	1
60	Major Puerperal Infection and Other Major Obstetric Complications	7	2
61	Other Complications of Obstetrical Surgical and Perineal Wounds	7	1
63	Post-Procedural Respiratory Failure with Tracheostomy	1	2
64	Other In-Hospital Adverse Events	8	1
65	Urinary Tract Infection	5	1
66	Catheter-Related Urinary Tract Infection	5	1

Appendix F: Measures Used in Report Card Ratings Calculations

Measure Sources

Report card measures come from three major sources:

1. **CAHPS®** - Consumer Assessment of Healthcare Providers and Systems,
2. **HEDIS®** - Healthcare Effectiveness Data and Information Set, and
3. **NSCH** - National Survey of Children's Health.

CHIP Report Cards

Domain	Report Card Text	Specification	Data Source
Experience of Care	Children get care as soon as they need it	CAHPS *Getting Care Quickly*	2019 CHIP Caregiver Annual Report Card Survey
	Doctors listen carefully, explain clearly and spend enough time with people	CAHPS *How Well Doctors Communicate*	2019 CHIP Caregiver Annual Report Card Survey
	Parents give high ratings to their child's personal doctor	CAHPS *Rating of Personal Doctor*	2019 CHIP Caregiver Annual Report Card Survey
	Parents give high ratings to the health plan	CAHPS *Rating of Health Plan*	2019 CHIP Caregiver Annual Report Card Survey
Staying Healthy	Children and teens get regular checkups	Composite: HEDIS *Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life* (W34); HEDIS *Adolescent Well-Care Visits* (AWC).	2018 CHIP Quality of Care Tables
	Children and teens get their vaccines	Composite: HEDIS *Childhood Immunization Status* (CIS), *Combination 10*; HEDIS *Immunizations for Adolescents* (IMA), *Combination 2*	2018 CHIP Quality of Care Tables
Common Chronic Conditions	Children get medicine for asthma	Composite: HEDIS *Asthma Medication Ratio* (AMR); HEDIS *Medication Management for People with Asthma* (MMA), *75% of days covered*	2018 CHIP Quality of Care Tables
	Children see the doctor for ADHD (Attention Deficit Hyperactivity Disorder)	HEDIS *Follow-Up Care for Children Prescribed ADHD Medication* (ADD), *initiation phase*	2018 CHIP Quality of Care Tables

STAR Child Report Cards

Domain	Report Card Text	Specification	Data Source
Experience of Care	Children get care as soon as they need it	CAHPS *Getting Care Quickly*	2019 STAR Child Caregiver Annual Report Card Survey
	Doctors listen carefully, explain clearly and spend enough time with people	CAHPS *How Well Doctors Communicate*	2019 STAR Child Caregiver Annual Report Card Survey
	Parents give high ratings to their child's personal doctor	CAHPS *Rating of Personal Doctor*	2019 STAR Child Caregiver Annual Report Card Survey
	Parents give high ratings to the health plan	CAHPS *Rating of Health Plan*	2019 STAR Child Caregiver Annual Report Card Survey
Staying Healthy	Babies get regular checkups	HEDIS *Well-Child Visits in the First 15 Months of Life* (W15), *six or more well-child visits*	2018 STAR Quality of Care Tables
	Children and teens get regular checkups	Composite: HEDIS *Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life* (W34); HEDIS *Adolescent Well-Care Visits* (AWC)	2018 STAR Quality of Care Tables
	Children and teens get their vaccines	Composite: HEDIS *Childhood Immunization Status* (CIS), *Combination 10*; HEDIS *Immunizations for Adolescents* (IMA), *Combination 2*	2018 STAR Quality of Care Tables
Common Chronic Conditions	Children get medicine for asthma	Composite: HEDIS *Asthma Medication Ratio* (AMR); HEDIS *Medication Management for People with Asthma* (MMA), *75% of days covered*	2018 STAR Quality of Care Tables
	Children see the doctor for ADHD (Attention Deficit Hyperactivity Disorder)	HEDIS *Follow-Up Care for Children Prescribed ADHD Medication* (ADD), *initiation phase*	2018 STAR Quality of Care Tables

STAR Adult Report Cards

Domain	Report Card Text	Specification	Data Source
Experience of Care	People get the care they need without problems or long waits	Composite: CAHPS *Getting Care Quickly*; CAHPS *Getting Needed Care*	2019 STAR Adult Member Annual Report Card Survey
	Doctors listen carefully, explain clearly and spend enough time with people	CAHPS *How Well Doctors Communicate*	2019 STAR Adult Member Annual Report Card Survey
	People give high ratings to their personal doctor	CAHPS *Rating of Personal Doctor*	2019 STAR Adult Member Annual Report Card Survey
	People give high ratings to the health plan	CAHPS *Rating of Health Plan*	2019 STAR Adult Member Annual Report Card Survey
Staying Healthy	Women get checkups during pregnancy	HEDIS *Prenatal and Postpartum Care* (PPC), *timeliness of prenatal care*	2018 STAR Quality of Care Tables
	New mothers get checkups after giving birth	HEDIS *Prenatal and Postpartum Care* (PPC), *postpartum care*	2018 STAR Quality of Care Tables
	People get regular yearly checkups	HEDIS *Adults' Access to Preventive/Ambulatory Health Services* (AAP)	2018 STAR Quality of Care Tables
	Women get regular screenings for cervical cancer	HEDIS *Cervical Cancer Screening* (CCS)	2018 STAR Quality of Care Tables
Common Chronic Conditions	People get care for depression and constant low mood	HEDIS *Antidepressant Medication Management* (AMM), *acute phase*	2018 STAR Quality of Care Tables
	People get care for diabetes	Composite of three components of HEDIS *Comprehensive Diabetes Care* (CDC): *HbA1c testing*; *Eye exam (retinal) performed*; and *Medical attention for nephropathy*.	2018 STAR Quality of Care Tables

STAR+PLUS Report Cards

Domain	Report Card Text	Specification	Data Source
Experience of Care	People get the care they need without problems or long waits	Composite: CAHPS *Getting Care Quickly*; CAHPS *Getting Needed Care*	2019 STAR+PLUS Member Annual Report Card Survey
	Doctors listen carefully, explain clearly and spend enough time with people	CAHPS *How Well Doctors Communicate*	2019 STAR+PLUS Member Annual Report Card Survey
	People give high ratings to their personal doctor	CAHPS *Rating of Personal Doctor*	2019 STAR+PLUS Member Annual Report Card Survey
	People give high ratings to the health plan	CAHPS *Rating of Health Plan*	2019 STAR+PLUS Member Annual Report Card Survey
Staying Healthy	People get regular yearly checkups	HEDIS *Adults' Access to Preventive/Ambulatory Health Services* (AAP)	2018 STAR+PLUS Quality of Care Tables
	Women get regular screenings for breast and cervical cancer	Composite: HEDIS *Breast Cancer Screening* (BCS); HEDIS *Cervical Cancer Screening* (CCS)	2018 STAR+PLUS Quality of Care Tables
Common Chronic Conditions	People get care for depression and constant low mood	HEDIS *Antidepressant Medication Management* (AMM), *acute phase*	2018 STAR+PLUS Quality of Care Tables
	Doctors follow up after urgent treatment for alcohol, opioid or other drug use	HEDIS *Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment* (IET), *initiation of AOD treatment*	2018 STAR+PLUS Quality of Care Tables
	Doctors follow up after urgent treatment for mental illness	Composite: HEDIS *Follow-Up after Hospitalization for Mental Illness* (FUH), *7-Day*; HEDIS *Follow-Up After Emergency Department Visit for Mental Illness* (FUM), *7-Day*	2018 STAR+PLUS Quality of Care Tables
	People get tests and treatment for COPD (Chronic Obstructive Pulmonary Disease)	Composite: HEDIS *Pharmacotherapy Management of COPD Exacerbation* (PCE); HEDIS *Use of Spirometry Testing in the Assessment and Diagnosis of COPD* (SPR).	2018 STAR+PLUS Quality of Care Tables
	People get care for diabetes	Composite of three components of HEDIS *Comprehensive Diabetes Care* (CDC): *HbA1c testing*; *Eye exam (retinal) performed*; and *Medical attention for nephropathy*.	2018 STAR+PLUS Quality of Care Tables

STAR Kids Report Cards

Domain	Report Card Text	Specification	Data Source
Getting Care	People get the care they need without problems or long waits	Composite: CAHPS *Getting Care Quickly*; CAHPS *Getting Needed Care*	2019 STAR Kids Caregiver Annual Report Card Survey
	People get regular checkups	Composite: HEDIS *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* (W34); HEDIS *Adolescent Well-Care Visits* (AWC)	2018 STAR Kids Quality of Care Tables
	People get special therapy easily	Component of CAHPS *Getting Specialized Services*	2019 STAR Kids Caregiver Annual Report Card Survey
	People get prescription medicines easily	CAHPS *Getting Prescription Medicine*	2019 STAR Kids Caregiver Annual Report Card Survey
Services and Support	People get help arranging or coordinating care	NSCH K5Q20_R, part of Indicator 4.12e *Effective care coordination*	2019 STAR Kids Caregiver Annual Report Card Survey
	Doctors and other health providers answer questions	CAHPS *Family Centered Care: Getting Needed Information*	2019 STAR Kids Caregiver Annual Report Card Survey
	Doctors discuss eventual transition to adult care for adolescents (12–17)	NSCH TREATADULT, part of Indicator 4.15 *Transition to adult health care, age 12-17 years*	2019 STAR Kids Caregiver Annual Report Card Survey
	People give high ratings to the health plan	CAHPS *Rating of Health Plan*	2019 STAR Kids Caregiver Annual Report Card Survey
Mental and Behavioral Health	People get emotional and behavioral counseling easily	Component of CAHPS *Getting Specialized Services*	2019 STAR Kids Caregiver Annual Report Card Survey
	Doctors follow up after hospitalization for mental illness	HEDIS *Follow-Up After Hospitalization for Mental Illness* (FUH), *7-Day*	2018 STAR Kids Quality of Care Tables
	Health monitoring for people using antipsychotics	HEDIS *Metabolic Monitoring for Children and Adolescents on Antipsychotics* (APM)	2018 STAR Kids Quality of Care Tables