Texas Medicaid Managed Care and Children's Health Insurance Program

External Quality Review Organization Summary of Activities and Trends in Healthcare Quality

Contract Year 2014

Measurement Period:

September 1, 2008 through December 31, 2013

The Institute for Child Health Policy

University of Florida

The External Quality Review Organization

for Texas Medicaid Managed Care and CHIP

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Executive Summary

This report summarizes the evaluation activities conducted by the Institute for Child Health Policy at the University of Florida to meet federal requirements for external quality review of Texas Medicaid Managed Care and the Children's Health Insurance Program (CHIP). The Institute for Child Health Policy has been the external quality review organization for the Texas Health and Human Services Commission (HHSC) since 2002. The findings discussed in this report are based on external quality review organization activities conducted during fiscal year 2014, including administrative quality of care measures calculated on calendar year 2013 claims and encounter data, studies of quality improvement activities conducted by managed care organizations in calendar year 2013, and member satisfaction surveys with varying measurement periods spanning all or part of calendar years 2013 and 2014.

The report also shows performance trends for selected quality of care measures from 2009 through 2013 (where data are available), with a focus on the state's pay-for-quality program. A companion document to this report includes managed care organization profiles of health care quality for each of the managed care organizations participating in Texas Medicaid and CHIP, showing calendar year 2013 results on HHSC Performance Indicator Dashboard measures, as well as time trends on selected measures. The report concludes with a listing of the most relevant recommendations made by the external quality review organization in 2014 for improving care at the program and health plan levels.

The review is structured to comply with the Centers for Medicare & Medicaid Services (CMS) federal guidelines and protocols, and addresses care provided by managed care organizations participating in STAR, CHIP, STAR+PLUS, STAR Health, NorthSTAR, and Medicaid/CHIP Dental. The external quality review organization conducts ongoing evaluation of quality of care primarily using managed care organization administrative data, including claims and encounter data. The external quality review organization also reviews managed care organization documents and provider medical records, conducts interviews with managed care organization administrators, and conducts surveys of Texas Medicaid and CHIP members, caregivers of members, and providers.

The external quality review organization uses a comprehensive set of health care quality measures to evaluate performance in Texas Medicaid and CHIP. These include:

- Measures from the Healthcare Effectiveness Data and Information Set (HEDIS®)
- Measures of potentially avoidable hospitalizations from the Agency for Healthcare Research and Quality (AHRQ), including the Pediatric Quality Indicators (PDIs) for children and Prevention Quality Indicators (PQIs) for adults
- Measures of potentially preventable events developed by 3M, including potentially preventable admissions, readmissions, emergency department visits, and complications
- Measures from member and caregiver surveys, including those from the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) survey and the Experience of Care and Health Outcomes (ECHO®) survey for behavioral health

For many administrative HEDIS® measures, the 2014 HEDIS® national percentiles for state Medicaid programs were available as benchmarks for performance in the Texas STAR program. Comparisons with the national HEDIS® percentiles are also made for other programs discussed in this report. However, these comparisons are for reference only, as CHIP, STAR+PLUS, STAR Health, and NorthSTAR represent populations that are not directly comparable with the national means and percentiles. For measures where HHSC Performance Indicator Dashboard standards are available, these standards are the preferred benchmarks for assessing performance as they more closely reflect the Texas populations.

Structure of Health Services in Texas Medicaid and CHIP

To meet federal requirements for external quality review of Medicaid managed care, the external quality review organization annually collects information from Texas Medicaid and CHIP health plans to use in the evaluation of health plan structure, processes of care, quality assessment and performance improvement programs, and performance improvement projects. Findings from quality assessment and performance improvement program evaluations conducted in 2014 show:

- The majority of participating health plans (15 out of 22) scored above average on the annual quality assessment and performance improvement program evaluation, which suggests that the structure and operations of health plans quality assessment and performance improvement programs are largely in compliance with state-specified standards. Each health plan was scored across 14 important quality assessment and performance improvement program components, producing an average weighted score of 95 percent.
- The highest quality assessment and performance improvement program component scores were related to completion of corrective action plans (100 percent), appropriate quality assessment and performance improvement delegation (99.5 percent), and acceptable provider credentialing (99.2 percent). All other sections also scored high, with average scores equal to or exceeding 90 percent.

HHSC requires that all managed care organizations participating in STAR, STAR+PLUS, CHIP, and STAR Health provide disease management services covering asthma and diabetes. In addition to asthma and diabetes, managed care organizations participating in STAR+PLUS must offer disease management for chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), and coronary artery disease. All STAR and CHIP managed care organizations had the required disease management programs, in addition to other disease management programs focused on the needs of their populations. Fewer than one in five eligible members participated in asthma disease management in STAR (18.7 percent) or CHIP (15.9 percent). Disease management participation rates were higher in STAR+PLUS, for both asthma (72.8 percent) and diabetes (70.7 percent). All Texas Medicaid and CHIP managed care organizations participated in and assessed the effectiveness of health promotion projects. Asthma and diabetes management, cardiovascular disease management, obesity management and cardiovascular disease prevention were the most common types of health promotion projects. The external quality review organization recommends that managed care organizations maintain practices that have been successful for improving preventive care, while also implementing new performance improvement project topics as needed to address care for chronic conditions.

STAR - Member Characteristics, Utilization, and Performance Measures

STAR is a Medicaid managed care program that serves primarily children and families. In 2013, 18 managed care organizations participated in STAR, operating in 13 service areas, including the three Medicaid Rural Service Areas established in March 2012, with a total of 2,504,606 members as of December 2013. Membership was 53.1 percent female and 46.9 percent male, with a mean age of 9.6 years. More than half of the members were Hispanic, and over one-quarter of child and adolescent STAR members had special health care needs. The most common special health care need among children in STAR was dependence on prescription medications (17.7 percent). Greater than two-thirds of child and adolescent STAR members were in "excellent" or "very good" overall health (68.8 percent) and mental health (66.6 percent). More than one-quarter of children and adolescents in STAR were obese, as measured from caregiver-reported height and weight.

Statewide performance on measures of access to well-care visits for children and adolescents, childhood immunizations, and prenatal and postpartum care in STAR showed positive findings in 2013. All three well-care measures were within the HEDIS® national 75th to 89th percentile, representing a good standard of care compared to the national Medicaid population. All managed care organizations exceeded the 2014 HEDIS® 50th percentile for *Childhood Immunization Status: Combination 4*, except for CHRISTUS (57.6 percent) and Sendero (63.9 percent). Rates for HEDIS® *Timeliness of Prenatal Care* have increased in STAR since 2009, exceeding the HEDIS® 50th percentile for the first time in calendar year 2013.

STAR Members had slightly higher rates of outpatient visits and slightly lower rates of emergency department procedures than the HEDIS® national Medicaid 50th percentiles. Outpatient visit rates per 1,000 member-months ranged from 256.3 (Seton) to 504.4 (UnitedHealthcare). The rate of mental health utilization in STAR (15.4 percent) was higher than the HEDIS® national 50th percentile.

In STAR, rates of potentially preventable admissions, readmissions, and emergency department visits increased slightly between 2011 and 2013. The most common reasons reported for potentially preventable admissions were pneumonia (14.3 percent), asthma (14.3 percent), and cellulitis and other bacterial skin infections (11.6 percent). Effectiveness of care for asthma showed good compliance on the percentage of members appropriately prescribed asthma medications in STAR, with all managed care organizations exceeding the HEDIS® 90th percentile. However, STAR had poor compliance for management of asthma medications, with rates varying from 27.7 percent (CHRISTUS) to 54.7 percent (UnitedHealthcare). Other key areas for improvement in STAR include appropriate testing for children with pharyngitis and follow-up after hospitalization for mental illness.

The STAR program performed well on measures of caregiver satisfaction with care in 2013, exceeding national Medicaid rates for all four ratings measures. For half of the CAHPS® composite measures, the STAR program rates were within four percentage points of those in the national child Medicaid population. Lower rates for CAHPS® *Getting Needed Care* and *Getting Care Quickly* suggest a need to improve access to specialist care in STAR.

CHIP - Member Characteristics, Utilization, and Performance Measures

CHIP is an expanded managed care program serving children in families with income too high to qualify for traditional Medicaid but too low to afford private insurance. In 2013, 17 managed care organizations participated in CHIP, operating in 10 service areas and serving 567,286 children. Membership was 48.8 percent female and 51.2 percent male, with a mean age of 10.3 years. The population was relatively healthy, with caregivers reporting "excellent" or "very good" health status for 69.5 percent of children for overall health and for 72.4 percent of children for mental health. Special health care needs were reported for 20.1 percent of members, with the most common type being dependence on prescription medications (16.4 percent of members). Caregiver reports of height and weight indicated that 26.6 percent of CHIP members were obese.

Statewide performance on measures of access to care in CHIP showed generally positive findings in 2013. Performance on the HEDIS® *Childhood Immunization Status: Combination 4* measure was strong, with all managed care organizations exceeding the HEDIS® 50th percentile and all but two (Molina and UnitedHealthcare) exceeding the 75th percentile. CHIP members utilized less care in 2013 than the HEDIS® 50th percentile. HEDIS® *Ambulatory Care: Outpatient Visits* per 1,000 member-months ranged from 141.7 (Sendero) to 263.8 (Driscoll), as compared to 231.5 for the statewide average.

Potentially preventable admissions per 1,000 member-months decreased slightly from 0.30 in 2012 to 0.25 in 2013. The ratios of actual-to-expected potentially preventable admissions ranged from 0.76 (Amerigroup) to 1.88 (Sendero)[i]. The most common reasons for potentially preventable admissions were asthma (18.5 percent), bipolar disorders (10.7 percent), and other pneumonia (10.1 percent).

Effectiveness of care in 2013 in CHIP was measured by eight HEDIS® measures plus CHIPRA® *Developmental Screening in the First Three Years of Life*. Statewide, the program performed well on HEDIS® *Use of Appropriate Medications for People with Asthma* (all ages), with an overall rate of 95.3 percent, which meets the HHSC Dashboard standard of 95 percent and exceeds the HEDIS® 50th percentile. However, as in STAR, the rate of HEDIS® *Medication Management for People with Asthma: Medication Compliance 75%* fell below the HEDIS® 25th percentile.

Caregivers of children in Texas CHIP generally reported good experiences, although there are areas for improvement. Performance was better in Texas than in the national CHIP population for three of the four CAHPS® ratings, and was one percentage point below the national rate for the personal doctor rating. Performance on all CAHPS® composite measures was lower in Texas than in the national CHIP population. The widest gap was observed for *Getting Needed Care*, with 68.5 percent of caregivers in CHIP reporting they “usually” or “always” had positive experiences, compared to 84 percent in CHIP nationally. The external quality review organization recommends that health plan efforts to improve caregiver satisfaction with care in CHIP focus on these areas, and in particular, access to specialist appointments (which is part of the *Getting Needed Care* composite).

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[i] For potentially preventable events, lower ratios indicate better performance.

STAR+PLUS – Member Characteristics, Utilization, and Performance Measures

STAR+PLUS is a Medicaid managed care program coordinating acute care and long-term services and support for members age 65 or older or who have a disability and who qualify for Supplemental Security Income (SSI) benefits or for Medicaid due to low income. STAR+PLUS includes Medicaid-only members and members who are dual-eligible for both Medicaid and Medicare. In 2013, five managed care organizations participated in STAR+PLUS, operating in 10 service areas, and serving 409,661 members. STAR+PLUS members have more complex health conditions than adult members in STAR or in the general Medicaid population. Member-reported health status was generally low, with 62.0 percent reporting "fair" or "poor" overall health and 47.8 percent reporting "very poor" or "poor" mental health. Over half (50.5 percent) of members were obese, as measured from member-reported height and weight, and 24.2 percent were overweight. Health-related limitations to quality of life were common, with 66.3 percent of Medicaid-only members and 67.5 percent of dual-eligible members reporting they have a condition that interferes with independence, participation in the community, or quality of life.

Utilization of care was generally high for STAR+PLUS Medicaid-only members, as expected for the more complex health problems seen in the population. Statewide, the program had 575.4 outpatient visits per 1,000 member-months, ranging from 546.6 (Amerigroup) to 700.9 (Cigna-HealthSpring). Long-term complications for diabetes, as measured by the AHRQ PQI, were 64.91 per 100,000 member-months, ranging from 51.04 (Cigna-HealthSpring) to 70.96 (Superior). From 2011 to 2013, there were modest increases in rates of potentially preventable admissions and readmissions within 30 days, while the rate of potentially preventable emergency department procedures remained constant. The rate of potentially preventable admissions was 8.43 per 1,000 member-months, with actual-to-expected ratios ranging from 0.75 (Cigna-HealthSpring) to 1.31 (UnitedHealthcare). Renal failure accounted for 17.6 percent of potentially preventable complications.

Compliance on effectiveness of care measures was generally low for STAR+PLUS Medicaid-only members. The HEDIS® measures for appropriate medication for asthma, follow-up after hospitalization for mental illness, antidepressant medication management, eye exams for individuals with diabetes, and HbA1c control for individuals with diabetes all fell below the HEDIS® 25th percentile. While still low, both diabetes measures showed improvement from 2012. The HEDIS® measure of adult BMI assessment fell between the 25th and 49th percentile, the measure for asthma medication management exceeded the 75th percentile, and measures of cholesterol management (LDL-C screening) and diabetes care (LDL-C screening and medical attention for nephropathy) performed above the 50th percentile.

Surveys of member satisfaction indicated room for improvement in delivery of health care generally, with 52.4 percent of Medicaid-only members and 58.7 percent of dual-eligible members rating their health care highly (“9” or “10” on a scale from 0 to 10), and 56.5 percent of Medicaid-only members and 62.1 percent of dual-eligible members rating their health plan highly. Rates for CAHPS® *Getting Needed Care* were 65.7 percent for Medicaid-only members and 74.9 percent for dual-eligible members.

STAR Health - Member Characteristics, Utilization, and Performance Measures

STAR Health is a Medicaid managed care program for children in state conservatorship and young adults previously in state conservatorship. In calendar year 2013, STAR Health operated statewide, served 31,719 children and young adults, and was administered by Superior HealthPlan. Membership was 48.7 percent female and 51.3 percent male, with a mean age of eight years. According to the 2014 STAR Health Caregiver Survey, half of all STAR Health members have special health care needs. The most common types of special health care needs among children in STAR Health were problems that require counseling (34.6 percent) and dependence on medications (34.3 percent). Nearly one-third of children and adolescents in STAR Health were obese (30.3 percent), as measured from caregiver-reported height and weight.

In 2013, members in STAR Health utilized the emergency department at a rate of 57.8 visits per 1,000 member-months, and outpatient care at a rate of 458.8 visits per 1,000 member-months. Overall utilization of behavioral health services was higher, with 86.7 percent of members having received a mental health service in the emergency department or outpatient care settings. Performance on well-care measures for children (89.2 percent) and adolescents (74.0 percent) in STAR Health remained high in 2013, exceeding their respective HEDIS® 90th percentiles.

Potentially preventable inpatient admissions increased from 2.60 visits per 1,000 member months in 2012 to 3.35 visits per 1,000 member months in 2013. The most common reasons for these inpatient admissions were bipolar disorders (63.3 percent) and major depressive disorders and other psychoses (12.3 percent). Potentially preventable readmissions remained fairly constant across the three-year period, with 1.43 visits per 1,000 member-months in 2013. The most common type of readmission was mental health or substance abuse readmission (88.5 percent). These findings are in contrast to the generally high performance in STAR Health on HEDIS® *Follow-up After Hospitalization for Mental Illness* and *Follow-up Care for Children Prescribed Attention Deficit Hyperactivity Disorder (ADHD) Medication*. Emergency department procedures that were potentially preventable have been steadily increasing in STAR Health, from 7.39 visits per 1,000 member months in 2011 to 10.32 visits per 1,000 member-months in 2013. The most common condition associated with these emergency department visits was upper respiratory tract infection (26.0 percent).

Caregivers of children in STAR Health generally reported high satisfaction with care on the CAHPS® measures *Getting Needed Care* (70.7 percent), *Getting Care Quickly* (91.0 percent), and *How Well Doctors Communicate* (90.6 percent). However, all four CAHPS® ratings for STAR Health members fell below the national CAHPS® Child Medicaid rates for 2014. The widest gap in these ratings was observed for the CAHPS® specialist rating, with 60.4 percent of STAR Health caregivers rating their child's specialist a "9" or "10", compared to 70 percent in the national Medicaid population.

NorthSTAR - Member Characteristics and Performance Measures

NorthSTAR is available to STAR and STAR+PLUS members who live in the Dallas service area and need behavioral health services. These services are provided through ValueOptions, which is contracted with the State as the exclusive behavioral health organization for NorthSTAR. NorthSTAR enrollment increased by more than one-fifth (22.3 percent) between 2009 and 2011, with 456,641 members enrolled in December 2013. The mean age in NorthSTAR was 15 years old, with 53 percent below the age of 10 and 26 percent between 10 and 17 years old, and a fairly even distribution of female and male members (52 percent and 48 percent, respectively). In December 2013, Hispanic members accounted for 45 percent of the NorthSTAR population, followed by Black, non-Hispanic members (26 percent), and White, non-Hispanic members (14 percent).

Effectiveness of care in 2013 in NorthSTAR was measured by six HEDIS® measures, including *Follow-up After Hospitalization for Mental Illness*, *Follow-up Care for Children Prescribed ADHD Medication*, and *Antidepressant Medication Management*. With a few exceptions, compliance on the effectiveness measures was low in NorthSTAR in relation to the national HEDIS® percentiles. Rates were below the HEDIS® 50th percentiles for follow-up after hospitalization for mental illness, with 30 percent of NorthSTAR members receiving 7-day follow-up, and half receiving 30-day follow-up. Rates for follow-up care for children prescribed ADHD medication held positions above the HEDIS® national 50th percentile for both initiation and maintenance phases.

Medicaid and CHIP Dental Programs – Access and Satisfaction

Most children and young adults age 20 and younger with Medicaid or CHIP coverage get dental services through a managed care dental plan. The two dental plans providing services across the state for all Medicaid and CHIP members who qualify for dental coverage are DentaQuest and MCNA.

The external quality review organization evaluated access to dental care and services among members enrolled in Medicaid and CHIP Dental using the HEDIS® *Annual Dental Visit* measure and dental prevention and treatment measures developed by the Institute for Child Health Policy. Medicaid participants had higher rates than CHIP participants on all measures of dental program access and utilization, with the exception of treatment for caries. CHIP Dental members had rates of HEDIS® *Annual Dental Visit* higher than HHSC Dashboard standards for all individual age bands. However, the rates for use of dental sealants among children and adolescents in Medicaid and CHIP were low.

Caregivers of child members in Texas Medicaid and CHIP Dental generally reported positive experiences with receiving care from dentists and staff. Satisfaction was lower for dental plan costs and services, and low for some measures of access to dental care. Satisfaction tended to be higher in Medicaid Dental than CHIP Dental.

External Quality Review Organization Recommendations for Fiscal Year 2014

This report concludes with a list of recommendations that the external quality review organization made in fiscal year 2014 to improve the quality of care delivered to Texas Medicaid and CHIP members (Appendix A). These recommendations are compiled from reports on quality of care, member surveys, and other studies, and include recommendations made for updating the HHSC Performance Indicator Dashboard. The list of recommendations includes those that address common issues in quality of care across programs, as well as HHSC's overarching goals for STAR, STAR+PLUS, CHIP, and STAR Health managed care organizations. The crosswalk below shows the recommendation domains and the programs to which they apply.

Fiscal Year 2014 External Quality Review Organization Recommendations – Program Crosswalk

Domain	**Program**						
	STAR	CHIP	STAR+PLUS	STAR Health	North STAR	Medicaid Dental	CHIP Dental
HHSC Performance Indicator Dashboard	✓	✓	✓				
Quality Assessment and Performance Improvement Programs	✓	✓	✓	✓	✓		
Asthma Care	✓						
Preventive Dental Care						✓	✓
Antidepressant Medication Management			✓		✓		
Potentially Preventable Readmissions and Emergency Department Visits			✓				
Diabetes Care			✓				
Behavioral Health Care	✓	✓			✓		
General Recommendations	✓	✓	✓	✓	✓	✓	✓

Introduction

Ensuring the delivery of affordable, high-quality health care for beneficiaries of public insurance programs has become increasingly important in recent years, as federal and state agencies seek to address budget deficits while also improving access to health care. As the result of delivery and payment system reforms, the United States has seen some of the most significant changes to the Medicaid program since its enactment in 1965.[1] Texas has a strong focus on quality of care in Medicaid and CHIP that includes significant legislation such as S.B. 7, 83rd Legislature, Regular Session, 2013, which covers a range of health care issues and an emphasis on promoting health care quality.

Concerns about the efficiency of health services in Medicaid have prompted many states to adopt managed care as the predominant delivery model. In contrast to fee-for-service, managed care is distinguished by a number of practices intended to improve access to care and control health care costs, including:[2] (1) ensuring that members have a *medical home*—a primary care provider or team of professionals that follows a person-based approach to preventive and primary care; (2) establishing a network of providers under contract with the health plan, which is obligated to maintain state access standards; (3) conducting utilization review and utilization management to monitor and evaluate the appropriateness, necessity, and efficacy of health services; and (4) implementing quality assessment and performance improvement programs, which assess performance using objective standards to lead to improvements in the structure and functioning of health services. Moving forward, states are expected to rely increasingly on managed care organizations.[3] In 2010, all states except Alaska, New Hampshire, and Wyoming were operating comprehensive Medicaid managed care programs.[4] In 2012, about two-thirds of Medicaid beneficiaries received services through managed care nationally.[5]

The State of Texas conducted its first Medicaid managed care pilot programs in 1991 and passed legislation in 1995 to enact a comprehensive restructuring of the Medicaid program, which included incorporating a managed care delivery system.[6] In 2011, the proportion of Texas Medicaid members enrolled in a managed care program reached 71 percent.[7] During the summer of 2011, the Texas Legislature passed Senate Bill 7 (82nd Legislature, First Called Session, 2011), mandating a statewide expansion of Medicaid managed care, which was previously limited to large urban areas.[8] In August 2011, the state awarded $10 billion in Medicaid managed care contracts, following the largest request for proposals in the history of such contracting.[9] Since then, the following managed care expansions have occurred:

September 2011: The STAR program expanded into 28 counties contiguous to six of the current Medicaid managed care service areas. The expansion of STAR included combining the Harris and Harris Expansion service areas into one, and forming the new Jefferson service area. The STAR+PLUS program expanded into 21 counties contiguous to six of the current Medicaid managed care service areas. The expansion of STAR+PLUS included combining the Harris and Harris Expansion service areas into one service area, expanding most of the existing service areas to cover new counties, and forming the Jefferson service area.

March 2012: A major expansion of Medicaid managed care included the addition of one county to the El Paso service area and six counties to the Lubbock service area; the creation of the new Hidalgo service area, which covers ten counties; and the expansion of STAR into 164 counties in the Medicaid Rural Service Area, previously served by PCCM.[10] The STAR+PLUS program expanded into the El Paso, Lubbock, and Hidalgo service areas. In addition, members in STAR, STAR+PLUS, and CHIP began receiving pharmacy benefits through managed care, and most children and young adults in Medicaid began receiving dental benefits through managed care (which previously was offered only to CHIP members).

March 2014: Cognitive rehabilitation therapy was added to the STAR+PLUS Home and Community Based Services waiver service array.

September 2014: The STAR+PLUS program expanded to the Medicaid Rural Service Area and began offering acute care services for individuals residing in or enrolled in a waiver for a community-based Intermediate Care Facility (ICF) for Individuals with an Intellectual Disability or Related Conditions. Adult individuals with an intellectual disability or related condition who are dual eligible (receiving both Medicare and Medicaid) are excluded from STAR+PLUS. In addition, supported employment and employment assistance were added to the STAR+PLUS Home and Community Based Services waiver service array.[11] The Medicaid Rural Service Area expansion includes certain Medicaid behavioral and physical health services (which are currently available through Medicaid fee-for-service) in STAR and STAR+PLUS managed care plans.

Future expansions include the integration of nursing facility services into STAR+PLUS (March 2015) and the implementation of the STAR Kids program to provide acute care services for children and youth who receive SSI benefits or 1915(c) waiver services (September 2016).

External Quality Review in Texas Medicaid and CHIP

The Institute of Medicine defines health care *quality* as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”[12] High quality of care requires that health care delivery be safe, effective, patient-centered, timely, efficient, and equitable. Given the cost-containment and managed care expansion strategies that continue to be implemented nationwide, evaluation research into the quality of care delivered to members of Medicaid and CHIP is of particular and timely importance.

Federal regulations require external quality review of Medicaid managed care programs to ensure that state programs and their contracted managed care organizations are compliant with established standards.[13] States are required to validate managed care organization performance improvement projects and performance measures, and assess managed care organization compliance with member access to care and quality of care standards. In addition, states may also validate member-level data, conduct surveys and focus studies, assess performance improvement projects, and calculate performance measures. CMS provides guidance for these mandatory and optional activities through protocols for evaluating the state’s quality assessment and improvement strategy.[14]

Through a contract with HHSC, the Institute for Child Health Policy at the University of Florida has served as the Texas external quality review organization since 2002. Following CMS protocols, the Institute for Child Health Policy measures access, utilization, effectiveness, and satisfaction with care for members in Texas Medicaid and CHIP and produces an annual summary of evaluation activities conducted during the prior year. To provide an annual profile of Texas Medicaid and CHIP managed care organization performance, this report summarizes the findings of external quality review organization studies conducted during fiscal year 2014 (September 1, 2013, to August 31, 2014), which include administrative quality of care measures calculated on calendar year 2013 claims and encounter data, studies of quality improvement activities conducted by managed care organizations in calendar year 2013, and member satisfaction surveys with varying measurement periods spanning all or part of calendar year 2014.[15]

To further assist Texas HHSC and managed care organizations in developing and implementing quality improvement strategies, this report shows performance trends for selected quality of care measures from 2009 through 2013 (where data are available), with a focus on the state's pay-for-quality program. For certain survey measures, trends span the period 2009 through 2014. Most of the trends presented in this report are at the program level (e.g., STAR, CHIP). The report includes a separate appendix of profiles of each managed care organization participating in Texas Medicaid and CHIP during calendar year 2013, showing each managed care organization's most currently available results on HHSC Performance Indicator Dashboard measures (calendar year 2013 for administrative measures; 2013 or 2014 for survey measures) and presenting the managed care organization's trends for selected performance measures.

A summary of the external quality review organization's recommendations to Texas HHSC made in the prior year is listed in **Appendix A**. The recommendations for Texas Medicaid and CHIP should be considered for future quality improvement initiatives in the coming year.

Managed Care Programs and Participating Managed Care Organizations

In 2013, Texas Medicaid and CHIP benefits were administered through the following programs:

STAR – The State of Texas Access Reform (STAR) program is a managed care program established to reduce service fragmentation, increase access to care, reduce costs, and promote more appropriate use of services. In 2013, services were provided to STAR members through 18 managed care organizations and in 13 service areas, including the 3 Medicaid Rural Service Areas established in March 2012, as listed in **Table 1**.

STAR+PLUS – The STAR+PLUS program integrates acute health services with long-term services and support using a managed care delivery system. STAR+PLUS serves members who are 65 or older or who have a physical or mental disability and who qualify for SSI benefits or for Medicaid due to low income. In 2013, services were provided to STAR+PLUS members through five managed care organizations operating in ten service areas (**Table 1**).

STAR Health – STAR Health is a managed care program for children in state conservatorship and young adults previously in state conservatorship. Implemented in April 2008, the program offers an integrated medical home where each member has access to primary care providers, dentists, behavioral health clinicians, and other specialists. In 2013, the exclusive managed care organization for STAR Health was Superior HealthPlan.

NorthSTAR – NorthSTAR is a carve-out program available to STAR and STAR+PLUS members who live in the Dallas service area and need behavioral health services. These services are provided through ValueOptions, which is contracted with the State as the exclusive behavioral health organization for NorthSTAR. This contract is separate from the direct contracts between HHSC and the STAR and STAR+PLUS managed care organizations. NorthSTAR provides an innovative approach to behavioral health service delivery, including: (1) blended funding from state and local agencies; (2) integrated treatment in a single system of care; (3) care management; (4) data warehouse and decision support for evaluation and management; and (5) services provided through a fully capitated contract with a licensed behavioral health organization.

CHIP – The Children's Health Insurance Program is designed for families whose income is too high to qualify for Medicaid, but too low to be able to afford private insurance for their children. CHIP provides eligible children with coverage for a full range of health services, including regular checkups, hospital visits, immunizations, prescription drugs, lab tests, and X-rays. In 2013, services were provided to CHIP members through 17 managed care organizations operating in 10 service areas (**Table 1**).

Medicaid Dental – The Texas Medicaid Dental program began in March 2012 to provide dental services for children and young adults age 20 and younger enrolled in Texas Medicaid. In calendar year 2013, two Medicaid dental plans participated in Medicaid Dental – DentaQuest and MCNA Dental.

CHIP Dental – Prior to March 2012, members in Texas CHIP received dental services through a three-tier benefits package that covered certain preventive and therapeutic services up to capped dollar amounts per 12-month coverage period.[16] In addition, to comply with requirements set forth by the CHIP Reauthorization Act (CHIPRA), Texas CHIP began covering certain services that were not previously covered, including periodontic and prosthodontic procedures. Effective March 2012, Texas discontinued the three-tier benefits package, and CHIP members began receiving up to $564 in dental benefits per enrollment period. In calendar year 2013, two CHIP dental plans participated in CHIP Dental – DentaQuest and MCNA.

CHIP Perinate – CHIP Perinate expands CHIP services to unborn children of low-income women who earn too much money to qualify for Medicaid. Benefits and eligible services are limited to prenatal care, labor and delivery, and postpartum care associated with the birth of the child. After birth, the newborn receives full CHIP benefits.

Table 1: Texas Medicaid/CHIP Managed Care Organizations and Service Areas in 2013 [17]

Managed Care Organization	STAR	STAR+PLUS	CHIP
Aetna	✓		✓
Amerigroup	✓	✓	✓
Blue Cross Blue Shield (BCBSTX) [ii]	✓		✓
CHRISTUS	✓		✓
Community First	✓		✓
Community Health Choice (CHC) [ii]	✓		✓
Cook Children's	✓		✓
Driscoll	✓		✓
El Paso First	✓		✓
FirstCare	✓		✓
Cigna-HealthSpring [ii]		✓	
Molina	✓	✓	✓
Parkland Community [ii]	✓		✓
Scott & White	✓		
Sendero	✓		✓
Seton	✓		✓
Superior	✓	✓	✓
Texas Children's	✓		✓
UnitedHealthcare (UHC) [ii]	✓	✓	✓
Service Area	**STAR**	**STAR+PLUS**	**CHIP**
Bexar	✓	✓	✓
CHIP Rural Service Area			✓
Dallas	✓	✓	✓
El Paso	✓	✓	✓
Harris	✓	✓	✓
Hidalgo	✓	✓	
Jefferson	✓	✓	✓
Lubbock	✓	✓	✓
Medicaid Rural Service Area - Central	✓		
Medicaid Rural Service Area - Northeast	✓		
Medicaid Rural Service Area - West	✓		
Nueces	✓	✓	✓
Tarrant	✓	✓	✓
Travis	✓	✓	✓

[ii] Managed care organization names have been abbreviated or acronyms used in some tables and charts.

External Quality Review Organization Activities

This report meets federal annual reporting requirements of external quality review of state Medicaid managed care programs. The external quality review organization annually conducts the following activities to address the mandatory and optional external quality review functions for evaluating Medicaid managed care and CHIP.

Mandatory activities:

1. Validation of managed care organization performance improvement projects
   a. *Evaluation of Managed Care Organization Performance Improvement Projects*
2. Validation of performance measures
   a. *Quality of Care Studies*
3. Review of managed care organization compliance with state standards for access to care, structure and operations, and quality measurement and improvement
   a. *Claims and Encounter Data Quality Certification*
   b. *Managed Care Organization Administrative Interviews*
   c. *Evaluation of Managed Care Organization Quality Assessment and Performance Improvement Programs*

Optional activities:

1. Validation of encounter data reported by managed care organizations
   a. *Encounter Data Validation Studies (biennial)*
2. Administration or validation of consumer or provider surveys of quality of care
   a. *Member and Caregiver Satisfaction Surveys (biennial)*
3. Calculation of performance measures in addition to those reported by a managed care organizations and validated by the external quality review organization
   a. *Quality of Care Studies*
4. Conducting studies on quality that focus on a particular aspect of clinical or non-clinical services at a point in time
   a. *Focus Studies*
   b. *Health-Based Risk Analysis*

The external quality review organization calculates results of administrative and hybrid measures from HEDIS®, the AHRQ PDIs and PQIs, and 3M Health Information Systems measures of potentially preventable events. Results for these measures were reported using calendar year 2013 data for STAR, CHIP, STAR+PLUS, STAR Health, NorthSTAR, and Medicaid/CHIP Dental. The set of measures for each program varies, with measures selected according to the demographic and health profile of each program's members. There are a number of measures specific to adults (e.g., HEDIS® *Comprehensive Diabetes Care*, HEDIS® *Antidepressant Medication Management*, and others) that were not calculated for CHIP or STAR Health because the vast majority of members in these programs do not meet the age criteria for the adult measures. In addition, the measure set for STAR Health was more limited than the measure sets for STAR and CHIP.[18]

It is important to note that, while the STAR Health program includes young adults (up to age 23), only five percent of STAR Health members were 19 years old or older in calendar year 2013 (n = 1,560). Due to the relatively small group of adult members in STAR Health, HEDIS® measures specific to adults were not run for STAR Health and no adult surveys in STAR Health were conducted.

The external quality review organization annually produces results on administrative measures at the managed care organization and service area levels; these include in-depth analyses of selected performance measures, which are reported to HHSC and made available to the Medicaid and CHIP managed care organizations through the Texas Healthcare Learning Collaborative web portal.

In addition, the external quality review organization conducts certain optional activities on a biennial basis: member satisfaction surveys and encounter data validation studies. External quality review organization member survey projects are specific to particular populations and their content can vary from year to year. In fiscal year 2013, the external quality review organization conducted member surveys with parents of children in STAR and CHIP, parents of children in STAR with behavioral health conditions, and adult members in STAR+PLUS with behavioral health conditions. Member satisfaction surveys conducted in fiscal year 2014 with adults in STAR, adults in STAR+PLUS, and caregivers of children and adolescents in STAR Health were completed prior to the publication of this report; therefore, results from these studies are available and summarized where appropriate. Changes in survey results were assessed across the six-year period from 2009 through 2014. In most cases, trends show program-level performance on survey measures at two-year intervals.

The external quality review organization conducted a number of special studies and projects in fiscal year 2014 to assist HHSC in quality of care evaluation activities and policy decisions, including: (1) the continued development of a pay-for-quality methodology for Texas Medicaid and CHIP health and dental plans; (2) the continued development of a risk-adjustment approach for evaluating services delivered through the Texas Department of Aging and Disability Services; and (3) application for approval from CMS to acquire and use Medicare claims data, which are necessary to evaluate quality of care delivered to STAR+PLUS members who are dually eligible for Medicaid and Medicare.

To promote continued improvements in quality of care for Texas Medicaid and CHIP members, the external quality review organization also provides resources and guidance for managed care organizations, such as training and continuing education sessions as well as the development of tools to assist in disseminating quality of care results to managed care organizations and members. In fiscal year 2013, the external quality review organization continued two initiatives to develop and maintain tools for disseminating quality of care information: the Texas Healthcare Learning Collaborative web portal – an online resource for managed care organizations to access and analyze their results on important quality of care measures; and the Managed Care Organization Report Cards, which summarize quality of care information in a way that is accessible to Medicaid members, allowing new members to make informed decisions when selecting their managed care organization. These tools were further refined and made accessible to stakeholders in fiscal year 2014. The first set of Managed Care Organization Report Cards was finalized in January 2014; in March 2014, the report cards were posted to the HHSC website and mailed to new members along with their enrollment packets.[19]

Conceptual Framework

Quality is defined, measured, and improved across three elements of health care: (1) *structure* – the organization of health care; (2) *process* – the clinical and non-clinical practices that comprise health care; and (3) *outcomes* – the effects of health care on the health and well-being of the population.[20,21] To these three aspects are added individual-level factors (e.g., demographic characteristics) and environmental factors (e.g., neighborhood poverty) that are not part of the health care system, but have an important impact on outcomes of care. The aims for quality improvement outlined by the Institute of Medicine address six general characteristics of quality health care: (1) efficiency; (2) effectiveness; (3) equity; (4) patient-centeredness; (5) timeliness; and (6) safety.[22] In evaluating quality of care in Texas Medicaid and CHIP, the external quality review organization also assesses a number of more specific dimensions of care, including access and utilization, member satisfaction, and health plan and provider compliance with evidence-based practices.

This report follows a framework based on these concepts to present findings in a way that is both useful and meaningful for readers. The report is divided into four sections:

Section 1 addresses the demographic and health characteristics of Texas Medicaid and CHIP members using data from managed care organization claims and encounters as well as member surveys.

Section 2 addresses the structure and process of Medicaid managed care in Texas. Using encounter data validation studies, administrative interviews with managed care organizations, data certification, and evaluation of managed care organization quality assessment and performance improvement programs and performance improvement projects, the external quality review organization assesses managed care organization data management capabilities and data quality, disease management programs, and quality improvement practices.[iii]

[iii] Results of encounter data validation studies and evaluation of performance improvement projects will be provided in an addendum to this report.

Section 3 presents results on quality of care measures and performance indicators for each managed care program according to three general dimensions of care (as applicable) – access and utilization, effectiveness, and member satisfaction. Access and utilization of care in Texas Medicaid and CHIP are evaluated using HEDIS®, AHRQ, and 3M Health Information Systems measures, which assess access to and utilization of pediatric and adult preventive care, ambulatory care, inpatient services, and mental health services. Effectiveness of care is evaluated using a number of HEDIS® administrative and hybrid measures. These include measures that assess provider compliance with evidence-based practices and member compliance with treatment regimens for acute respiratory care, care for chronic conditions, behavioral health care, and preventive care. Member satisfaction with care is explored through surveys conducted by the external quality review organization, using the CAHPS® survey tool and the ECHO® behavioral health survey tool to assess members' experiences and satisfaction with timeliness of care, access to primary and specialist care, the patient-centered medical home, customer service, and care coordination. These sections provide quality of care evaluation results for the following programs and dimensions of care:

Table 2: Coverage of Quality of Care Report Sections by Program

	Access and Utilization	Effectiveness	Satisfaction
Section 3.2 – STAR	✓	✓	✓
Section 3.3 – CHIP	✓	✓	✓
Section 3.4 – STAR+PLUS	✓	✓	✓
Section 3.5 – STAR Health	✓	✓	✓
Section 3.6 – NorthSTAR	✓	✓	
Section 3.7 – Medicaid/CHIP Dental	✓		✓

Section 4 summarizes special studies and projects conducted by the external quality review organization in fiscal year 2014, including the pay-for-quality methodology, the CMS application for use of Medicare data, the Texas Healthcare Learning Collaborative portal, and the Managed Care Organization Report Cards.

For administrative and hybrid measures (calculated using claims and encounter data), this report provides calendar year 2013 results for all Texas programs for which the measures were calculated. It is important to note that each program serves a different population with unique demographic and health status characteristics. Therefore, in many cases, differences in measure results between the programs are to be expected. Readers should exercise caution when comparing results across the programs.

Percentages shown in most figures and tables in this report are rounded to the first decimal place; therefore, percentages may not add up to 100 percent.

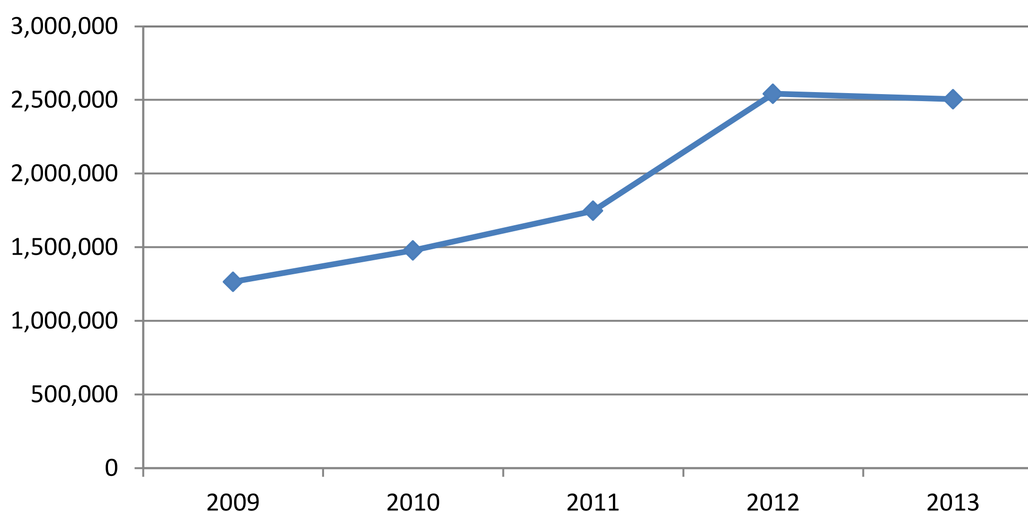
1. The Texas Medicaid and CHIP Populations

1.1. STAR Program - Demographic Characteristics and Health Status

Enrollment in the STAR program has increased steadily since 2009, with the largest increase occurring in 2012 along with the expansion of Medicaid managed care (**Figure 1**). A slight decrease in enrollment was observed between 2012 and 2013 (by approximately 40,000 members). In December 2013, a total of 2,504,606 members were enrolled in STAR. Among these members:

- 53.1 percent were female and 46.9 percent were male
- 14.9 percent were Black, 58.0 percent were Hispanic, and 16.1 percent were White
- The mean age was 9.6 years (standard deviation = 9.5)

Figure 1: STAR Program Enrollment, 2009-2013



Health status of child and adolescent STAR members was collected through a caregiver survey in 2013. **Figures 2** through **4** show results for child and adolescent overall and mental health status, the percentage of children and adolescents with each of five different types of special health care needs, and body mass index (BMI) classification of children and adolescents. The caregiver survey revealed:

- Greater than two-thirds of child and adolescent STAR members are in "excellent" or "very good" overall health (68.8 percent) and mental health (66.6 percent).
- Slightly more than one-quarter of child and adolescent STAR members have a special health care need (25.9 percent), with the most common type of special need being dependence on prescription medications (17.7 percent).[23] Fourteen percent needed or used more medical care, mental health services, or education services than is usual for most children of the same age.
- More than one-quarter of children and adolescents in STAR are obese (28.2 percent).

Figure 2: STAR Child – Caregiver-Reported Health Status, 2013

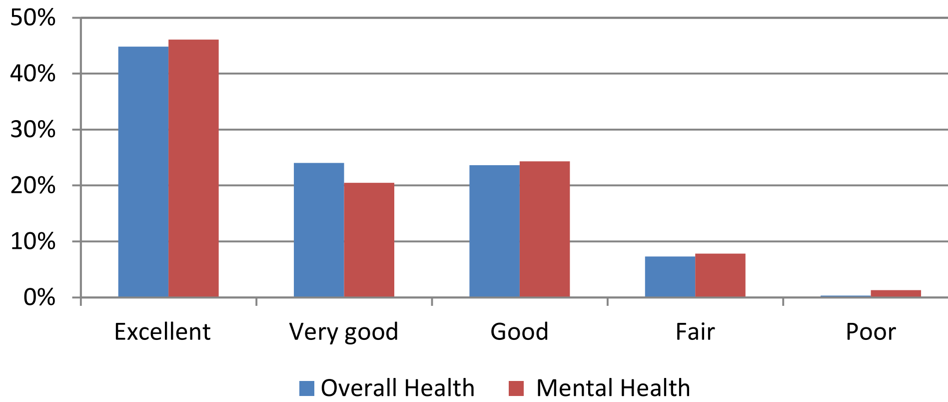


Figure 3: STAR Child – Caregiver-Reported Special Health Care Needs, 2013

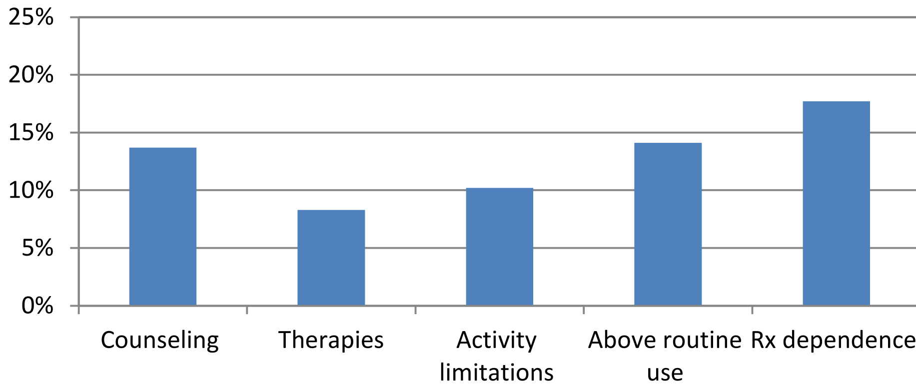
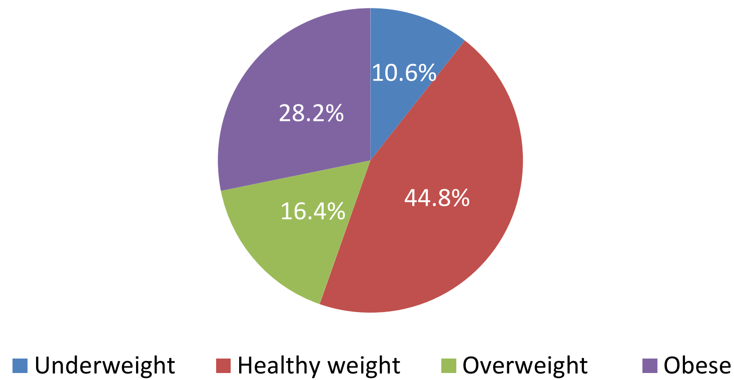


Figure 4: STAR Child – BMI Classification Based on Caregiver Report of Height and Weight, 2013



Health status of adult STAR members was collected through a member survey in 2014. **Figures 5** and **6** show results for adult member overall and mental health status and body mass index classification of adults. The member survey revealed:

- Slightly more than one-third of adult STAR members are in "excellent" or "very good" overall health (36 percent), and nearly half are in "excellent" or "very good" mental health (47 percent).
- More than two-thirds of adults in STAR are overweight (24.6 percent) or obese (43.2 percent).

Figure 5: STAR Adult – Member-Reported Health Status, 2014

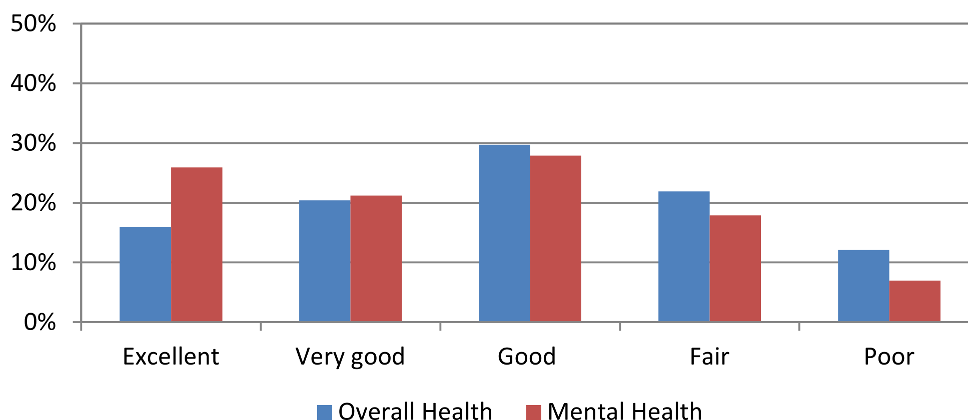
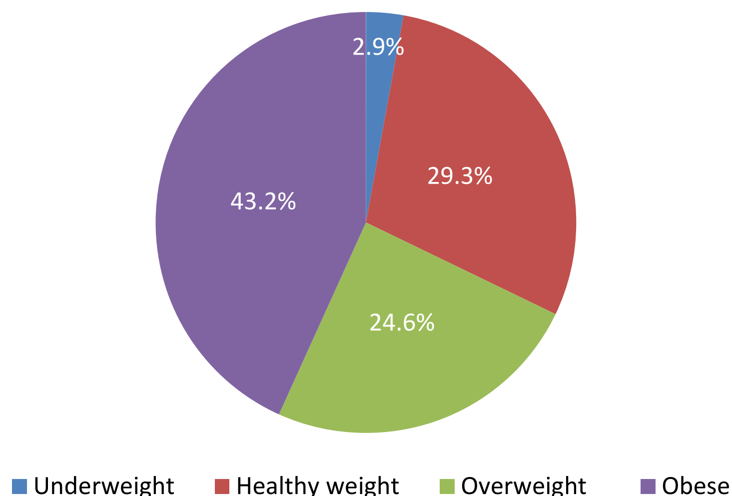


Figure 6: STAR Adult – BMI Classification Based on Member Report of Height and Weight, 2014

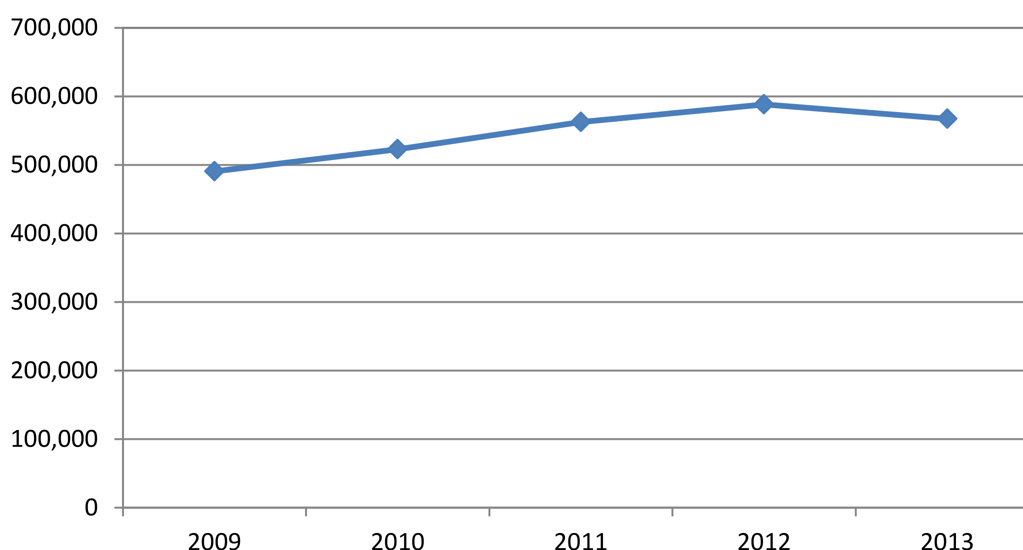


1.2. CHIP Program Demographic Characteristics and Health Status

Enrollment in Texas CHIP increased gradually between 2009 and 2012 (**Figure 7**). A slight decrease in enrollment was observed between 2012 and 2013 (by approximately 20,000 members). In December 2013, a total of 567,286 members were enrolled in CHIP. Among these members:

- 48.8 percent were female and 51.2 percent were male
- 7.9 percent were Black, 41.7 percent were Hispanic, and 13.9 percent were White
- The mean age was 10.3 years (standard deviation = 4.6)

Figure 7: CHIP Enrollment, 2009-2013



Health status of child and adolescent CHIP members was collected through a caregiver survey in 2013. **Figures 8** through **10** show results for child and adolescent overall and mental health status, the percentage of children and adolescents with each of five different types of special health care needs, and body mass index classification of children and adolescents. The caregiver survey revealed:

- Between two-thirds and three-fourths of child and adolescent CHIP members are in "excellent" or "very good" overall health (69.5 percent) and mental health (72.4 percent).
- One-fifth of child and adolescent CHIP members have a special health care need (20.1 percent), with the most common type of special need being dependence on prescription medications (16.4 percent). Eight percent needed or used more medical care, mental health services, or education services than is usual for most children of the same age.
- More than one-quarter of children and adolescents in CHIP are obese (26.6 percent).

Figure 8: CHIP – Caregiver-Reported Health Status, 2013

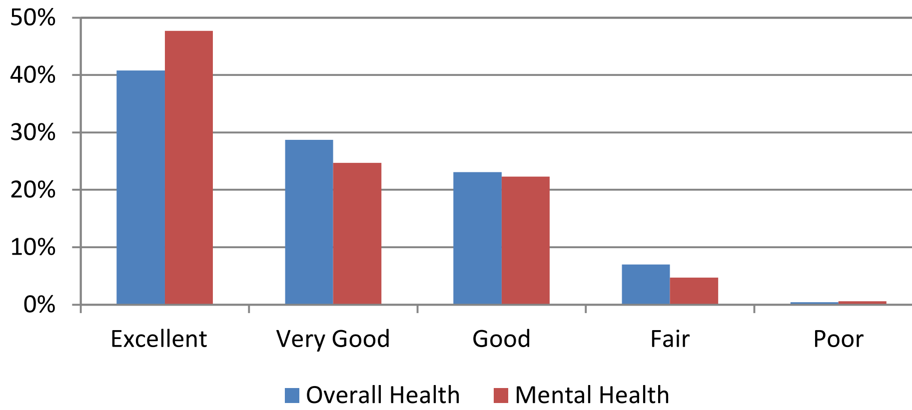


Figure 9: CHIP – Caregiver-Reported Special Health Care Needs, 2013

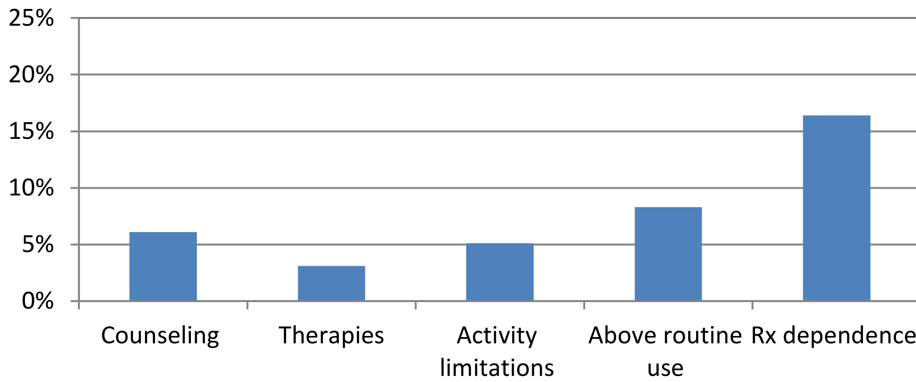
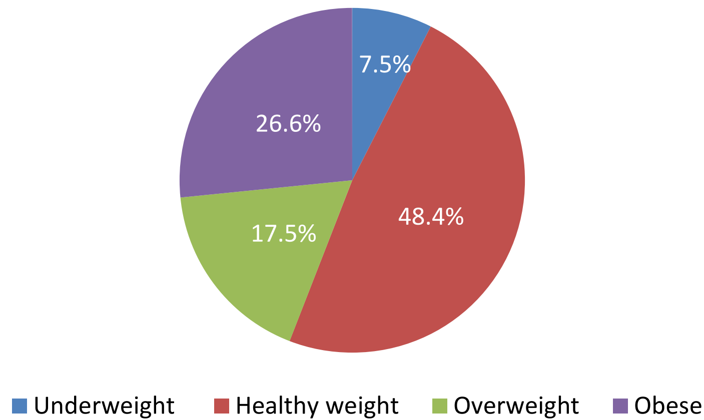


Figure 10: CHIP – BMI Classification Based on Caregiver Report of Height and Weight, 2013



1.3. STAR+PLUS Program Demographic Characteristics and Health Status

Medicaid expansions between 2010 and 2012 led to a steady increase for both dual-eligible and Medicaid-only populations in STAR+PLUS, more than doubling overall program membership (**Figure 11**). In December 2013, a total of 409,661 members were enrolled in STAR+PLUS, with slightly more than half (55 percent) being dually eligible for Medicaid and Medicare.

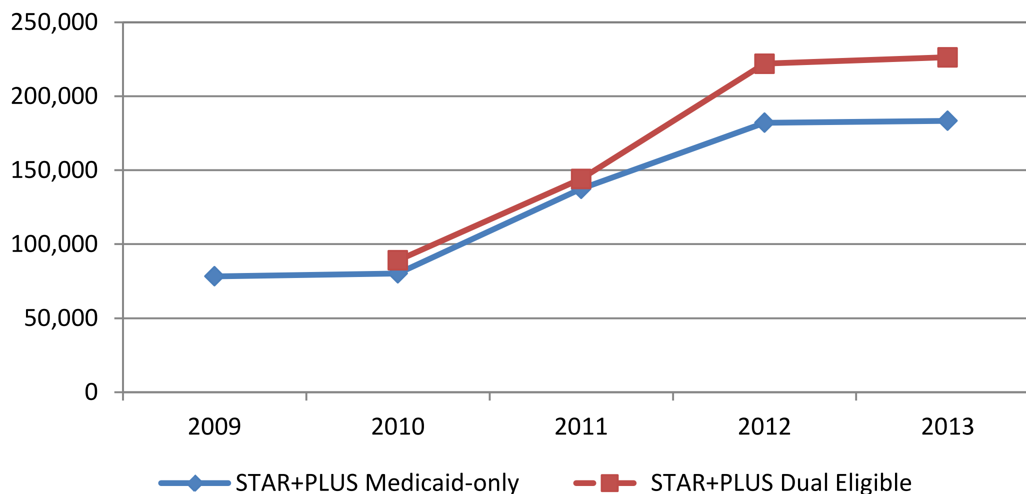
Among Medicaid-only STAR+PLUS members in 2013:

- 51.4 percent were female and 48.6 percent were male
- 24.2 percent were Black, 26.0 percent were Hispanic, and 23.5 percent were White
- The mean age was 42.5 years (SD = 16.3)

Among dual-eligible STAR+PLUS members in 2013: [iv]

- 64.1 percent were female and 35.9 percent were male
- The mean age was 66.6 years (SD = 16.4)

Figure 11: STAR+PLUS – Enrollment, 2009-2013 [v]



Health status of adult STAR+PLUS members was collected through a member survey in 2014. **Figures 12** and **13** show results for overall and mental health status and body mass index classification among STAR+PLUS Medicaid-only members. The survey revealed:

- Nearly two-thirds of STAR+PLUS Medicaid-only members are in “fair” or “poor” overall health (62.0 percent) and nearly half are in “fair” or “poor” mental health (47.8 percent).
- Half of STAR+PLUS Medicaid-only members are obese (50.5 percent).

[iv] Data on race/ethnicity were not reported for STAR+PLUS dual-eligible members in 2013.
[v] Enrollment data were not available for the STAR+PLUS dual-eligible population in 2009.

Figure 12: STAR+PLUS (Medicaid-only) – Member-Reported Health Status, 2014

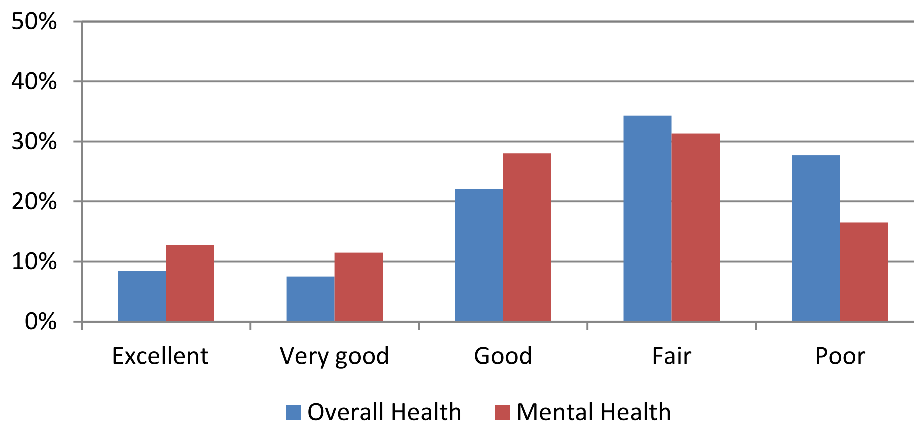
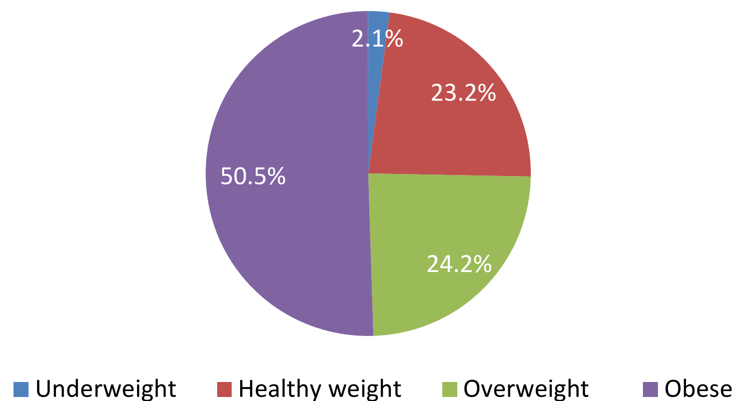


Figure 13: STAR+PLUS (Medicaid-only) – BMI Classification Based on Member Report of Height and Weight, 2014



The member survey also assessed the percentage of members in STAR+PLUS who needed help with routine activities of daily living (such as household chores and shopping) and personal care needs (such as eating, dressing, and getting around the house), and also the percentage who reported health-related limitations to quality of life. The survey revealed:

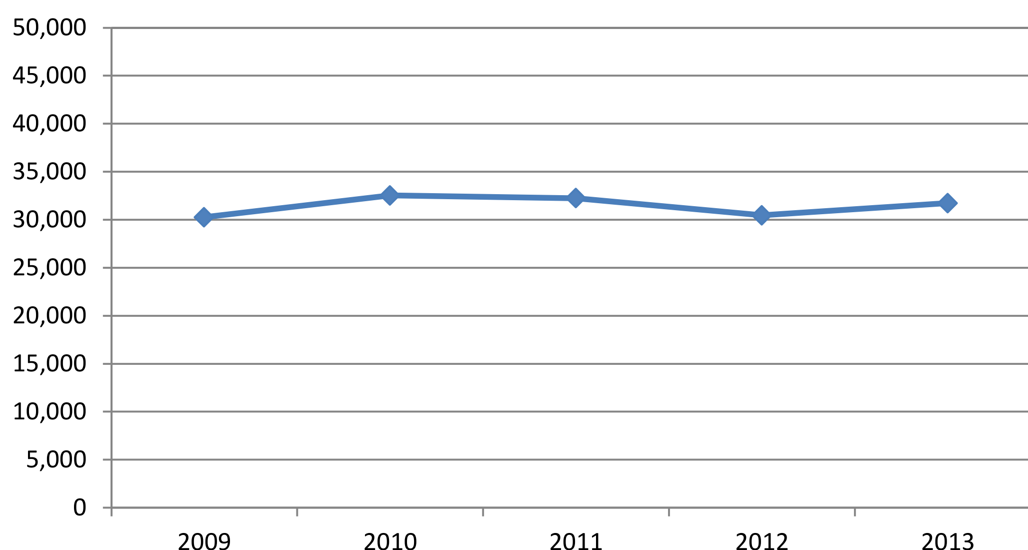
- 57.1 percent of Medicaid-only and 62.9 percent of dual-eligible members need help with routine activities of daily living.
- 37.8 percent of Medicaid-only and 43.0 percent of dual-eligible members need help with personal care needs.
- 66.3 percent of Medicaid-only and 67.5 percent of dual-eligible members have a condition that interferes with their independence, participation in the community, or quality of life.

1.4. STAR Health Program Demographic Characteristics and Health Status

Enrollment in the Texas STAR Health program has remained steady since its inception in 2008 (**Figure 14**). In December 2013, a total of 30,159 children and adolescents were enrolled in STAR Health, as well as 1,560 young adults (19 years and older). Among these members:

- 48.7 percent were female and 51.3 percent were male
- 24.4 percent were Black, 41.8 percent were Hispanic, and 29.5 percent were White
- The mean age was 8.0 years (SD = 6.0)

Figure 14: STAR Health – Enrollment, 2009-2013



Health status of child and adolescent STAR Health members was collected through a caregiver survey in 2014. **Figures 15** through **17** show results for overall and mental health status, the percentage of children and adolescents with each of five different types of special health care needs, and body mass index classification. The caregiver survey revealed:

- Nearly three-fourths of child and adolescent STAR Health members are in “excellent” or “very good” overall health (72.9 percent), and slightly more than half are in “excellent” or “very good” mental health (52.9 percent).
- Half of child and adolescent STAR Health members have a special health care need (50.2 percent), with the most common types being need for counseling (34.6 percent) and dependence on prescription medications (34.3 percent). Twenty-three percent needed or used more medical care, mental health services, or education services than is usual for most children of the same age.
- Three in ten children and adolescents in STAR Health are obese (30.3 percent).

Figure 15: STAR Health – Caregiver-Reported Health Status, 2014

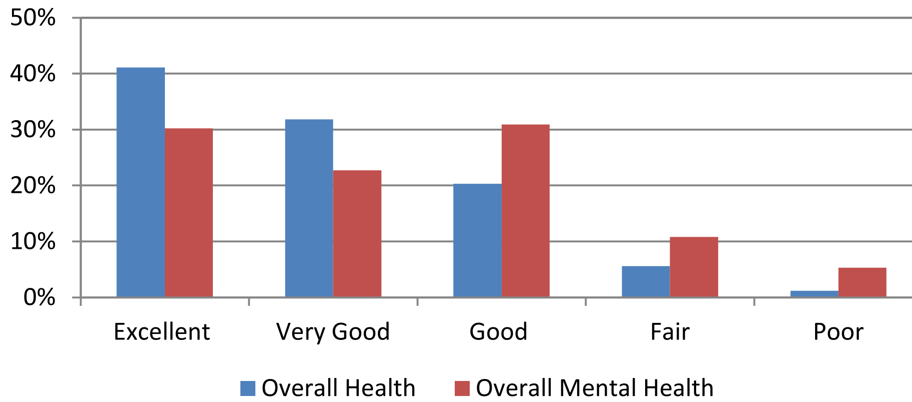


Figure 16: STAR Health – Caregiver-Reported Special Health Care Needs, 2014

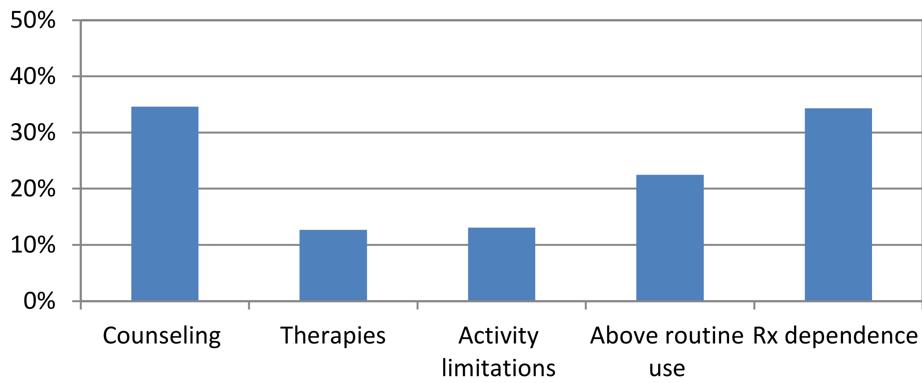
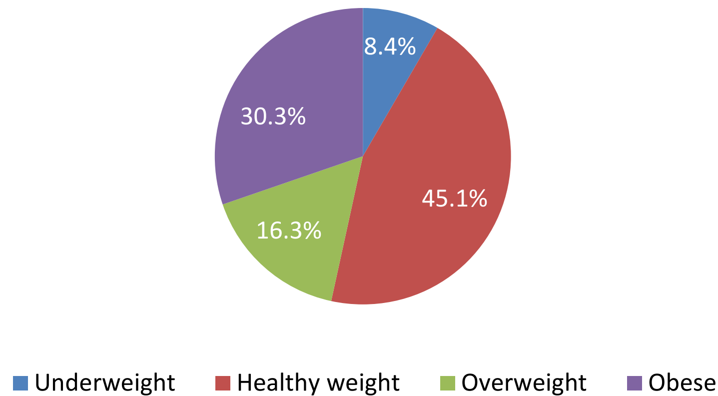


Figure 17: STAR Health – BMI Classification Based on Caregiver Report of Height and Weight, 2014



2. Managed Care Organization Structure and Process

As part of its mandatory and optional review activities, the external quality review organization annually conducts:

- Administrative interviews to assess different components of managed care organization structure and process, including data systems capabilities and processes, electronic claims submission rates, and disease management and health promotion programs
- Data certification to assess the completeness and validity of claims and encounter data maintained by Texas Medicaid and CHIP managed care organizations
- Evaluations of quality assessment and performance improvement programs implemented by the managed care organizations
- Evaluations of managed care organization performance improvement projects

In addition, every two years the external quality review organization conducts encounter data validation studies, in which elements of managed care organization claims and encounter data are validated using provider health records.

This section presents a summary of the data certification studies, evaluation of managed care organization disease management and health promotion programs, and evaluation of quality assessment and performance improvement programs conducted for the calendar year 2013 measurement period.[vi] The section concludes with recommendations made by the external quality review organization in the prior year for improving quality assessment in Texas Medicaid and CHIP managed care, and an assessment of the extent to which managed care organizations followed these recommendations.

2.1. Health Plan Information

The external quality review organization annually certifies key data elements in claims and encounter data that the Texas Medicaid and CHIP managed care organizations maintain, and provides separate data certification reports for each Texas Medicaid program and CHIP. Annual data certification includes four types of analyses: (1) volume analysis based on service category; (2) data validity and completeness analysis; (3) consistency analysis between encounter data and financial summary reports; and (4) validity and completeness analysis of provider information.

Key data elements assessed during data certification include those that are critical for proper care coordination and quality of care measurement. These include place of service code, admission date, discharge status, discharge date, primary diagnosis code, National Provider Identifier, provider taxonomy code, procedure code, and present-on-admission code.

[vi] Results of the annual Encounter Data Validation Study and Performance Improvement Project Evaluations were not available for this report. These findings will be reported in an addendum.

The external quality review organization used two documents to develop procedures for certifying the Texas Medicaid and CHIP encounter data: (1) Texas Government Code § 533.0131, Use of Encounter Data in Determining Premium Payment Rates; and (2) Department of Health and Human Services, CMS – *Validating Encounter Data: A Protocol for Use in Conducting External Quality Review Activities*.[24,25] Data certification is conducted separately for STAR, STAR+PLUS, STAR Health, CHIP, CHIP Dental, Medicaid Dental, CHIP Perinate, and NorthSTAR. For managed care programs served by multiple managed care organizations (e.g., STAR, CHIP, and STAR+PLUS), analyses are conducted at the plan code level (managed care organization and service area combined).

Volume analysis based on service category: For each month of fiscal year 2013 (in each program and plan code), the analysis assessed the number of records for facility, physician, dental (where present), and total services. The monthly totals were examined to determine whether the number of records for each of the service categories and the total number of records varied significantly from month to month. The results were found to be consistent for all plan codes based on overall volumes.

Data validity and completeness analysis: The external quality review organization examined the presence and validity of critical data elements in the claims extracts submitted by the managed care organizations for fiscal year 2013. Data validity standards were derived from accepted lists of valid information taken from a variety of sources, including data dictionaries supplied by HHSC, Current Procedural Terminology (CPT) manuals, and International Classification of Diseases, 9th Revision (ICD-9-CM) manuals.[26,27] The analysis was performed on the final image of all fiscal year 2013 claims received from Texas Medicaid and Healthcare Partnership through December 2013. All critical fields were present in the data as specified in the CMS Data Validation Protocol.

Consistency analysis between encounter data and financial summary reports provided by the managed care organizations: The external quality review organization compared payment dollars documented in the fiscal year 2013 claims data to payment dollars in the managed care organizations' self-reported financial summary reports provided by HHSC. The analysis found that consistency between encounter data and financial summary reports met the standard set by HHSC, in which the claims data and the financial summary report must agree within three percent for the data to be certifiable.

Validity and completeness analysis of provider information: Adequate provider identification is critical to the external quality review organization's efforts to calculate HEDIS® and other administrative measures and to obtain medical records for the purposes of validating encounter data and calculating hybrid HEDIS® measures. For fiscal year 2013, a valid National Provider Identifier (NPI) was found in almost all encounters. When locating records, and particularly for attributing services to providers with identified specialties (e.g., for HEDIS® measure calculation), it is important to have the individual service provider identified on the encounter, with the taxonomy (specialty) code included. The external quality review organization assessed the quality of the provider identification information present in the encounter data in two ways: (1) presence of a primary NPI identified as an individual (not an

organization) in the provider table; and (2) taxonomy for the primary NPI on professional encounter records. Primary NPI was the first filled NPI field among rendering, pay to, and billing NPI fields. Professional encounters had transaction type 'P' and included a CPT code for evaluation and management services, excluding non-office and non-hospital facilities, and non-face-to-face services.

Overall, the primary NPI on over 90 percent of these encounters was an individual. However, a few managed care organizations had organizational NPI codes as primary NPIs far more often than other MCOs. In particular, primary NPI was for an organization in one-quarter of professional claims in CHRISTUS and one-third of claims in Community First in both STAR (23.8 percent and 32.6 percent, respectively) and CHIP (26.2 percent and 34.5 percent, respectively). When the primary provider ID is for a group and not the individual providing the service, the taxonomy reported or associated with the ID may not reflect the qualifications required for calculating quality measures that are defined with provider constraints. Additionally, all managed care organizations exceeded the five percent threshold for missing NPI. The rate of missing NPI was greater than 90 percent in CHRISTUS and Community First.

If taxonomy information was absent more than five percent of the time, the external quality review organization considered this an area of concern. Overall, provider taxonomy codes were absent in 31.6 percent of claims in STAR, 30.4 percent of claims in CHIP, and 26.1 percent of claims in STAR+PLUS.

2.2. Disease Management and Health Promotion

HHSC requires that all managed care organizations participating in STAR, STAR+PLUS, CHIP, and STAR Health provide disease management services covering asthma and diabetes.[28] In addition to asthma and diabetes, HHSC requires managed care organizations participating in STAR+PLUS to offer disease management for chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), and coronary artery disease. Finally, all managed care organizations are required by HHSC to provide disease management programs for other chronic diseases based upon an evaluation of disease prevalence within each managed care organization's membership.[29]

This section presents findings from the calendar year 2013 Managed Care Organization Administrative Interview on the structure and practices of disease management and health promotion programs operating in Texas Medicaid and CHIP managed care organizations, focusing on programs that are required by the state.

Administrative Interview Methods

CMS protocols for external quality review of Medicaid managed care include the use of interviews with managed care organization administrators to understand how managed care organizations provide care and how they monitor the quality of that care. The Texas external quality review organization annually collects this information using a web-based Managed Care Organization Administrative Interview tool, followed by teleconferences and site visits. The information is used to support evaluation activities and

to assist HHSC in determining managed care organization compliance with state and federal requirements.

The calendar year 2013 Managed Care Organization Administrative Interview addressed the following areas:

- Organizational structure
- Member enrollment and disenrollment
- Children's programs and preventive care
- Care coordination and disease management programs
- Member services
- Member complaints and appeals
- Provider network and reimbursement
- Authorizations and utilization management
- Quality assessment and performance improvement
- Delegated entities
- Information systems
- Data acquisition

In addition, the NorthSTAR questionnaire included items specific to behavioral health, while the Medicaid Dental and CHIP Dental questionnaires included items specific to dental health.

After completion of the administrative interview tool, the external quality review organization conducted follow-up teleconferences and site visits with the managed care organizations to address pertinent information related to quality and compliance. In 2014, site visits were conducted with six managed care organizations (Aetna, Amerigroup, Community Health Choice, Parkland, Seton, and Texas Children's), and teleconferences were conducted with the remaining managed care organizations. The external quality review organization works with HHSC to determine which managed care organizations will receive a site visit.

Findings on Disease Management and Health Promotion

All STAR and CHIP managed care organizations had the required asthma and diabetes disease management programs, in addition to various disease management programs focused on the needs of their populations. These included programs for depression, high-risk perinatal, HIV/AIDS, hypertension, and obesity. All STAR+PLUS managed care organizations had the required asthma, diabetes, COPD, coronary artery disease, and CHF disease management programs.

Table 3 shows rates of member participation in asthma and diabetes disease management programs in STAR, CHIP, and STAR+PLUS in calendar year 2013. Active members are defined as members (or their representatives) who received one or more telephonic or face-to-face encounters with disease management staff. Fewer than one in five eligible members participated in asthma disease management in STAR (18.7 percent) or CHIP (15.9 percent). Disease management participation rates were higher in STAR+PLUS, for both asthma (72.8 percent) and diabetes (70.7 percent).

Table 3: Member Participation in Disease Management Programs, 2013

	Asthma Disease Management			Diabetes Disease Management		
	Members Eligible	**Active Members**	**Participation Rate**	**Members Eligible**	**Active Members**	**Participation Rate**
STAR	274,349	51,379	18.7%	190,815	6,297	3.3%
CHIP	69,165	10,975	15.9%	41,652	1,190	2.9%
STAR+PLUS	11,736	8,543	72.8%	42,566	30,089	70.7%

All Texas Medicaid and CHIP managed care organizations participated in health promotion projects. All managed care organizations also assessed the effectiveness of their health promotion projects. Common types of indicators include administrative performance measures (e.g., HEDIS®), and baseline and follow-up surveys conducted by the health plans to assess member knowledge, behavior change, and attitudes. Many health plans also measured the number of members who requested or were given health promotion materials that addressed the health literacy specific to their condition.

Figure 18 lists the most common types of health promotion projects and the percentage of managed care organizations conducting these projects. The majority of managed care organizations included asthma management (95 percent) and diabetes management (95 percent). Fewer than half included obesity prevention (47 percent), substance abuse management (42 percent), cardiovascular disease management (42 percent), type 2 diabetes prevention (42 percent), or cardiovascular disease prevention (16 percent) in their list of health promotion projects.

Figure 18: Most Common Managed Care Organization Health Promotion Projects, 2013

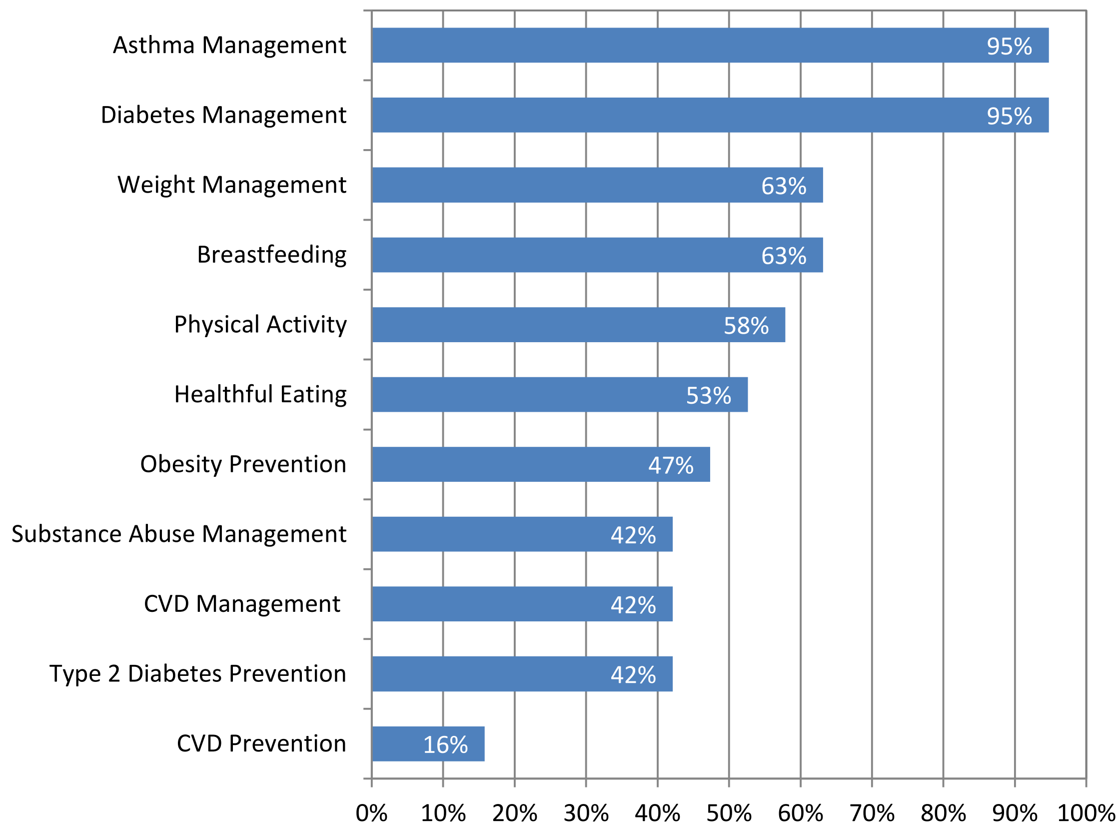
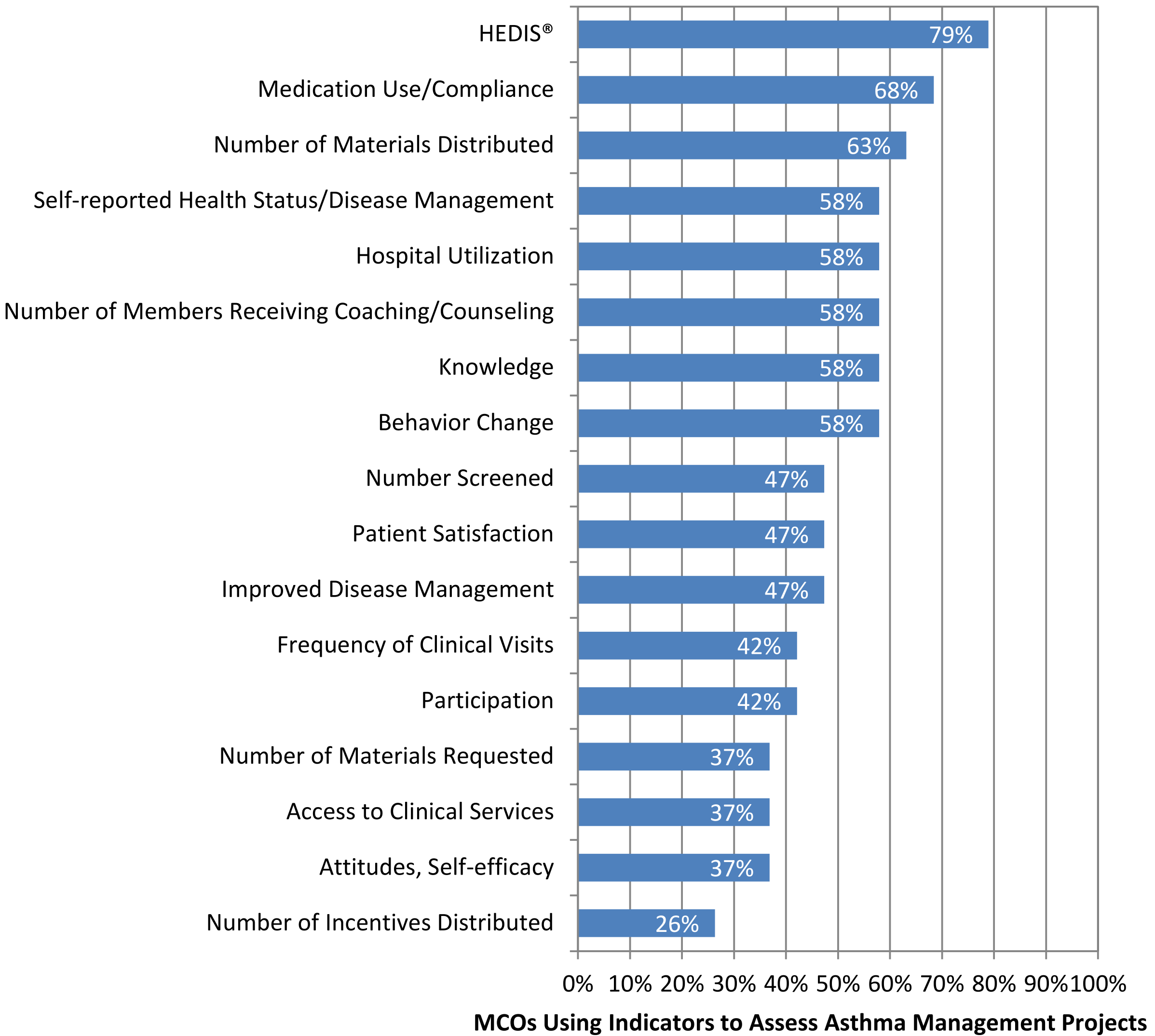


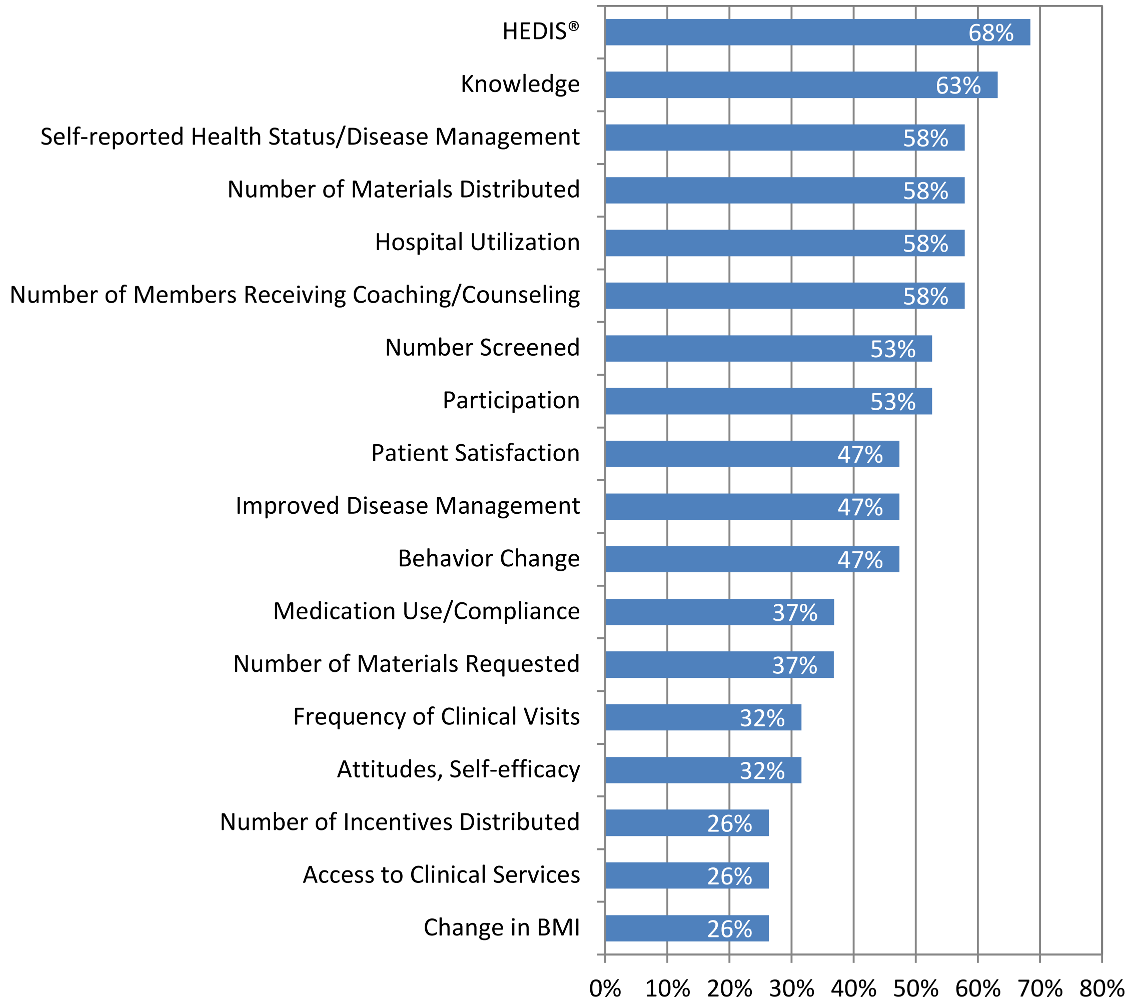
Figure 19 lists the most common types of indicators and measures used by managed care organizations to assess the effectiveness of asthma management projects. HEDIS® measures, such as *Use of Appropriate Medication for People with Asthma*, *Asthma Medication Ratio*, and *Medication Management for People with Asthma*, were used by over three-fourths of health plans (79 percent). Other measures of medication use and compliance were also common (68 percent).

Figure 19: Measures Used by Managed Care Organizations to Assess the Effectiveness of Asthma Management Projects, 2013



Measures of the effectiveness of diabetes management projects focused more on member education (**Figure 20**), with three of the top five indicators assessing member knowledge (63 percent), self-reported health status (58 percent), and the distribution of health promotion materials (58 percent). The use of HEDIS® measures, such as *Comprehensive Diabetes Care*, was also frequent (63 percent).

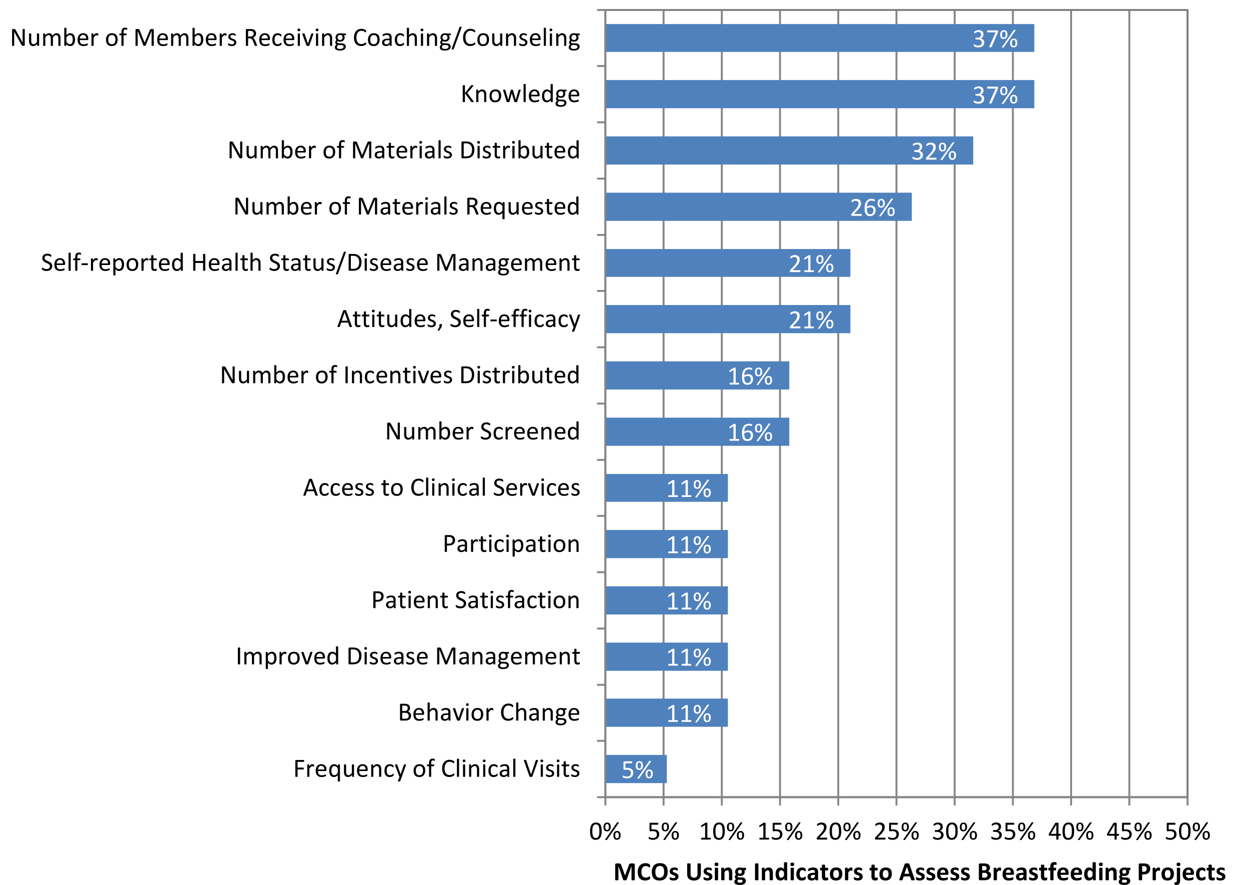
Figure 20: Measures Used by Managed Care Organizations to Assess the Effectiveness of Diabetes Management Projects, 2013



Breastfeeding programs were the third most common type of health promotion project in Texas Medicaid, reported by 79 percent of managed care organizations. **Figure 21** lists the most common types of indicators and measures used by the managed care organizations to assess the effectiveness of breastfeeding programs. Measures of member education were most common, including the number of members who received coaching or counseling (37 percent), member knowledge (37 percent), and the number of materials distributed (32 percent) and requested (26 percent). These results are reported by the health plans. To determine member knowledge, the health plan administers a baseline survey when the member is first enrolled in the disease management program with a follow-up survey administered at a later date. The timing of the follow-up survey varies by health plan with some plans administering

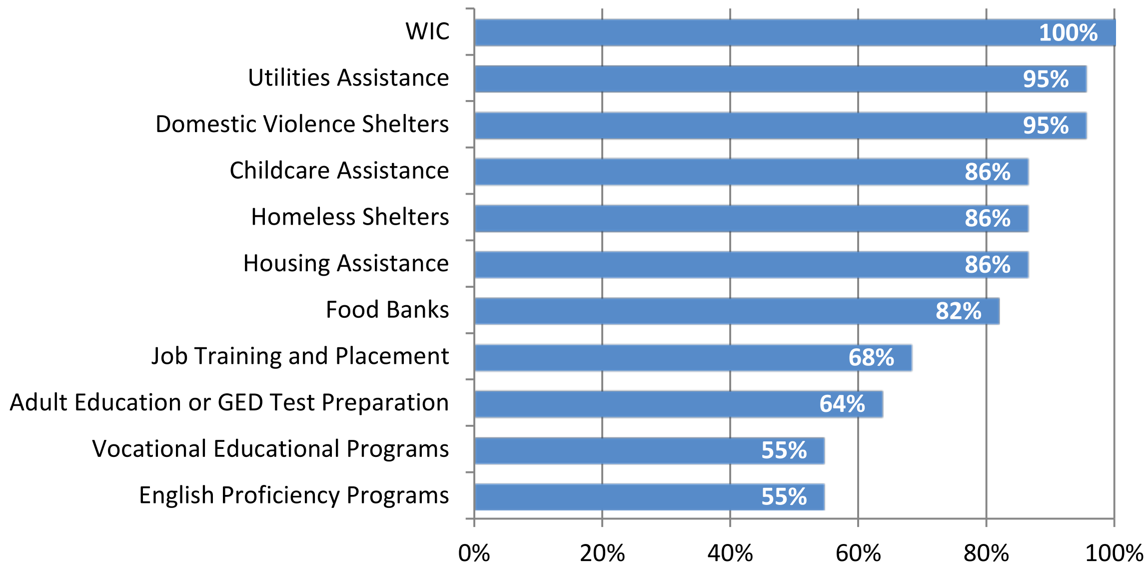
the surveys on an annual basis, while others doing so every six months. There is more variation in measurement of participation, as participation is based on the health plans' definition of active participation. For most health plans, participation is measured by whether or not they are able to reach the member and, depending on the program, if the member stays actively engaged in the program (i.e. continued contact with the case manager, nurse, etc.). Overall, the use of effectiveness measures for breastfeeding programs was lower than for asthma or diabetes management projects.

Figure 21: Measures Used by Managed Care Organizations to Assess the Effectiveness of Breastfeeding Projects, 2013



The Managed Care Organization Administrative Interviews also collected information on the types of assistance programs to which managed care organizations referred their members (**Figure 22**). All health plans make referrals to the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). More than three in four health plans reported making referrals to utilities assistance (95 percent), domestic violence shelters (95 percent), homeless shelters (86 percent), housing assistance (86 percent), childcare assistance (86 percent), and food banks (82 percent).

Figure 22: Referral to Assistance Programs, 2014



2.3. Quality Improvement

The external quality review organization annually reviews the Texas Medicaid managed care organization quality improvement programs to evaluate aspects of structure and process that contribute to the success of these programs, and to measure compliance with relevant policies specified in the Code of Federal Regulations (CFR). This section discusses the external quality review organization's evaluation of calendar year 2013 managed care organization quality assessment and performance improvement programs as they pertain to CFR §438.358 and §438.364.

Quality Assessment and Performance Improvement Evaluations

The Quality Assessment and Performance Improvement Program Evaluations follow CMS guidelines to evaluate both quality assurance and quality improvement practices of the Texas Medicaid managed care organizations. CMS specifies five essential elements to a quality assessment and performance improvement program: (1) design and scope; (2) governance and leadership; (3) feedback, data systems, and monitoring; (4) performance improvement projects; and (5) systematic analysis.[30] The external quality review organization Quality Assessment and Performance Improvement Program Evaluation reviews the first three elements and partially reviews the fifth element. Results of the annual Performance Improvement Project Evaluation, which address the fourth and fifth elements, will be reported in an addendum to this report.

Using documentation submitted by the managed care organizations, the Quality Assessment and Performance Improvement Program Evaluations review the managed care organizations' performance improvement structure and their assessment of the effectiveness of their quality assessment and

performance improvement programs. This evaluation captures the structure and process of the quality improvement program through review and scoring of the following sections:

- *Documentation* of the managed care organization's work plan, quality improvement organizational chart, performance improvement projects, and completed quality assessment and performance improvement programs evaluation (maximum five points).
- *Role of the Governing Body*, covering the level and type of governance and leadership within the organization (maximum ten points).
- *Structure of Quality Improvement Committee(s)*, including the role, structure, and function of the quality improvement committee(s), and level of provider and member representative involvement (maximum five points).
- *Identification of Adequate Resources*, including human and material resources available for the quality assessment and performance improvement program *(*maximum ten points).
- *Identification of Improvement Opportunities*, including actions taken to effect improvement at the system, process, and outcome levels (maximum ten points).
- *Program Description*, including the managed care organization's statement of purpose, scope, goals and objectives, organization-wide communication of results, methodology, and monitoring and evaluation of progress toward accomplishing goals and objectives (maximum ten points).
- *Assessment of Overall Quality Assessment and Performance Improvement Program Effectiveness*, including the method by which managed care organizations address barriers to implementation, the factors of success, and program effectiveness (maximum five points).
- *Clinical Practice Guidelines*, including a review of current clinical practice guidelines to ensure they are evidence-based, relevant to member needs, and supportive of care of members and services for members (maximum five points).
- *Availability and Accessibility Indicators*, including results of managed care organization monitoring of member access to care indicators, goals for all indicators, the managed care organization's actions to improve rates of accessibility and availability of care for members, and the effectiveness of actions taken (maximum ten points).
- *Clinical Quality Indicators*, including results of managed care organization monitoring of clinical indicators, goals for all indicators, the managed care organization's actions to improve rates of clinical indicators, and the effectiveness of actions taken (maximum ten points).
- *Service Quality Indicators*, including results of managed care organization monitoring of service indicators, goals for all indicators, the managed care organization's actions to improve rates of service indicators, and the effectiveness of actions taken (maximum ten points).
- *Credentialing/Re-credentialing*, summarizing the number of providers and facilities credentialed/re-credentialed, the number who requested or were denied credentialing, reasons for denials, the

number who were reduced, suspended, or had privileges terminated during calendar year 2013, and the reasons for these reductions, suspensions, or terminations (maximum five points).

- *Delegation of Quality Assessment and Performance Improvement Program Activities*, including procedures for monitoring and evaluating delegated functions, results of evaluation of delegated activities, and using the results for quality improvement (maximum five points).
- *Corrective Action Plans*, including any corrective actions required following a Texas Department of Insurance audit and the managed care organization actions taken (maximum five points).

Each section includes different components that target key elements of quality improvement, as described above. The overall evaluation of health plan responses focuses on whether or not the managed care organization satisfied the requirements of a strong, comprehensive quality improvement program and complied with specific CFR policies.[31,32]

Scoring Methodology

The scoring system was modified by scoring the quality assessment and performance improvement programs on a scale of 0-100. There are a total of 14 activities in the Quality Assessment and Performance Improvement Program Evaluation. After the scores were calculated per activity, the scores were weighted to assign more weight to those activities that represent the five essential components of a successful quality improvement program, as described above. Based on these five essential elements (excluding Element 4, which is evaluated separately), more weight was applied toward the following activities, which represented 70 percent of a managed care organization's score (with each activity accounting for 10 percent of the score):

1. Role of Governing Body (CMS Element 2)
2. Adequate Resources (CMS Element 2)
3. Improvement Opportunities (CMS Elements 3 and 5)
4. Program Description (CMS Elements 1 and 3)
5. Access to Care and Availability Indicator Monitoring (CMS Elements 3 and 5)
6. Clinical Indicator Monitoring (CMS Elements 3 and 5)
7. Service Indicator Monitoring (CMS Elements 3 and 5)

It is important to note that the remaining 7 activities, which account for 30 percent of the overall score, are still important components of the quality improvement program. These activities capture the health plan's compliance with CFR policies and/or support the seven representative activities of the five essential elements. The remaining activities include:

1. Required Documentation

2. Structure of Quality Improvement Committee(s)
3. Overall Effectiveness
4. Clinical Practice Guidelines
5. Credentialing and Re-credentialing
6. Delegation of Quality Assessment and Performance Improvement Program Activities
7. Corrective Action Plans

If a Texas Department of Insurance audit was conducted during the measurement year, the final activity (Corrective Action Plans) was included in the score, and each of the remaining seven activities accounted for 4.3 percent of the overall score. Overall, the final weighted scores allow for a more accurate analysis of the managed care organizations' quality improvement programs. The results presented below are based on the 2013 Quality Assessment and Performance Improvement Program Evaluations, which reported on data elements and occurrences during the measurement period of January 1, 2013, through December 31, 2013.

Quality Assessment and Performance Improvement Evaluation Results

Figure 23 provides the overall score for each managed care organization, calculated as the total weighted percentage of components for which the managed care organization was compliant. The average score of all managed care organizations was 94.6 percent. Most managed care organizations scored above average, with only seven managed care organizations or dental plans scoring below the average score.

The external quality review organization also evaluated the managed care organization quality assessment and performance improvement programs by section to identify areas of high performance and opportunities for improvement across all the managed care organizations combined. **Figure 24** presents the average health plan score by quality assessment and performance improvement program section, calculated as the average weighted score across all managed care organizations for each section. Overall, the managed care organizations scored highest in activities related to corrective action plans, delegation of quality assessment, and credentialing, with an average score of nearly 100 percent. All other sections also scored high, with average scores equal to or exceeding 90 percent.

Figure 23: Overall Quality Assessment and Performance Improvement Program Scores by Health Plan, 2013

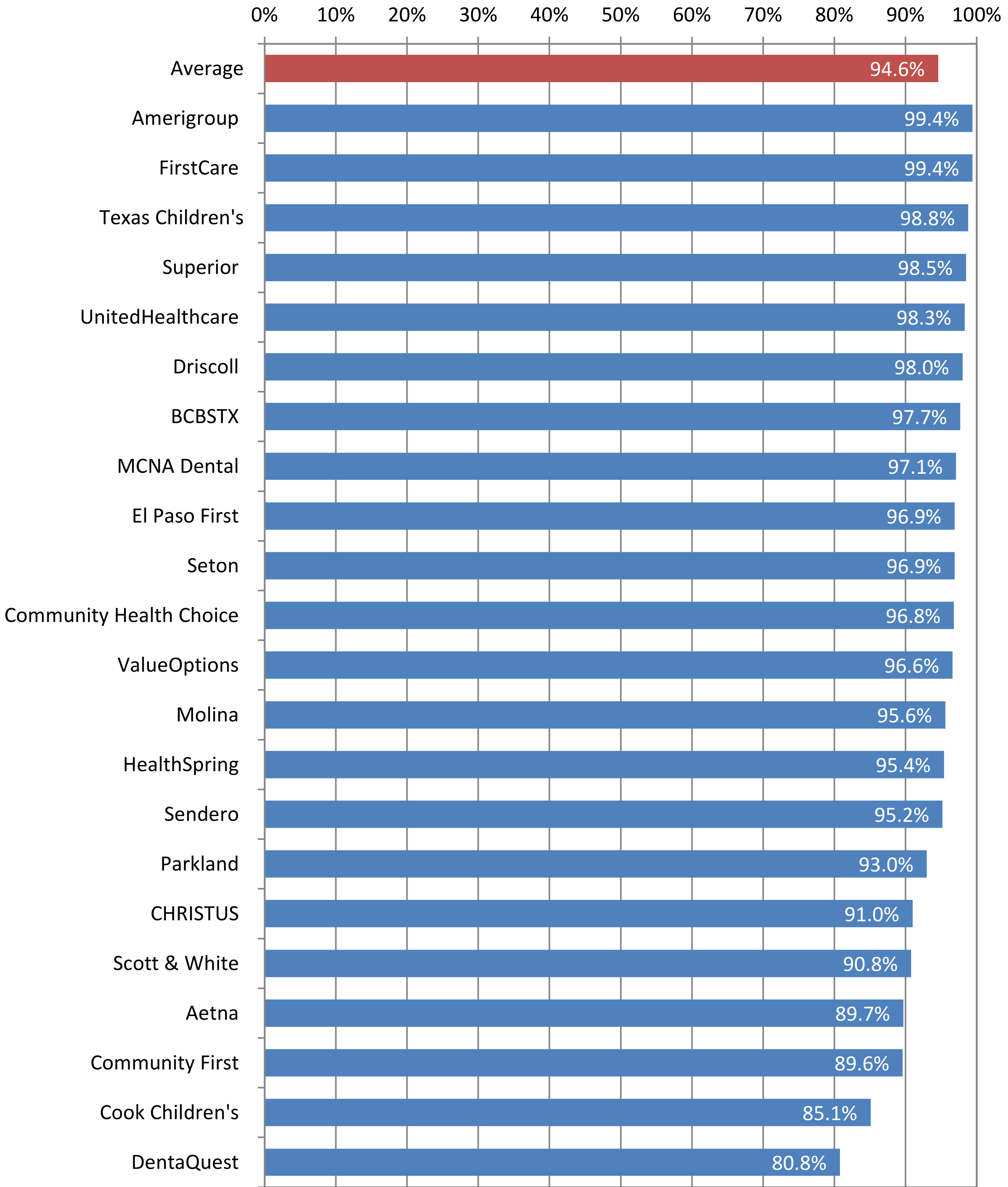
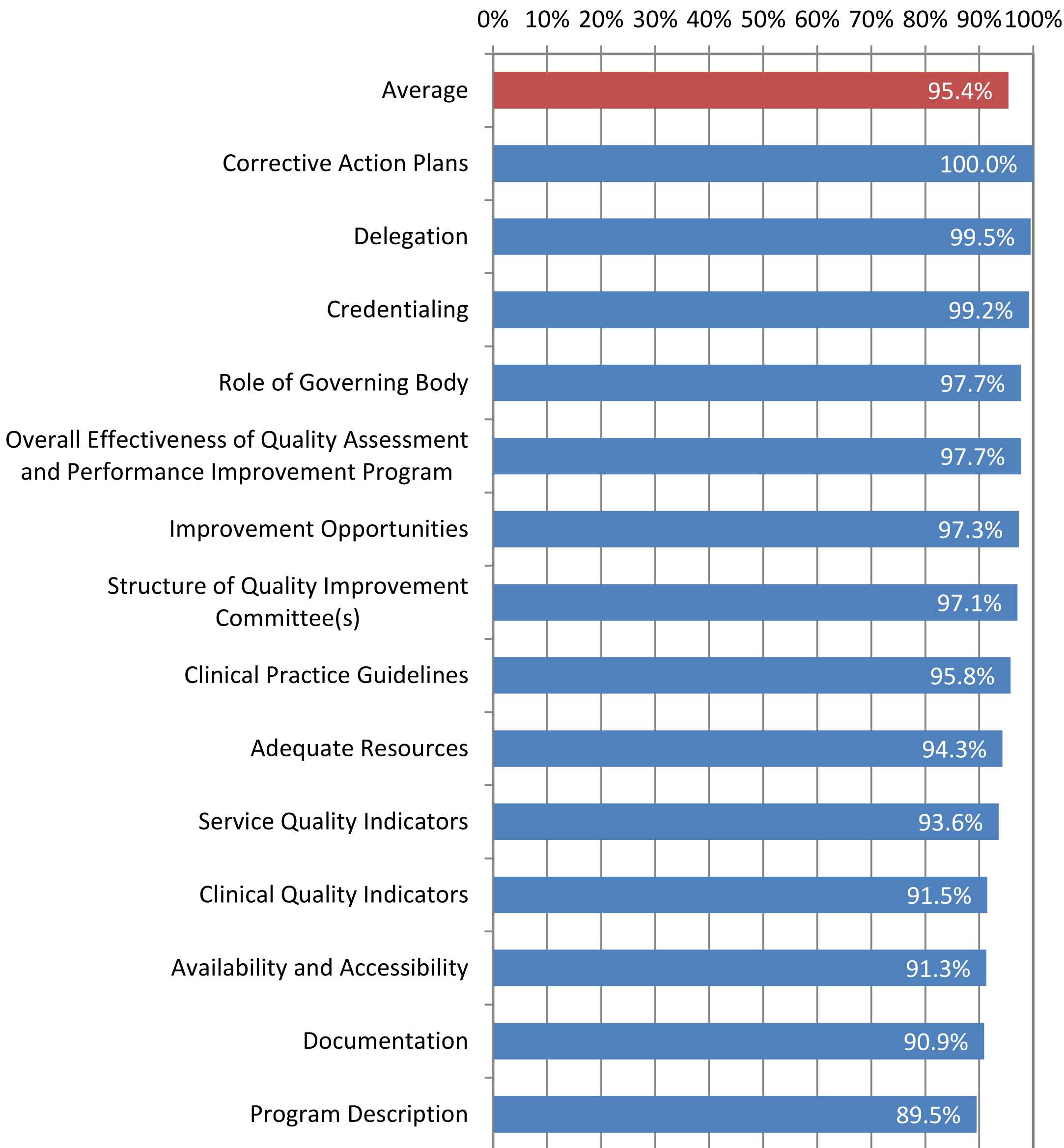


Figure 24: Overall Quality Assessment and Performance Improvement Program Scores by Section, 2013



Quality Assessment and Performance Improvement Recommendations

The quality assessment and performance improvement program and performance improvement project evaluations include recommendations to the managed care organizations based on opportunities for improvement identified by the external quality review organization. The external quality review organization assesses managed care organization compliance with the previous year's recommendations in the quality assessment and performance improvement program evaluation. Each recommendation is

assessed to evaluate whether the managed care organization fully addressed, partially addressed, or did not address the recommendation. A score of 100 percent is assigned if the recommendation was fully addressed, 50 percent if the recommendation was partially addressed, and 0 percent if the recommendation was not addressed. A final score (highest maximum score is 100 percent) is calculated to assess the percentage of recommendations the managed care organization addressed.

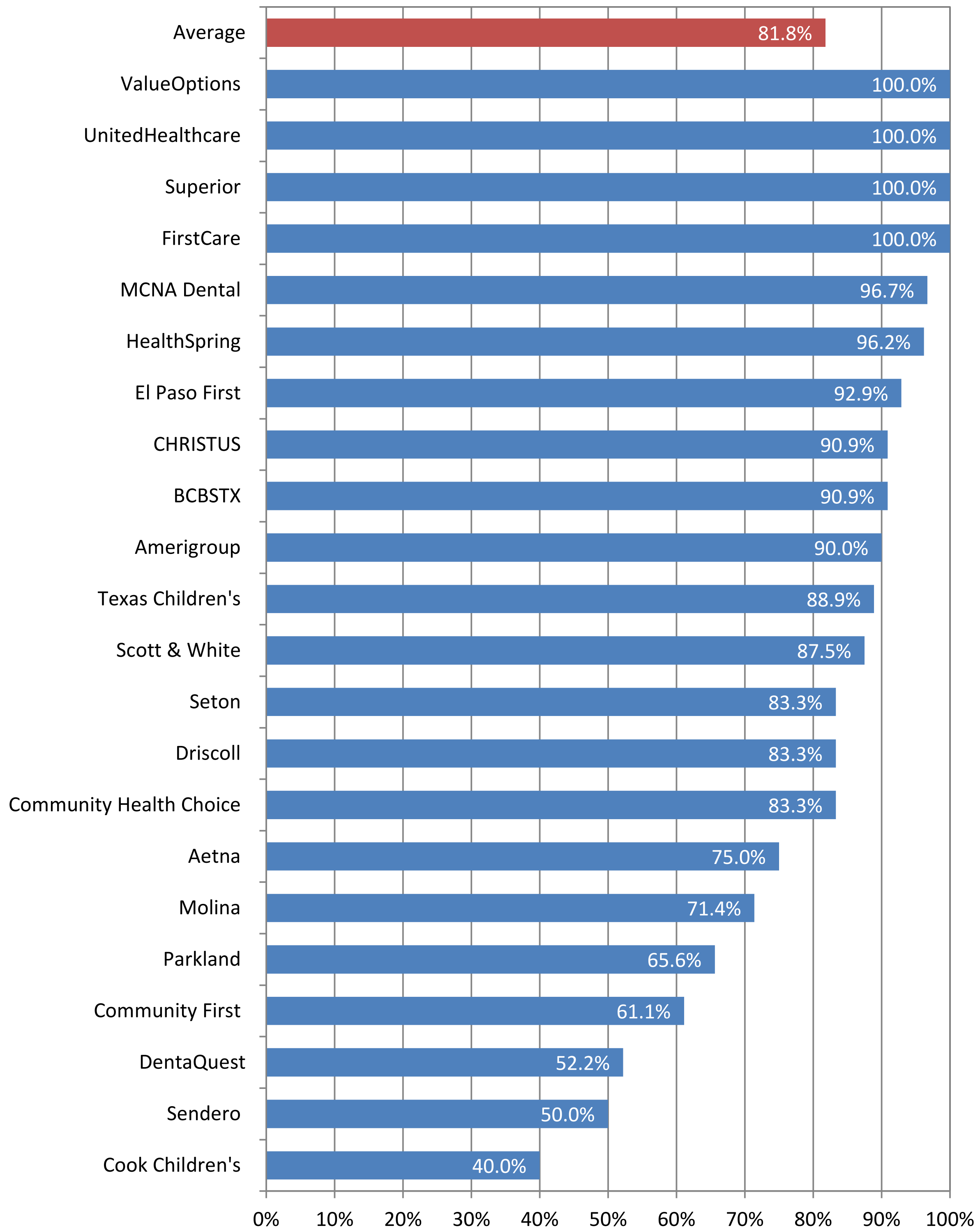
In the calendar year 2012 Quality Assessment and Performance Improvement Program Evaluation, the external quality review organization made a number of recommendations for the health plans to improve their quality improvement practices (**Table 4**). These included recommendations to improve documentation of 14 of the quality assessment and performance improvement program evaluation activities. In particular, it was recommended that managed care organizations develop long-term goals for their quality improvement programs; evaluate and report on the effectiveness of access to care, clinical indicator, and service indicator monitoring; and evaluate and report on the effectiveness of the overall program.

The external quality review organization's assessment of whether the prior-year recommendations were followed is provided in **Figure 25**. Across all managed care organizations, 81.8 percent of the recommendations made in calendar year 2012 were followed in calendar year 2013. Four health plans – ValueOptions, UnitedHealthcare, Superior, and FirstCare – achieved 100 percent compliance. Seven health plans had compliance rates less than 80 percent, ranging from 40.0 percent in Cook Children's to 75 percent in Aetna. A common type of recommendation with which the health plans did not fully comply was developing objectives that are specific, action-oriented, and written in measurable and observable terms.

Table 4: Recommendations for Quality Assessment and Performance Improvement Programs in STAR, CHIP, STAR+PLUS, STAR Health, and NorthSTAR, 2012

Activity	Example Recommendation
Required Documentation	Complete all sections of the QAPI Evaluation tool, including Section 9 - "Previous Year's Recommendations."
Role of Governing Body	Describe the actions taken by the governing body to modify the quality improvement program. Indicate if no actions were taken.
Structure of Quality Improvement Committee(s)	Specify which committee members have clinical and non-clinical voting rights.
Adequate Resources	Provide greater detail about the human resources available to adequately operate and oversee the quality improvement program.
Opportunities for Improvement	Describe the process of how non-clinical improvements were identified.
Program Description	Develop long-term goals that are broad and reflect the health plan's philosophy and purpose of the quality improvement program. The goals should be geared toward overall quality improvement rather than improvement for a particular measure.
Overall Effectiveness	Include an evaluation of the overall effectiveness of the quality assessment and performance improvement program.
Clinical Practice Guidelines	Describe how guidelines are relevant to member needs in greater detail. For example, “X percent of members enrolled in our program have been diagnosed with asthma.”
Access to Care Monitoring and Results	Report and evaluate the effectiveness of actions and provide future actions for all indicators.
Clinical Indicator Monitoring and Results	Include an analysis of the effectiveness of actions such as the percentage change in measurement from the previous year.
Service Indicator Monitoring	Report the change in percentages/rates from the previous year.
Credentialing and Re-credentialing	Report the number of facilities that were credentialed during the measurement period. If no facilities were credentialed, then please indicate as such.
Delegation of Activities	Include quality assessment and performance improvement activities delegated to the third party administrator for the quality improvement program.
Corrective Action Plans	Provide the completion date or targeted date for completion.

Figure 25: Managed Care Organization Compliance with 2012 Recommendations in 2013



3. Quality of Care Evaluation by Program

This section presents findings on the external quality review organization's evaluation of Texas STAR, CHIP, STAR+PLUS, STAR Health, NorthSTAR, and the Medicaid and CHIP Dental programs. The evaluation focuses on administrative and hybrid measures of access, utilization, and effectiveness using calendar year 2013 data, and survey measures of member and caregiver satisfaction using data from survey projects conducted in 2013 and 2014. Comparisons with national means and percentiles for HEDIS® and CAHPS® measures are made when appropriate to the program population.

Most findings in this section are descriptive and presented at the state level. Comparisons of performance among the Medicaid and CHIP managed care organizations are made for measures that have high impact (e.g., common chronic conditions, such as asthma and diabetes) and/or showed wide variation across the health plans. More detailed results on performance measures at the health plan level are presented in the Managed Care Organization Profiles that accompany this report.

Numerous administrative, hybrid, and survey measures are also HHSC Performance Dashboard indicators, which are used to monitor performance at the program, health plan, and service area levels. Each year, based on recommendations by the external quality review organization, HHSC publishes standards for the Performance Dashboard indicators. Tables and figures in this section include comparisons of statewide performance with the Dashboard standards for the appropriate year.

A more detailed assessment is provided for measures that are on HHSC's Pay-for-Quality program (discussed in Section 4.1) for STAR, CHIP, and STAR+PLUS. For these measures, the program sections present trends in statewide performance for available data years, as well as results from an in-depth analysis conducted by the external quality review organization to explore predictors of compliance on the measures. **Table 5** lists the Pay-for-Quality program measures selected by HHSC for the upcoming year (2015).

Table 5: Pay-for-Quality Measures for 2015

	STAR	CHIP	STAR+PLUS
HEDIS® *Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life*	✓	✓	
HEDIS® *Adolescent Well-Care*	✓	✓	
HEDIS® *Prenatal and Postpartum Care*	✓		
3M *Potentially Preventable Admissions*	✓	✓	✓
3M *Potentially Preventable Readmissions*	✓		✓
3M *Potentially Preventable Emergency Department Visits*	✓	✓	✓
3M *Potentially Preventable Complications*	✓		✓
HEDIS® Asthma Composite		✓	
HEDIS® *Antidepressant Medication Management*			✓
HEDIS® *Comprehensive Diabetes Care – HbA1c Control <8*			✓

3.1. Quality of Care Evaluation Methodology

Administrative and Hybrid Measures

Three data sources were used to calculate administrative quality of care indicators: (1) member-level enrollment information; (2) member-level health care claims/encounter data; and (3) member-level pharmacy data. Additionally, medical records provided data for the hybrid measures. The enrollment files contain information about the member's age, sex, the health plan in which the member is enrolled, and the number of months the member has been enrolled. The member-level claims/encounter data contain CPT codes, ICD-9-CM codes, place of service codes, and other information necessary to calculate the quality of care indicators. The member-level pharmacy data contain information about filled prescriptions, including drug name, dose, date filled, number of days prescribed, and refill information.

Administrative and hybrid quality of care indicators in this report include: (1) HEDIS® 2014 measures; (2) AHRQ Pediatric Quality Indicators and Prevention Quality Indicators; and (3) 3M Health Information Systems measures of potentially preventable hospital admissions, readmissions within 30 days, emergency department visits, and complications.

Calculation of rates

Rates for HEDIS® measures were calculated using NCQA-certified software. Results are based on administrative data only, with the exception of the hybrid HEDIS® measures, for which medical records were made available by the Medicaid and CHIP health plans. The state (program-level) rates reflect the total population in the program eligible for the administrative measures. The state program-level rates for the hybrid measures are weighted averages, based on the eligible population for each measure. The external quality review organization followed HEDIS® specifications for hybrid measures in STAR, CHIP, and STAR+PLUS, with a targeted, systematic sample of 411 records drawn from the eligible population of each managed care organization.

The following HEDIS® hybrid measures were calculated for STAR and CHIP using calendar year 2013 data:

- *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*
- *Adolescent Well-Care*
- *Childhood Immunization Status: Combination 4*
- *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents*

The following HEDIS® hybrid measures were calculated for STAR and STAR+PLUS using calendar year 2013 data:

- *Comprehensive Diabetes Care*
- *Controlling Blood Pressure*

In addition, the external quality review organization used the hybrid method for HEDIS® *Prenatal and Postpartum Care* in STAR, and for HEDIS® *Adult BMI Assessment* in STAR+PLUS.

Target samples for hybrid studies were not met for several managed care organizations. In STAR, target samples were not met in one health plan for *Adolescent Well-Care* or *Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life*, three health plans for *Prenatal and Postpartum* Care, and four health plans for *Childhood Immunization Status*.[vii] In addition, only four STAR managed care organizations provided the target number of records for *Comprehensive Diabetes Care* and *Controlling Blood Pressure.* In CHIP, target samples were not met in two health plans for *Adolescent Well-Care* or *Weight Assessment and Counseling,* and four health plans for *Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life*.[viii] In addition, only four CHIP health plans provided the target number of records for *Childhood Immunization Status*. Target samples were met for all hybrid measures calculated in STAR+PLUS.

National comparisons

Results for the HEDIS® measures are compared to means and percentiles from other Medicaid programs, which NCQA gathers and compiles from Medicaid managed care plans nationally. These reported rates are a combination of administrative and hybrid results, reflecting a mix of different methodologies. Limited information is available about the health and sociodemographic characteristics of members enrolled in Medicaid plans nationally. Submission of HEDIS® data to NCQA is a voluntary process; therefore, managed care organizations that submit HEDIS® data may not be fully representative of the industry. Health plans participating in NCQA HEDIS® reporting tend to be older, are more likely to be federally qualified, and are more likely to be affiliated with a national managed care company than the overall population of managed care organizations in the United States.

NCQA reports the national results as a mean and at the 10th, 25th, 50th, 75th, and 90th percentiles. For tables in this report that present results on HEDIS® measures, a percentile rating is provided that compares calendar year 2013 program-level rates with the NCQA national HEDIS® 2014 Medicaid percentiles. The rating system is as follows:

★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

[vii] STAR health plans with medical records below target for hybrid studies:

Adolescent Well-Care and *Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life* – UnitedHealthcare
Prenatal and *Postpartum Care* – CHRISTUS, Seton, UnitedHealthcare
Childhood Immunization Status – BCBSTX, CHRISTUS, Sendero, Seton

[viii] CHIP health plans with medical records below target for hybrid studies:

Adolescent Well-Care and *Weight Assessment and Counseling* – CHRISTUS, Sendero

Pediatric Quality Indicators and Adult Prevention Quality Indicators, developed by AHRQ, were used to evaluate performance related to inpatient admissions for ambulatory care sensitive conditions (ACSCs). The AHRQ considers ACSCs as "conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease." The specifications used to calculate rates for these measures come from AHRQ's Pediatric Quality Indicators (PDI) and Prevention Quality Indicators (PQI) versions 4.5 which measure potentially avoidable hospitalizations for ambulatory care sensitive conditions. Rates are area-based and calculated based on the number of hospital discharges divided by the number of people in the area. For most conditions, rates are calculated out of 100,000 member-months. Rates of admissions for perforated appendix are calculated out of 100 admissions for appendicitis. Rates of admissions for low birth weight are calculated out of 100 live births. Unlike most other measures provided in this report, low quality indicator rates are desired as they suggest a better quality health care system outside the hospital setting.

Pediatric admissions for the following ACSCs were assessed: (1) Asthma; (2) Diabetes Short-Term Complications; (3) Gastroenteritis; (4) Perforated Appendix; and (5) Urinary Tract Infection. The age eligibility for the PDIs is up to age 17.

The full set of adult PQIs includes rates of inpatient admissions for:

1. Diabetes Short-Term Complications
2. Perforated Appendix
3. Diabetes Long-Term Complications
4. Chronic Obstructive Pulmonary Disease or Asthma in Older Adults
5. Hypertension
6. Congestive Heart Failure
7. Low Birth Weight
8. Dehydration
9. Bacterial Pneumonia
10. Urinary Tract Infection
11. Angina without Procedure
12. Uncontrolled Diabetes
13. Asthma in Younger Adults
14. Rate of Lower Extremity Amputation among Patients with Diabetes

For these measures, adults are individuals ages 18 or older.

The 3M measures of potentially preventable events are used to measure health outcomes, safety, efficiency, utilization rates and the costs associated with avoidable care. Potentially Preventable Admissions (PPAs) and Potentially Preventable Emergency Department Visits (PPVs) focus on events caused by inadequate access to care or poor coordination of ambulatory care. Potentially Preventable Readmissions (PPRs) and Potentially Preventable Complications (PPCs) focus on events caused by deficiencies or errors in care or treatment provided during a hospital stay, or from inadequate post-hospital discharge follow-up.

- Potentially preventable admissions involve ambulatory-sensitive conditions, including a more comprehensive definition than the list maintained by AHRQ. They are identified primarily from the reason for admission as documented using the assigned All Patient Refined Diagnosis Related

Groups (APR-DRGs). Results are risk-adjusted based on the health status of members in the population as defined by Clinical Risk Group.

- Potentially preventable emergency department visits account for conditions that could be treated effectively with adequate patient monitoring and follow-up. They are identified using the Enhanced Ambulatory Patient Grouping assigned by the 3M software to the emergency department encounter. Results are risk-adjusted based on the health status of members in the population as defined by Clinical Risk Group.
- Potentially preventable readmissions are return hospitalizations caused by deficiencies in the care during the initial hospital stay and/or poor coordination of services at the time of discharge and during follow-up. The readmission must be clinically related to the initial admission (based on APR-DRG), and occur during the defined readmission period. For quality of care reporting, the external quality of care organization used a 30-day readmission interval. Because not all admissions have the same risk of readmission, results are risk-adjusted based on the APR-DRG of the initial admission.
- Potentially preventable complications are harmful events that occur after a patient is admitted. These include Medicare hospital-acquired conditions[ix], Medicaid healthcare-acquired conditions[x], and other patient safety indicators. They are assigned based on secondary diagnoses that were not present on admission, and determined to be preventable based on the initial condition and procedures. The results are risk-adjusted based on the APR-DRG assigned to the admission.

High numbers of potentially preventable events can indicate deficiencies in quality of care. Resource use related to these events is also important, and includes consideration of the relative weight of different events. For this reason, all four types of measures are reported using relative weights, which are based on standardized costs associated with the APR-DRG for potentially preventable admissions and readmissions, the Enhanced Ambulatory Patient Grouping for potentially preventable emergency department visits, and the assigned category for potentially preventable complications.

Assessment of performance on these measures at the health plan level uses the actual-to-expected ratio, which represents the number of actual visits relative to the number of visits that would be expected based on the case-mix of the health plan membership. An actual-to-expected ratio less than 1.00 means there were fewer than expected preventable events, while a ratio greater than 1.00 means there were more than expected.

[ix] A list of hospital acquired conditions can be found at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Hospital-Acquired_Conditions.html
[x] A list of healthcare-acquired conditions can be found at: http://www.medicaid.gov/medicaid-chip-program-information/by-topics/financing-and-reimbursement/provider-preventable-conditions.html

Survey Measures

The external quality review organization conducts biennial surveys to measure experiences and satisfaction of adult members and caregivers of child members in Texas Medicaid and CHIP. In 2013, three types of surveys were conducted: (1) CAHPS® surveys with caregivers of children and adolescents in STAR, CHIP, and Medicaid/CHIP dental; (2) CAHPS® ECHO® surveys with adult STAR+PLUS members and caregivers of child STAR members needing behavioral health care, and (3) a caregiver survey of children and adolescents enrolled in Medicaid and CHIP Dental, using a modified version of the CAHPS® Dental Plan Survey. [33] The behavioral health surveys included a sampling quota for members enrolled in NorthSTAR in the Dallas service area. In 2014, CAHPS® surveys were conducted with adult members of STAR and STAR+PLUS and with caregivers of children and adolescents enrolled in STAR Health.

<u>Survey sampling</u>

Survey participants for the CAHPS® surveys are selected from stratified random samples of child members (17 years or younger) or adult members (18 years or older) who were continuously enrolled in the same health plan for six months. The samples are stratified to include representation from each managed care organization operating in the program for which the survey is conducted, with a target of 250 completed surveys per health plan.[34]

For the ECHO® behavioral health surveys, participants are selected from stratified random samples of members with six-month continuous enrollment in the same managed care organization who had a record of one or more mental health or chemical dependency diagnosis (ICD-9-CM code) and procedural (CPT code) combinations during the enrollment period.[35] The 2013 STAR Child Behavioral Health Survey was stratified according to three delivery models: (1) managed care organization ("in-house" behavioral health care); (2) behavioral health organization ("carve out" behavioral health care); and (3) NorthSTAR. The 2013 STAR+PLUS Behavioral Health Survey was stratified by managed care organization, with separate quotas for NorthSTAR and for dual-eligible members.

Survey participants for the Medicaid/CHIP Managed Care Dental Caregiver Survey are selected from a stratified random sample of children age 17 years and younger who were enrolled in Medicaid or CHIP for six months. The sample is stratified by program and dental plan, resulting in four sampling groups: (1) Medicaid DentaQuest; (2) Medicaid MCNA Dental; (3) CHIP DentaQuest; and (4) CHIP MCNA Dental.

For all survey samples, members with no more than one 30-day gap during the sampling enrollment period are eligible for inclusion. Member age is determined based on the last day of the enrollment period. **Table 6** lists the member surveys conducted by the external quality review organization in 2013 and 2014, and their enrollment and fielding periods.

Table 6: Member Survey Enrollment and Fielding Periods, 2013 and 2014

Year	Survey	Enrollment period	Fielding period
2013	STAR Child Caregiver Survey	Oct. 2012 – April 2013	June – Dec. 2013
	CHIP Caregiver Survey	Sept. 2012 – Feb. 2013	May – Dec. 2013
	STAR Child Behavioral Health Survey	April 2012 – March 2013	May – Aug. 2013
	STAR+PLUS Behavioral Health Survey	April 2012 – March 2013	May – Aug. 2013
	Medicaid/CHIP Dental Caregiver Survey	Oct. 2012 – March 2013	May – Sept. 2013
2014	STAR Adult Member Survey	Nov. 2013 – April 2014	June – Aug. 2014
	STAR+PLUS Adult Member Survey	Nov. 2013 – April 2014	June – Aug. 2014
	STAR Health Caregiver Survey	Feb. 2014 – September 2014	August – Dec. 2014

Survey data collection

The external quality review organization obtained contracts with the Bureau of Economic and Business Research at the University of Florida, the National Opinion Research Center at the University of Chicago, and ICF International, Incorporated to conduct the 2013 and 2014 member and caregiver satisfaction surveys using computer-assisted telephone interviewing. For all satisfaction surveys, the external quality review organization sent advance notification letters written in English and Spanish to members or their caregivers, requesting their participation in the survey. Calling began on the surveys approximately four days following each advance notification mailing.

The CAHPS® Health Plan Survey is a widely used instrument for measuring and reporting consumer experiences with their or their child's health plan and providers. The survey includes several questions that function as indicators of health plan performance (such as personal doctor and health plan ratings), and also permits the calculation and reporting of composite measures, which combine results for closely related survey items. This report presents the most current CAHPS® ratings for personal doctors, specialists, health plans, and overall health care in each program assessed, as well as composite measures that address the following domains: (1) *Getting Needed Care*; (2) *Getting Care Quickly*; (3) *How Well Doctors Communicate*; and (4) *Health Plan Information and Customer Service*.

The ECHO® Survey is part of the CAHPS® family of surveys, and has four versions determined by the member's age group (child or adult) and behavioral health service delivery model (managed care organization or behavioral health organization). The survey allows for calculation and reporting of behavioral health care ratings and composites. This report presents the most current ECHO® ratings for behavioral health treatment and behavioral health plans, as well as composite measure results in the following domains: (1) G*etting Treatment Quickly;* (2) *How Well Clinicians Communicate;* (3) *Getting*

Treatment and Information from the Plan or Managed Behavioral Healthcare Organization; (4) *Information About Treatment Options; and* (5) *Perceived Improvement.*

All member surveys included items developed by the external quality review organization pertaining to caregiver and member demographic and household characteristics, which have been included in surveys given to more than 25,000 Medicaid and CHIP members in Texas and Florida. The questions were adapted from the National Health Interview Survey, the Current Population Survey, and the National Survey of America's Families.[36,37,38] Respondents were also asked to report their (or their child's) height and weight in order to calculate body mass index, a common population-level indicator of overweight and obesity.

Survey data analysis

The external quality review organization follows both AHRQ and NCQA specifications for scoring the CAHPS® ratings and composites. Results in this report follow AHRQ specifications, which produce scores that represent the percentage of members who rated their health care a "9" or "10" (on a scale from 0 to 10), and who "usually" or "always" had positive experiences in a given composite domain. These scores are compared with Medicaid and CHIP national data available for the appropriate year and population through the AHRQ CAHPS® Online Reporting System.

This report provides means and standard deviations for ECHO® survey ratings of behavioral health treatment and behavioral health plan ratings (on a scale from 0 to 10). Scoring of ECHO® composites follows the NCQA approach, which produces scaled scores ranging from 1 to 3 (or 0 to 1 for *Information About Treatment Options*). National comparisons are not available for the ECHO® survey measures.

For all survey projects, the external quality review organization calculated descriptive statistics and conducted statistical tests using the statistical software package SPSS 17.0 (Chicago, IL: SPSS, Inc.).

3.2. STAR Program

Access and Utilization of Care in STAR

Table 7 presents statewide results on access to well-care visits for children and adolescents, childhood immunizations, and prenatal and postpartum care in STAR. Both well-care measures fell within the HEDIS® national 75th to 89th percentile, representing a good standard of care compared to the national Medicaid population. The rate for children three to six years of age was slightly lower than the HHSC Dashboard Standard. Performance on prenatal and postpartum care access measures was lower in relation to the HEDIS® national rates.

Assessment of calendar year 2013 access measures by health plan showed:

- El Paso First had the highest rates for both child and adolescent well-care (89.3 percent and 77.6 percent, respectively). FirstCare had the lowest rates (62.8 percent and 43.8 percent).
- All managed care organizations exceeded the HEDIS® 50th Percentile for *Childhood Immunization Status: Combination 4*, except for CHRISTUS (57.6 percent) and Sendero (63.9 percent).
- Timeliness of prenatal care ranged from 78.1 percent in CHRISTUS to 94.2 percent in Superior. Postpartum care access ranged from 43.1 percent in Sendero to 70.2 percent in Scott & White.

Table 7: STAR – Access to Care Measures

Measure	Data Collection Source	CY 2013 Rate	HHSC Dashboard Standard - 2013	HEDIS® 2014 Percentile Rating [1]
HEDIS® Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	Hybrid	80.3%	83%	★★★★
HEDIS® Adolescent Well-Care Visits	Hybrid	64.5%	64%	★★★★
HEDIS® Childhood Immunization Status: Combination 4	Hybrid	75.8%	32%	★★★★
HEDIS® Timeliness of Prenatal Care	Hybrid	88.9%	84%	★★★
HEDIS® Postpartum Care	Hybrid	58.6%	64%	★★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Both well-care measures showed improvement from 2009 to 2013 (**Figure 26** thru **Figure 27**). HHSC dashboard standards are set using, in part, managed care organization performance data from the previous year. Prior to 2013, the measures in Table 7 were calculated using an administrative-only methodology. In 2013, the measures were calculated following the HEDIS® hybrid methodology, which generally captures more encounters in the numerator than when using claims data alone. The rate increases from 2012 to 2013, and the differences in the 2013 dashboard standards and the 2013 rates, may therefore be explained in part by this change in methodology.

Figure 26: STAR HEDIS® Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life, 2009-2013

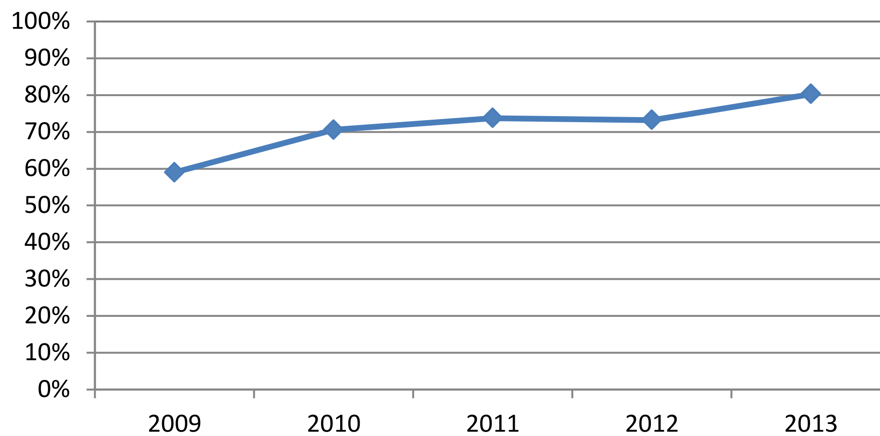
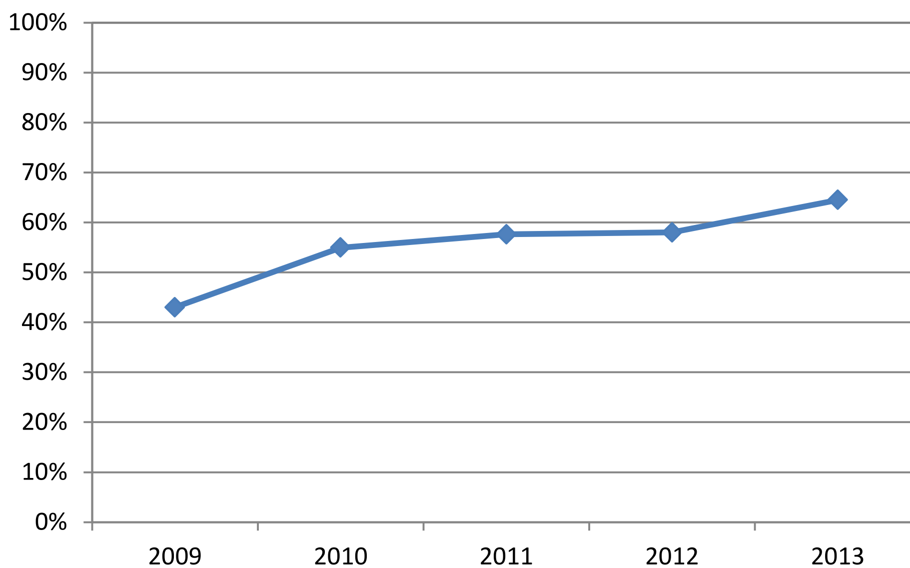


Figure 27: STAR HEDIS® Adolescent Well-Care Visits, 2009-2013



Rates for HEDIS® *Timeliness of Prenatal Care* have increased in STAR since 2009, exceeding the HEDIS® 50th percentile for the first time in calendar year 2013 (**Figure 28**). STAR members also saw a notable increase in rates of HEDIS® *Postpartum Care* in 2013 (**Figure 29**). As with the well-care measures, part of these increases may be explained by the use of hybrid methods in calendar year 2013, compared to administrative-only rates calculated in prior years.

Figure 28: STAR HEDIS® Timeliness of Prenatal Care, 2009-2013

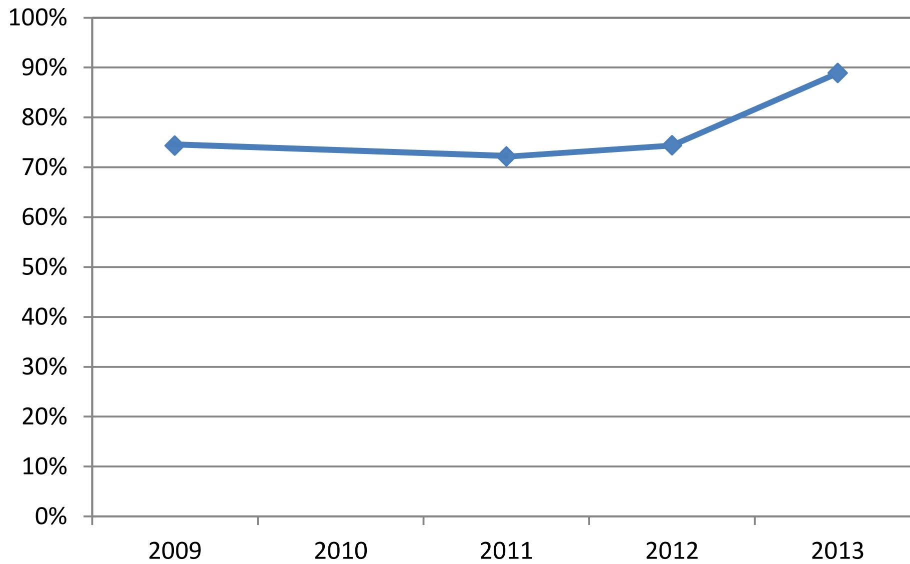


Figure 29: STAR HEDIS® Postpartum Care, 2009-2013

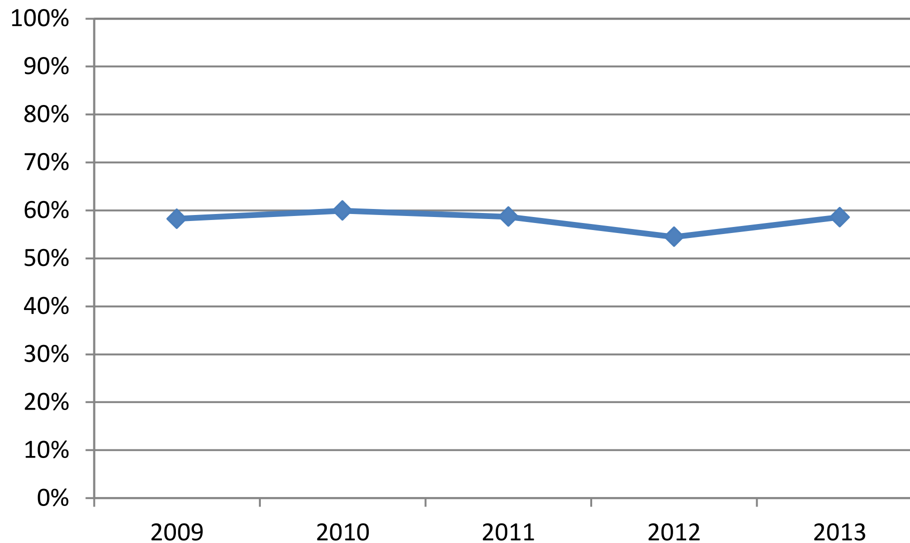


Table 8 presents results for the HEDIS® *Ambulatory Care* measure and the HEDIS® *Mental Health Utilization* measure for 2013. The two ambulatory care measures summarize utilization of two types of ambulatory care: (1) outpatient care, showing the rate of outpatient visits per 1,000 member months; and (2) emergency department visits, showing the rate of emergency department visits per 1,000 member months. The *Mental Health Utilization* measure identifies the percentage of members who received a mental health service during the one-year measurement period in the following categories: (1) inpatient services; (2) intensive outpatient or partial hospitalization services; and (3) outpatient or emergency department services. The rates reported here are for all service categories combined.

STAR Members had slightly higher rates of outpatient visits and slightly lower rates of emergency department visits than the HEDIS® national Medicaid 50th percentiles. A total of 389,717 STAR members received mental health services in calendar year 2013. The rate of mental health utilization in STAR (15.4 percent) was higher than the HEDIS® national 50th percentile.

Assessment of calendar year 2013 utilization measures by health plan showed:

- Outpatient visit rates per 1,000 member-months ranged from 256.25 in Seton to 504.43 in UnitedHealthcare.
- Emergency department visit rates per 1,000 member-months ranged from 41.19 in Molina to 81.44 in Scott & White.
- The percentage of members who utilized mental health services varied considerably across health plans, from 6.2 percent in Cook Children's to 35.7 percent in Sendero.

Table 8: STAR Utilization of Care – HEDIS® Measures

Measure	Data Collection Source	CY 2013 Rate	HEDIS® 2014 Percentile Rating[1]
HEDIS® Ambulatory Care: Outpatient Visits/1000 member months (total)	Administrative	391.20	★★★
HEDIS® Ambulatory Care: Emergency Dept. Visits/1000 member months (total)	Administrative	57.39	★★
HEDIS® Mental Health Utilization – Any Service (total)	Administrative	15.4%	★★★★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Five AHRQ PDIs are used to analyze pediatric admissions rates among young children and adolescents in STAR: (1) *Asthma*; (2) *Diabetes Short-Term Complications*; (3) *Gastroenteritis*; (4) *Perforated Appendix*; and (5) *Urinary Tract Infection.* Results on AHRQ PDI measures in STAR for calendar year 2013 are shown in **Table 9**. Rates are expressed per 100,000 member months, with the exception of *Perforated Appendix*, which is expressed per 100 admissions for appendicitis.

Assessment of calendar year 2013 PDI measures by health plan showed:

- There were 2,317 inpatient admissions for asthma among children and adolescents in STAR in calendar year 2013. The rates per 100,000 member-months ranged from 5.09 in Molina to 24.16 in Scott & White.
- There were 321 inpatient admissions for diabetes short-term complications among children and adolescents in STAR in calendar year 2013. Sendero had the lowest rate with no admissions, while Seton had the highest rate, at 10.10 per 100,000 member months.
- There were 1,328 admissions for gastroenteritis among children and adolescents in STAR in calendar year 2013. The rates per 100,000 member months ranged from 1.69 in Seton to 12.42 in Driscoll.

Table 9: STAR Utilization of Care – AHRQ Pediatric Quality Indicators (PDI)

AHRQ PDI Measure	CY 2013 Rate
Asthma Admission Rate (per 100,000 member months)	10.45
Diabetes Short-Term Complications (per 100,000 member months)	2.22
Gastroenteritis Admission Rate (per 100,000 member months)	5.08
Urinary Tract Infection (per 100,000 member months)	3.92
Perforated Appendix Admission Rate (per 100 appendicitis admissions)	50.43

Measures of potentially preventable hospital admissions, readmissions within 30 days, emergency department visits, and complications were calculated for the STAR population using 3M Health Information Systems software (**Table 10**). These measures assess the frequency and cost of visits that could have been prevented with better primary and outpatient care. Program-level rates are expressed as the actual number of weighted visits per 1,000 member-months, with lower rates indicating higher performance. In STAR, the highest rates were observed for potentially preventable emergency department visits (9.39 weighted visits per 1,000 member-months). Rates of potentially preventable hospital admissions, readmissions, and complications were all relatively low.

Table 10: STAR Utilization of Care – 3M Measures of Potentially Preventable Events

3M Measure	PPE Weight per 1,000 Member Months (CY 2013)
Eligible Inpatient Admissions that were Potentially Preventable (PPA)	0.61
Inpatient Admissions that had a Potentially Preventable Readmission within 30 Days (PPR)	0.23
Emergency Department Procedures that were Potentially Preventable (PPV)	9.39
Potentially Preventable Complications (PPC)	0.05

In addition, the measures of potentially preventable hospital admissions, readmissions, emergency department visits, and complications are pay-for-quality measures for the STAR program. The following section shows trends in these measures (2011-2013), comparisons of performance by managed care organization, and the specific reasons associated with potentially preventable events in STAR. In STAR, rates for potentially preventable admissions, readmissions, and emergency department visits increased slightly between 2011 and 2013 (**Figure 30, 32,** and **34**). Increasing rates suggest a need for improved efforts to reduce these events, including improvements in access to and quality of primary and

outpatient care, and in the case of readmissions, improvements in the quality of care delivered during the initial admission. Trends for potentially preventable complication rates were not available.

Comparisons of potentially preventable events across the STAR managed care organizations are made using the actual-to-expected ratio, which represents the actual number of events in relation to the number of events that would be expected based on the managed care organization's membership (**Figures 31, 33,** and **35)**. No specific patterns were observed in managed care organization performance across the four types of potentially preventable events. Driscoll Health Plan, Molina Healthcare of Texas, and UnitedHealthcare were in the top five performing health plans (five lowest ratios) for three of the four measures. Scott & White and Sendero were in the bottom five performing health plans (five highest ratios) for three of the four measures.

Tables 11, 12, and **13** show reasons for potentially preventable events in STAR. The assessment showed:

- Asthma, other pneumonia, and cellulitis and other bacterial skin infections accounted for 40.1 percent of potentially preventable hospital admissions.
- The most common type of potentially preventable readmissions was medical readmission for acute medical conditions or complications (44.3 percent).
- More than one-quarter of potentially preventable emergency department visits were for infections of the upper respiratory tract (26.1 percent).
- The top five types of potentially preventable complications were obstetric, with the most common being obstetrical hemorrhage without transfusion (23.1 percent).

Figure 30: STAR – Eligible Inpatient Admissions that were Potentially Preventable (PPA) – Weighted Admissions per 1,000 Member Months, 2011-2013

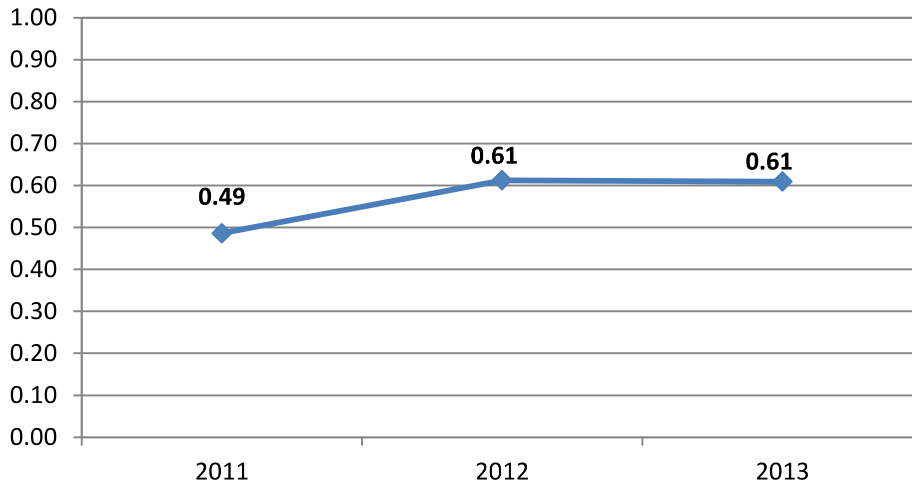


Figure 31: STAR – Eligible Inpatient Admissions that were Potentially Preventable (PPA), Actual to Expected Ratios by Managed Care Organization, CY 2013

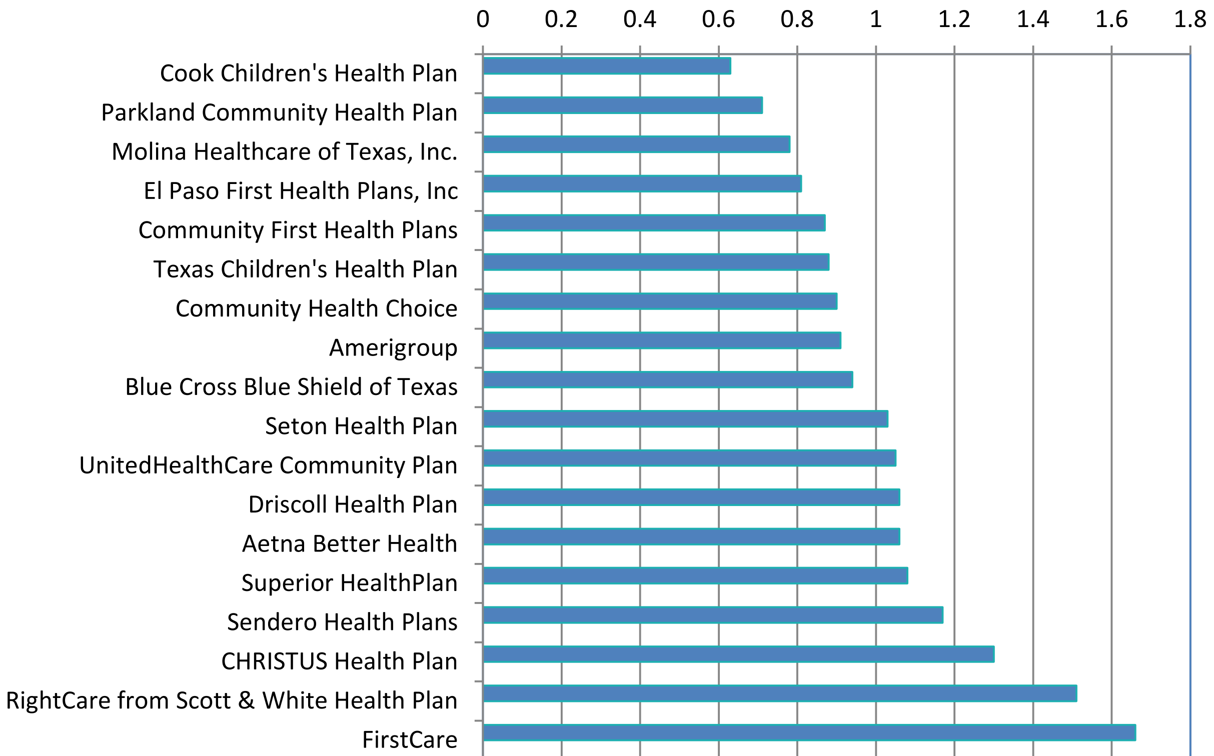


Figure 32: STAR – Inpatient Admissions that had a Potentially Preventable Readmission within 30 Days (PPR) – Weighted Readmissions per 1,000 Member Months, 2011-2013

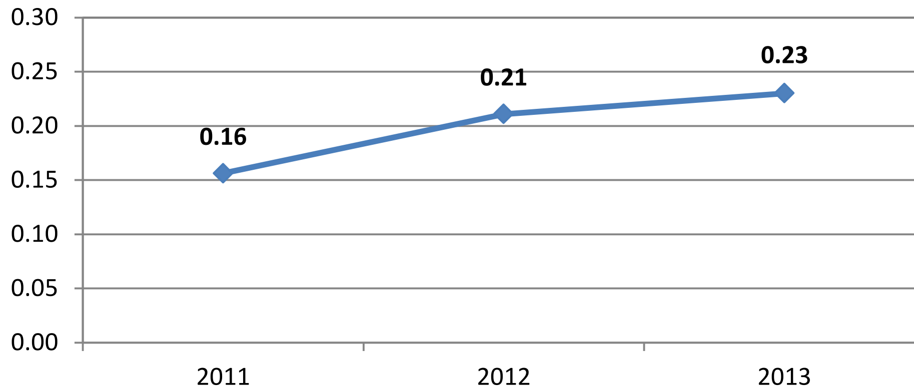


Figure 33: STAR – Inpatient Admissions that had a Potentially Preventable Readmission (PPR) within 30 Days by Managed Care Organization, Actual-to-Expected Ratios, CY 2013

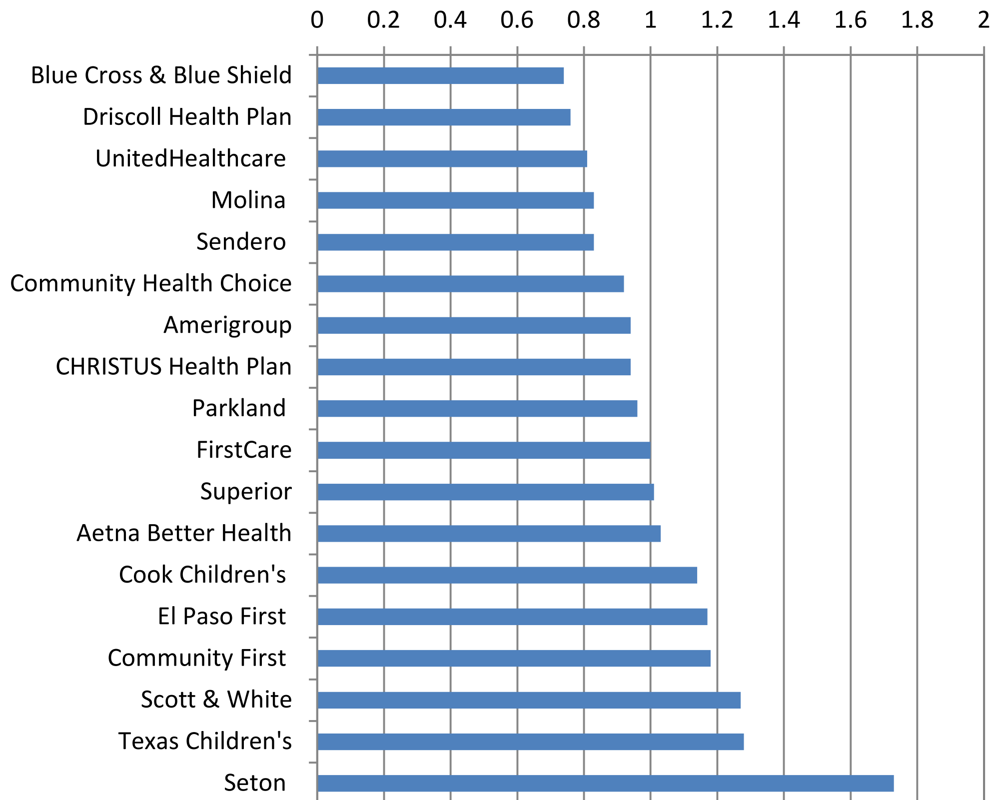


Figure 34: STAR – Emergency Department Visits that were Potentially Preventable (PPV) – Weighted Visits per 1,000 Member Months, 2011-2013

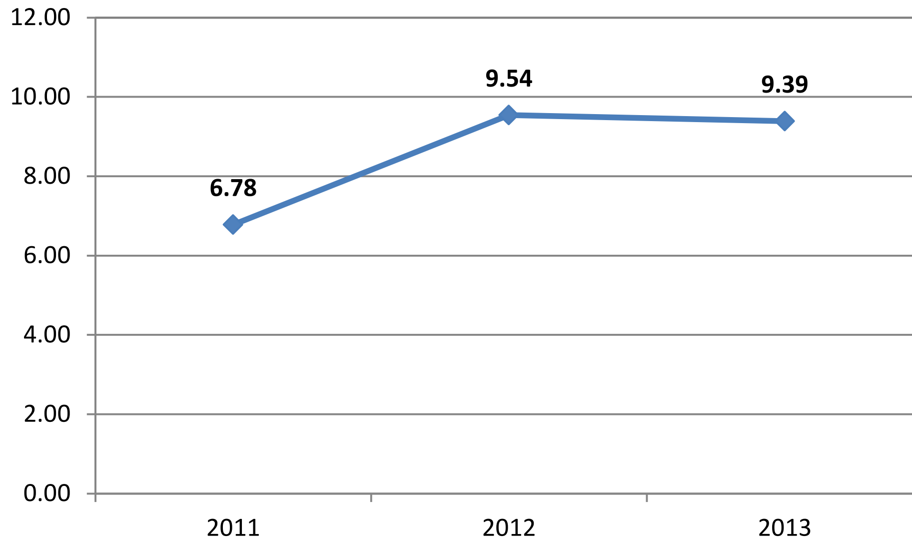


Figure 35: STAR – Emergency Department Visits that were Potentially Preventable (PPV) by Managed Care Organization, Actual-to-Expected Ratios, CY 2013

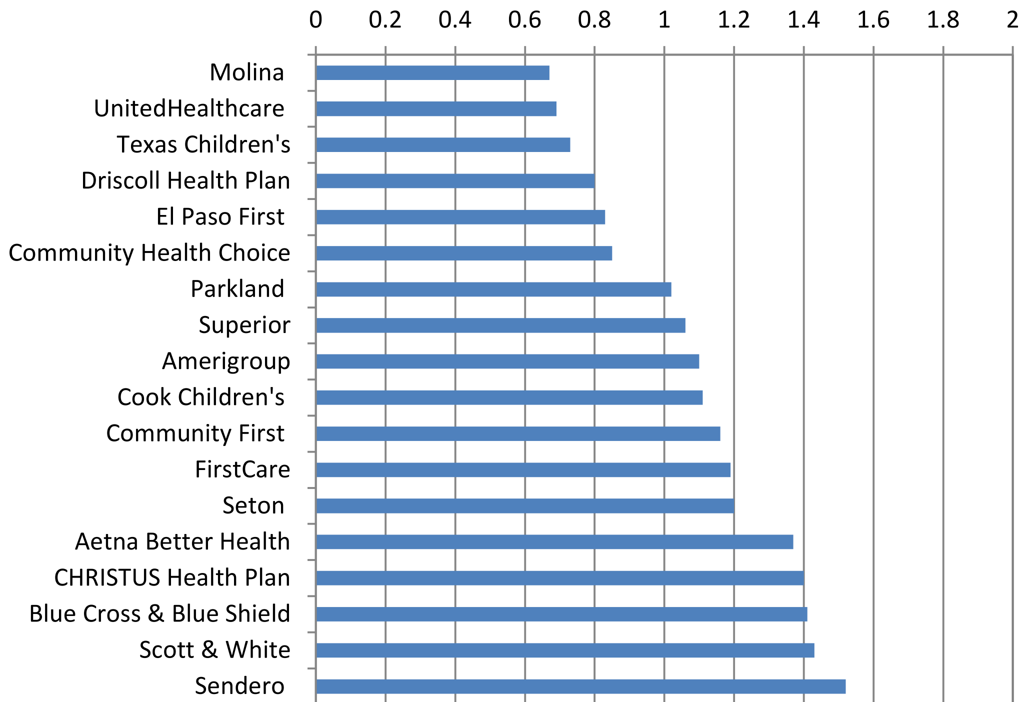


Figure 36: STAR – Potentially Preventable Complications (PPC) by Managed Care Organization, Actual-to-Expected Ratio, CY 2013

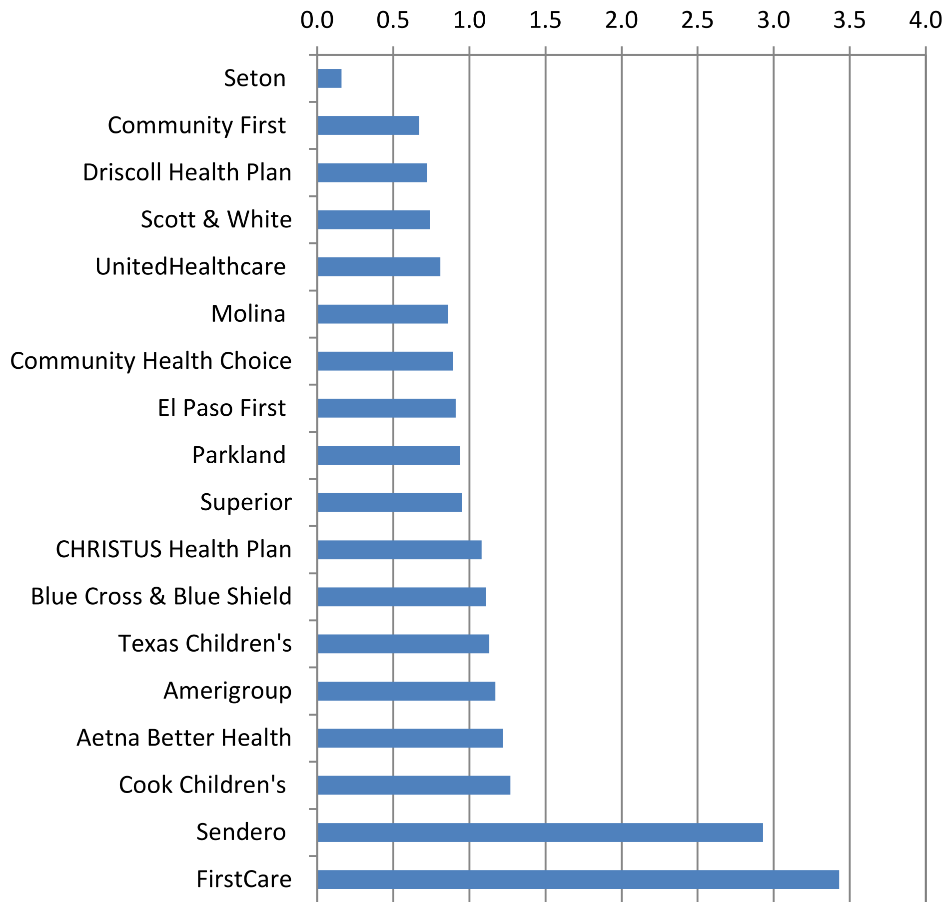


Table 11: STAR – Most Common Reasons for Inpatient Admissions that were Potentially Preventable (PPA), CY 2013

PPA Reason		% of PPAs in STAR
1	Other Pneumonia	14.3%
2	Asthma	14.3%
3	Cellulitis and Other Bacterial Skin Infections	11.6%
4	Non-Bacterial Gastroenteritis, Nausea and Vomiting	6.4%
5	Bipolar Disorders	6.2%
6	Seizure	5.9%
7	Kidney and Urinary Tract Infections	5.8%
8	Infections of Upper Respiratory Tract	5.7%
9	Diabetes	5.1%
10	Major Depressive Disorders and Other/Unspecified Psychoses	3.8%

Table 12: STAR – Reasons for Inpatient Admissions that had a Potentially Preventable Readmission within 30 Days (PPR), CY 2013

PPR Reason		% of PPRs in STAR
1	Medical readmission for acute medical condition or complication that may be related to or may have resulted from care during initial admission or in post-discharge period after initial admission	44.3%
2	Mental health or substance abuse readmission following an initial admission for a substance abuse or mental health diagnosis	22.8%
3	Medical readmission for a continuation or recurrence of the reason for the initial admission, or for a closely related condition	18.5%
4	All other readmissions for a chronic problem that may be related to care either during or after the initial admission	5.7%
5	Ambulatory care sensitive conditions as designated by AHRQ	2.8%
6	Readmission for mental health reasons following an initial admission for a non-mental health, non-substance abuse reason	2.6%
7	Readmission for surgical procedure to address a complication that may be related to or may have resulted from care during the initial admission	1.7%
8	Readmission for surgical procedure to address a continuation or a recurrence of the problem causing the initial admission	1.3%
9	Readmission for a substance abuse diagnosis reason following an initial admission for a non-mental health, non-substance abuse reason	0.3%

Table 13: STAR – Most Common Reasons for Emergency Department Procedures that were Potentially Preventable (PPV), CY 2013

PPV Reason		% of PPVs in STAR
1	Infections Of Upper Respiratory Tract	26.1%
2	Non-Bacterial Gastroenteritis, Nausea & Vomiting	7.0%
3	Signs, Symptoms & Other Factors Influencing Health Status	6.7%
4	Other Skin, Subcutaneous Tissue & Breast Disorders	5.8%
5	Level I Other Ear, Nose, Mouth, Throat & Cranial/Facial Diagnoses	5.1%
6	Contusion, Open Wound & Other Trauma To Skin & Subcutaneous Tissue	4.9%
7	Level II Other Musculoskeletal System & Connective Tissue Diagnoses	4.8%
8	Abdominal Pain	4.3%
9	Viral Illness	3.9%
10	Cellulitis & Other Bacterial Skin Infections	2.8%

Table 14: STAR – Most Common Reasons for Potentially Preventable Complications (PPC), CY 2013

PPC Reason		% of PPCs in STAR
1	Obstetrical Hemorrhage without Transfusion	23.1%
2	Obstetric Lacerations & Other Trauma without Instrumentation	18.1%
3	Medical & Anesthesia Obstetric Complications	9.4%
4	Obstetrical Hemorrhage with Transfusion	8.5%
5	Obstetric Lacerations & Other Trauma with Instrumentation	6.1%
6	Urinary Tract Infection	4.0%
7	Delivery with Placental Complications	3.9%
8	Other Complications of Obstetrical Surgical & Perineal Wounds	2.9%
9	Renal Failure without Dialysis	2.9%
10	Acute Pulmonary Edema and Respiratory Failure without Ventilation	2.6%

Effectiveness of Care in STAR

Table 15 presents statewide results on effectiveness of care in STAR for pharyngitis testing in children, asthma medication use and management, follow-up after hospitalization for mental illness, follow-up care for children prescribed medications for ADHD, and developmental screening.

Effectiveness of care for asthma showed good compliance on the percentage of members appropriately prescribed asthma medications in STAR, but poor compliance with management of asthma medications. Among members with persistent asthma, 15.4 percent stayed on controller medications for at least 75 percent of their treatment period. Follow-up care for children prescribed ADHD medications was good at both the initiation and the continuation and maintenance phases.

Rates were below the HEDIS® national 25th percentile for *Appropriate Testing for Children with Pharyngitis*, which is a key area for managed care organizations to focus quality improvement interventions for acute care.

Table 15: STAR – Effectiveness of Care Measures

Measure	Data collection source	CY 2013 Rate	HHSC Dashboard Standard (2013)	HEDIS® 2014 Percentile Rating[1]
HEDIS® Appropriate Testing for Children with Pharyngitis	Administrative	57.6%	65%	★
HEDIS® Use of Appropriate Medication for People with Asthma (all ages)	Administrative	93.9%	95%	★★★★★
HEDIS® Asthma Medication Ratio (Total Population Ratio >50%)	Administrative	81.6%	N/A	★★★★★
HEDIS® Medication Management for People with Asthma: Medication Compliance 75% (total)	Administrative	15.4%	N/A	★
HEDIS® Follow-up After Hospitalization for Mental Illness – 7 Days	Administrative	32.2%	37%	★★
HEDIS® Follow-up After Hospitalization for Mental Illness – 30 Days	Administrative	54.0%	61%	★★
HEDIS® Follow-up Care for Children Prescribed ADHD Medication – Continuation and Maintenance	Administrative	61.7%	58%	★★★★
HEDIS® Follow-up Care for Children Prescribed ADHD Medication – Initiation Phase	Administrative	46.8%	47%	★★★
CHIPRA Developmental Screening in the First Three Years of Life	Administrative	48.9%	N/A	N/A

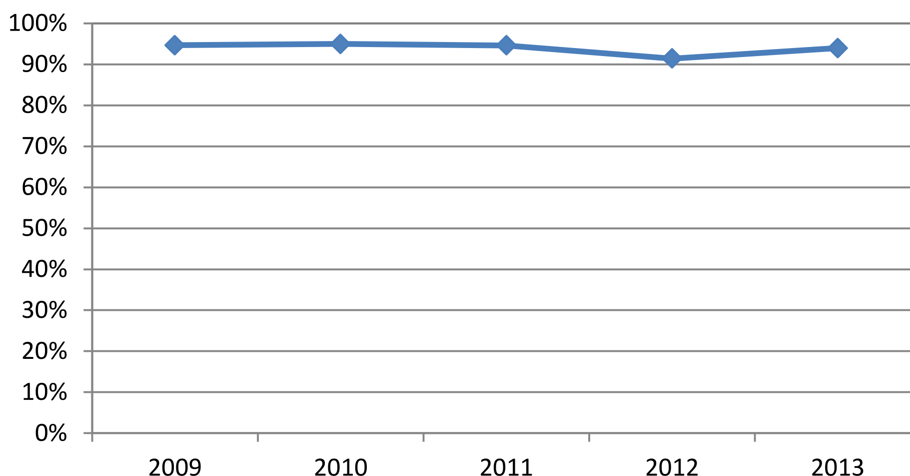
[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Assessment of calendar year 2013 effectiveness measures by health plan showed:

- Rates for *Use of Appropriate Medications for People with Asthma* showed little variation, with all managed care organizations exceeding the HEDIS® 90th percentile. For *Medication Management for People With Asthma*, the percentage of members who remained on their medication for at least 75 percent of their treatment period ranged from 8.3 percent in Molina to 21.7 percent in Cook Children's.
- Rates varied considerably for *Follow-up Care for Children Prescribed ADHD Medication -Initiation*, from 27.7 percent in CHRISTUS to 54.7 percent in UnitedHealthcare.
- Only three managed care organizations exceeded the HEDIS® 50th percentile for *Follow-up after Hospitalization for Mental Illness (30 Days)* – Blue Cross Blue Shield (68.4 percent), Driscoll (72.3 percent), and Texas Children's (71.2 percent).

Figure 37 shows trends in *Use of Appropriate Medication for People with Asthma*, which is a pay-for-quality measure in STAR for 2015. All STAR managed care organizations held positions in the HEDIS® 90th percentile for this measure across all measurement years, with little variation between 2009 and 2013.

Figure 37: STAR – HEDIS® Use of Appropriate Medication for People with Asthma (all ages), CY 2013



Satisfaction with Care in STAR

Table 16 presents CAHPS® composites and ratings from the member survey conducted with adults enrolled in STAR in 2014. Rates for CAHPS® composites represent the percentage of members who "usually" or "always" had positive experiences with the given domain. Results for the ratings measures represent the percentage of members who rated their care a "9" or "10" (on a scale from 0 to 10). The survey found high levels of member satisfaction in regard to communicating with doctors and getting help and information from health plan customer service, as well as generally positive ratings of care that

met or exceeded CAHPS® Medicaid national means. Rates for *Getting Needed Care* (71.4 percent) and *Getting Care Quickly* (76.3 percent) fell below the CAHPS® Medicaid national means.

Table 16: STAR – Adult Member Satisfaction with Care

CAHPS® Measure	CY 2014 Rate	HHSC Dashboard 2014	CAHPS® Medicaid National Rate 2014
Getting Needed Care	71.4%	N/A	81%
Getting Care Quickly	76.3%	N/A	82%
How Well Doctors Communicate	88.1%	89%	90%
Health Plan Information and Customer Service	87.4%	N/A	86%
Personal Doctor Rating	66.2%	63%	64%
Specialist Rating	65.4%	N/A	64%
Health Plan Rating	61.3%	60%	57%
Health Care Rating	53.5%	N/A	51%

Table 17 presents CAHPS® composites and ratings from the survey conducted with caregivers of children and adolescents enrolled in STAR in 2013. Overall, the STAR program performed well on measures of caregiver satisfaction with care in 2013. The program exceeded national Medicaid rates for all four ratings measures. In particular, the percentage of caregivers who rated their child's STAR health plan a "9" or "10" in 2013 (78.2 percent) exceeded the national Medicaid rate by more than ten percentage points.

For most CAHPS® composite measures, the STAR program rates were within four percentage points of those in the national child Medicaid population. However, caregivers reported lower satisfaction with *Getting Needed Care* than that reported nationally (71 percent vs. 82 percent). The CAHPS® *Getting Needed Care* composite is based on two items that address access to care, tests, or treatment, and access to specialist appointments.

Table 17: STAR Child – Caregiver Satisfaction with Care

CAHPS® Measure	CY 2013 Rate	HHSC Dashboard 2013	CAHPS® Child Medicaid National Rate 2013
Getting Needed Care	71.4%	N/A	82%
Getting Care Quickly	88.5%	N/A	87%
How Well Doctors Communicate	88.1%	92%	92%
Health Plan Information and Customer Service	82.9%	N/A	87%
Personal Doctor Rating	76.6%	75%	72%
Specialist Rating	75.9%	N/A	69%
Health Plan Rating	78.2%	81%	66%
Health Care Rating	69.9%	N/A	63%

Assessment of calendar year 2013 adult and caregiver satisfaction measures by health plan showed:

- In the STAR adult survey, rates for *Getting Needed Care* ranged from 61.7 percent in Community Health Choice to 80.4 percent in Scott & White. Rates for *Getting Care Quickly* ranged from 65.1 percent in Texas Children's to 81.9 percent in FirstCare.
- In the STAR child survey, individual managed care organizations did not meet the minimum denominator criterion (100 members) for reporting *Getting Needed Care* at the health plan level. All managed care organizations exceeded the CAHPS® Medicaid national average for health plan rating.

Table 18 provides findings from the 2013 survey with caregivers of children and adolescents in STAR who need behavioral health services. Although no national averages are available for comparison, the findings show generally positive experiences with clinician communication and getting treatment and information from the health plan or behavioral health organization. Lower scores were observed for the timeliness of behavioral health care.

Table 18: STAR Child Behavioral Health – Caregiver Satisfaction with Care (ECHO®)

ECHO® Measure	CY 2013 Mean	Standard Deviation	Range
Getting Treatment Quickly	2.18	0.74	1.00-3.00
How Well Clinicians Communicate	2.48	0.65	1.00-3.00
Getting Treatment and Information from the Plan	2.60	0.53	1.00-3.00
Getting Treatment and Information from the Behavioral Health Organization	2.43	0.70	1.00-3.00
Information about Treatment Options	0.67	0.47	0.00-1.00
Perceived Improvement	3.22	0.75	1.00-4.00
Global Ratings – Treatment	8.3	2.39	0.00-10.00
Global Ratings – Health Plan (Managed Care Organizations only)	9.14	1.65	0.00-10.00

3.3. CHIP Program

Access and Utilization of Care in CHIP

Table 19 presents statewide results on access to well-care visits for children and adolescents and childhood immunizations in CHIP. All three measures surpassed their respective HHSC Dashboard standards in 2013. Results were also compared to the HEDIS® national rates for Medicaid, showing CHIP to be in the 50th to 74th percentile for *Adolescent Well-Care Visits* and *Childhood Immunization Status: Combination 4*. The CHIP rate for well-care visits among children three to six years old is slightly above the HEDIS® 50th percentile.

Assessment of calendar year 2013 access measures by health plan showed:

- Parkland Community had the highest rate for HEDIS® Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (81.9 percent), while FirstCare had the lowest rate (53.5 percent).
- El Paso First had the highest rate for HEDIS® Adolescent Well-Care (67.4 percent), surpassing the HEDIS® 90th percentile, while FirstCare had the lowest rate (32.12 percent), falling below the HEDIS® 10th percentile.
- All CHIP managed care organizations exceeded the HEDIS® 50th percentile for *Childhood Immunization Status: Combination 4*, and all but two (UnitedHealthcare and Molina) surpassed the 75th percentile.

Table 19: CHIP – Access to Care Measures

Measure	Data Collection Source	CY 2013 Rate	HHSC Dashboard Standard (2013)	HEDIS® 2014 Percentile Rating[1]
HEDIS® Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (W34)	Administrative	76.1%	72.0%	★★★
HEDIS® Adolescent Well-Care Visits (AWC)	Administrative	58.2%	57.0%	★★★
HEDIS® Childhood Immunization Status: Combination 4 (CIS)	Administrative	76.7%	71.0%	★★★★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Rates for both well-care measures remained steady in CHIP from 2010 through 2012 and showed a marked increase from 2012 to 2013 (**Figures 38** and **39**). In 2013, these measures were calculated following a hybrid methodology, which generally captures more encounters than when using claims data alone. The increases from 2012 to 2013 may be attributed in part to this change in methodology.

Figure 38: CHIP – HEDIS® Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life, 2010-2013

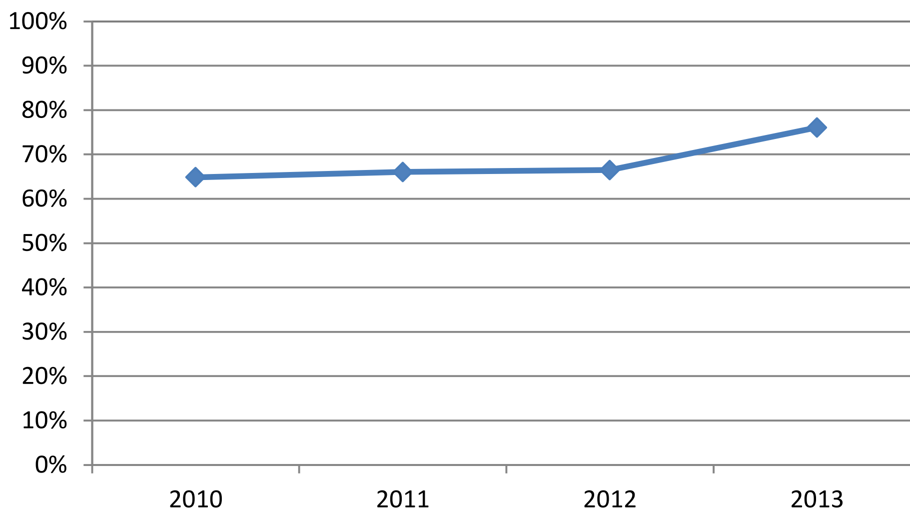


Figure 39: CHIP HEDIS® Adolescent Well-Care Visits 2010-2013

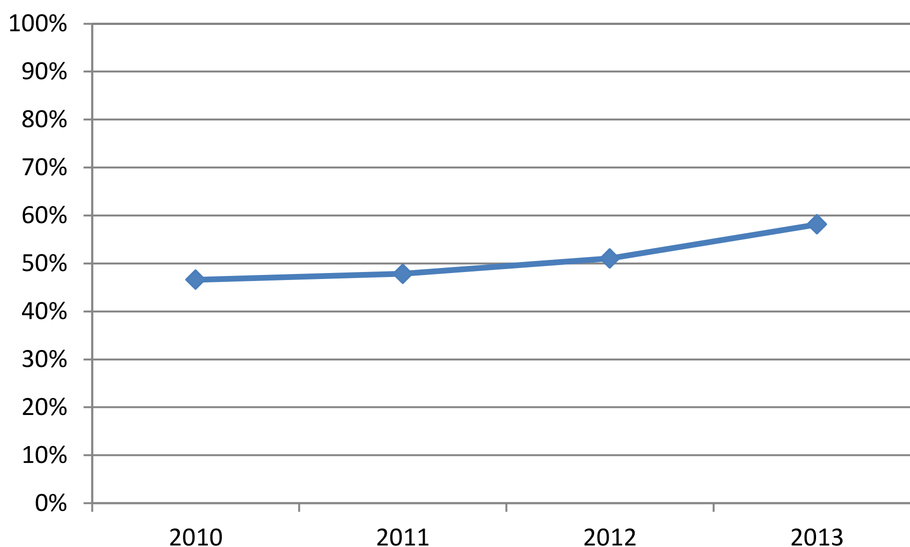


Table 20 presents results for the HEDIS® *Ambulatory Care* measure and the HEDIS® *Inpatient Utilization* measure for 2013. The two ambulatory care measures summarize utilization of outpatient care and emergency department care, respectively. The ambulatory care measures are reported as the number of visits per 1,000 member-months, and the inpatient utilization measure is reported as the number of discharges per 1,000 member-months. CHIP members had lower rates than Medicaid national rates on the utilization measures, falling below the HEDIS® 10th percentiles in all cases.

Table 20: CHIP Utilization of Care: HEDIS® Measures

Measure	Data Collection Source	CY 2013 Rate	HEDIS® 2013 Percentile Rating
HEDIS® Ambulatory Care: Outpatient Visits/1000 member months (total)	Administrative	231.5	★
HEDIS® Ambulatory Care: Emergency Dept. Visits/1000 member months (total)	Administrative	22.7	★
HEDIS® Inpatient Visits/1,000 member months	Administrative	0.9	★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Assessment of calendar year 2013 utilization measures by health plan showed:

- Sendero had the lowest rate of outpatient visits (141.7 visits per 1,000 member-months), and Community Health Choice had the lowest rate of emergency department visits (17.5 visits per 1,000 member-months).
- Driscoll had the highest rates in CHIP for both outpatient visits (263.8 per 1,000 member-months) and emergency department visits (35.7 per 1,000 member-months).

Table 21 presents calendar year 2013 rates for the five AHRQ PDI measures in CHIP. CHIP members had lower rates of asthma admissions, gastroenteritis admissions, and perforated appendix admissions than children in STAR or STAR Health.

Table 21: CHIP Utilization of Care: AHRQ Pediatric Quality Indicators (PDI)

Measure	CY 2013 Rate
Asthma Admission Rate (per 100,000 member months)	6.20
Diabetes Short-Term Complications (per 100,000 member months)	2.23
Gastroenteritis Admission Rate (per 100,000 member months)	1.76
Urinary Tract Infection (per 100,000 member months)	1.31
Perforated Appendix Admission Rate (per 100 appendicitis admissions)	46.08

Assessment of calendar year 2013 PDI measures by health plan showed:

- There were 408 inpatient admissions for asthma among children and adolescents in CHIP. Rates per 100,000 member-months ranged from no admissions in CHRISTUS to 14.61 in FirstCare.
- There were 124 inpatient admissions for diabetes short-term complications among children and adolescents in CHIP. Several managed care organizations had no admissions (Blue Cross Blue Shield, CHRISTUS, Community First, El Paso First, FirstCare and Sendero), while Seton had the highest rate, with 4.26 admissions per 100,000 member months.
- There were a total of 119 inpatient admissions for gastroenteritis among children and adolescents in CHIP. The rates per 100,000 member months ranged from no admissions in Blue Cross Blue Shield, CHRISTUS and Sendero to 5.46 admissions in El Paso First.

Table 22 provides statewide rates for measures of potentially preventable hospital admissions, readmissions within 30 days, emergency department visits, and complications in CHIP. As with the AHRQ measures, CHIP members had lower rates for these measures than children in STAR or STAR Health. The highest rates were observed for potentially preventable emergency department visits (3.95 weighted visits per 1,000 member-months). Rates of potentially preventable admissions, readmissions, and complications were relatively low.

Table 22: CHIP Utilization of Care: 3M Measures of Potentially Preventable Events (PPEs)

3M Measure	Actual PPE Rate per 1,000 Member Months (CY 2013)
Eligible Inpatient Admissions that were Potentially Preventable (PPA)	0.25
Inpatient Admissions that had a Potentially Preventable Readmission within 30 Days (PPR)	0.07
Emergency Department Procedures that were Potentially Preventable (PPV)	3.95
Potentially Preventable Complications (PPC)	0.00

In addition, the measures of potentially preventable admissions, emergency department visits, and complications are pay-for-quality measures in CHIP. The following section shows trends in these measures (2011-2013), comparisons of performance by managed care organization, and the specific reasons associated with potentially preventable events in CHIP.

In CHIP, the rate of potentially preventable admissions remained fairly steady across the three-year period, decreasing slightly between 2012 and 2013 (**Figure 40)**. The rate of potentially preventable emergency department visits increased from 2011 to 2012, from 3.16 to 4.29 visits per 1,000 member-months (**Figure 41**). Trends for potentially preventable complication rates were not available.

Figure 40: CHIP Eligible Inpatient Admissions that were Potentially Preventable (PPA) – Weighted Admissions per 1,000 Member Months, 2011-2013

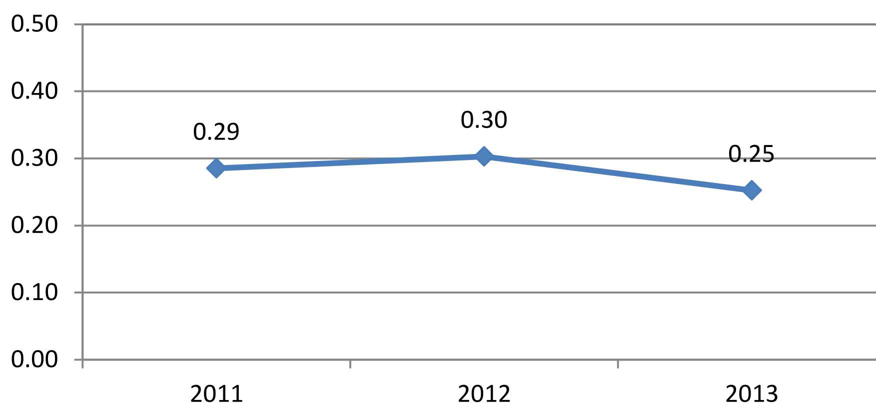
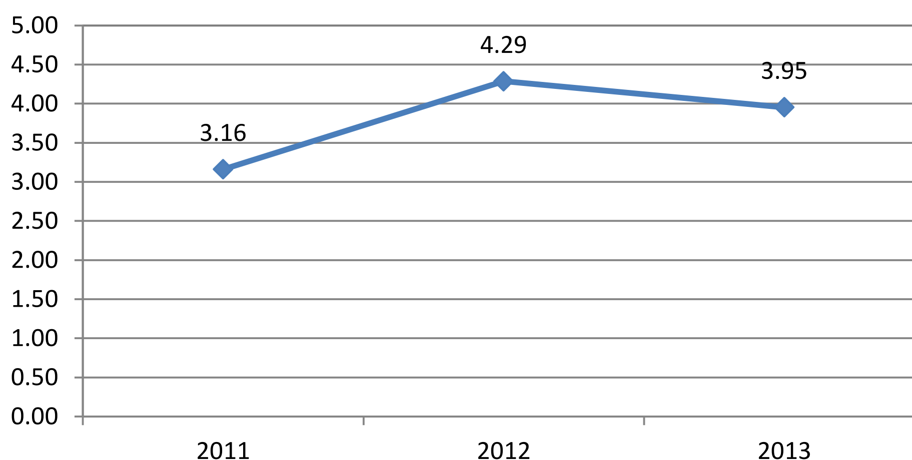


Figure 41: CHIP Emergency Department Procedures that were Potentially Preventable (PPV) – Weighted Visits per 1,000 Member Months, 2011-2013



Comparisons of potentially preventable events across the CHIP managed care organizations are provided in **Figures 42** and **43**. For both measures, Parkland was in the top five performing health plans (five lowest ratios) and Blue Cross Blue Shield, Driscoll, and Sendero were in the bottom five performing health plans (five highest ratios). **Tables 23** and **24** provide the most common reasons for potentially preventable admissions and emergency department visits in CHIP.

Figure 42: CHIP Eligible Inpatient Admissions that were Potentially Preventable (PPA) by Managed Care Organization – Actual-to-Expected Ratios, CY 2013

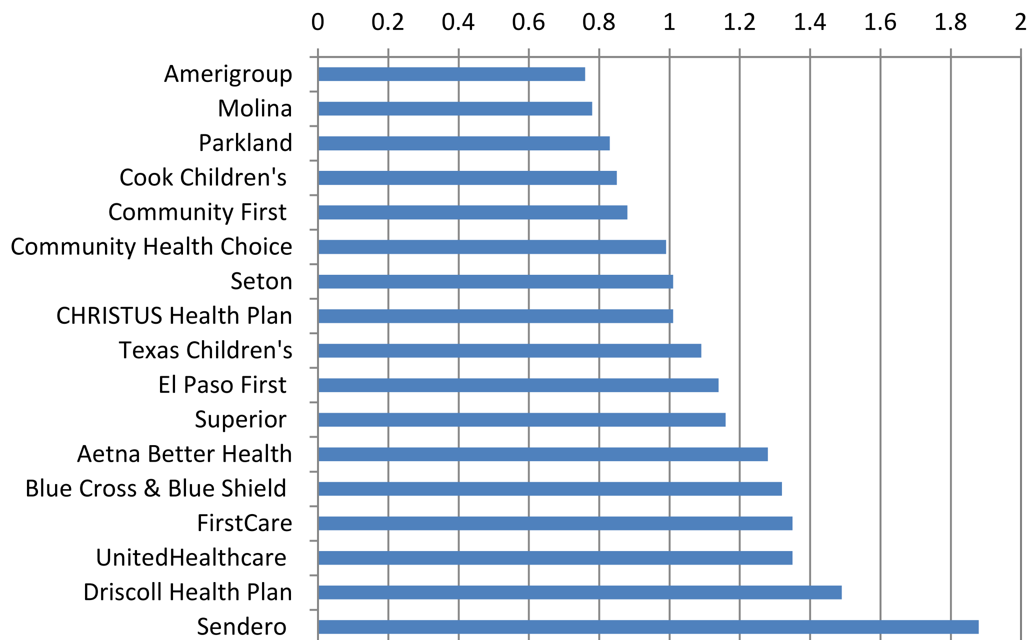


Table 23: CHIP Most Common Reasons for Inpatient Admissions that were Potentially Preventable (PPA), CY 2013

PPA Reason		% of PPAs in CHIP
1	Asthma	18.5%
2	Bipolar Disorders	10.7%
3	Other Pneumonia	10.1%
4	Diabetes	9.8%
5	Cellulitis and Other Bacterial Skin Infections	9.1%
6	Major Depressive Disorders and Other/Unspecified Psychoses	8.1%
7	Seizure	5.5%
8	Non-Bacterial Gastroenteritis, Nausea, and Vomiting	4.7%
9	Infections of Upper Respiratory Tract	4.5%
10	Kidney and Urinary Tract Infections	4.0%

Figure 43: CHIP Emergency Department Procedures that were Potentially Preventable (PPV) – Actual-to-Expected Ratios by Managed Care Organization, CY 2013

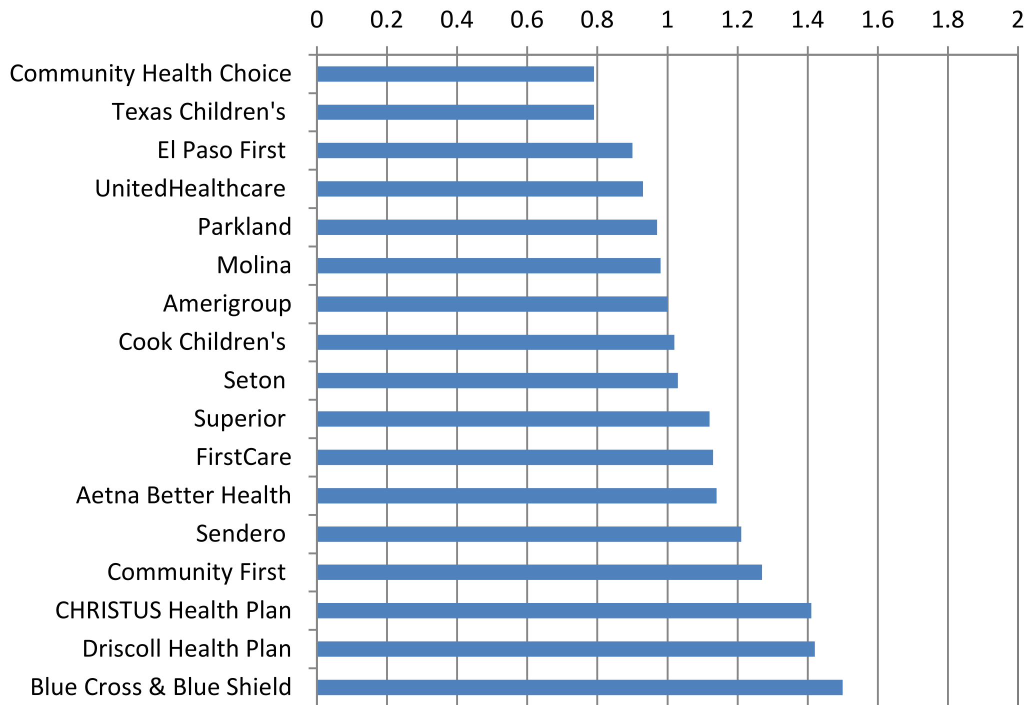


Table 24: CHIP Most Common Reasons for Emergency Department Procedures that were Potentially Preventable (PPV)

	PPV Reason	% of PPVs in CHIP
1	Infections Of Upper Respiratory Tract	21.4%
2	Level II Other Musculoskeletal System & Connective Tissue Diagnoses	7.5%
3	Non-Bacterial Gastroenteritis, Nausea & Vomiting	6.5%
4	Contusion, Open Wound & Other Trauma To Skin & Subcutaneous Tissue	6.2%
5	Abdominal Pain	6.1%
6	Level I Other Ear, Nose, Mouth, Throat & Cranial/Facial Diagnoses	5.4%
7	Signs, Symptoms & Other Factors Influencing Health Status	5.2%
8	Other Skin, Subcutaneous Tissue & Breast Disorders	5.0%
9	Splint, Strapping And Cast Removal	4.3%
10	Viral Illness	3.2%

Effectiveness of Care in CHIP

Table 25 presents statewide results on effectiveness of care in CHIP for pharyngitis testing in children, asthma medication use and management, follow-up after hospitalization for mental illness, follow-up care for children prescribed medications for ADHD, and developmental screening.

As observed in STAR, effectiveness of care for asthma showed good compliance on the percentage of members appropriately prescribed asthma medications, but poor compliance with management of asthma medications. Only 16.9 percent of members with persistent asthma stayed on controller medications for at least 75 percent of their treatment period. Follow-up care for children prescribed ADHD medications was also good at both the initiation and the continuation and maintenance phases.

Key areas for intervention in CHIP are the appropriate treatment of children with pharyngitis and follow-up after hospitalization for mental illness (both 7- and 30-day follow-up). Rates for these measures were below the HEDIS® 50th percentiles in calendar year 2013.

Assessment of calendar year 2013 effectiveness measures by health plan showed:

- As in STAR, *Use of Appropriate Medications for People with Asthma* was the best-performing effectiveness measure in CHIP, with rates among managed care organizations varying little, while *Medication Management for People with Asthma* performed poorly. The percentage of members who remained on their medication for at least 75 percent of their treatment period ranged from 8.7 percent in Seton to 23.1 percent in UnitedHealthcare.
- Rates for *Follow-up Care for Children Prescribed ADHD Medication –Initiation* varied little among CHIP health plans, from 37.7 percent in UnitedHealthcare to 49.3 percent in Community Health Choice. All managed care organizations exceeded the HEDIS® 50th percentile for the continuation and maintenance phase except for Parkland (46.0 percent).
- Only three managed care organizations exceeded the HEDIS® 50th percentile for *Follow-up after Hospitalization for Mental Illness (30 Days)* – Community First (72.3 percent), Driscoll (92.1 percent), and Texas Children's (79.8 percent).

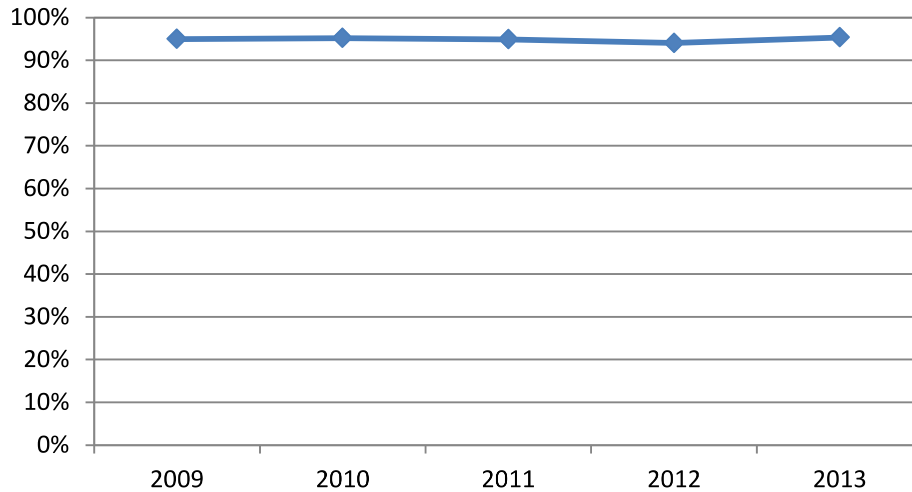
Figure 44 shows trends in *Use of Appropriate Medications for People with Asthma* (all age bands), which is a pay-for-quality measure in CHIP for 2015. CHIP has consistently performed above the HEDIS® 50th percentile for this measure since 2009. In calendar year 2013, all CHIP managed care organizations held positions above the HEDIS® 90th percentile for this measure except FirstCare (86.6 percent).

Table 25: CHIP Effectiveness of Care Measures

Measure	Data collection source	CY 2013 Rate	HHSC Dashboard Standard (2013)	HEDIS® 2013 Percentile Rating[1]
HEDIS® Appropriate Testing for Children with Pharyngitis	Administrative	62.3%	65%	★★
HEDIS® Use of Appropriate Medication for People with Asthma (all ages)	Administrative	95.3%	95%	★★★★★
HEDIS® Asthma Medication Ratio (Total Population Ratio >50%)	Administrative	84.6%	N/A	★★★★★
HEDIS® Medication Management for People with Asthma: Medication Compliance 75% (total)	Administrative	16.9%	N/A	★
HEDIS® Follow-up After Hospitalization for Mental Illness – 30 Days	Administrative	59.9%	67%	★★
HEDIS® Follow-up After Hospitalization for Mental Illness – 7 Days	Administrative	39.3%	41%	★★
HEDIS® Follow-up Care for Children Prescribed ADHD Medication – Continuation and Maintenance	Administrative	58.5%	46%	★★★★
HEDIS® Follow-up Care for Children Prescribed ADHD Medication – Initiation Phase	Administrative	42.8%	45%	★★★
CHIPRA® Developmental Screening in the First Three Years of Life	Administrative	48.9%	N/A	N/A

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Figure 44: CHIP HEDIS® Use of Appropriate Medication for People with Asthma (all ages), 2009-2013



Satisfaction with Care in CHIP

Table 26 presents CAHPS® composites and ratings from the member survey conducted with caregivers of children and adolescents enrolled in CHIP in 2013. The survey found high levels of caregiver satisfaction in regard to getting timely care, communicating with doctors, and health plan information and customer service. Caregiver ratings of their child's personal doctor were approximately equal to those reported in the national CHIP population, while all other ratings exceeded the national means.

The percentage of caregivers in CHIP who "usually" or "always" had positive experiences with *Getting Needed Care* (68.5 percent) was lower than reported nationally (84 percent), which highlights access to care, tests, treatment, and specialists as areas for improvement.

Table 26: CHIP Caregiver Satisfaction with Care, 2013

CAHPS® Measure	CY 2013 Rate	HHSC Dashboard Standard (2013)	CAHPS® Child CHIP National mean 2013
Getting Needed Care	68.5%	N/A	84%
Getting Care Quickly	86.6%	N/A	89%
How Well Doctors Communicate	88.5%	93%	95%
Health Plan Information and Customer Service	81.1%	N/A	86%
Personal Doctor Rating	71.2%	72%	72%
Specialist Rating	74.7%	N/A	67%
Health Plan Rating	72.3%	72%	63%
Health Care Rating	64.2%	N/A	63%

3.4 STAR+PLUS Program

Access and Utilization of Care in STAR+PLUS

Table 27 presents statewide results on measures of ambulatory, inpatient, and mental health utilization in STAR+PLUS. Rates are for all age bands combined. The higher rates of utilization in STAR+PLUS correspond with the more complex health needs of the STAR+PLUS population.

Among the health plans there was little variation in rates of emergency department, inpatient, or mental health utilization. The outpatient utilization rate in Cigna-HealthSpring (700.94 per 1,000 member-months) was greater than in the other health plans by about 100 visits per 1,000 member-months. Cigna-HealthSpring also had the lowest rate of emergency department use. Amerigroup had the lowest rate of outpatient visits (546.64 visits per 1,000 member months) and the highest rate of emergency department visits rate (121.46 visits per 1,000 member months).

Table 27: STAR+PLUS Utilization HEDIS® Measures

HEDIS® Measure	Data Collection Source	CY 2013 Rate	HEDIS® 2013 Percentile Rating[1]
Ambulatory Care: Outpatient Visits per 1,000 member months (total)	Administrative	575.4	★★★★★
Ambulatory Care: Emergency Dept. Visits/1,000 member months (total)	Administrative	117.4	★★★★★
Inpatient Utilization - GH/Acute Care - Total Inpatient Discharges/1,000 (Total)	Administrative	25.4	★★★★★
Mental Health Utilization – Any Service (total)	Administrative	36.6%	★★★★★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Table 28 shows calendar year 2013 results for the AHRQ PQIs in STAR+PLUS. As with other utilization measures, the admissions rates are higher than in other programs, in part due to the complexity of the STAR+PLUS population. The most frequent PQI conditions were COPD and asthma in older adults (2,345 admissions) and congestive heart failure (2,305 admissions). The PQI rates varied little by health plan.

Table 28: STAR+PLUS Utilization of Care: AHRQ Prevention Quality Indicators (PQI)

PQI Measure	Admission Rate per 100,000 Member Months (CY 2013)
Diabetes Short-Term Complications	43.05
Diabetes Long-Term Complications	64.91
COPD and Asthma in Older Adults	177.49
Hypertension	23.31
Congestive Heart Failure	115.79
Dehydration	27.53
Bacterial Pneumonia	65.36
Urinary Tract Infection	46.82
Angina without Procedure	3.52
Uncontrolled Diabetes	9.29

Table 29 provides rates for measures of potentially preventable hospital admissions, readmissions within 30 days, emergency department visits, and complications in STAR+PLUS. As with other utilization measures, STAR+PLUS has the highest rates of potentially preventable events in Texas Medicaid.

Table 29: STAR+PLUS Utilization of Care – 3M Measures of Potentially Preventable Events (PPEs)

3M Measure	Actual PPE Weight per 1,000 Member Months (CY 2013)
Eligible Inpatient Admissions that were Potentially Preventable (PPA)	8.43
Inpatient Admissions that had a Potentially Preventable Readmission within 30 Days (PPR)	5.41
Emergency Department Procedures that were Potentially Preventable (PPV)	23.99
Potentially Preventable Complications (PPC)	1.32

From 2011 to 2013 there were increases in rates of potentially preventable admissions (**Figure 45**) and readmissions within 30 days (**Figure 47**), while the rate of potentially preventable emergency department visits remained constant (**Figure 49**). Rates could not be trended for potentially preventable complications.

The actual-to-expected ratio is used to compare performance among the STAR+PLUS health plans. Performance on potentially preventable admissions varied, with more admissions than expected for UnitedHealthcare and fewer admissions than expected for Cigna-HealthSpring and Superior (**Figure 46**). Actual-to-expected ratios were similar among the health plans for measures of potentially preventable readmissions (**Figure 48**), emergency department visits (**Figure 50**), and complications (**Figure 51**).

Figure 45: STAR+PLUS Eligible Inpatient Admissions that were Potentially Preventable (PPA) – Weighted Admissions per 1,000 Member-Months, CY 2013

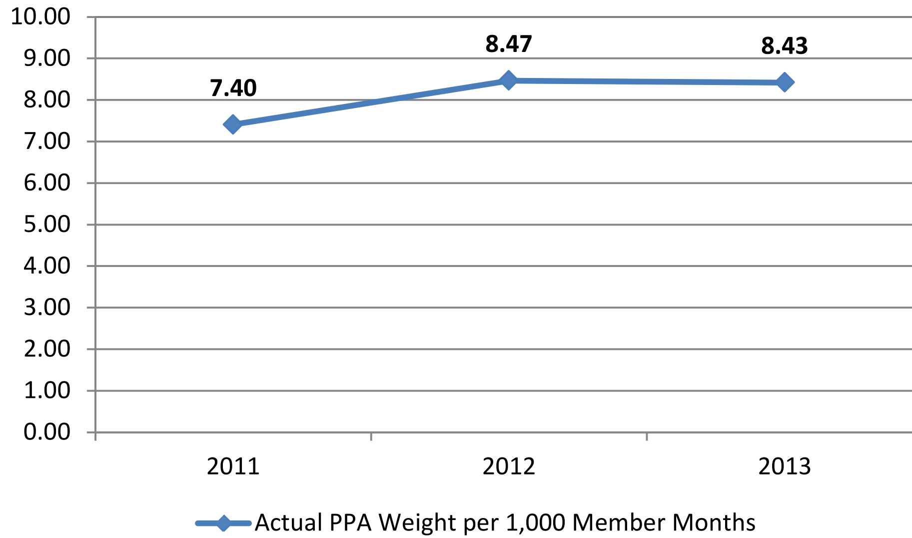


Figure 46: STAR+PLUS Eligible Inpatient Admissions that were Potentially Preventable (PPA) by Managed Care Organization, Actual-to-Expected Ratio, CY 2013

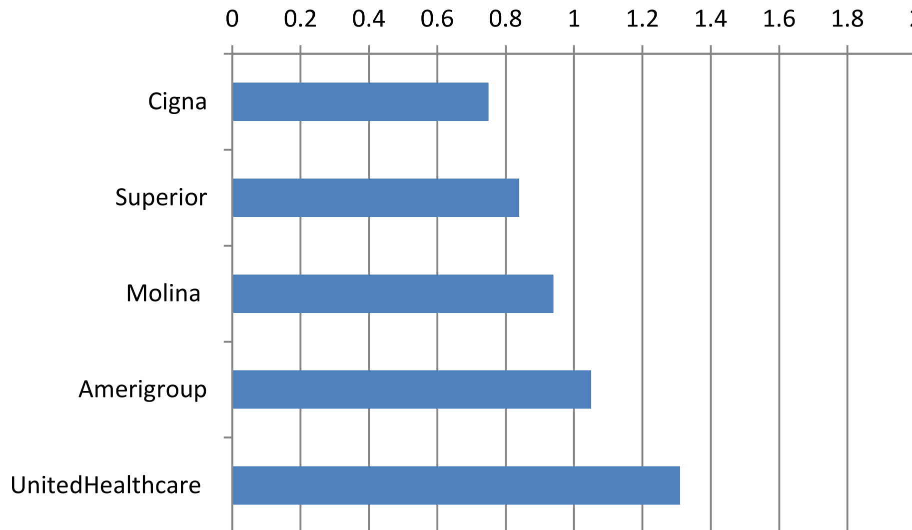


Figure 47: STAR+PLUS Inpatient Admissions that had a Potentially Preventable Readmission (PPR) – Weighted Readmissions per 1,000 Member-Months, CY 2013

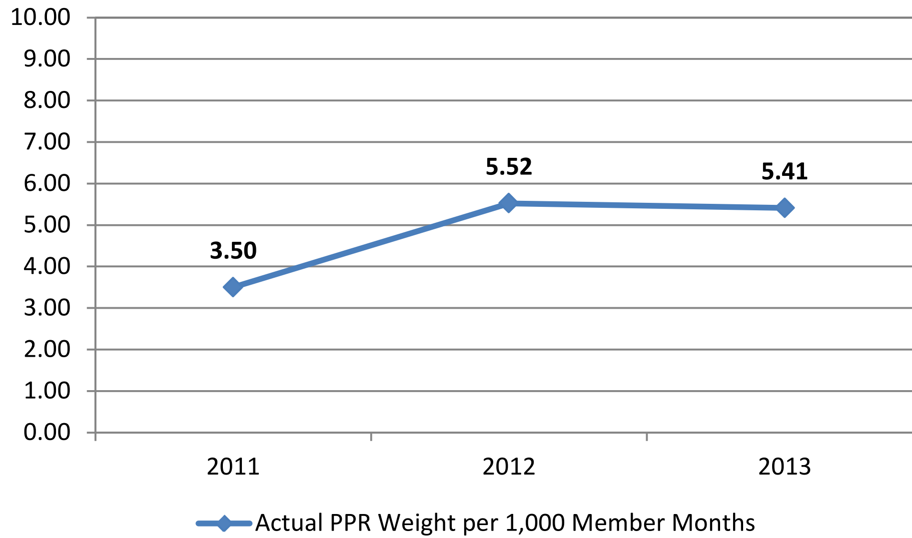


Figure 48: STAR+PLUS Inpatient Admissions that had a Potentially Preventable Readmission (PPR) by Managed Care Organization, Actual-to-Expected Ratio, CY 2013

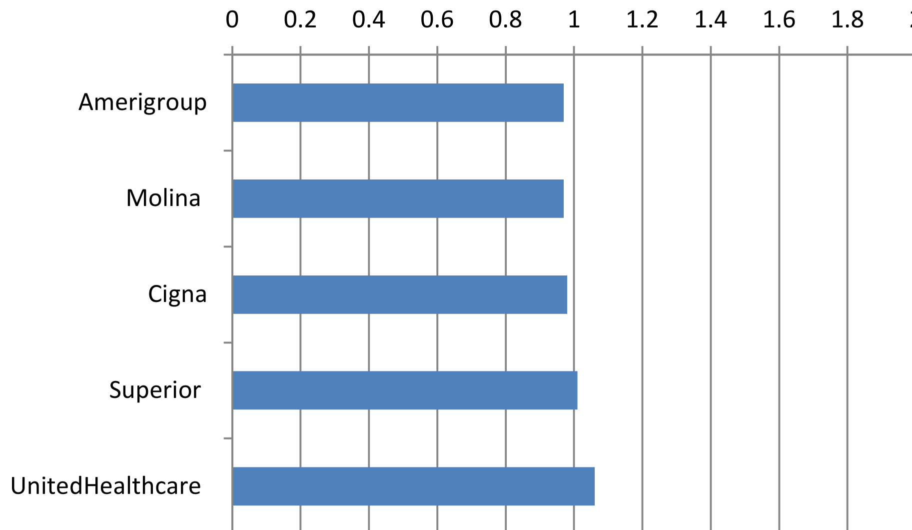


Figure 49: STAR+PLUS Emergency Department Procedures that were Potentially Preventable (PPV) - Weighted Visits per 1,000 Member-Months, CY 2013

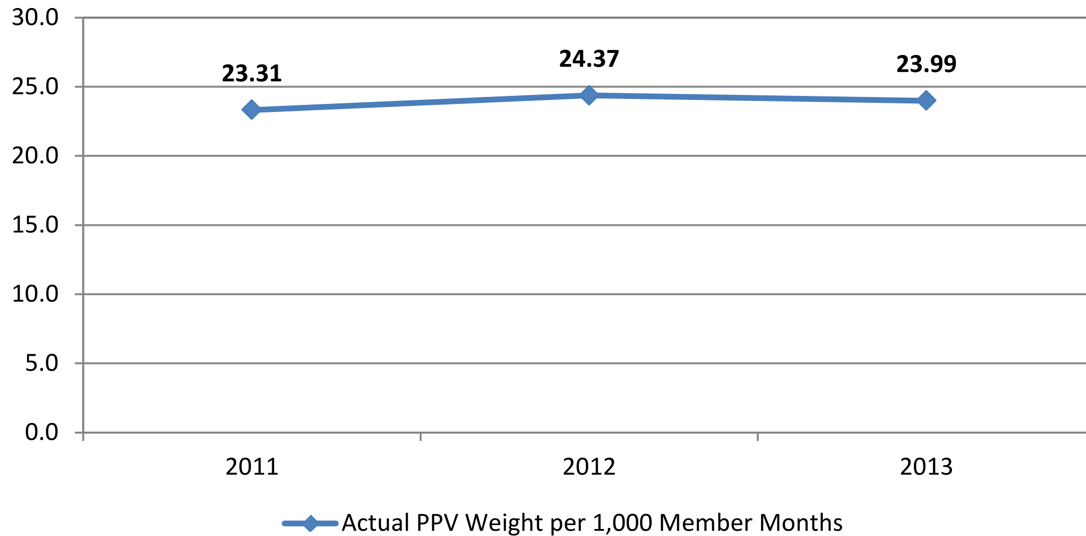


Figure 50: STAR+PLUS Emergency Department Procedures that were Potentially Preventable (PPV) by Managed Care Organization, Actual-to-Expected Ratio, CY 2013

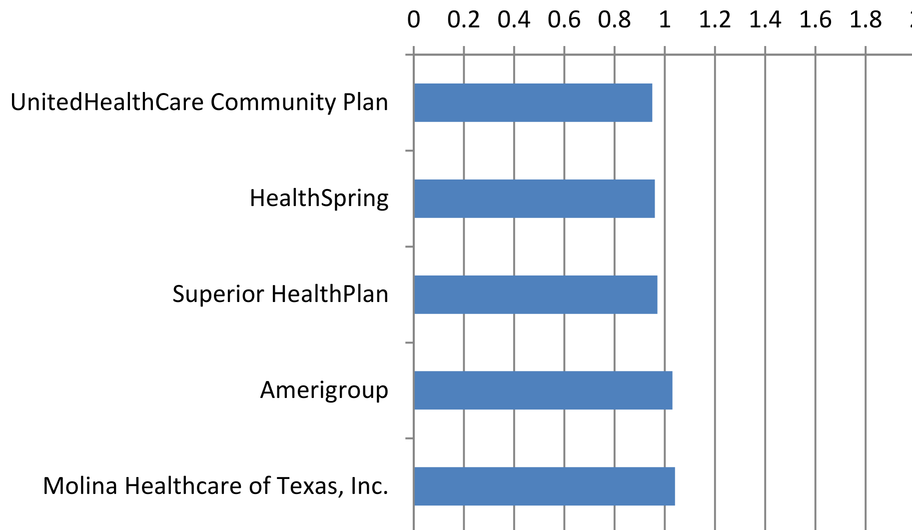
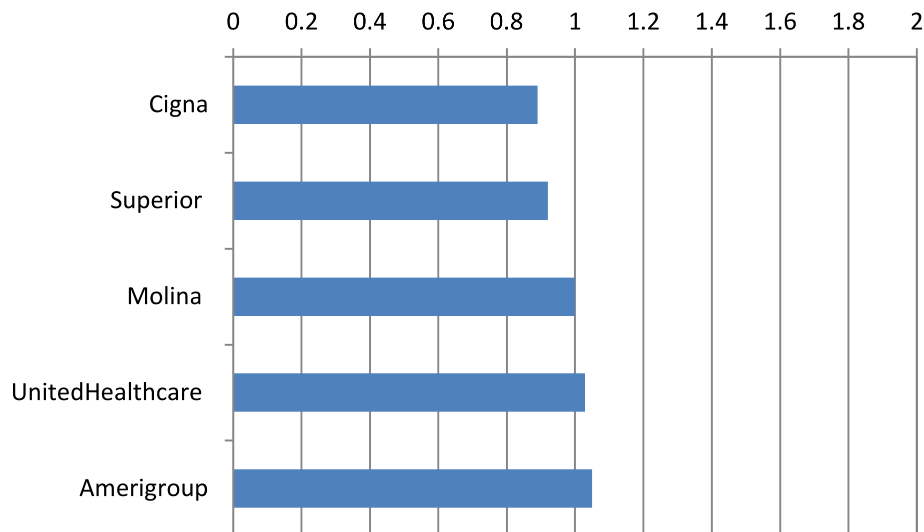


Figure 51: STAR+PLUS Potentially Preventable Complications (PPC) by Managed Care Organization, Actual-to-Expected Ratio, CY 2013



The following tables list the most common reasons for potentially preventable admissions (**Table 30**), readmissions within 30 days (**Table 31**), emergency department visits (**Table 32**), and complications (**Table 33**) in STAR+PLUS. Overall, reasons for admission in STAR+PLUS had a more even distribution than in STAR, with smaller differences between the top ten reasons.

- The most common diagnoses associated with potentially preventable admissions were COPD (11.2 percent) and heart failure (9.7 percent), which corresponds with findings on AHRQ PQI measures in STAR+PLUS.
- The most common type of potentially preventable readmission in STAR+PLUS was mental health or substance abuse readmission following an initial admission for substance abuse or mental health diagnosis (30.9 percent), which is greater than what was observed in STAR (22.8 percent).
- The most common diagnoses associated with potentially preventable emergency department visits were "Level II Other Musculoskeletal System & Connective Tissue Diagnoses" (9.0 percent) and infections of the upper respiratory tract (7.8 percent).
- Renal failure with dialysis was the most common reason for potentially preventable complications, representing nearly one-fifth of the complications in STAR+PLUS (17.6 percent).

Table 30: STAR+PLUS Most Common Reasons for Inpatient Admissions that were Potentially Preventable (PPA), CY 2013

PPA Reason		% of PPAs in STAR+PLUS
1	Chronic Obstructive Pulmonary Disease	11.2%
2	Heart Failure	9.7%
3	Cellulitis and Other Bacterial Skin Infections	8.1%
4	Schizophrenia	8.1%
5	Other Pneumonia	7.5%
6	Sickle Cell Anemia Crisis	5.7%
7	Diabetes	5.5%
8	Bipolar Disorders	5.4%
9	Seizure	5.3%
10	Kidney and Urinary Tract Infections	5.1%

Table 31: STAR+PLUS Reasons for Inpatient Admissions that had a Potentially Preventable Readmission within 30 Days (PPR), CY 2013

PPR Reason		% of PPRs in STAR+PLUS
1	Mental health or substance abuse readmission following an initial admission for a substance abuse or mental health diagnosis	30.9%
2	Medical readmission for acute medical condition or complication that may be related to or may have resulted from care during initial admission or in post-discharge period after initial admission	25.2%
3	Medical readmission for a continuation or recurrence of the reason for the initial admission, or for a closely related condition	23.3%
4	All other readmissions for a chronic problem that may be related to care either during or after the initial admission	7.5%
5	Ambulatory care sensitive conditions as designated by AHRQ	4.8%
6	Readmission for mental health reasons following an initial admission for a non-mental health, non-substance abuse reason	4.1%
7	Readmission for surgical procedure to address a complication that may be related to or may have resulted from care during the initial admission	1.9%
8	Readmission for a substance abuse diagnosis reason following an initial admission for a non-mental health, non-substance abuse reason	1.2%
9	Readmission for surgical procedure to address a continuation or a recurrence of the problem causing the initial admission	1.1%

Table 32: STAR+PLUS Most Common Reasons for Emergency Department Procedures that were Potentially Preventable (PPV), CY 2013

PPV Reason		% of PPVs in STAR+PLUS
1	Level II Other Musculoskeletal System & Connective Tissue Diagnoses	9.0%
2	Infections Of Upper Respiratory Tract	7.8%
3	Chest Pain	7.0%
4	Abdominal Pain	6.9%
5	Lumbar Disc Disease	4.8%
6	Contusion, Open Wound & Other Trauma To Skin & Subcutaneous Tissue	3.9%
7	Signs, Symptoms & Other Factors Influencing Health Status	3.5%
8	Acute Lower Urinary Tract Infections	3.4%
9	Dental & Oral Diseases & Injuries	3.3%
10	Non-Bacterial Gastroenteritis, Nausea & Vomiting	3.2%

Table 33: STAR+PLUS Most Common Reasons for Potentially Preventable Complications (PPC), CY 2013

PPC Reason		% of PPCs in STAR+PLUS
1	Renal Failure without Dialysis	17.6%
2	Acute Pulmonary Edema and Respiratory Failure without Ventilation	9.4%
3	Urinary Tract Infection	9.0%
4	Septicemia & Severe Infections	6.4%
5	Shock	5.4%
6	Pneumonia & Other Lung Infections	4.6%
7	Ventricular Fibrillation/Cardiac Arrest	4.0%
8	Acute Pulmonary Edema and Respiratory Failure with Ventilation	3.2%
9	Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Procedure	3.1%
10	Clostridium Difficile Colitis	2.1%

Effectiveness of Care in STAR+PLUS

Table 34 provides statewide results on effectiveness of care in STAR+PLUS for asthma medication use and management, comprehensive diabetes care, cholesterol management, and adult BMI assessment. **Table 35** provides results for behavioral health care effectiveness measures, including follow-up after hospitalization for mental illness and antidepressant medication management.

Table 34: STAR+PLUS Effectiveness of Care Measures, CY 2013

HEDIS® Measure	Data collection source	CY 2013 Rate	HHSC Dashboard Standard (2013)	HEDIS® 2014 Percentile Rating[1]
Use of Appropriate Medications for People with Asthma - Total	Administrative	80.5%	90%	★
Asthma Medication Ratio (Total Population Ratio >50%)	Administrative	61.6%	N/A	★★
Medication Management for People with Asthma: Medication Compliance 75% (total)	Administrative	36.5%	N/A	★★★★★
Comprehensive Diabetes Care – HbA1c Testing	Hybrid	83.0%	82%	★★
Comprehensive Diabetes Care – Eye Exams	Administrative	42.1%	53%	★
Comprehensive Diabetes Care – LDL-C Screening	Hybrid	80.1%	76%	★★★
Comprehensive Diabetes Care – Medical Attention for Nephropathy	Administrative	82.1%	78%	★★★
Comprehensive Diabetes Care - LDL-C Control (LDL-C<100 mg/dL)	Hybrid	29.2%	37%	★★
Comprehensive Diabetes Care - HbA1c Control (<8%)	Hybrid	30.4%	48%	★
Cholesterol Management for Patients with Cardiovascular Conditions: LDL-C Screening	Administrative	81.6%	76%	★★★
Adult BMI Assessment	Hybrid	73.9%	46%	★★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Table 35: STAR+PLUS – Effectiveness of Behavioral Health Care Measures, CY 2013

HEDIS® Measure	Data collection source	CY 2013 Rate	HHSC Dashboard Standard (2013)	HEDIS® 2014 Percentile Rating[1]
Follow-up After Hospitalization for Mental Illness – 30 Days	Administrative	51.3%	55%	★
Follow-up After Hospitalization for Mental Illness – 7 Days	Administrative	29.8%	31%	★
Antidepressant Medication Management - Effective Acute Phase Treatment	Administrative	43.7%	51%	★
Antidepressant Medication Management - Effective Continuation Phase Treatment	Administrative	30.5%	36%	★★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

With a few exceptions, compliance on the effectiveness measures was low in STAR+PLUS in relation to the national HEDIS® percentiles. Rates were below the HEDIS® 50th percentiles for *Follow-up After Hospitalization for Mental Illness*, with less than one-third of STAR+PLUS members receiving 7-day follow-up, and half receiving 30-day follow-up. Some variation was observed among STAR+PLUS health plans for this measure, with rates of 7-day follow-up ranging from 21.7 percent (Molina) to 46.1 percent (UnitedHealthcare) (the only plan to exceed the HEDIS® 50th percentile). Rates of 30-day follow-up ranged from 45.2 percent (Molina) to 67.5 percent (UnitedHealthcare).

Another area for improvement is diabetes care, in which STAR+PLUS had low rates for eye exams and HbA1c control. Hybrid studies showed that less than one-third of adult STAR+PLUS members with diabetes had adequate control of HbA1c. All STAR+PLUS health plans performed below the HEDIS® 50th percentile for this measure. The rate of LDL-C control was also low (29.2 percent), falling between the 25th and 49th HEDIS® percentile. Rates among the STAR+PLUS health plans varied for LDL-C control, ranging from 17.7 percent (Molina) to 39.2 percent (Superior).

A number of effectiveness measures are pay-for-quality measures in STAR+PLUS. These include *Use of Appropriate Medications for People with Asthma*, *Comprehensive Diabetes Care – HbA1c Control*, and *Antidepressant Medication Management*. The following figures show trends on these measures in STAR+PLUS for all available years between 2009 and 2013 (**Figures 52** to **55**).

Performance in STAR+PLUS has been consistently below the HEDIS® 50th percentile for HbA1c control among diabetic members, and for the acute phase of antidepressant management. None of the measures show any notable trends of improvement.

Figure 52: STAR+PLUS HEDIS® Use of Appropriate Medications for People with Asthma, 2009-2013

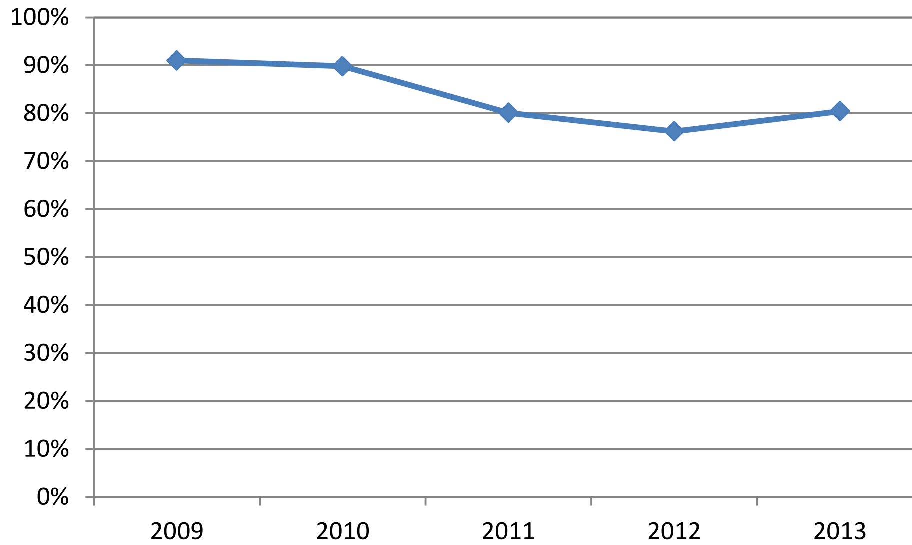


Figure 53: STAR+PLUS HEDIS® Comprehensive Diabetes Care HbA1c Control, 2011-2013

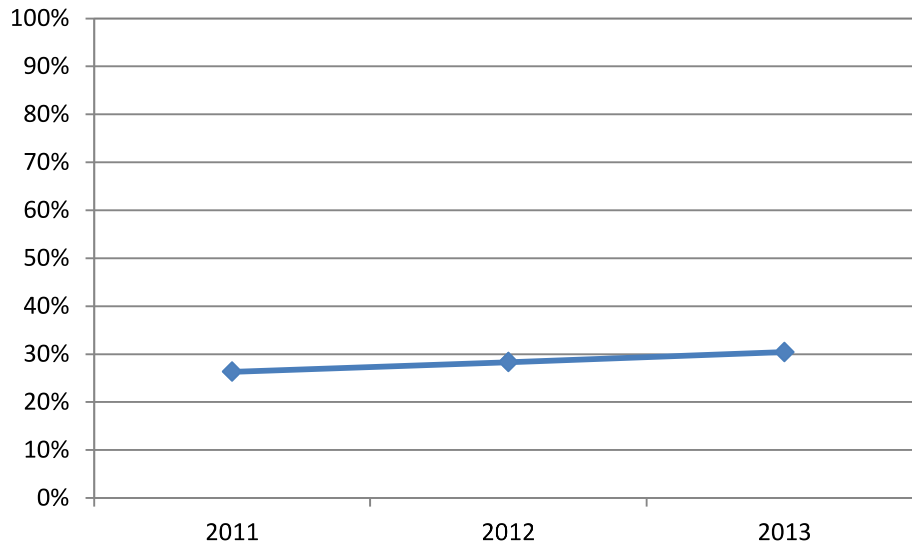


Figure 54: STAR+PLUS HEDIS® Antidepressant Medication Management Acute Phase Treatment, 2010-2013

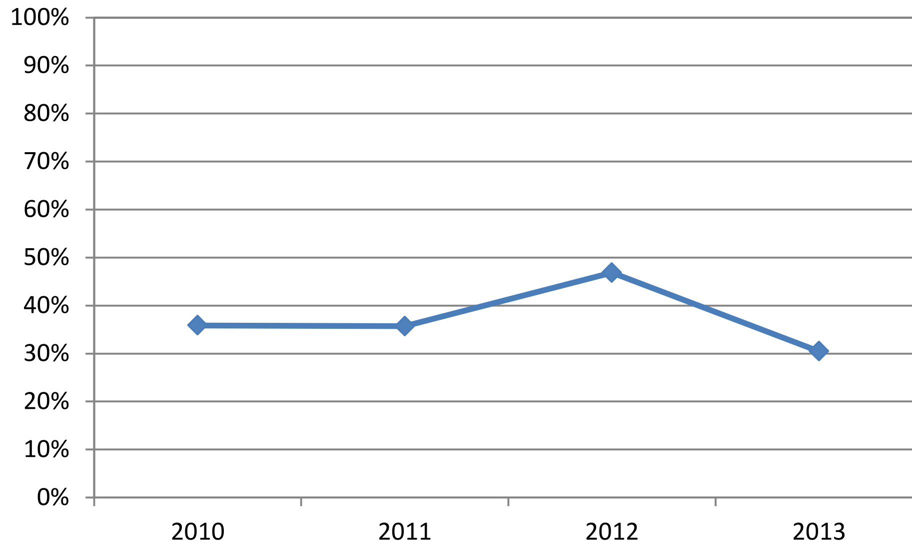
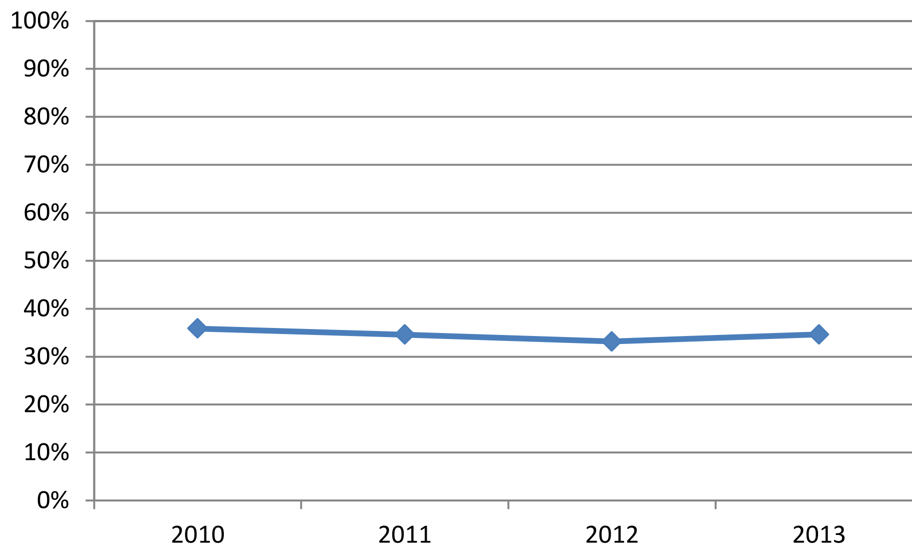


Figure 55: STAR+PLUS HEDIS® Antidepressant Medication Management Continuation Phase Treatment, 2010-2013



Satisfaction with Care in STAR+PLUS

Table 36 provides results from the CAHPS® survey conducted with adults in STAR+PLUS in 2014. Rates on measures of getting timely care, doctors' communication, and health plan information and customer service were similar to those observed in the national Medicaid population. As with the other Texas Medicaid programs, the rate for *Getting Needed Care* was below the national average, with 65.7 percent of STAR+PLUS members having positive experiences with access to care, tests, treatment, and specialists. Ratings of care were generally positive in STAR+PLUS.

Table 36: STAR+PLUS Member Satisfaction with Care, 2014

CAHPS® Measure	CY 2014 Rate	HHSC Dashboard 2014	CAHPS® Medicaid Rate
Getting Needed Care	65.7%	N/A	81%
Getting Care Quickly	78.7%	N/A	82%
How Well Doctors Communicate	86.2%	89%	90%
Health Plan Information and Customer Service	82.3%	N/A	86%
Personal Doctor Rating	66.7%	64%	64%
Specialist Rating	70.2%	N/A	64%
Health Plan Rating	56.5%	56%	57%
Health Care Rating	52.4%	N/A	51%

Table 36 provides results from the ECHO® behavioral health survey conducted with adults in STAR+PLUS in 2013. The domains in most need of improvement were getting information about treatment options and the timeliness of behavioral health care.

Table 37: STAR+PLUS Behavioral Health Member Satisfaction with Care, 2013

ECHO® Measure	CY 2013 Mean	Standard Deviation	Range
Getting Treatment Quickly	2.14	0.78	1.00-3.00
How Well Clinicians Communicate	2.39	0.64	1.00-3.00
Getting Treatment and Information from the Plan	2.33	0.70	1.00-3.00
Getting Treatment and Information from the Behavioral Health Organization	2.28	0.76	1.00-3.00
Information about Treatment Options	0.51	0.44	0.00-1.00
Perceived Improvement	2.66	0.84	1.00-4.00
Global Ratings – Treatment	8.17	2.46	0.00-10.00
Global Ratings – Health Plan (Managed Care Organizations only)	8.02	2.70	0.00-10.00

3.5. STAR Health Program

Access and Utilization of Care in STAR Health

Table 38 provides results on measures of access to well-care for children and adolescents in STAR Health. In 2013, rates for *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of* Life and *Adolescent Well-Care* surpassed the 2012 HHSC Dashboard Standards for STAR Health, as well as the HEDIS® 90th percentile ratings.[xi] The STAR Health rate for well-care visits among members in the first 15 months of life fell below the HEDIS® 25th percentile.

Table 38: STAR Health Access to Care Measures

Measure	Data Collection Source	CY 2013 Rate	HHSC Dashboard Standard (2012)	HEDIS® 2014 Percentile Rating[1]
HEDIS® Well-Child Visits in the First 15 Months of Life	Administrative	52.1%	53%	★
HEDIS® Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	Administrative	89.2%	70%	★★★★★
HEDIS® Adolescent Well-Care Visits	Administrative	74.0%	45%	★★★★★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

[xi] The 2012 HHSC Dashboard standards for STAR Health are used because 2013 standards are not available.

Figures 56 and **57** show trends in well-child visits for STAR Health members three to six years old and for adolescents in STAR Health from 2009 to 2013. Rates for both well-care measures have been steadily rising from 2009 through 2013 and have remained above the HEDIS® 50th percentile since 2011.

Figure 56: STAR Health HEDIS® Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life, 2009-2013

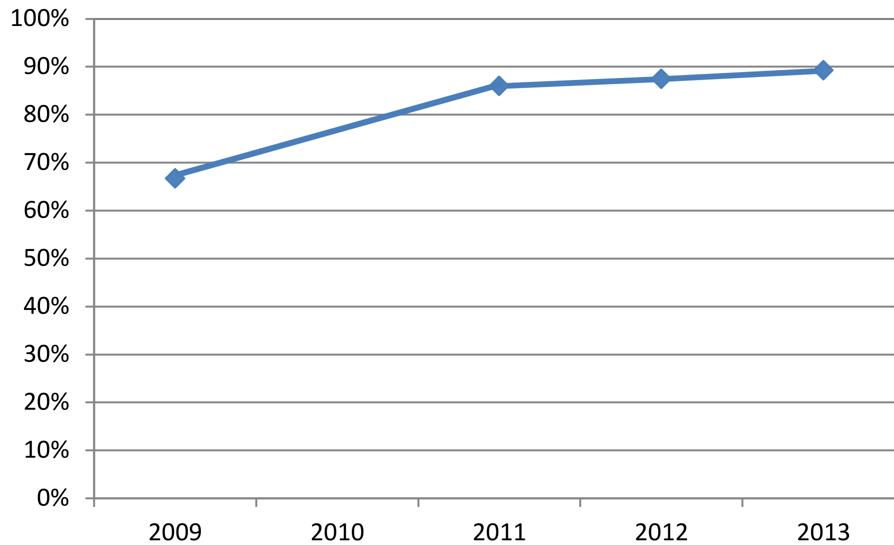


Figure 57: STAR Health HEDIS® Adolescent Well-Care Visits 2009-2013

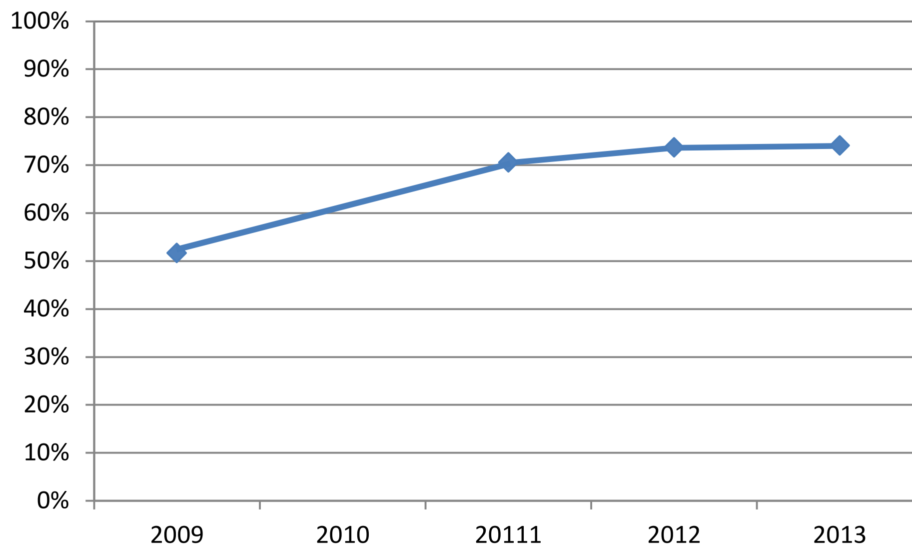


Table 39 presents results for the HEDIS® *Ambulatory Care* measure and the HEDIS® *Mental Health Utilization* measure in STAR Health for 2013. For measures of outpatient visits and mental health utilization, rates in STAR Health surpassed the HEDIS® 50th percentiles. Conversely, STAR Health members had a lower rate of emergency department utilization than the national Medicaid population.

Table 39: STAR Health Utilization of Care - HEDIS® Measures, CY 2013

Measure	Data Collection Source	CY 2013 Rate	HEDIS® 2014 Percentile Rating[1]
HEDIS® Ambulatory Care: Outpatient Visits/1000 member months (total)	Administrative	458.84	★★★★
HEDIS® Ambulatory Care: Emergency Dept. Visits/1000 member months (total)	Administrative	57.79	★★
HEDIS® Mental Health Utilization – Any Service (total)	Administrative	86.73%	★★★★★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Table 40 presents calendar year 2013 rates for the five AHRQ PDI measures in STAR Health. In comparison to other programs, STAR Health demonstrates a markedly higher rate of perforated appendix admissions and slightly higher rates of admission for diabetes short-term complications and urinary tract infection.

Table 40: STAR Health Utilization of Care: AHRQ Pediatric Quality Indicators (PDI)

PDI Measure	CY 2013 Rate
Asthma (per 100,000 member months)	8.68
Diabetes Short-Term Complications (per 100,000 member months)	9.29
Gastroenteritis (per 100,000 member months)	3.47
Urinary Tract Infection (per 100,000 member months)	6.65
Perforated Appendix (per 100 appendicitis admissions)	76.47

Measures of potentially preventable hospital admissions, readmissions within 30 days, emergency department visits, and complications are shown in **Table 41**. Compared to the STAR program, STAR Health has a slightly higher rate of potentially preventable admissions (3.35 per 1,000 member-months, compared to 0.61 per 1,000 member-months). Trends in these measures from 2011 to 2013 in STAR Health showed increased rates of potentially preventable admissions (**Figure 58**) and emergency department visits (**Figure 60**), and decreased rates of potentially preventable readmissions (**Figure 59**).

Table 41: STAR Health Utilization of Care: 3M Measures of Potentially Preventable Events (PPEs), CY 2013

3M Measure	Data collection source	Actual PPE Weight per 1,000 Member-Months
Eligible Inpatient Admissions that were Potentially Preventable (PPA)	Administrative	3.35
Inpatient Admissions that had a Potentially Preventable Readmission within 30 Days (PPR)	Administrative	1.43
Emergency Department Procedures that were Potentially Preventable (PPV)	Administrative	10.32
Potentially Preventable Complications (PPC)	Administrative	0.02

Figure 58: STAR Health Eligible Inpatient Admissions that were Potentially Preventable (PPA) – Weighted Admissions per 1,000 Member-Months, CY 2013

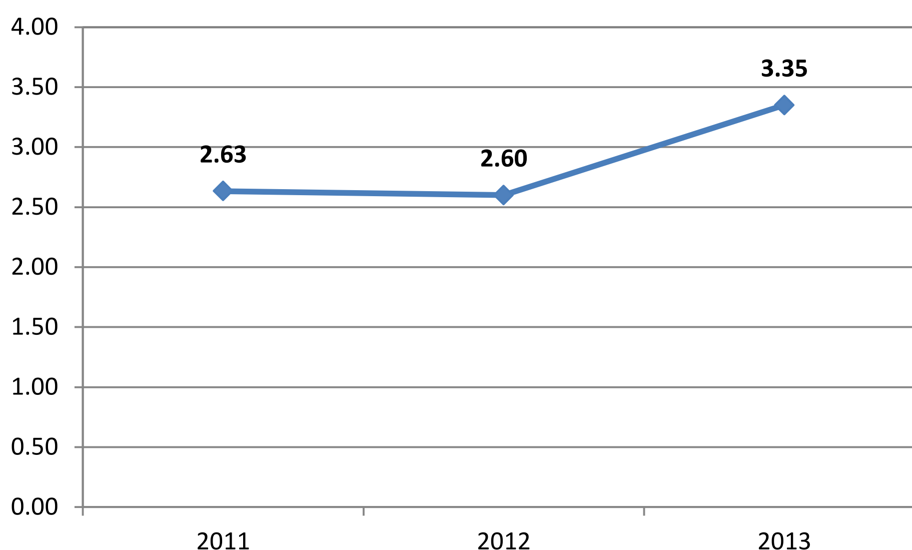


Figure 59: STAR Health Inpatient Admissions that had a Potentially Preventable Readmission within 30 Days (PPR) – Weighted Readmissions per 1,000 Member-Months, CY 2013

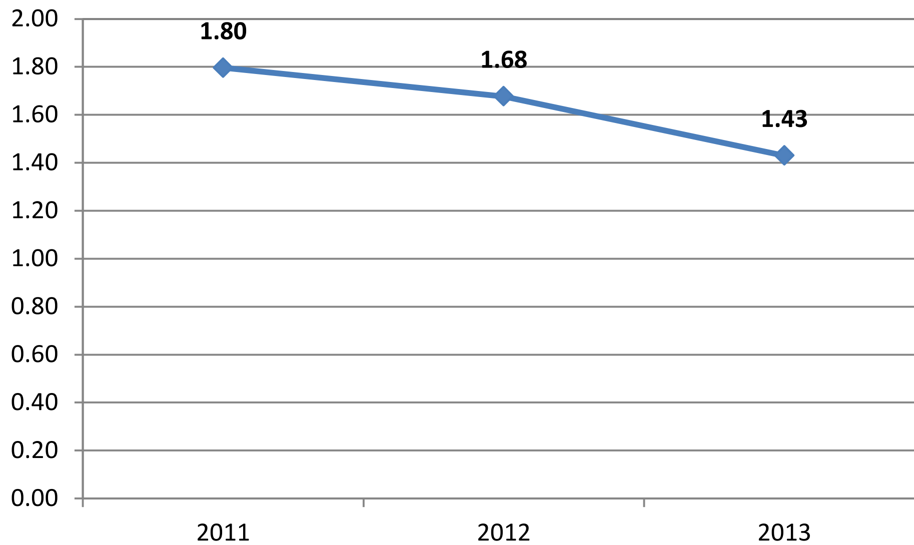
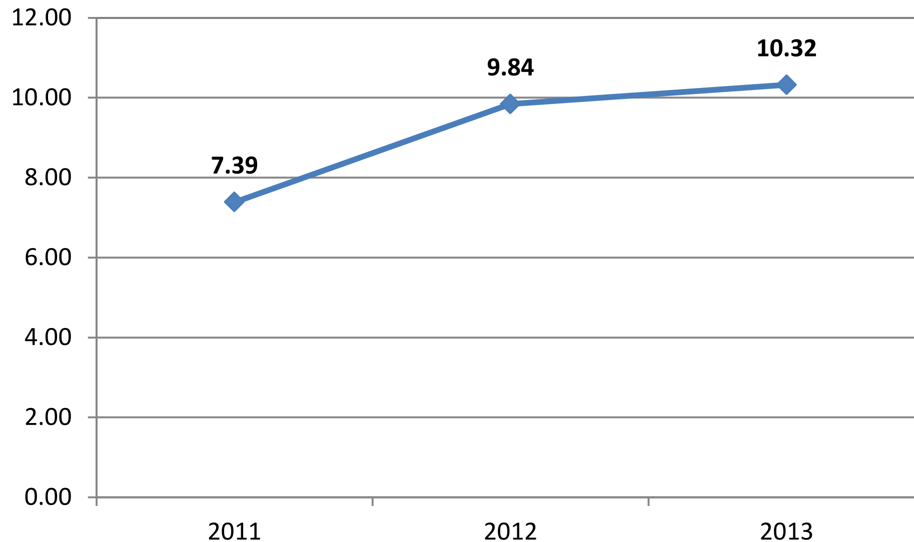


Figure 60: STAR Health Emergency Department Procedures that were Potentially Preventable (PPV) – Weighted Visits per 1,000 Member-Months, CY 2013



Tables 42 through **44** show the most common reasons for potentially preventable events in STAR Health in 2013. Bipolar disorders were by far the most common conditions associated with potentially preventable admissions, accounting for nearly two-thirds of all potentially preventable admissions (63.3 percent). Mental and behavioral health conditions were also strongly associated with potentially preventable readmissions in STAR Health, with 88.5 percent of readmissions being for mental health or substance abuse diagnoses.

Table 42: STAR Health Most Common Reasons for Inpatient Admissions that were Potentially Preventable (PPA), CY 2013

PPA Reason		% of PPAs in STAR Health
1	Bipolar Disorders	63.3%
2	Major Depressive Disorders and Other/Unspecified Psychoses	12.3%
3	Seizure	3.5%
4	Other Pneumonia	3.2%
5	Diabetes	2.4%
6	Asthma	2.1%
7	Cellulitis and other Bacterial Skin Infections	2.0%
8	Depression except Major Depressive Disorder	1.3%
9	Kidney and Urinary Tract Infections	1.3%
10	Childhood Behavioral Disorders	1.3%

Table 43: STAR Health Reasons for Inpatient Admissions that had a Potentially Preventable Readmission within 30 Days (PPR), CY 2013

PPR Reason		% of PPRs in STAR Health
1	Mental health or substance abuse readmission following an initial admission for a substance abuse or mental health diagnosis	88.5%
2	Medical readmission for a continuation or recurrence of the reason for the initial admission, or for a closely related condition	4.4%
3	Medical readmission for acute medical condition or complication that may be related to or may have resulted from care during initial admission or in post-discharge period after initial admission	3.9%
4	All other readmissions for a chronic problem that may be related to care either during or after the initial admission	1.9%
5	Readmission for surgical procedure to address a complication that may be related to or may have resulted from care during the initial admission	0.5%
6	Ambulatory care sensitive conditions as designated by AHRQ	0.4%
7	Readmission for mental health reasons following an initial admission for a non-mental health, non-substance abuse reason	0.3%
8	Readmission for surgical procedure to address a continuation or a recurrence of the problem causing the initial admission	0.1%

As in the STAR program, one-quarter of potentially preventable emergency department visits in STAR Health were due to infections of the upper respiratory tract. There were only 11 unique members with potentially preventable complications in STAR Health in 2013 (table not shown).

Table 44: STAR Health Most Common Reasons for Emergency Department Visits that were Potentially Preventable (PPV), CY 2013

PPV Reason		% of PPVs in STAR Health
1	Infections Of Upper Respiratory Tract	26.0%
2	Signs, Symptoms & Other Factors Influencing Health Status	6.8%
3	Contusion, Open Wound & Other Trauma To Skin & Subcutaneous Tissue	6.7%
4	Other Skin, Subcutaneous Tissue & Breast Disorders	5.9%
5	Non-Bacterial Gastroenteritis, Nausea & Vomiting	5.3%
6	Level II Other Musculoskeletal System & Connective Tissue Diagnoses	4.8%
7	Level I Other Ear, Nose, Mouth, Throat & Cranial/Facial Diagnoses	4.0%
8	Abdominal Pain	3.3%
9	Viral Illness	3.2%
10	Cellulitis & Other Bacterial Skin Infections	2.7%

Effectiveness of Care in STAR Health

Table 45 presents statewide results on effectiveness of care in STAR Health for pharyngitis testing in children, asthma medication use and management, follow-up after hospitalization for mental illness, follow-up care for children prescribed medications for ADHD, and developmental screening.

STAR Health performed in the HEDIS® 75th percentile on measures of appropriate medications for asthma and asthma management, follow-up care for ADHD (both initiation and continuation phases), and follow-up within 30 days after hospitalization for mental illness.

As in the STAR program, there is need for improvement in the appropriate testing for children with pharyngitis. In calendar year 2013, only 53.5 percent of STAR Health members with pharyngitis had appropriate testing, which falls below the HEDIS® 25th percentile for this measure.

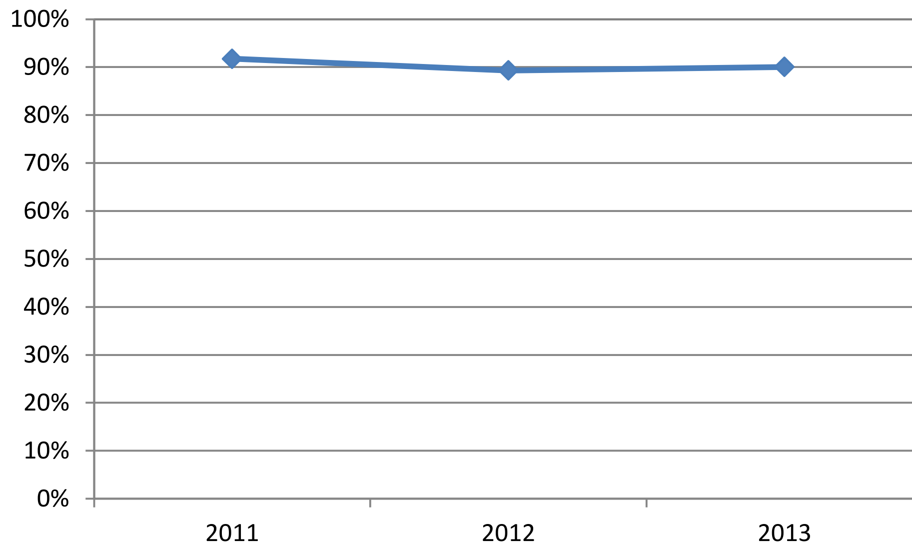
Table 45: STAR Health Effectiveness of Care Measures

Measure	Data collection source	CY 2013 Rate	HHSC Dashboard Standard (2012)	HEDIS® 2014 Percentile Rating[1]
HEDIS® Appropriate Testing for Children with Pharyngitis	Administrative	53.5%	N/A	★
HEDIS® Use of Appropriate Medication for People with Asthma (all ages)	Administrative	90.0%	N/A	★★★★
HEDIS® Asthma Medication Ratio (Total Population Ratio >50%)	Administrative	83.3%	N/A	★★★★★
HEDIS® Medication Management for People with Asthma: Medication Compliance 75% (total)	Administrative	43.4%	N/A	★★★★
HEDIS® Follow-up After Hospitalization for Mental Illness – 30 Days	Administrative	85.8%	63%	★★★★★
HEDIS® Follow-up After Hospitalization for Mental Illness – 7 Days	Administrative	59.1%	55%	★★★★
HEDIS® Follow-up Care for Children Prescribed ADHD Medication – Continuation and Maintenance	Administrative	92.7%	42%	★★★★★
HEDIS® Follow-up Care for Children Prescribed ADHD Medication – Initiation Phase	Administrative	87.8%	35%	★★★★★
CHIPRA® Developmental Screening in the First Three Years of Life	Administrative	49.4%	N/A	N/A

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Figure 61 presents trends in HEDIS® *Use of Appropriate Medications for People with Asthma* in STAR Health from 2011 to 2013. Rates on this measure remained steady across the three-year period, exceeding the HEDIS® 50th percentile in all years.

Figure 61: STAR Health HEDIS® Use of Appropriate Medication for People with Asthma (total), 2011-2013



Satisfaction with Care in STAR Health

Findings from the survey with caregivers of STAR Health members in 2014 showed high rates of satisfaction with timeliness of care and doctors' communication, and lower rates of satisfaction with getting needed care (**Table 46**). This suggests a need for improved access to care, tests, treatment, and specialist care in STAR Health. Performance on all four CAHPS® ratings measures was below the national Medicaid means. In particular, 61.2 percent of caregivers rated their child's specialist a "9"or "10" on a scale from 0 to 10, compared with 70 percent nationally.

Table 46: STAR Health Satisfaction with Care Measures

CAHPS® Measure	CY 2014 Rate	HHSC Dashboard 2014	CAHPS® Child Medicaid Rate 2014
Getting Needed Care	72.3%	N/A	85%
Getting Care Quickly	89.4%	N/A	90%
How Well Doctors Communicate	91.4%	94%	93%
Health Plan Information and Customer Service	LD[1]	N/A	87%
Rating of Personal Doctor '9' or '10'	71.3%	74%	73%
Rating of Specialist '9' or '10'	61.2%	N/A	70%
Rating of Health Plan '9' or '10'	60.2%	71%	67%
Rating of All Health Care '9' or '10'	61.2%	N/A	66%

[1] LD signifies Low Denominator (N < 100)

3.6. NorthSTAR Program

Effectiveness of Care in NorthSTAR

Table 47 presents results on effectiveness of behavioral health care in NorthSTAR in calendar year 2013.[xii] Rates of follow-up after hospitalization for mental illness were low, with less than one-third of members receiving follow-up within seven days, and slightly more than half of members receiving follow-up within 30 days after discharge. Both rates are below the HEDIS® 50th percentile.

Table 47: NorthSTAR Effectiveness of Care

Measure	Data collection source	CY 2013 Rate	HEDIS® 2014 Percentile Rating[1]
HEDIS® Follow-up After Hospitalization for Mental Illness – 7 Days	Administrative	30.6%	★
HEDIS® Follow-up After Hospitalization for Mental Illness – 30 Days	Administrative	55.4%	★★
HEDIS® Follow-up Care for Children Prescribed ADHD Medication – Initiation Phase	Administrative	46.6%	★★★
HEDIS® Follow-up Care for Children Prescribed ADHD Medication – Continuation and Maintenance	Administrative	62.0%	★★★★
HEDIS® Antidepressant Medication Management – Effective Acute Phase Treatment	Administrative	48.3%	★★
HEDIS® Antidepressant Medication Management – Effective Continuation Phase Treatment	Administrative	34.0%	★★★

[1] Texas result in relation to HEDIS® national percentiles
★★★★★ = 90th percentile and above
★★★★ = 75th to 89th percentile
★★★ = 50th to 74th percentile
★★ = 25th to 49th percentile
★ = Below 25th percentile

Performance on medication measures varied in NorthSTAR. In relation to the HEDIS® national percentiles, NorthSTAR had good rates of follow-up care for children prescribed ADHD medication, at 46.6 percent for the initiation phase and 62.0 percent for the continuation and maintenance phase.

[xii] Rates for HEDIS® measures in NorthSTAR are calculated using all available claims for NorthSTAR members (NorthSTAR, STAR, STAR+PLUS, and fee-for-service).

Rates of antidepressant medication management for adults fell below the HEDIS® 50th percentile for the effective acute phase, but exceeded the HEDIS® 50th percentile for the effective continuation phase.

Trends in antidepressant medication management are shown in **Figures 62** and **63.** NorthSTAR showed a marked increase in rates for both phases between 2010 and 2012, but a substantial drop between 2012 and 2013. The external quality review organization recommends that HHSC and ValueOptions (the NorthSTAR behavioral health organization) explore reasons for this decline in antidepressant medication management rates, which may include changes to the case-mix of program membership and/or changes to the structure or delivery of services. Overall, the findings highlight the need for improved follow-up after hospitalization for mental illness and antidepressant medication management in NorthSTAR.

Figure 62: NorthSTAR HEDIS® Antidepressant Medication Management (AMM) Acute Phase, 2010-2013

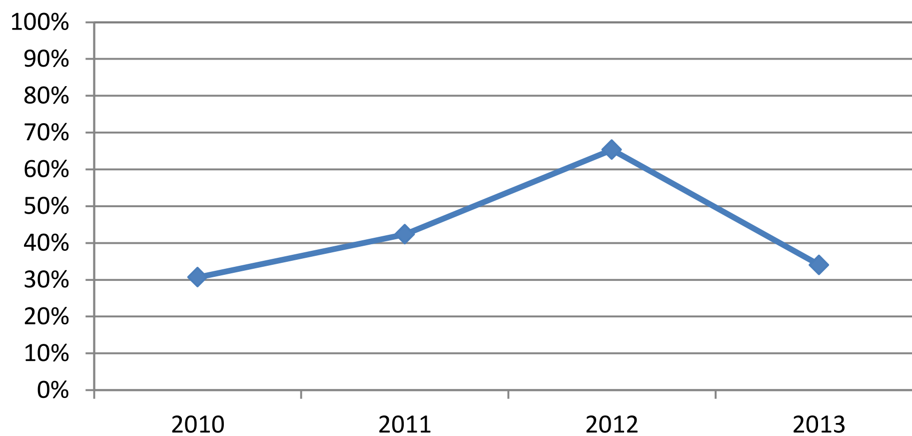
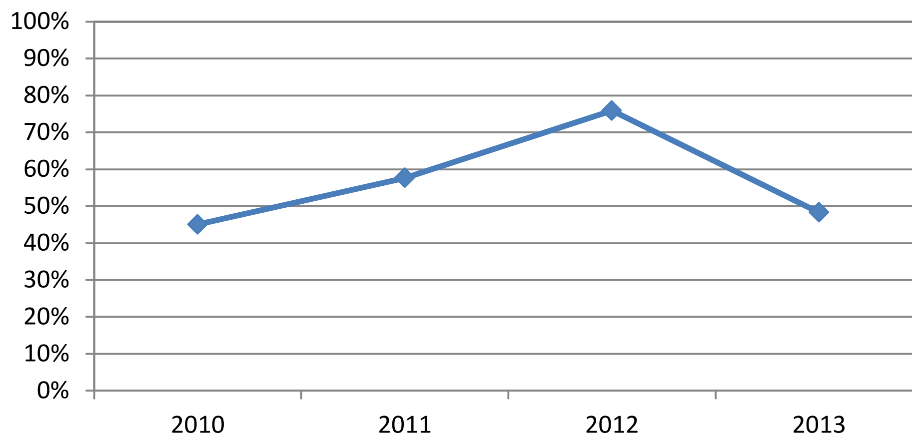


Figure 63: NorthSTAR HEDIS® Antidepressant Medication Management (AMM) Continuation Phase, 2010-2013



3.7. Medicaid and CHIP Dental Programs

Utilization of Care in Medicaid and CHIP Dental

Table 48 provides rates of dental services utilization in Medicaid and CHIP Dental for calendar year 2013, alongside applicable HHSC Dashboard standards. More than three-fourths of Medicaid Dental members and more than two-thirds of CHIP Dental members had at least one annual dental visit during the measurement period. Both rates were at or above the HEDIS® 90th percentile for this measure. Similar rates were observed for use of preventive dental services in both programs, with the rate in Medicaid Dental (74 percent) exceeding the HHSC Dashboard standard by ten percentage points.

An area for improvement is in the use of dental sealants, which are recommended for all children. Among members 2 to 20 years old in Medicaid and 2 to 18 years old in CHIP, about one-quarter received a dental sealant during the measurement period. Rates were lowest for children two to five years old (13 percent in Medicaid Dental and 3 percent in CHIP Dental), and highest for young adolescents 10 to 14 years old (37 percent in Medicaid Dental and 29 percent in CHIP Dental). For all measures, rates of dental service use were slightly higher in DentaQuest than in MCNA Dental.

Table 48: Medicaid/CHIP Dental Utilization of Care

Measure	Data Collection Source	CY 2013 Rate		HHSC Dashboard Standard	
		Medicaid	CHIP	Medicaid	CHIP
HEDIS® Annual Dentist Visit (all ages) [xiii]	Administrative	77.0%	69.1%	NR	NR
Use of Preventative Dental Services	Administrative	73.9%	66.5%	63%	61%
Dental Sealants	Administrative	24.5%	21.0%	NR	NR
Treatment for Caries	Administrative	64.1%	65.2%	64%	38%

Satisfaction with Care in Medicaid and CHIP Dental

Table 49 provides results from the Medicaid and CHIP Dental Caregiver Survey conducted in 2013. Findings are shown in four domains of dental care: (1) Care from dentists and staff; (2) Access to dental care; (3) Dental plan costs and services; and (4) Caregiver ratings. For all items except caregiver ratings, the results represent the percentage of caregivers who responded “usually” or “always” to the question. For caregiver ratings items, the results represent the percentage of caregivers who rated their child’s dental services a “9” or “10” on a scale from 0 to 10.

[xiii] HHSC Dashboard standards for HEDIS® Annual Dental Visit are stratified according to age band. There are no standards for the total age band. In Medicaid Dental, HHSC Dashboard standards were met for members 2 to 3 years old and for members 19 to 21 years old. In CHIP Dental, HHSC Dashboard standards were met for all age bands.

Overall, the survey showed that caregivers had good experiences with care their child received from dentists and staff. In particular, 96 percent of Medicaid Dental caregivers and 92 percent of CHIP Dental caregivers said their child's regular dentist "usually" or "always" treated them with courtesy and respect. Few caregivers reported that they had to wait more than 15 minutes in the waiting room for their child's dental appointment. However, among those who did, less than one-third of Medicaid Dental caregivers and less than one-quarter of CHIP Dental caregivers said they were informed of the reasons for the delay or the expected length of the delay.

Caregivers of children in Medicaid Dental generally reported better experiences than caregivers of children in CHIP Dental – particularly in regard to access to dental care and coverage.

Table 49: Medicaid/CHIP Dental Caregiver Satisfaction with Care

Measure	Medicaid	CHIP
Care from Dentists and Staff – Responses of "Usually" or "Always"		
Regular dentist explained things in a way that was easy to understand	88.0%	78.9%
Regular dentist listened carefully	89.4%	82.8%
Regular dentist treated patient with courtesy and respect	96.0%	92.1%
Regular dentist spent enough time with patient	85.0%	77.1%
Dentists or dental staff did everything they could to help patient feel as comfortable as possible during dental work	88.6%	76.0%
Dentists or dental staff explained what they were doing during treatment	86.5%	77.5%
Access to Dental Care – Responses of "Usually" or "Always"		
Dental appointment as soon as member wanted	80.8%	73.8%
Wait more than 15 minutes in waiting room for dental appointment	16.3%	15.6%
Informed of reason for delay or length of delay if wait longer than 15 minutes	31.8%	22.5%
Dental Plan Costs and Services - Responses of "Usually" or "Always"		
Dental plan covered all services member thought were covered	86.5%	65.2%
The toll-free telephone number, written materials or website provided all information caregiver wanted	54.9%	51.4%
Dental plan's customer service gave caregiver all information or help needed	76.8%	63.5%
Dental plan's customer service staff treated caregiver with courtesy and respect	87.8%	84.9%
Dental plan covered needed services for member and family	84.0%	60.0%
Information from dental plan helped caregiver find a dentist they were happy with	76.6%	69.7%
Caregiver Ratings		
Dentist Rating (9 or 10)	79.9%	70.8%
Dental Care Rating (9 or 10)	78.0%	66.2%
Access to Dental Care Rating (9 or 10)	82.0%	63.5%
Dental Plan Rating (9 or 10)	81.9%	65.4%

4. Focus Studies and Special Projects

4.1 – Texas Pay-for-Quality Programs for Health and Dental Plans

Over the past year, the external quality review organization has provided a variety of analyses to HHSC related to the design of the Texas pay-for-quality programs and the likely financial consequences of various approaches to pay-for-quality. The external quality review organization also conducted numerous briefings and workshops on pay-for-quality topics for HHSC and health plan personnel and legislative staff. Furthermore, the external quality review organization designed and simulated, under HHSC oversight, a pay-for-quality program for dental plans in Texas Medicaid and CHIP.

The external quality review organization drafted a "Texas P4Q Program Technical Specifications" report that outlines in detail the calculations that comprise the pay-for-quality incremental improvement program. The document was revised several times based on input from HHSC and the managed care organizations, and various excerpts were produced for posting on the HHSC website.

The external quality review organization has also revised the pay-for-quality risk-adjustment to conform more closely to existing approaches. This has curtailed risk-adjustment for HEDIS® measures and has limited the risk-adjustment for potentially preventable events measures to the procedures used by 3M.

The external quality review organization has also undertaken a major revision to the dental pay-for-quality program to allow monies to be redistributed across the dental plans. This led to the development of a new points-to-dollars process that has several advantages over the dollars-to-point process used in the managed care organization pay-for-quality program.

As managed care organizations increasingly began to monitor their own pay-for-quality performance, the external quality review organization continued to expand a web-based list of frequently asked questions to assist managed care organizations in their pay-for-quality monitoring.

4.2 – Medicare Data Request

In fiscal year 2014, the external quality review organization completed the request process, and obtained University of Florida Institutional Review Board approval and CMS approval to receive identified Medicare data on the dual-eligible population in Texas. The external quality review organization has received Medicare data from 2006 through 2010 to complement HHSC's Medicare data request. The Medicaid and Medicare data will be linked to better allow for previously unexamined aspects of quality of care for the dual-eligible population. Additionally, using the 2006 through 2010 data in addition to the HHSC Medicare data, the external quality review organization will be able to conduct a longitudinal analysis on the quality and outcomes of care for dual-eligible members in STAR+PLUS.

4.3 – Texas Healthcare Learning Collaborative Portal Development

The Texas Healthcare Learning Collaborative Portal is a web portal designed to provide health plans participating in STAR, STAR+PLUS, and CHIP with detailed information on their quality of care results. This includes annual data reports on potentially preventable events, access, and effectiveness measures using millions of Medicaid claims. The interface includes interactive maps, charts, and figures, which allow users to customize views and reports by time period, service type, line of business, geographic area, and other factors. The portal also includes features that allow users to distribute videos and other multi-media resources, deliver webinars, participate in discussion forums, and exchange files. Web development by the Institute for Child Health Policy is fully compliant with the Health Insurance Portability and Accountability Act (HIPAA), and utilizes a variety of application-appropriate platforms.

The portal is supported through the use of health information technology and expertise from HHSC and the external quality review organization. In particular, the information provided in the portal may be used by health plans to develop and implement strategies to reduce potentially preventable events.

4.4 – Managed Care Organization Report Cards

The external quality review organization produced Managed Care Organization Report Cards for calendar year 2013 and calendar year 2014. Report cards are developed for each service area in which each Texas program operates, and contain comparative quality of care results of the managed care organizations operating within a given service area. Results are presented in an appropriate manner for the literacy and linguistic needs of the Texas Medicaid and CHIP populations, allowing members to easily compare health plans on quality domains of importance to them.

The measures included on the report cards were selected with input from Texas Medicaid members and their caregivers, with whom the external quality review organization conducted focus groups in 2012. On each card, the measures are grouped into three domains – satisfaction with care, preventive care, and effectiveness of care for chronic conditions. The health plans are scored on each measure using a three-star rating system, which reflects the health plan's performance on the measure (within the specified service area) in relation to the state average. Stars are assigned to health plans as follows:

- One star – Health plan is in the bottom one-third percentile and below the 95 percent confidence interval for the statewide mean.
- Two stars – Health plan is in the middle one-third percentile or inside the 95 percent confidence interval for the statewide mean.
- Three stars – Health plan is in the top one-third percentile and above the 95 percent confidence interval for the statewide mean.

Appendix A. Fiscal Year 2014 Recommendations

The following pages provide tables that list recommendations made by the external quality review organization in 2014 (and 2013, for survey studies) to improve the quality of care received by Texas Medicaid and CHIP members. These include recommendations for the HHSC Dashboard measures and standards, as well as recommendations for the health plans to improve their quality assessment and performance improvement program evaluations.

Recommendations made for the HHSC Dashboard are shown in the tables below. **Table 50** shows Dashboard indicators for which new standards were recommended for 2015. In all cases, new recommended standards are higher than in the previous year.

Table 50. Recommendations for 2015 HHSC Performance Indicator Dashboard Standards

Indicator	Programs	Rationale
Percent of Children with Access to Primary Care Providers	STAR Health	Improved program performance in CY 2013
Well-Child Visits (3-6 years)	CHIP, STAR+PLUS, STAR Health	Improved program performance in CY 2013
Adolescent Well-Care	STAR, CHIP, STAR+PLUS	Improved program performance in CY 2013
Childhood Immunizations	STAR, CHIP	Improved program performance in CY 2013
Prenatal Care	STAR	Improved program performance in CY 2013
Breast Cancer Screening	STAR+PLUS	Increased HEDIS® national mean
Chlamydia Screening in Women	CHIP	Increased HEDIS® national mean
Adult BMI Assessment	STAR+PLUS	Improved program performance in CY 2013
Child/Adolescent BMI Percentile Documented (WCC)	STAR, CHIP	Increased HEDIS® national mean
Counseling for Physical Activity for Children/Adolescents (WCC)	STAR, CHIP	Improved program performance in CY 2013
Follow-up Care for Children Prescribed ADHD Medication – Initiation (ADD)	STAR Health	Improved program performance in CY 2013
Follow-up Care for Children Prescribed ADHD Medication - Maintenance (ADD)	STAR, CHIP, STAR Health	Improved program performance in CY 2013
Medical Attention for Nephropathy (CDC)	STAR+PLUS	Improved program performance in CY 2013
Annual Dental Visit	CHIP and Medicaid dental	Improved program performance in CY 2013
Preventive Dental Services	CHIP and Medicaid dental	Improved program performance in CY 2013
Use of Dental Sealants	CHIP and Medicaid dental	Improved program performance in CY 2013

In addition, new standards were specified for most AHRQ PDI and PQI measures due to the change in denominator for these measures. In prior years, the denominator was expressed per 100,000 members in the population. Beginning with calendar year 2013 data, the denominator for these measures is expressed per 100,000 member-months. Likewise, new standards were specified for most CAHPS® survey measures due to a change in the scoring methodology, with standards now reflecting the "top box" approach (percent of members who "always" had positive experiences with care) rather than the previous approach, which combined responses of "usually" and "always". For 3M measures of potentially preventable events, the actual-to-expected ratio (standard < 1.10) is now specified as the indicator. The external quality review organization also recommended the addition of three measures to the HHSC Dashboard, as shown on **Table 51**.

Table 51. Recommendations for New HHSC Performance Dashboard Indicators in 2015

Indicator	Programs	Rationale
3M Potentially Preventable Complications	STAR, CHIP, STAR+PLUS	This measure is on the pay-for-quality set for all programs in 2015.
3M Potentially Preventable Ancillary Services	STAR, CHIP, STAR+PLUS	This measure is being considered for the pay-for-quality set, and requires baseline results.
HEDIS® Asthma Medication Ratio > 50% (all ages)	STAR, CHIP, STAR+PLUS	This measure is part of the Asthma Composite in the 2015 pay-for-quality set for CHIP. Results for other programs are for monitoring purposes.

Table 52: Recommendations for Managed Care Organization Quality Assessment and Performance Improvement Programs

Program/s	Activity	Most Common Recommendation
STAR, CHIP, STAR+PLUS, STAR Health, NorthSTAR	Required Documentation	Submit a copy of the managed care organization's quality improvement organizational chart.
	Role of Governing Body	Include how often the governing body receives and reviews written reports.
	Structure of Quality Improvement Committee(s)	Include provider representatives on quality improvement committees and indicate whether or not they are active members.
	Adequate Resources	Describe material resources in greater detail.
	Opportunities for Improvement	Provide results of clinical improvements
	Program Description	Develop objectives that are action-oriented and measurable.
	Overall Effectiveness	Provide greater detail of overall effectiveness of the quality improvement program and efforts, and include results.
	Clinical Practice Guidelines	Provide more specific information regarding relevance to member needs.
	Access to Care Monitoring and Results	Report the effectiveness of actions and provide future actions for all indicators.
	Clinical Indicator Monitoring and Results	Set appropriate goals for all indicators.
	Service Indicator Monitoring	Report results as directed.
	Credentialing and Re-credentialing	Separate out the number of providers and facilities credentialed/re-credentialed.
	Delegation of Quality Assessment and Performance Improvement Program Activities	Provide the results of its on-going evaluation of the organization to which the activity was delegated.
	Corrective Action Plans	Provide the completion date or targeted date for completion.

Table 53. Recommendations for Asthma Care

Program/s	Recommendations	Rationale
STAR, CHIP	Texas Medicaid and CHIP managed care organizations should continue efforts to improve the quality of care for members with asthma, with an emphasis on managing asthma in the home environment. In particular, environmental interventions that include education and remediation of exposure to allergens and environmental tobacco smoke can help to reduce complications of asthma in the home. Managed care organizations should also consider pilot testing systems for asthma self-assessment that leverage mobile technology, such as the use of text message reminders. These may be more effective than relying on mailed self-assessment surveys.	The external quality review organization reported mixed findings on asthma care in STAR and CHIP for calendar year 2013. Measures of appropriate prescriptions for asthma – including HEDIS® *Use of Appropriate Medications for People with Asthma* and HEDIS® *Asthma Medication Ratio* – performed well (above the HEDIS® 90th percentiles). However, STAR and CHIP performed poorly on HEDIS® *Medication Management for People with Asthma.* Research has found that individualized, home-based, comprehensive environmental intervention can decrease exposure to indoor allergens and reduce asthma-associated morbidity.[39] There is evidence that mailed reminders for self-assessment for patients with poorly controlled asthma – even with gift card incentives – do not improve asthma-associated outcomes or process measures.[40]

Table 54: Recommendations for Preventive Dental Care

Program/s	Recommendations	Rationale
Medicaid and CHIP Dental	To increase preventive dental service use among children, Medicaid and CHIP dental plans should implement or improve upon efforts to: Encourage primary care providers to refer children to a dental provider, in order to establish a dental home, at no later than six months of age.[41,42] Utilize dental care coordinators who assist members and their caregivers by providing: (1) education regarding oral health; (2) assistance in finding a dentist if the Medicaid or CHIP member does not have one; and (3) assistance and support in scheduling and keeping dental appointments.[43] Conduct outreach with early adolescents and boys to identify their perceived barriers in receiving preventive oral health care. Continue to target interventions and health messages in ways that maintain high compliance among Hispanic members, address potential barriers among Black, non-Hispanic members, and improve access to specialists for children with chronic and complex conditions. Future analyses can assess the influence of specific dental plan characteristics, provider network resources, and best practices associated with compliance with oral health guidelines.	Rates for *Use of Dental Sealants* among children and adolescents in Medicaid and CHIP were low. In-depth analyses by the external quality review organization also identified lower rates of annual dental visits and sealants among adolescents and boys. In regard to health status, members with routine health needs or severe chronic conditions had lower rates than those with minor chronic conditions. In regard to race/ethnicity, Black, non-Hispanic members had lower rates of annual dental visits than Hispanic or White, non-Hispanic members. Hispanic members had higher rates of sealants than Black, non-Hispanic or White, non-Hispanic members. Referral to the dental home at an early age provides time-critical opportunities to implement preventive health practices and reduce the child's risk of preventable oral disease.[44] Use of preventive dental care may be increased among child and adolescent Medicaid members who are assigned a dental care coordinator that provides assistance and support regarding dental services.[45]

Table 55: Recommendations for Antidepressant Medication Management

Program/s	Recommendations	Rationale
STAR+PLUS, NorthSTAR	Identify perceived barriers in initiating treatment during the acute phase of antidepressant medication management. Continue to target interventions and health messages in ways that maintain high adherence to antidepressant medication among racial and ethnic minorities, especially Hispanic and Black, non-Hispanic members. Future analyses can include specific managed care organization or behavioral health organization characteristics (e.g., disease management programs, care coordination strategies) and variations in compliance by service area characteristics (e.g., rural areas, density of provider networks).	Rates of HEDIS® *Antidepressant Medication Management* were below the HEDIS® 50th percentile in STAR+PLUS for both the effective acute phase and the continuation phase. In NorthSTAR, the acute phase rate was below the HEDIS® 50th percentile. In-depth analyses by the external quality review organization identified lower levels of compliance with these measures during the acute and/or continuation phases among racial/ethnic minorities in STAR+PLUS.

Table 56: Recommendations for Reducing Potentially Preventable Admissions and Emergency Department Visits

Program/s	Recommendations	Rationale
STAR+PLUS	Continue to develop preventive services that address the specific behavioral and physical needs of members with lower health status. Continue to promote health services and preventive interventions to address behavioral needs and psychiatric disorders that have been shown to reduce potentially preventable admissions and emergency department visits. Future studies can focus on understanding variations in geographic areas (e.g., service areas) and how these contextual characteristics are associated with better performance or lower costs.	STAR+PLUS has the highest rates of potentially preventable events among the Texas Medicaid programs. In-depth analyses by the external quality review organization found higher rates of potentially preventable admissions and emergency department visits among older members and members with low health status.

Table 57. Recommendations for Diabetes Care

Program/s	Recommendations	Rationale
STAR+PLUS	To improve HbA1c control, STAR+PLUS managed care organizations should implement and/or improve upon strategies to bolster the medical home model, including: [46] • Emphasis on team-based, customer driven care • Options for same-day appointments • Integrated behavioral health Managed care organizations should also explore the feasibility of implementing strategies that leverage mobile health technologies to improve diabetes self-management and outcomes, including: • Telemedicine-based diabetes management sessions at local community centers, which incorporate self-education and promote self-management[47] • Monthly automated cell phone text messages with reminders to make and keep appointments for blood glucose testing[48]	In STAR+PLUS, all managed care organizations fell below the HEDIS® 50th percentile for the *Comprehensive Diabetes Care – Adequate HbA1c Control (8.0%)* measure, and below the HEDIS® 50th percentile for *Comprehensive Diabetes Care – Eye Exams*. There is moderate evidence that medical homes emphasizing team-based, customer driven care, same-day appointments, and integrated behavioral health for patients with diabetes can improve rates of HbA1c control in Medicaid patients.[49] There is strong evidence that telemedicine-based education sessions for low-income patients with diabetes can increase rates of eye exams, and reduce blood glucose and cholesterol levels.[50] There is moderate evidence that interventions using monthly text message reminders can increase compliance with blood glucose testing for patients with diabetes.[51]

Table 58. Recommendations for Access to Behavioral Health Care

Program/s	Recommendations	Rationale
STAR	Managed care organizations participating in STAR should implement or maintain existing efforts to promote early identification of child and adolescent behavioral health problems in school settings.	Based on the 2013 STAR Child Behavioral Health Survey, the primary behavioral health diagnosis among children in STAR was disruptive behaviors (44 percent), followed by adjustment disorders (19 percent) and mood disorders (19 percent). Early identification of behavioral health problems in children and adolescents is essential for ensuring timely access to needed behavioral health services. Research has found that increased school engagement in early identification is associated with mental health service use for adolescents with mild or moderate mental health and behavior disorders. [52]
STAR, CHIP	To improve children's access to behavioral health care, managed care organizations in STAR and CHIP should look to strategies that have shown promise in other states. The following strategies may be explored for feasibility through the implementation of pilot studies or performance improvement projects that target geographic service areas with the greatest need for improvement: [53] • Making emergency psychiatric services available to schools • Overcoming professional shortages in rural areas through tele-psychiatry • Strengthening partnerships between mental health professionals and physical health providers • Creating school-based initiatives that emphasize prevention and early intervention	Based on the 2013 STAR and CHIP Caregiver Surveys, low rates of access were observed for behavioral health treatment or counseling, with 57 percent of STAR caregivers and 62 percent of CHIP caregivers responding that it was "usually" or "always" easy to get treatment or counseling for their child.

NorthSTAR	The NorthSTAR behavioral health organization, ValueOptions, should implement a performance improvement project to address follow-up after hospitalization for mental illness. NorthSTAR should also examine the feasibility of implementing best practices for behavioral health care, including those outlined by Medicaid Health Plans of America for patients with serious mental illness.[54]	In NorthSTAR, rates for HEDIS® *Follow-Up After Hospitalization for Mental Illness* were substantially lower than their corresponding HEDIS® 50th percentiles. Rider 50 of the 2010-2011 General Appropriations Act and the Texas S.B. 58, 83rd Legislature, Regular Session, 2013, directed Texas HHSC to improve the delivery of and reporting on behavioral health care for Texas Medicaid members, emphasizing the need for high quality behavioral health care in this population.[55,56] Senate Bill 58 calls for access to comprehensive care and coordination of services in order to improve behavioral health outcomes.

Table 59. General Recommendations for Quality Improvement

Program/s	Recommendations
All programs	To establish and maintain high levels of health care quality in Texas Medicaid and CHIP, the external quality review organization recommends the following overarching strategies: • Pilot testing, implementation, and assessment of the effectiveness of mobile health interventions. Managed care organizations should assess the feasibility of implementing mobile health interventions to improve self-management and outcomes of chronic conditions, including an assessment of whether interventions are reaching target populations. • Systematic implementation of root cause analysis and best practices in areas of low performance, both within and outside the context of quality improvement programs.

Appendix B. Positive Findings and Improvement Areas

Table 60. Positive Findings in Quality of Care Evaluation (Texas Medicaid/CHIP - CY 2013)

STAR

Quality Domain	Quality Indicator/s	Findings
Access to Care	*Well-Child and Adolescent Well-Care Visits*	STAR performed well on measures of access to well-care visits for children three to six years old and adolescents, with statewide rates for both measures between the HEDIS® 75th and 89th national percentiles. The rate for *Adolescent Well-Care* also exceeded the HHSC Dashboard standard in 2013.
	Childhood Immunizations	Children in STAR had good access to immunizations, with the statewide rate for *Childhood Immunization Status: Combination 4* performing between the HEDIS® 75th and 89th national percentiles. This rate also exceeded the HHSC Dashboard standard in 2013.
Effectiveness of Care	*Use of Appropriate Medications for People with Asthma* and *Asthma Medication Ratio*	Rates in STAR for use of appropriate medications for people with asthma (all ages) and asthma medication ratio (>50%) both exceeded their respective HEDIS® 90th national percentiles.
Satisfaction with Care	*Personal Doctor Rating* *Specialist Rating* *Health Plan Rating* *Health Care Rating*	The STAR program performed well on most measures of caregiver satisfaction with care in 2013, exceeding national CAHPS® Medicaid rates on all four ratings measures.

CHIP

Quality Domain	Quality Indicator/s	Findings
Access to Care	*Childhood Immunizations*	Children in CHIP had good access to immunizations, with the statewide rate for *Childhood Immunization Status: Combination 4* performing between the HEDIS® 75th and 89th national percentiles. This rate also exceeded the HHSC Dashboard standard in 2013.
Effectiveness of Care	*Use of Appropriate Medications for People with Asthma* and *Asthma Medication Ratio*	Rates in CHIP for use of appropriate medications for people with asthma (all ages) and asthma medication ratio (>50%) both exceeded their respective HEDIS® 90th national percentiles.
Satisfaction with Care	*Specialist Rating* *Health Plan Rating*	Caregiver ratings of specialists and health plans for their children in CHIP exceeded the national CAHPS® CHIP rates.

STAR+PLUS

Quality Domain	Quality Indicator/s	Findings
Effectivness of Care	*Medication Management for People with Asthma: Medication Compliance 75%*	For STAR+PLUS members, effectiveness of care for asthma showed good compliance with management of asthma medications, with the statewide rate exceeding the HEDIS® 90th national percentile.
Satisfaction with Care	*Specialist Rating*	The average member rating of specialists in STAR+PLUS exceeded the national CAHPS® Medicaid rate.

STAR Health

Quality Domain	Quality Indicator/s	Findings
Access to Care	*Well-Child* and *Adolescent Well-Care Visits*	STAR Health performed well on access to well-care visits for children three to six years old and adolescents, with the statewide rates for both measures exceeding the HEDIS® 90th percentiles and the HHSC Dashboard standards. Rates on these measures have increased annually since 2009.
Effectiveness of Care	*Use of Appropriate Medications for People with Asthma* and *Asthma Medication Ratio*	Rates in STAR Health for use of appropriate medications for people with asthma (all ages) and asthma medication ratio (>50%) both exceeded their respective HEDIS® 90th national percentiles.
	Follow-up After Hospitalization for Mental Illness	STAR Health performed well on rates of follow-up after hospitalization for mental illness, performing between the HEDIS® 75th and 89th national percentiles for 7-day follow-up and above the HEDIS® 90th national percentile for 30-day follow-up.
	Follow-up Care for Children Prescribed ADHD Medication	STAR Health performed well on rates of follow-up care for children prescribed ADHD medication, performing above the HEDIS® 90th national percentile for both initiation and continuation and maintenance phases.

CHIP and Medicaid Dental

Quality Domain	Quality Indicator/s	Findings
Utilization of Care	*Use of Preventative Dental Services*	The CHIP and Medicaid Dental Programs exceeded the HHSC Dashboard standard for use of preventative dental services in 2013.
	Treatment of Caries	The CHIP and Medicaid Dental Programs exceeded the HHSC Dashboard standard for treatment of caries in 2013.

Table 61. Improvement Areas in Quality of Care Evaluation (Texas Medicaid/CHIP – 2013)

STAR

Quality Domain	Quality Indicator/s	Findings
Utilization of Care	*Potentially Preventable Events*	In STAR, rates of potentially preventable admissions, readmissions, and emergency department visits increased between 2011 and 2013.
Effectivness of Care	*Appropriate Testing for Children with Pharyngitis*	The rate of appropriate testing for children with pharyngitis in STAR performed below the HEDIS® 25th percentile.
	Medication Management for People with Asthma: Medication Compliance 75%	In STAR, effectiveness of care for asthma showed poor compliance with management of asthma medications, with only 15 percent of members with persistent asthma staying on controller medications for at least 75 percent of their treatment period. This rate is below the HEDIS® 25th national percentile.
	Follow-up After Hospitalization for Mental Illness	Rates for *Follow-up After Hospitalization for Mental Illness* in STAR were below the HEDIS® 50th percentiles, with about one-third of STAR members receiving 7-day follow-up, and slightly more than half receiving 30-day follow-up.

CHIP

Quality Domain	Quality Indicator/s	Findings
Effectivness of Care	*Medication Management for People with Asthma: Medication Compliance 75%*	In CHIP, effectiveness of care for asthma showed poor compliance with management of asthma medications, with only 17 percent of members with persistent asthma staying on controller medications for at least 75 percent of their treatment period. This rate is below the HEDIS® 25th national percentile.
Satisfaction with Care	*Getting Needed Care*	The percentage of caregivers in CHIP who “usually” or “always” had positive experiences with *Getting Needed Care* was lower than the national CAHPS® CHIP rate.

STAR+PLUS

Quality Domain	Quality Indicator/s	Findings
Effectiveness of Care	*Use of Appropriate Medications for People with Asthma*	Rates of appropriate asthma medication use for STAR+PLUS members of all ages decreased by 10 percentage points from 2009 through 2013. In 2013 the statewide rates were below the HEDIS® 25th national percentiles and the HHSC Dashboard standard.
	Comprehensive Diabetes Care – Eye Exams	For STAR+PLUS members with diabetes, the rate of eye exams was below the HEDIS® 25th national percentile and HHSC Dashboard standard in 2013.
	Comprehensive Diabetes Care - HbA1c Control (<8%)	Less than one-third of adult STAR+PLUS members with diabetes had adequate control of HbA1c. The STAR+PLUS rate was below the HEDIS® 25th national percentile.
	Follow-up After Hospitalization for Mental Illness	Rates for *Follow-up After Hospitalization for Mental Illness* in STAR+PLUS were below the HEDIS® 25th national percentiles, with less than one-third of STAR+PLUS members receiving 7-day follow-up, and only half receiving 30-day follow-up.
	Antidepressant Medication Management	Performance in STAR+PLUS was below the HEDIS® 25th national percentile for the acute phase, and between the HEDIS® 25th and 49th national percentiles for the continuation phase of antidepressant management.

STAR Health

Quality Domain	Quality Indicator/s	Findings
Utilization of Care	*Potentially Preventable Emergency Department Visits (PPV)*	The rate of potentially preventable emergency department visits in STAR Health increased from 7.4 to 10.3 visits per 1,000 member-months between 2011 and 2013.
Access to Care	*Well-Child Visits in the First 15 Months of Life*	The rate of well-care visits for children in the first 15 months of life in STAR Health was below the HEDIS® 25th national percentile in 2013.

Effectiveness of Care	*Appropriate Testing for Children with Pharyngitis*	The rate of appropriate testing for children with pharyngitis in STAR Health performed below the HEDIS® 25th national percentile.
Satisfaction with Care	*Specialist Rating*	The average caregiver rating of specialists for children in STAR Health was below the national CAHPS® Medicaid rate.

NorthSTAR

Quality Domain	Quality Indicator/s	Findings
Effectiveness of Care	*Follow-up After Hospitalization for Mental Illness*	NorthSTAR showed low performance on rates of follow-up after hospitalization for mental illness, performing below the HEDIS® 25th national percentile for 7-day follow-up and between the HEDIS® 25th and 49th national percentiles for 30-day follow-up.
	Antidepressant Medication Management – Effective Acute Phase Treatment	The NorthSTAR rate for *Antidepressant Medication Management – Effective Acute Phase Treatment* was below the HEDIS® 50th national percentile in 2013.

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[17] In calendar year 2013, STAR Health was served by one managed care organization – SuperiorHealthPlan Network – and operated statewide. NorthSTAR was served by ValueOptions (a behavioral health organization), and operated in the Dallas service area. Medicaid Dental and CHIP Dental were both served by DentaQuest and MCNA Dental, and operated statewide.

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Texas Medicaid Managed Care and Children's Health Insurance Program

External Quality Review Organization Summary of Activities and Trends in Healthcare Quality

Addendum: Performance Improvement Project and Encounter Data Validation

Contract Year 2014

Measurement Period:

January 1, 2013 through December 31, 2013

The Institute for Child Health Policy

University of Florida

The External Quality Review Organization

for Texas Medicaid Managed Care and CHIP

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Executive Summary

This report addendum summarizes evaluation activities conducted by the Institute for Child Health Policy at the University of Florida to meet federal requirements for external quality review of Texas Medicaid managed care and the Children's Health Insurance Program (CHIP). The Institute for Child Health Policy has been the external quality review organization for the Texas Health and Human Services Commission (HHSC) since 2002. The findings discussed in this report are based on performance improvement project (PIP) and encounter data validation activities conducted during fiscal year 2014, and supplement the primary annual report document titled *External Quality Review Organization: Summary of Activities and Trends in Healthcare Quality, Contract Year 2014*.

The review is structured to comply with the Centers for Medicare and Medicaid Services (CMS) federal guidelines and protocols, and addresses care provided by managed care organizations participating in STAR, CHIP, STAR+PLUS, STAR Health, and Medicaid/CHIP Dental.[1]

- **STAR** provides primary care, acute care, and pharmacy services for pregnant women, newborns and children with limited income. It is the largest of the Texas Medicaid managed care programs, with over 2.5 million members as of December 2013.
- **CHIP** provides coverage to low-income uninsured children in families with incomes too high to qualify for Medicaid, including over 567,000 children as of December 2013.
- **STAR+PLUS** provides acute care and long-term services and support to individuals who are age 65 or older or have a disability, including over 410,000 members as of December 2013.
- **STAR Health** provides medical, dental, vision, and behavioral health benefits for children and youth in conservatorship of the Texas Department of Family and Protective Services, including over 31,000 members as of December 2013.
- **Medicaid/CHIP Dental** provide dental services through a managed care model for most children and young adults through age 20 for Medicaid and age 18 for CHIP.

Performance Improvement Project Evaluation

All 21 health plans participating in Texas Medicaid and CHIP in 2013 (including two dental plans) submitted three PIPs for each line of business in which they operate, resulting in 100 percent compliance with State requirements on the number of required PIPs. Health plans selected topics that reflected overarching goals specified by the State as well as their own priority areas of improvement. The five most common topics included: (1) Well-child and adolescent well-care (30 PIPs); (2) Asthma-related emergency department visits (20 PIPs); (3) Postpartum care (15 PIPs); (4) Childhood immunizations (13 PIPs); and (5) Follow-up after hospitalization for mental illness (8 PIPs).

Interventions

Most PIP interventions were at the member level, and included member educational materials (42 PIPs), telephone contact (25 PIPs), and outreach programs (19 PIPs). Interventions at the provider level were also common, including provider educational materials (26 PIPs) and reports detailing gaps in care and service utilization (19 PIPs). Fewer health plans implemented system-level interventions, such as provider representative visits (5 PIPs) or health fairs (4 PIPs). Health plans used a variety of innovative practices that contributed to robust interventions, including face-to-face interaction with members and providers, electronic communications, reports for providers on member-level and aggregate performance results, incentive programs for members and providers, community outreach events, and geographic analysis.

Measurement and testing

In all but one PIP, the health plan specified a target goal for improvement – typically expressed as a five percent increase (31 PIPs) or ten percent increase (15 PIPs) over baseline results on the study indicators. For one-third of PIPs, the health plan did not report numerators or denominators on study indicators. Of the remaining 90 PIPs, 50 showed statistically significant improvement (at $p < 0.10$), covering a wide range of topics.

Overall PIP scores

The development of interventions was the lowest-scoring PIP step in the calendar year 2013 evaluation – particularly in regard to considering the root causes and barriers related to the study topic, as well as the cultural and linguistic needs of targeted populations. Health plans received the highest scores on steps for identifying the study population and describing plans for sustained improvement. Most health plans did not receive a score for sound sampling methods because their PIPs focused on a census of the target population (using all claims and encounter data), rather than a sample.

Preliminary recommendations

The external quality review organization made preliminary recommendations during the PIP plan evaluation, which was conducted in the year prior to implementation. The most common recommendations made during this stage addressed the need for the health plans to provide additional details on their interventions (73 percent of the PIPs), as well as the need to develop more robust interventions (79 percent of the PIPs). During the final PIP report evaluation, a determination was made regarding the extent to which health plans followed through with these recommendations. Nearly three in four recommendations had been fulfilled by the health plans by the year-end evaluation (74 percent).

Encounter Data Validation

Using health records received by Texas Medicaid and CHIP providers, the external quality review organization assessed the validity of diagnosis, procedure, and place of service data elements in the administrative claims and encounter data.

Health records

The external quality review organization requested 251 records per managed care organization in each line of business (STAR, STAR+PLUS, CHIP, and STAR Health). The overall return rate was 66 percent, with a total of 6,737 records received. Of these records, 81 did not specify the same date of service for which the encounter was sampled and could not be validated. Match rates were calculated for the remaining in 6,656 health records.

Match rates

Overall, the findings show a high level of quality of encounter data in Texas Medicaid and CHIP. At the program level, match rates for both diagnosis and procedure exceeded 95 percent. At the managed care organization level, match rates for diagnosis exceeded 95 percent in all but one managed care organization; match rates for procedure exceeded 95 percent in all but three managed care organizations. The study found a match rate of nearly 100 percent for place of service.

External Quality Review Organization Recommendations for Fiscal Year 2014

This report includes the following recommendations by the external quality review organization for improving health plan PIP design, interventions, evaluation methods, and reporting.

Intervention and improvement strategies

- Interventions should be implemented at the beginning of the measurement period.
- Interventions should be described in greater detail, including details on communication strategies to reach members/providers, and strategies for addressing the literacy and cultural needs of members.
- Intervention strategies should be revised if not successful or if significant barriers were encountered upon implementation.

Analyzing data and interpreting results

- Health plans should clearly present results and provide additional detail, such as numerators and denominators of baseline and follow-up rates.
- Health plans should report p-values and statistical significance for all measures, and interpret outcomes of the PIP accurately.

Real improvement

- Annual PIP submissions should include an accurate statement of statistical significance in the report.
- Health plans should strive to achieve statistically significant improvement in study indicators.

Introduction

Validation of Medicaid managed care performance improvement projects (PIPs) is one of the key federally mandated activities of an external quality review organization.[2] All health plans that participate

in state Medicaid programs are required to design, implement, and assess PIPs that target specific problems and populations, with the aim of improving quality of care and health outcomes for Medicaid beneficiaries. This report follows CMS protocols for PIP validation and reporting by external quality review organizations, including a description of: (1) the manner in which data were aggregated and analyzed and the conclusions drawn in regard to the quality, timeliness, and access to care provided by the managed care organizations; (2) an assessment of the overall validity and reliability of PIP study results, including reference to any potential threats to accuracy or confidence in reporting; and (3) a description of PIP interventions and outcomes associated with each state-required PIP topic.[3]

This report also shows findings of encounter data validation studies conducted by the external quality review organization to assess the quality of administrative claims and encounter data generated by the managed care organizations. Encounter data validation is considered by CMS to be an optional activity for external quality review organizations. The data elements assessed in these studies – in particular, primary diagnosis and procedure – are important for assessing health care quality through performance measures that rely on administrative data and for conducting risk assessment and rate setting.

For each activity, this report provides results stratified by health plan, meeting CMS requirements to show comparative performance results among Medicaid managed care health plans. The report also provides recommendations made by the external quality review organization in 2014 for improving PIPs and the quality of administrative claims and encounter data, as well as an assessment of the extent to which recommendations were followed by health plans based on prior-year activities.

1. Performance Improvement Project Validation

1.1. Performance Improvement Project Validation Methodology

The Texas external quality review organization conducts the two required activities outlined by CMS for validating PIPs: (1) assessment of the study methodology; and (2) evaluation of the overall validity and reliability of study results.[4] For calendar year 2013, PIPs were evaluated for 19 managed care organizations and 2 dental managed care organizations (collectively, health plans) participating in Texas Medicaid and CHIP, most of which participate in multiple programs (see Section 1.2 below). To collect the information needed for a comprehensive evaluation, the external quality review organization uses a standardized reporting form to be completed annually by the health plans, which includes the following ten steps:[5]

1. **Review the Selected Study Topic(s)** – In this section, managed care organizations report the topic of the PIP and provide supporting evidence for why the topic was selected. Topic selection should be based on the results of monitoring and evaluating clinical and service indicators.
2. **Review the Study Question(s)** – The health plans pose the question they would like to answer with the PIP. For example, “Does X result in Y?”

3. **Review the Selected Study Indicators** – This section should include the measures or study indicators the health plan will use to measure change. Many health plans use measures from the Healthcare Effectiveness Data and Information Set (HEDIS®) with standardized numerators and denominators. Selection of study indicators should be based on the health plan's root cause analysis to identify the underlying cause of the problem.

4. **Review the Identified Study Population** – This section should describe the population the PIP is targeting. For example, all STAR members, or only STAR members age three to six years. The study population should be representative and generalizable.

5. **Review the Sampling Methods** – This section describes the frequency of occurrence of the problem in the study population and the number of members needed in the sample in order to produce valid and reliable results. If HEDIS® measures are used, sampling is not required. (This does not apply to hybrid HEDIS® measures, which do require sampling.)

6. **Review the Data Collection Procedures** – The data to be collected should be included in this section, in addition to identification of data sources, instruments used to collect data, and who will collect the data.

7. **Assess the Managed Care Organization's Improvement Strategies** – The health plan should provide the results of the root cause analysis and describe the interventions and improvement strategies that will be taken to improve the measures indicated in Step 3. Interventions should be developed to target the root cause of the problem at the member, provider, and system levels.

8. **Review Data Analysis and Interpretation of Study Results** – Baseline and follow-up measurements should be presented in this section. All data analyses should be summarized and supported by a test of statistical significance. The health plan should discuss factors that affect the comparability of baseline and follow-up measures and factors that threaten internal and external validity of the findings.

9. **Assess the Likelihood that Reported Improvement is "Real" Improvement** – This section summarizes whether or not the performance improvement project resulted in a statistically significant improvement. The health plan should address how the interventions resulted in a statistically significant improvement.

10. **Assess Sustainability of the Documented Improvement** – If there was a statistically significant improvement, this section should report whether or not the improvement was sustained over time.

For each unique PIP included by a health plan in its submission, the review generates a score on various components of the ten steps, as shown in **Tables 1** and **2**. Each component is graded on a three-point scale – compliant (100 percent), partially compliant (50 percent), and non-compliant (0 percent) – and then equally weighted to produce an overall score for each step. The external quality review

organization conducted assessments on calendar year 2013 PIPs in two stages – a PIP plan evaluation (conducted in the fall of 2012) and a year-end PIP report evaluation (conducted in the fall of 2014). It should be noted that Step 7 is assessed in both stages – once during the PIP plan evaluation to assess implementation (7a) and again during the year-end PIP report evaluation to assess changes made by the health plan during the study year (7b).

- The PIP plan evaluation produces scores for Steps 1 through 7a, which are averaged to produce a PIP plan score for each PIP. A health plan's overall PIP plan score represents the average PIP plan score across all of its submitted PIPs.
- The end-year PIP report evaluation produces scores for Steps 7b through 10, which are averaged to produce a year-end PIP report score for each PIP. A health plan's overall year-end PIP report score represents the average PIP report score across all of its submitted PIPs.
- An overall, combined PIP score is produced for each PIP (and for each health plan across its submitted PIPs), representing the simple average of the PIP plan score and the year-end PIP report score. It should be noted that because the PIP plan score includes more steps than the year-end PIP report score, this methodology produces a combined PIP score in which the year-end results have a greater weight than the PIP plan results. This scoring method is preferred, as it provides more emphasis on the year-end activities, which include results on actual performance improvement.

As part of the PIP plan evaluation, the external quality review organization makes recommendations for the health plans on improving their PIP study designs. A separate set of recommendations is provided for each unique PIP, and then re-evaluated during the year-end PIP report evaluation to determine health plan compliance.

Table 1. Performance Improvement Project Validation – PIP Plan Assessment Components

Step	Component
1. Review the Selected Topic	• Selected based on objective data • Addresses a high priority population, condition, or concern • Potential to improve health • Clearly defined problem • Baseline data are appropriate, valid, and reliable
2. Review of Study Question(s)	• Study question(s) stated in the required format
3. Select Study Indicator(s)	• Objective and clearly defined measurable indicators • Available and valid data collected • Appropriate and reliable measures of changes • Appropriate timeframes for baseline and follow-up • Appropriate targeted goal for improvement
4. Review of the Identified Study Population	• Study population clearly defined • Applicable study population enrolled • Special health care needs addressed
5. Sound Sampling Methods	• Sound sampling and data collection methods included • Identified sample size
6. Plan to Collect Reliable Data	• Specify data element/sources collected • Instruments provide consistent and accurate data collection • Collection of data by qualified staff/personnel • Clear/concise instructions for data collection process
7b. Intervention and Improvement Strategies (Implementation)	• Interventions to address causes/barriers • Interventions appropriate for targeted group • Vehicles of communication reasonable • Literacy and cultural needs addressed • Interventions described in detail • New intervention

Table 2. Performance Improvement Project Validation – End-Year PIP Report Assessment Components

Step	Component
7b. Intervention and Improvement Strategies (Year-End)	• Address causes/barriers • Appropriate for target group • Vehicles of communication reasonable • Literacy and cultural needs addressed • Interventions described in detail • Adequate reach • Strategies revised
8. Analyzing Data and Interpreting Results	• Analysis performed according to plan • Presentation of results • Report statistical significance and comparability of results • Accurate interpretation of results
9. Real Improvement	• Statistically significant improvement • Discuss future plans
10. Sustained Improvement	• Statistically significant improvement sustained • Articulated future plans

1.2. Performance Improvement Project Topics

For calendar year 2013, HHSC required each health plan to develop, implement, and measure three PIPs per program, although the same PIP may be used for more than one program. **Table 3** shows the managed care organizations and dental managed care organizations that were required to submit calendar year 2013 PIPs, and the number of PIPs submitted for validation by each health plan and for each program served. The PIP validation is comprised of two stages, as described above – one for development (PIP plan) and one for implementation (end-year PIP report). A total of 135 PIPs were assessed, of which 12 were conducted by the dental managed care organizations.

Six managed care organizations (Cook Children's, DentaQuest, Driscoll, MCNA Dental, Sendero, and UnitedHealthcare) changed topics of one or more PIPs between the PIP plan and PIP report stages. In these cases, the PIP plan evaluation score reflects only the PIPs that were not changed. [6] The external quality review organization reviewed modifications to all PIPs in December 2012. In lieu of a formal evaluation of the revised PIPs, every health plan was required to conduct and submit a self-evaluation of

the revised PIPs. Additionally, the external quality review organization provided extensive technical assistance to the managed care organizations that made major revisions.

The self-assessment addressed the following questions for each revised PIP, in addition to recommendations made by the external quality review organization. If a health plan did not fully implement the recommendations, it was required to provide a rationale as to why the recommendation was not implemented.

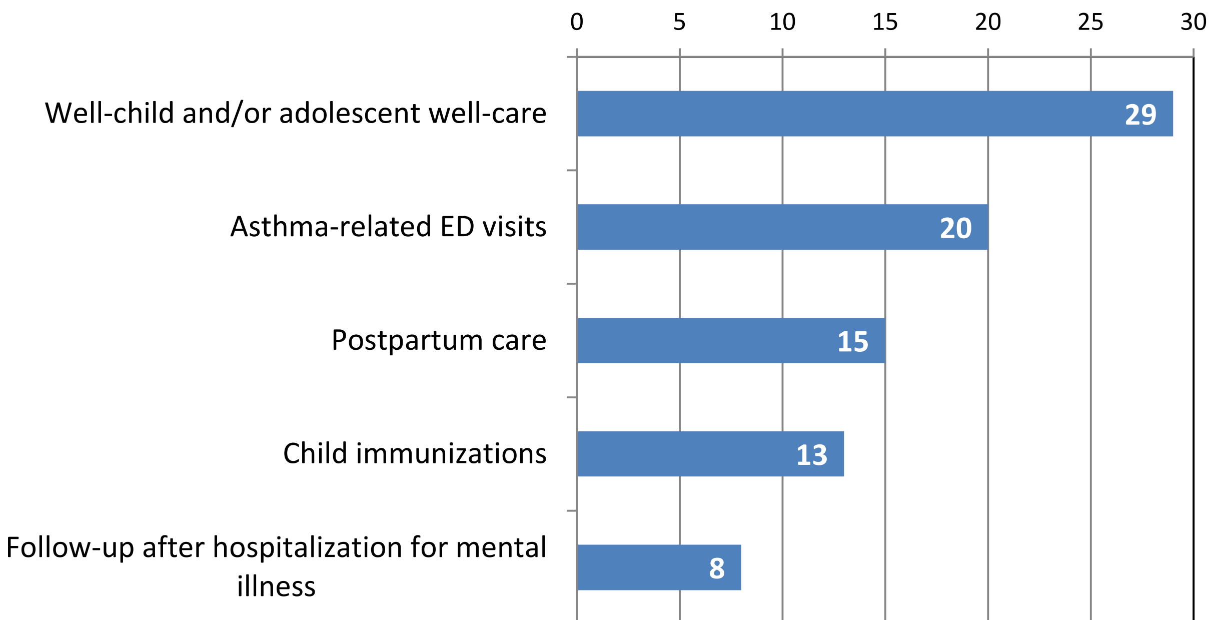
- Does the topic address a high priority population/condition/area of concern, or a high volume condition?
- Is the baseline measurement taken on 2012 data? [7]
- Does the study topic have objective and clearly defined, measureable indicators?
- Will re-measurement be performed on 2013 data?
- Are reasonable interventions planned that are based on root cause analysis?
- Are the interventions appropriate for the targeted group?
- Are the methods of communication reasonable? [8]
- Are literacy and cultural needs addressed?
- Are the interventions strong enough to have a statistically significant impact?
- Will the interventions reach enough people?
- Are the interventions described in detail, including the number and percent of members or providers to be reached?
- Are the interventions new?

Table 3. Number of PIPs Submitted for Validation, by Plan and Program

	STAR	CHIP	STAR+ PLUS	STAR Health	Medicaid Dental	CHIP Dental
Aetna	3	3	-	-	-	-
Amerigroup	3	3	3	-	-	-
Blue Cross Blue Shield-Texas	3	3	-	-	-	-
CHRISTUS	3	3	-	-	-	-
Cigna-HealthSpring	-	-	3	-	-	-
Community First	3	3	-	-	-	-
Community Health Choice	3	3	-	-	-	-
Cook Children's	3	3	-	-	-	-
DentaQuest	-	-	-	-	3	3
Driscoll	3	3	-	-	-	-
El Paso First	3	3	-	-	-	-
Firstcare	3	3	-	-	-	-
MCNA Dental	-	-	-	-	3	3
Molina	3	3	3	-	-	-
Parkland	3	3	-	-	-	-
Scott & White	3	-	-	-	-	-
Sendero	3	3	-	-	-	-
Seton	3	3	-	-	-	-
Superior	3	3	3	3	-	-
Texas Children's	3	3	-	-	-	-
UnitedHealthcare-Texas	3	3	3	-	-	-

The health plans selected a variety of topics for the calendar year 2013 PIPs, based on State-specified overarching goals and goals specific to the health plans. **Figure 1** presents the number of managed care organization PIPs conducted within each of five common categories. Interventions that addressed well-child or adolescent well-care visits were the most common, reported by all managed care organizations except Cook Children's, Cigna-HealthSpring (which participates only in STAR+PLUS), and Scott & White. Of 29 PIPs in this category, eight sought to improve rates of well-care both for children (age three to six) and adolescents, 13 focused only on adolescent well-care, and eight focused only on well-child care. For these PIPs, managed care organizations used the HEDIS® measures *Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life* and *Adolescent Well-Care*, respectively.

Figure 1. Five Most Common Performance Improvement Project Topics



Performance improvement projects designed to reduce asthma-related emergency department visits were the second most common, reported by ten managed care organizations. However, to assess the performance of these interventions, only half of the managed care organizations used measures of asthma-related emergency department or hospital visits such as the AHRQ *Pediatric Quality Indicator for Asthma*, CHIPRA *Annual Percentage of Asthma Patients with One or More Asthma-Related Emergency Department Visit*, and 3M *Potentially Preventable Emergency Department Visits*. The remaining managed care organizations instead used HEDIS® measures that produce rates of compliance with evidence-based asthma treatment, such as *Use of Appropriate Medications for People with Asthma* and *Medication Management for People with Asthma*.

Twelve managed care organizations designed PIPs to improve rates of postpartum care, for a total of 15 PIPs in this category. In all cases except one, the HEDIS® *Postpartum Care* measure was used to assess performance. The exception was Community First, which derived its own measures to assess compliance with components of its intervention, such as the percentage of eligible deliveries at a selected hospital that received telephone contact, a postpartum visit, or contact with a case manager.

The fourth- and fifth-most common PIP topics were child immunizations (reported by nine managed care organizations) and follow-up after hospitalization for mental illness (reported by six managed care organizations). All managed care organizations used the HEDIS® measures *Childhood Immunization Status (Combo 4)* and *Follow-up After Hospitalization for Mental Illness* for these PIPs, respectively. In

addition, Molina and Scott & White measured performance on their child immunization PIPs using HEDIS® *Immunizations for Adolescents*.

The topics for the 12 dental PIPs focused on access and utilization of dental services, such as increasing the rate of annual dental visits and increasing preventive care (e.g., sealants, fluoride treatment, and follow-up care). DentaQuest also had a PIP to assess timeliness of oral evaluation. All dental PIPs were implemented in both Medicaid and CHIP Dental.

1.3. Performance Improvement Project Validation Study Results

This section presents results of the external quality review organization's assessment of the calendar year 2013 Medicaid and CHIP health plan PIPs, including: (1) interventions; (2) methods used for measurement and testing improvement; and (3) year-end findings on the effectiveness of the PIPs. In all cases, the validation method includes an assessment of both the health plan's description of the PIP (to determine whether documentation was sufficient for a thorough evaluation) and the robustness of the PIP (to determine whether the PIP had, or has the potential, to effect real change). Although both components are closely related, it is possible for a PIP to be described in great detail (and therefore earn high marks for documentation), but still not be robust enough to have adequate reach.

Interventions

Interventions were assessed in regard to their applicability to the problem or target population of the PIP, and their potential to effect change. Typical interventions were composed of numerous activities, which were implemented at the member, provider, and system levels (**Table 4**).

- Member-level interventions were the most common, and included activities such as the distribution of educational materials (e.g., newsletters, flyers, handouts), telephone contact (e.g., auto-dialer, text, reminder calls), and outreach programs (e.g., in-home training, hosting activities). In addition, one PIP utilized educational classes for members, and another emphasized enrollment to a diabetes disease management program.
- Provider-level interventions included the distribution of educational materials (e.g., newsletters, handouts, practice guidelines), reports that highlight gaps in care or service utilization, meetings to discuss results of important quality measures and service utilization, and incentives. In addition, three PIPs involved orientation sessions with providers and provider staff – including training in cultural competence.
- System-level interventions were the least common, and often involved a combination of system-level with member- or provider-level activities. Typical system-level interventions included provider representative visits and events to ensure appropriate diagnosis and procedure coding, holding health fairs for members, member and provider outreach programs (e.g., outreach teams, outreach with case managers), and providing educational information online (e.g., social media, YouTube).

Table 4. Common Performance Improvement Project Intervention Types

Intervention level	Description	Number of PIPs
Member-level	Educational materials (newsletters, flyers, handouts)	42
	Telephone contact (auto-dialer, text, reminder calls)	25
	Outreach programs (in-home training, hosting activities)	19
Provider-level	Educational materials (newsletters, handouts, guidelines)	26
	Reports (gaps in care, service utilization)	19
	Meetings (discussions of results and improvement strategies)	9
	Incentives	7
System-level	Provider representative visits/events (appropriate coding)	5
	Health fairs	4
	Member outreach programs (team-based, appointment portal)	3
	Provider outreach programs (case managers, liaisons)	3
	Online educational information (social media, websites)	3

A common type of intervention involves sending educational mail-outs to members along with a health risk assessment form, which the members are requested to complete and return by mail. Although the health plan may provide adequate details of the intervention—such as the content of the mailings and its evidence base, the number of members targeted, and the follow-up process—the intervention itself may not be robust enough to have an impact on the population. In the case of interventions based solely on mailings, incorrect and incomplete mailing address information for members make it difficult to assess whether members are being reached, and in turn, whether the educational materials are successfully influencing healthy behaviors.

Overall, the development of interventions (Step 7a) was the lowest scoring step in the calendar year 2013 PIP evaluations, with an average score of 42 percent across the 21 health plans. While sufficient details regarding PIP interventions are necessary to assess the appropriateness and effectiveness of the proposed interventions, for an intervention to be considered robust it must be based on the results of a root cause analysis and target member-, provider-, and system-level factors. The average score for health plans on the design of interventions to address root causes and barriers was 44 percent. In addition, the health plans had low overall scores on describing interventions in sufficient detail (29 percent) and the design of interventions that address the cultural and linguistic needs of targeted populations (7 percent).

Tables 5, **6**, and **7** show elements of the more robust interventions assessed in calendar year 2013 for the three most common PIP topics – well-child and adolescent well-care, asthma-related emergency department visits, and postpartum care. It is important to note that a robust intervention does not require all listed elements in a given table. A managed care organization seeking to implement a future PIP on one of these topics should select intervention elements that are appropriate to the specific study population and setting.

Robust interventions for well-child and adolescent well-care involve activities at all three intervention levels (member, provider, and system), considerable face-to-face interaction with members and providers, electronic communication methods (e.g., email and text), community outreach events, and reports for providers showing both member-level and aggregate results on well-care visits. These interventions should also include information and guidance for providers on Texas Health Steps (THSteps) – the State's Early and Periodic Screening, Diagnostic, and Treatment Program.

Robust interventions for reducing rates of asthma-related emergency department visits focus primarily on providers and systems. Managed care organizations send reports to providers informing them of members who visit the emergency department – including reports focused on high-risk members with asthma – as well as guidance on risk-stratification scores. These interventions also include programs to coordinate post-discharge follow-up visits for members, provide incentives to providers who use relevant quality metrics, and offer home extermination for asthmatic members.

Robust interventions for improving rates of postpartum visits include activities at all three intervention levels (member, provider, and system), face-to-face interaction with providers who conduct postpartum visits, such as nurses, case managers, and *promotoras*, and incentives for members who use educational websites and complete a timely postpartum care visit. One system-level approach includes the use of software to view the geographic distribution of members and providers, and to assess the proximity of network obstetrics and gynecology providers to members.

Robust interventions for improving preventive dental care (e.g., annual visits, fluoride treatment, sealants) in the Medicaid and CHIP populations include the use of social media to promote healthy oral hygiene (member- and system-level), text reminders (member-level), recognition and reward programs for providers who perform a high volume of preventive services (provider-level), and outreach calls to members to identify barriers to care (member-level).

Table 5. Elements of Robust Interventions for Well-Child and Adolescent Well-Care Performance Improvement Projects

Improving Rates of Well-Child Visits and Adolescent Well-Care
(1) *Face-to-face education for members and parents/guardians*. Preventative health coordinators provide educational sessions at venues where members in the target population live, organize events, assist with scheduling, and establish relationships with members and parents/guardians.
(2) *Email and text message reminders to members*. The managed care organization uses electronic communications to remind members to come in for timely check-ups.
(3) *Quick reference guides for network providers.* Provider representatives offer reference guides that provide information HEDIS® measures, THSteps visits, and appropriate coding procedures.
(4) *Member-level reports for providers*. The managed care organization sends reports to providers that identify when each member is due for a checkup.
(5) *Face-to-face meetings for high-volume providers*. Meetings are held with providers to review compliance rates, set goals, and improve performance.
(6) *Reward programs for providers*. The managed care organization implements reward programs for providers who offer same-day appointments and accommodate members during non-traditional business hours.
(7) *Performance reports for providers*. The managed care organization distributes reports to providers that evaluate their performance among service area peers and in reference to national NCQA 75th percentiles.
(8) *One-on-one THSteps training.* Network providers receive training from the managed care organization regarding THSteps contractual requirements.
(9) *Community outreach events*. The managed care organization holds outreach events to provide members with well-care visit information and to obtain feedback from members on services.
(10) *Face-to-face meetings with school nurses.* Representatives from the managed care organization meet with school nurses to provide educational information about adolescent well-care visits.

Table 6. Elements of Robust Interventions for Asthma-Related Emergency Department Visit Performance Improvement Projects

Reducing Asthma-Related Emergency Department Visits
(1) *Post emergency department utilization programs*. The managed care organization implements programs to arrange post-discharge follow-up visits for members with their primary care providers.
(2) *Member-level reports for providers.* The managed care organization sends reports to providers with information regarding members who visited the emergency department in the past 30 days. Case managers use the reports to identify members for outreach.
(3) *Appointment availability programs*. The managed care organization designs programs to increase the number of in-network urgent care facilities and after-hour care practices, and to promote open scheduling.
(4) *Incentive programs for primary care providers*. Programs incentivize high-quality care for members with asthma using rates of inpatient admissions for ambulatory care sensitive conditions as a quality metric.
(5) *Utilization reports.* The managed care organization identifies providers with high-risk asthma members through utilization reports and high-risk asthma reports.
(6) *Provider education on risk stratification.* The managed care organization educates providers with high-risk asthma members on risk stratification scores that are available in high-risk asthma reports.
(7) *Home extermination programs*. The managed care organization provides home health visits for members with asthma to assess triggers of symptom exacerbation. Members for whom the need is identified receive home extermination services.

Table 7. Elements of Robust Interventions for Postpartum Care Performance Improvement Projects

Improving Rates of Postpartum Care
(1) *Member service representative calls*. Calls are made to licensed vocational nurses, obstetrics case managers, or *promotoras* in regard to member needs for postpartum care.
(2) *Assistance from utilization review case managers*. Licensed vocational nurses and *promotoras* receive assistance in contacting and educating new mothers on the importance of postpartum care.
(3) *Incentive cards for members*. The managed care organization mails incentive cards to members to complete a timely postpartum visit.
(4) *Provider education on coding*. The managed care organization educates high-volume providers on appropriate postpartum care visit coding through training sessions and materials.
(5) *Comprehensive geographic analysis*. The managed care organization uses geographic analysis methods to view the distribution of active members in relation to network obstetrics and gynecology providers.
(6) *Provider education on timeliness standards*. The managed care organization educates high-volume obstetrics providers with outreach information regarding timeliness of prenatal and postpartum care.
(7) *Educational websites for members*. Members who log in and visit an educational trimester-specific website are provided incentive gifts.[9]

Measurement and Testing

The external quality review organization also assessed the methods used by health plans to measure change in the selected PIP study indicators, and used this information to evaluate the validity of conclusions made by health plans on the effectiveness of PIP interventions. Target goals for improvement were specified in all but one PIP. In 40 percent of the PIPs, health plans specified a target representing a percentage increase in the study indicator over baseline, with the most common being a five percent increase (31 PIPs), followed by a ten percent increase (15 PIPs). In 31 percent of the PIPs, target goals were specified in reference to National Committee for Quality Assurance national percentiles, with the most common being performance at the 75th percentile or greater (18 PIPs). For sixteen PIPs, health plans listed “statistically significant improvement” as the goal.

Out of 135 PIP summaries submitted by the health plans, 45 (33 percent) did not include numerators or denominators on selected study indicators, and reported changes in performance therefore could not be validated. Of the remaining 90 PIPs, 50 (56 percent) showed statistically significant improvement on study indicators at $p < 0.10$, which is an appropriate standard of statistical significance for interventions at the community-level. **Tables 8** and **9** list the PIPs that showed statistically significant improvement on one or more study indicators in calendar year 2013 in STAR and CHIP.

In addition, four PIPs in STAR+PLUS showed improvement in study indicators, including:

- Improving Management of Diabetes (Amerigroup), using measures of HbA1c testing, HbA1c control, LDL-C testing, and LDL-C control
- Improving Cholesterol Management (Molina), using a measure of LDL-C screening
- Improving Diabetic Care (Molina), using measures of HbA1c testing, HbA1c control, and eye exams
- Reducing Nursing Home Utilization (UnitedHealthcare), using a measure of nursing home utilization

Lastly, PIPs in both dental managed care organizations showed improvement on measures of fluoride use for children in CHIP. DentaQuest also showed improvement on measures sealant use and timeliness of oral evaluation in both programs. MCNA Dental showed improvement on HEDIS® *Annual Dental Visit* and measures of preventive dental services in both programs, as well as the measure of fluoride use for children in STAR.

Table 8. STAR Program Performance Improvement Projects Showing Statistically Significant Improvement

Managed Care Organization	Performance Improvement Project	Indicator(s) Showing Improvement [a, b]
Amerigroup	Reducing Asthma-Related Emergency Department Visits and Admissions	AER, MMA
Community First	Improving Access to Well-Child Care	AWC, W34
Community First	Improving Member Adherence of Follow-up Visits After an Acute Behavioral Health Hospitalization	FUH
Community Health Choice	Improving Adolescent Well-Care Visits	AWC
Community Health Choice	Reducing Emergency Room Utilization for ACSCs for Members Age 0-19 Years	3M PPV
Driscoll	Improving Follow-up Care for Children with Newly Prescribed ADHD Medication	ADD
El Paso First	Reducing Inappropriate Emergency Department Use	AMB
El Paso First	Improving Rates of Postpartum Care Visits	PPC
Molina	Improving Adolescent Checkups Received	AWC
Molina	Improving Postpartum Care Received	PPC
Molina	Improving Asthma Care	AMR, ASM
Parkland	Improving Childhood Immunization Rates	CIS Combo 4
Seton	Reducing Emergency Room Utilization	ER Visit Utilization
Seton	Improving the Utilization of Postpartum Care	PPC
Superior	Well-Child Visits for the Third, Fourth, Fifth, and Sixth Years of Life	W34
Texas Children's	Improving Access to and Utilization of Well-Child Check-up For Members Ages 3 to 6 Years Old and 12 to 21 Years Old	AWC, W34
Texas Children's	Reducing Emergency Department Utilization Due to ACSCs Through Improved Treatment of Asthma	ASM
Texas Children's	Improvement in the Percentage of Deliveries that have a Postpartum Visit on or Between 21 and 56 Days After Delivery	PPC
UnitedHealthcare	Improving the Utilization Rate of Adolescent Well-Care Visits for Members 12 through 18 Years of Age	AWC
UnitedHealthcare	Improving the Compliance Rate of Childhood Immunization Combo 4	CIS Combo 4

[a] All measures in this table are HEDIS® measures, with the exception of AER (CHIPRA *Annual Percentage of Asthma Patients with One or More Asthma-Related Emergency Room Visits*), 3M PPV (*Potentially Preventable Emergency Department Visits*) and *ER Visit Utilization* (a measure derived by the managed care organization). See Appendix A for full names of HEDIS® measures.

[b] Seton's *ER Visit Utilization* measure represents the number of emergency room visits per 1,000 members (enrolled at any time) during the 12-month study period, determined using paid claims or encounters from a hospital with an emergency room revenue code.[10] Visits associated with inpatient admissions are not counted.

Table 9. CHIP Performance Improvement Projects Showing Statistically Significant Improvement

Managed Care Organization	Performance Improvement Project	Indicator(s) Showing Improvement [a, b]
Amerigroup	Reducing Asthma-Related Emergency Department Visits and Admissions	AER, MMA
Community First	Improving Access to Well-Child Care	AWC, W34
Community First	Improving Member Adherence of Follow-up Visits After an Acute Behavioral Health Hospitalization	FUH
Community Health Choice	Improving Adolescent Well-Care Visits	AWC
Community Health Choice	Increasing the Rate of Appropriate Testing for Children with Pharyngitis	CWP
Driscoll	Improving Follow-up Care for Children with Newly Prescribed Attention Deficit Hyperactivity Disorder Medication	ADD
El Paso First	Adolescent Well-Care	AWC
El Paso First	Well-Child Care 3 to 6 Years of Age	W34
Parkland	Improving Access to and Utilization of Preventive Care with Focus on 3 to 6 Year Olds and Adolescents 12 to 21	AWC, W34
Parkland	Improving Childhood Immunization Rates	CIS Combo 4
Seton	Improving Preventive Care Utilization for Children Ages 3 to 6 and Adolescents Ages 12-18	AWC, W34
Seton	Reducing Emergency Room Utilization	ER Visit Utilization
Superior	Adolescent Well-Care Visits	AWC
Superior	Well-Child Visits for the Third, Fourth, Fifth, and Sixth Years of Life	W34
Texas Children's	Improving Access to and Utilization of Well-Child Check-up For Members Ages 3 to 6 Years Old and 12 to 21 Years Old	AWC, W34
Texas Children's	Improvement in Appropriate Testing for Children with Pharyngitis	CWP

[a] All measures in this table are HEDIS® measures, with the exception of AER (CHIPRA *Annual Percentage of Asthma Patients with One or More Asthma-Related Emergency Room Visits*) and *ER Visit Utilization* (a measure derived by the managed care organization). See Appendix A for full names of HEDIS® measures.

[b] Seton's *ER Visit Utilization* measure represents the number of emergency room visits per 1,000 members (enrolled at any time) during the 12-month study period, determined using paid claims or encounters from a hospital with an emergency room revenue code.[11] Visits associated with inpatient admissions are not counted.

Performance Improvement Project Plan and Report Evaluation Scores

Evaluation of the calendar year 2013 PIP plans was conducted in the fall of 2012 – the year prior to implementation. **Figure 2** shows the overall PIP plan evaluation score for each health plan, representing the average scores for Steps 1 through 7a. Scores ranged from 48 percent in Superior to 91 percent in UnitedHealthcare-Texas; however, all but two health plans (Superior and Blue Cross Blue Shield) performed above 70 percent on the PIP plan evaluation. A score could not be calculated for DentaQuest, which changed all PIP topics between the PIP plan and PIP report stages.

Evaluation of the calendar year 2013 PIP Reports was conducted in the fall of 2014. **Figure 3** shows the final PIP report evaluation score for each health plan, representing the average scores for Steps 7b through 10. Scores ranged from 22 percent in Sendero to 96 percent in DentaQuest; however, all but six health plans (Community First, Molina, Parkland, Aetna, CHRISTUS, and Sendero) performed above 70 percent on the PIP report evaluation.

Overall, combined scores representing the average of the PIP plan evaluation and the PIP report evaluation are shown in **Figure 4**. Overall scores ranged from 53 percent in Sendero to 90 percent in Amerigroup. All but six health plans (Superior, Blue Cross Blue Shield, Parkland, Aetna, CHRISTUS, and Sendero) had an overall PIP score above 70 percent. Among the most common types of PIPs, those addressing both well-child and adolescent well-care had the highest average final score (80 percent), followed by those addressing postpartum care (70 percent). On average, PIPs addressing childhood immunizations or asthma-related emergency department visits received a score of 66 percent.

Scores for the individual PIP steps varied, as shown on **Table 10**. Health plans scored the highest on Step 4 – Review the Identified Study Population (97 percent) and Step 10 – Sustained Improvement (97 percent). It should be noted that most Sustained Improvement scores represent only an evaluation of the managed care organizations' plans to test and achieve sustained improvement in quality. Only one health plan (El Paso First) had PIPs that continued from the prior year and could demonstrate whether observed improvement in quality had been sustained. Beginning with the calendar year 2014 PIP validation, the external quality review organization will monitor sustained improvement using measures calculated as part of its annual quality of care evaluation.

Sixteen health plans had a score of "N/A" for Step 5 (Sound Sampling Methods) because they targeted their full populations using a census of administrative claims and encounter data (and therefore sampling was not required). The 67 percent score for this step represents only those health plans that used sampling for one or more PIPs (e.g., for hybrid studies or derived measures).[12]

The development stage of Step 7 – Intervention and Improvement Strategies had the lowest average score (42 percent). Health plans that scored low on this step did not propose robust interventions or did not provide enough details on proposed interventions to demonstrate they were appropriate for the targeted population or would have adequate reach.

Figure 2. Performance Improvement Project Plan Evaluation Scores, by Health Plan

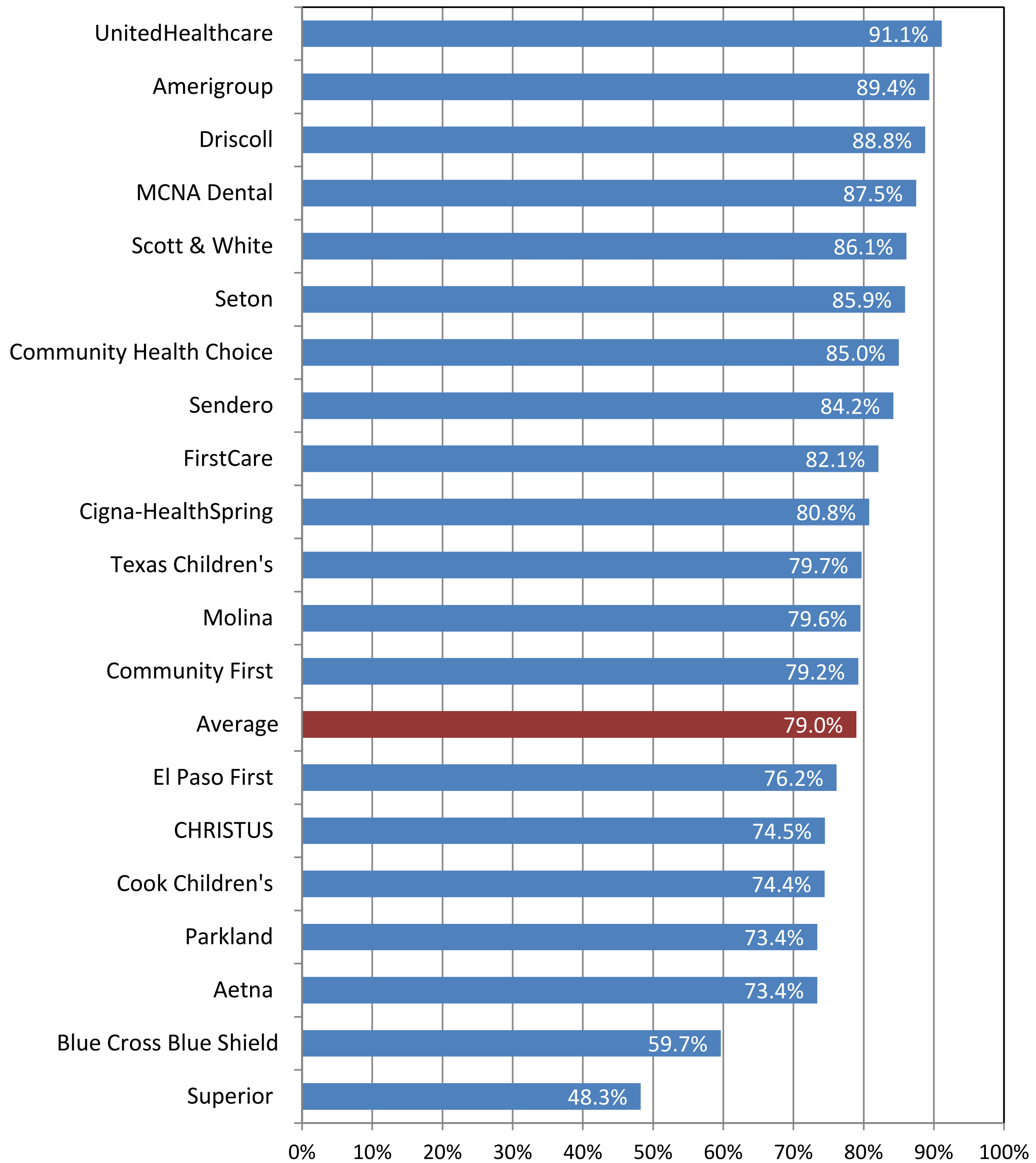


Figure 3. Performance Improvement Project Report Evaluation Scores by Health Plan

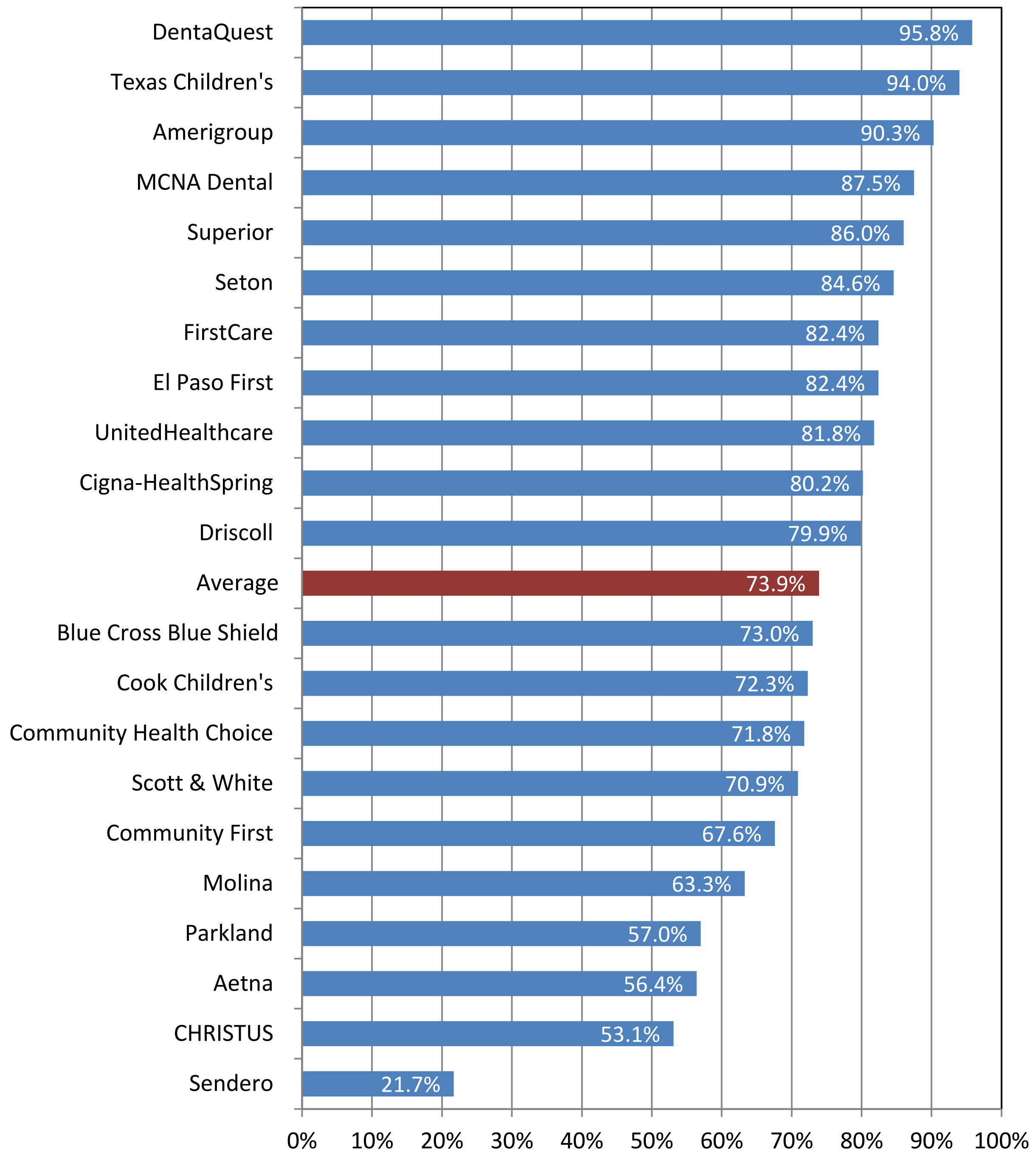


Figure 4. Overall Performance Improvement Project Evaluation Scores, by Health Plan

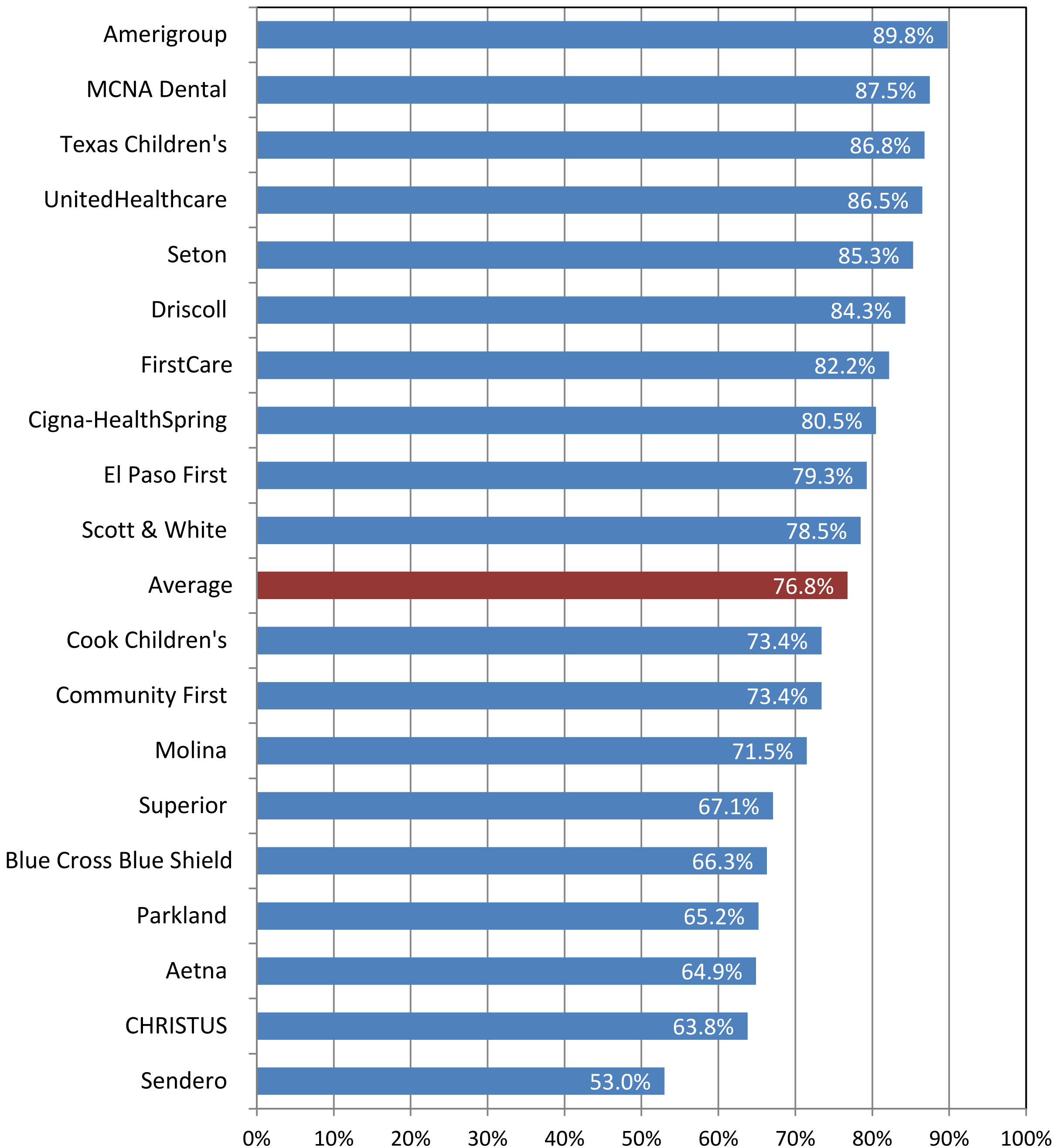


Table 10. Average Performance Improvement Project Evaluation Scores, by Step

Performance Improvement Project Step [a]	Average Evaluation Score
1. Review the Selected Topic	85.6%
2. Review the Study Question(s)	88.8%
3. Select the Study Indicator(s)	84.1%
4. Review the Identified Study Population	96.6%
5. Sound Sampling Methods	66.7%
6. Plan to Collect Reliable Data	80.7%
7a. Intervention and Improvement Strategies (Development)	41.5%
7b. Intervention and Improvement Strategies (Implementation)	69.8%
8. Analyzing Data and Interpreting Results	66.6%
9. Real Improvement	70.9%
10. Sustained Improvement	97.4%

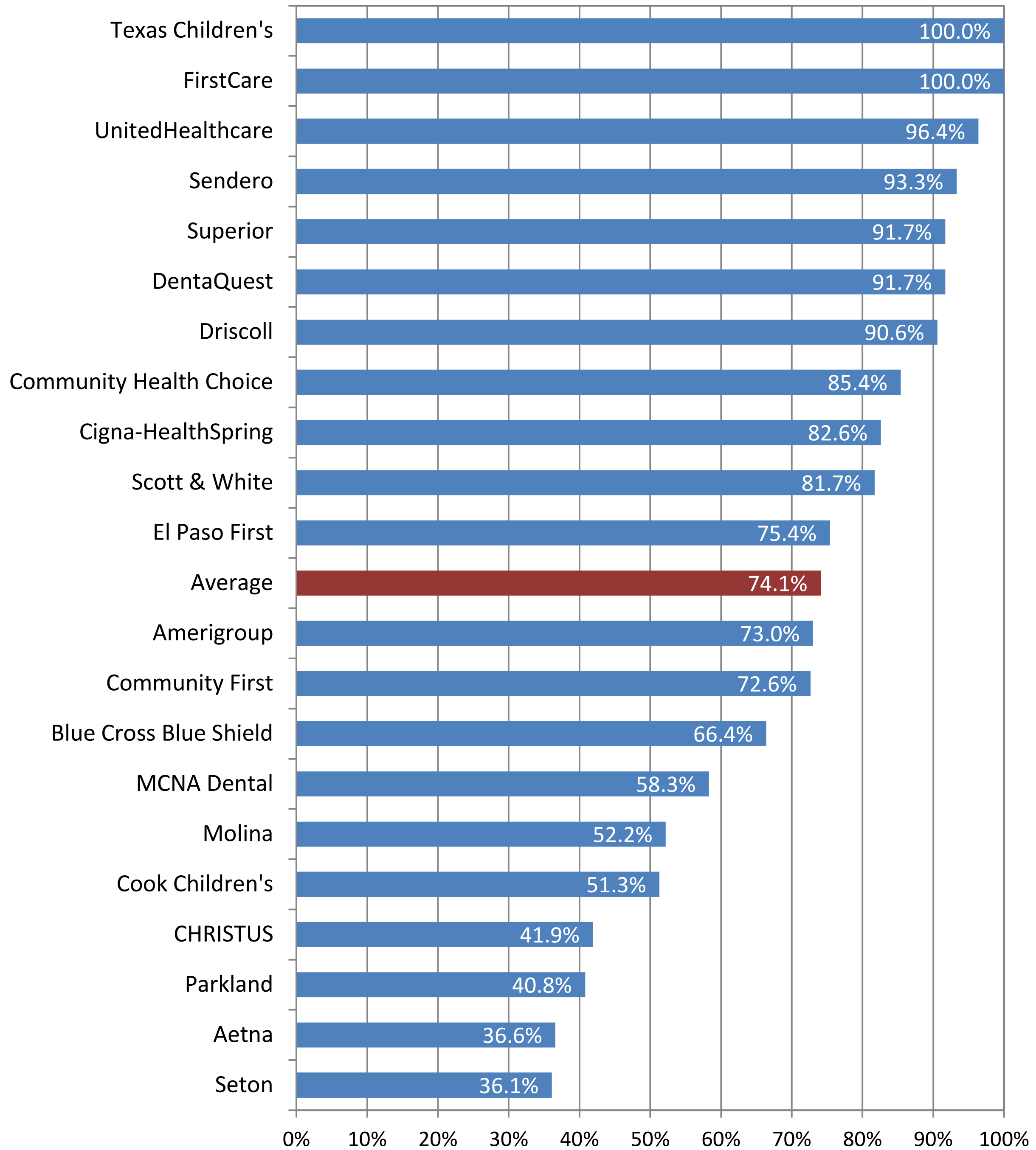
[a] Beginning with the calendar year 2014 PIP validation study, the external quality review organization will follow the order of steps in the most current (2012) CMS protocol, in which the order of Steps 3 and 4 is now switched, and the order of Steps 7 and 8 is switched.

Compliance with Performance Improvement Project Recommendations

As part of the PIP plan evaluation, the external quality review organization made recommendations to each health plan for improving their PIP methodologies and interventions prior to full implementation. The most common recommendations made during this stage addressed the need for the health plans to provide additional details on their interventions (73 percent of the PIPs), as well as the need to develop more robust interventions (79 percent of the PIPs).

During the PIP report evaluation, a determination was made regarding the extent to which health plans followed through with recommendations made during the PIP plan evaluation. **Figure 5** shows the percentage of PIP Plan recommendations that were fulfilled by each health plan. The percentage of recommendations that were fulfilled ranged from 36 percent in Seton to 100 percent in FirstCare and Texas Children's.

Figure 5. Percentage of Performance Improvement Project Plan Recommendations Fulfilled by Health Plans at End-Year Assessment



1.4. Final Recommendations for Performance Improvement Projects

As part of the end-year PIP report evaluation, the external quality review organization made a final set of recommendations to the health plans for improving the design, implementation, and reporting of their annual PIPs. **Table 11** shows the most common final PIP recommendations made in calendar year 2013, along with the PIP step to which they pertained and the percentage of PIPs that had the specified recommendation.

The most common recommendation – made for 70 percent of the PIPs – was that interventions should be described in greater detail than was provided in the PIP reports submitted by the managed care organizations. In particular, many health plans omitted the number and percentage of members reached by the intervention. In one-third of the PIPs, health plans did not disclose sufficient detail on communication strategies with members (33 percent). In 27 percent of the PIPs, health plans did not provide sufficient detail on how literacy and cultural needs of members were addressed. For these health plans, the external quality review organization recommended that the health plan describe how calls made and/or materials provided to members addressed their literacy and cultural needs. One-quarter of the PIPs also did not specify needed revisions to PIP intervention strategies; in these cases, the health plans did not disclose whether or to what extent components of PIP interventions were unsuccessful (27 percent).

In Step 8 (Analyzing Data and Interpreting Results), 30 percent of PIPs did not present study results in sufficient detail. In particular, many health plans did not provide numerators or denominators of baseline and follow-up measures in table format, making it difficult for the external quality review organization to validate study results. In one-quarter of the PIPs, health plans failed to provide results of statistical significance testing between baseline and follow-up measures (27 percent). In these cases, the external quality review organization recommended the health plan conduct t-tests or chi-square tests (as appropriate) on differences between baseline and follow-up measures, and report the corresponding p-values in its PIP report.

Table 11. End-Year Performance Improvement Project Recommendations

PIP Step	Specific Recommendation Topic	Percentage of PIPs with Recommendation
Activity 7b. Intervention and Improvement Strategies (Implementation)	Interventions should be implemented at the beginning of the measurement period.	35.6%
	Communication strategies to reach members/providers and the outcomes of the strategies need to be described in detail.	33.3%
	Describe how literacy and cultural needs are addressed.	41.5%
	Interventions should be described in greater detail.	71.9%
	Intervention strategies should be revised if not successful or if significant barriers were encountered upon implementation.	27.4%
Activity 8. Analyzing Data and Interpreting Results	Clearly present results and provide additional detail, such as numerators and denominators of baseline and follow-up rates.	29.6%
	Report p-value and statistical significance for all measures.	26.7%
	Interpret outcomes of the PIP accurately.	20.0%
Activity 9. Real Improvement	Provide an accurate statement statistical significance in the report.	34.1%
	Achieve statistically significant improvement.	27.4%

2. Encounter Data Validation

In accordance with federal regulations on mandatory and optional activities for Medicaid managed care external quality review, Texas HHSC requires biennial validation of Medicaid and CHIP health care claims and encounter data. Encounter data are useful for assessing and improving the quality of care that Medicaid members receive, and for monitoring program integrity. An encounter refers to a service provided to a member by either a practitioner or an institutional provider, which would traditionally be considered a billable service under fee-for-service reimbursement systems.[13]

The external quality review organization conducts an encounter data validation study biennially to assess the accuracy of the information found in the managed care organizations' claims. The encounter data are compared to corresponding health records. Using a random sample of encounters, the study compares information that providers document in the health records of Texas Medicaid and CHIP members with the information in the administrative encounter data that the managed care organizations maintain and upload to the Texas Medicaid Healthcare Partnership (TMHP) database. Data elements are selected for examination based on the CMS protocol for encounter data validation, as well as on those data elements that are most important for assessing health care quality and for conducting risk adjustment and rate setting (e.g., diagnoses, current procedural terminology codes, dates of service and others).

This section summarizes the methodology, key findings, and recommendations for the Texas external quality review organization's encounter data validation study on calendar year 2013 data.

2.1 – Encounter Data Validation Methodology

The study aimed to review 163 records per managed care organization and program. The external quality review organization requested 251 records per managed care organization, with an expected 65 percent return rate to yield 163 records each. Records received and reviewed met the 65 percent target. A total of 6,656 records were reviewed, with 7,282 diagnoses and 18,509 procedures available for validation. The reviews were conducted by certified health record reviewers from November 2014 through early January 2015.

Data Sources and Member Inclusion Criteria

The external quality review organization obtained managed care organization claims and encounter data from the Texas Vision 21 Encounter Data Warehouse. The study timeframe was January 1, 2013, through December 31, 2013, with at least a three-month lag for processing purposes and data quality verification. This is the time period for which 2013 claims data were available via the Texas data warehouse. The sampling frame consisted of Medicaid managed care and CHIP enrollees who were members of a managed care organization during the study period. The random sample of claims for the STAR, STAR+PLUS, STAR Health, and CHIP members was compiled from the universe of members of

those programs for each of the 41 program/managed care organization combinations (i.e., STAR+PLUS Amerigroup, STAR Amerigroup, etc.).

Enrollees in the study were members of a participating managed care organization for at least one month during the period of January through December 2013. An enrollee may appear in the sample more than once if he or she had multiple qualifying encounters.

Encounter Definitions

A random sample was drawn from paid outpatient encounters within each program (STAR, STAR+PLUS, STAR Health, and CHIP) and managed care organization, using dates of service during the specified time frame. To qualify for the sample, encounters must have been drawn from outpatient office or clinic visits, as defined by Place of Service codes (**Table 12**).

Table 12. Encounter Data Validation Place of Service Codes for Encounter Sampling

Place of Service Code	Description
11	Office
17	Walk-in Retail Health Clinic
49	Independent Clinic
50	Federally Qualified Health Center
53	Community Mental Health Center

Sampling

The external quality review organization used the Medicaid Master Provider File for demographic and address information of providers participating in STAR, STAR+PLUS, STAR Health, and CHIP.

The goal of the sampling strategy was to ensure that findings for each managed care organization were statistically sound representations of the managed care organizations' respective performance. Using input from an expert in biostatistics in the external quality review organization, the sample size was calculated using a 95 percent confidence interval with a margin of error of +/-5 percent, for an average fault rate of 12 percent. The sample for each managed care organization and line of business was 163. To obtain 163 records for each managed care organization and program, 251 records were requested. This sample was based on previous record requests yielding the expected 65 percent return rate. **Table 13** shows which managed care organizations in STAR, STAR+PLUS, and CHIP were included in the study. Overall, 4,518 records were requested in STAR, 4,267 in CHIP, 1,255 in STAR+PLUS, and 251 in STAR Health.

Table 13. Encounter Data Validation Study – Managed Care Organizations by Program

Managed Care Organization	Program		
	STAR	STAR+PLUS	CHIP
Aetna	✓		✓
Amerigroup	✓	✓	✓
Blue Cross Blue Shield	✓		✓
CHRISTUS	✓		✓
Cigna-HealthSpring		✓	
Community First	✓		✓
Community Health Choice	✓		✓
Cook Children's	✓		✓
Driscoll	✓		✓
El Paso First	✓		✓
FirstCare	✓		✓
Molina	✓	✓	✓
Parkland Community	✓		✓
Scott & White	✓		
Sendero	✓		✓
Seton	✓		✓
Superior	✓	✓	✓
Texas Children's	✓		✓
UnitedHealthcare-Texas	✓	✓	✓
Total records requested	**4,518**	**1,255**	**4,267**

Health Records and Confidentiality

The external quality review organization sent letters to providers associated with the randomly selected claims to request health records for the specified members and dates of service. Additionally, external quality review organization staff called high-volume providers to request the records. Three weeks after the initial mailing, a second mailing was sent to providers who had not responded to the first mailed request or telephone calls.

The external quality review organization designed record request, submission, log-in, and abstraction procedures to protect confidentiality in accordance with Federal and State regulations. To ensure confidentiality, the following steps were taken:

- All personnel involved in record processing and review were trained in the handling of patient identifiable data, as required by the University of Florida Health Science Center Privacy Office.
- Patient and provider-specific data were maintained in a password-protected database. All health records received were logged into this password-protected database.
- Hard copies received were placed in file folders with a provider code and filed in locked filing cabinets. Faxed health records were received by a secure fax line and saved to a password-protected shared drive used by the health record review team.

Validation

A team of certified health record reviewers conducted the validation study. The team met daily to discuss any questions or interpretations related to the validation process. Inter-rater reliability is a standard protocol which validates the integrity of the health record review process by assessing the degree to which different reviewers give consistent results. The external quality review organization assessed inter-rater reliability by reviewing 25 charts per reviewer at the onset of the project. The reviewers achieved an accuracy score of 97 to 100 percent. For the subsequent weeks, reviewers exchanged five to ten records per reviewer to assess inter-rater reliability. The reviewers had a 99 percent agreement rate, agreeing 269 times on the 272 selected records.

The review team conducted the validation study by matching information found in the managed care organization's encounter data with information found in the health records that providers submitted. Reviewers evaluated two components of the encounter data: looking at the accuracy of the claims data and examining the completeness of the claims data compared to the health record.

1. *Standard Encounter Data Validation*. The external quality review organization compared information in requested health records with information in the administrative data for diagnosis, procedure, and place of service. The random sample of claims selected was pulled by date of service.
2. *Validation of Claims Completeness*. The external quality review organization compared data in health records to administrative data for all of 2013 to determine whether any encounters in the health records were absent in the claims data.

The reviewers assessed the match for the member's name, Medicaid ID number, and type of bill or place of service. In the next step, reviewers validated the coding accuracy of diagnosis and procedures by comparing the encounter data to the health record, determining the match or disagreement rate for each data field.

For each encounter, reviewers used the following codes to document agreement between the encounter data and the health record for each data element.

- *Match*: The data element has an exact match between the encounter data and the health record.
- *In Health Record/Not in Administrative Data*: The health record documentation contains evidence of a service or condition that is not reflected in the encounter data (under-reporting).
- *In Administrative Data/Not in Health Record*: The encounter data contains evidence of a service or condition that was not documented in the health record for the selected date of service (over-reporting).
- *Care Outside Evaluation Timeframe*: The record received covered an encounter that was not within the study time frame.
- *Illegible*: Reviewers were unable to read the health record documentation.
- *Other*: The record did not meet any of the above criteria.

The external quality review organization evaluated the final approved disposition of the claim, rather than the entire history of the claim. For example, a claim may have been submitted, then denied, submitted again, and approved. In such a case, reviewers validated only the final claim approved. Diagnoses that were highly related were treated as a match. For example, a diagnosis of atopic dermatitis in one data source and eczema in the other data source were treated as a match.

2.2 – Encounter Data Validation Results

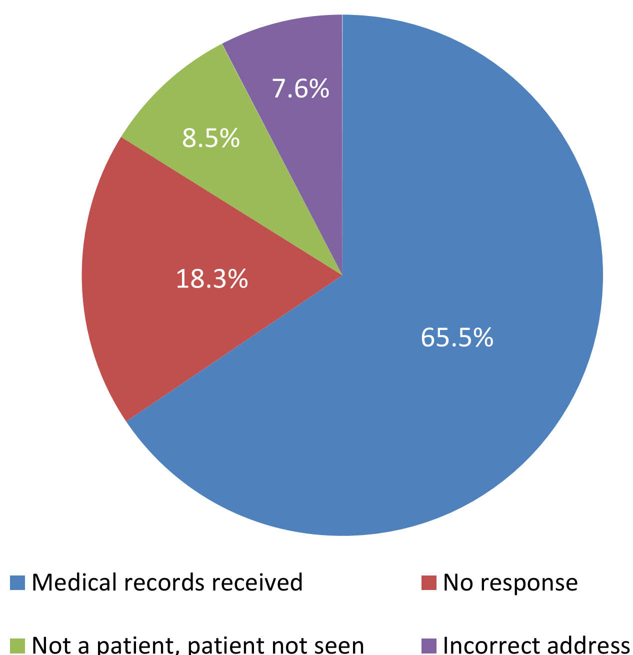
This section presents results of the external quality review organization's encounter data validation study for calendar year 2013. These results included a summary of health records received for all programs; match rates by program for diagnosis, procedure, and location; and details on match rates for the most common diagnoses and procedures.

Health Records Received in All Programs

Figure 6 shows the final disposition of requested medical records for the calendar year 2013 encounter data validation study. Overall, the external quality review organization received 6,737 records out of 10,291 requested – representing the expected return rate of two-thirds (66 percent). Eighteen percent of the record requests received no response. For approximately eight percent of requests, providers responded without the requested record because either the listed member was not a patient or the patient was not seen. Eight percent of requests were returned undeliverable due to an incorrect provider address.

Of the 6,737 records received, 81 were not for the same date of service as the corresponding claim sampled, which excluded these records from the validation process. All match rates presented in the following sections are calculated out of the 6,656 records for which the date of service corresponded with the sampled claim.

Figure 6. Percentage of Medical Records Received Out of Records Requested



Match Rates

Overall, match rates for diagnosis and procedure were high, exceeding 95 percent for all programs (**Table 14**).

Table 14. Encounter Data Validation – Match Rates for Diagnosis and Procedure by Program [14]

Program	Diagnosis			Procedure		
	Matched	Total	Match Rate	Matched	Total	Match Rate
STAR	3,291	3,377	97.5%	9,124	9,421	96.8%
CHIP	2,844	2,921	97.4%	6,881	7,087	97.1%
STAR+PLUS	789	818	96.5%	1,540	1,598	96.4%
STAR Health	158	166	95.2%	389	403	96.5%
Total	**7,082**	**7,282**	**97.3%**	**17,934**	**18,509**	**96.9%**

The external quality review organization assessed match rates for each managed care organization participating in Texas Medicaid and CHIP, both within and across programs. **Figures 7** and **8** show primary diagnosis and procedure match rates by managed care organization across all programs. For example, the match rates for Aetna represent study results for Aetna claims in both STAR and CHIP.

The distribution of match rates by managed care organization did not vary considerably between programs. Notable exceptions include differences in diagnosis match rates for Superior in STAR (99.5 percent), compared with Superior in CHIP (95.0 percent), STAR+PLUS (95.3 percent), or STAR Health (95.2 percent). Two other exceptions are the difference in procedure match rates for Seton in STAR (88.7 percent) and CHIP (97.3 percent), and the difference in procedure match rates for Molina in STAR (99.1 percent) and STAR+PLUS (94.8 percent).

Seton had a number of procedures that were in the medical record data but not in the administrative data. Most of these were vaccinations for which providers do not get reimbursed. This highlights the need for Seton to communicate to network providers the importance of submitting claims for all procedures. That being said, if all vaccination rates were submitted Seton's match rate would have still been lower than average, but slightly more comparable, to other managed care organizations.

Most managed care organizations had high match rates across all programs for both primary diagnosis and procedure. For primary diagnosis, all managed care organizations had match rates exceeding 95 percent except for FirstCare (94.4 percent). For procedure, all managed care organizations had match rates exceeding 95 percent except Sendero (94.7 percent), FirstCare (94.0 percent), and Seton (92.4 percent). Overall, the findings show a high level of quality of encounter data in Texas Medicaid and CHIP.

There was only one place of service code that did not match the associated claim, producing an overall place of service match rate of 99.99 percent.

Figure 7. Primary Diagnosis Match Rates by Managed Care Organization

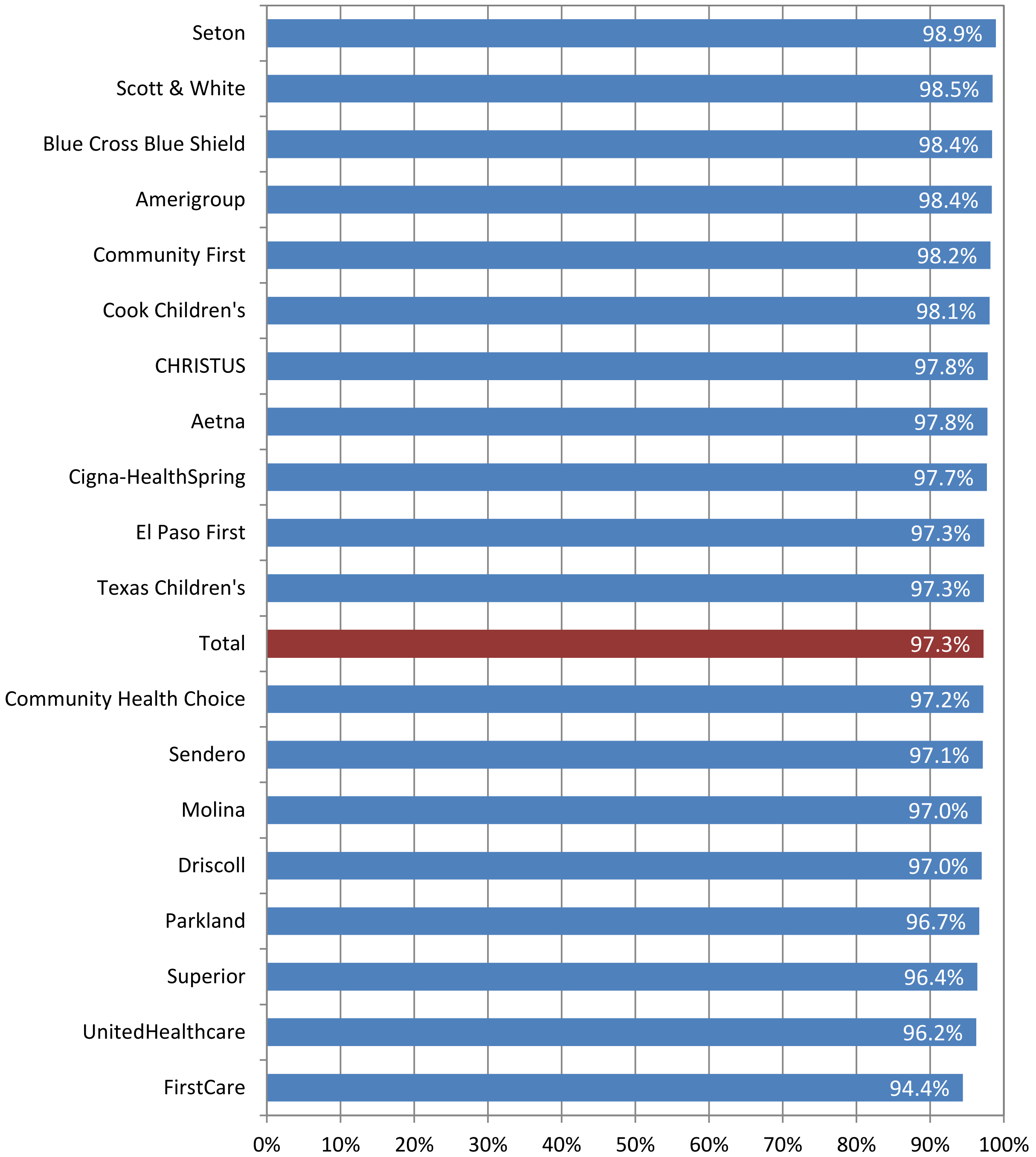
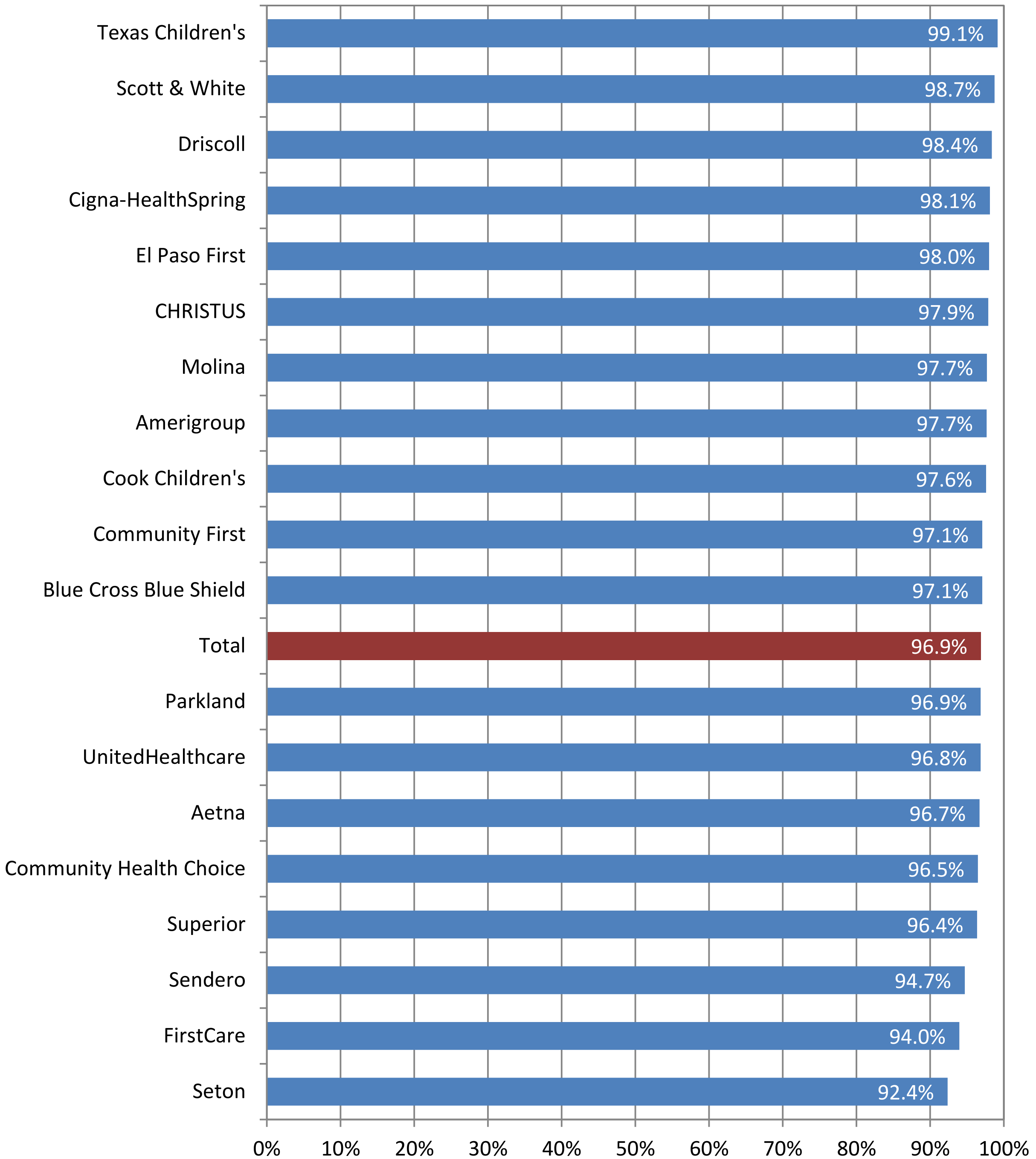


Figure 8. Procedure Match Rates by Managed Care Organization



Match Rates for Common Diagnoses and Procedures

Tables 15 and **16** show the ten most common diagnoses and ten most common procedures in the encounter data validation study, and their corresponding match rates. The findings show a high quality of encounter data for the most common diagnoses and procedures, with match rates exceeding 90 percent in all cases.

Table 15. Encounter Data Validation Match Rates for 10 Most Common Diagnoses

Diagnosis (ICD-9 Code)	Matched [a]	Number of Encounters	Match Rate
ROUTINE INFANT/CHILD HEALTH CHECK (V20.2)	2,344	2,361	99.3%
ACUTE UPPER RESP INFECTIONS UNS (465)	317	321	98.8%
ACUTE PHARYNGITIS (462)	203	207	98.1%
ATTENTION DEFICIT DIS W HYPERACT (314.01)	113	116	97.4%
ASTHMA UNSPECIFIED (493.9)	91	94	96.8%
UNSPECIFIED OTITIS MEDIA (382.9)	87	90	96.7%
ACUTE BRONCHITIS (466.0)	57	60	95.0%
INFLUENZA W OTH RESPIRATORY MANIF (487.1)	54	58	93.1%
ACUTE NASOPHARYNGITIS (460)	41	44	93.2%
VACCINE FOR INFLUENZA (V04.81)	34	37	91.9%

[a] This column represents the number of encounters for which the diagnosis code in the claims and the health record matched.

Table 16. Encounter Data Validation Match Rates for 10 Most Common Procedures

Procedure (CPT Code)	Matched [a]	Number of Encounters	Match Rate
OFFICE/OUTPATIENT VISIT EST (99212)	4,434	4,462	99.4%
IM ADMIN 1ST/ONLY COMPONENT (90460)	1,573	1,637	96.1%
STREP A ASSAY W/OPTIC (87880)	479	506	94.7%
IMMUNIZATION ADMIN (90471)	492	502	98.0%
IMMUNIZATION ADMIN EACH ADD (90472)	472	483	97.7%
IM ADMIN EACH ADDL COMPONENT (90461)	426	437	97.5%
DEVELOPMENTAL SCREEN W/SCORE (96110)	392	416	94.2%
INFLUENZA ASSAY W/OPTIC (87804)	388	400	97.0%
SPECIMEN HANDLING OFFICE-LAB (99000)	275	287	95.8%
VISUAL ACUITY SCREEN (99173)	251	261	96.2%

[a] This column represents the number of encounters for which the procedure code in the claims and the health record matched.

Appendix A – HEDIS® Measure Abbreviation and Name Crosswalk

HEDIS® Measure Abbreviation	HEDIS Measure Name
ADD	*Follow-up Care for Children Prescribed ADHD Medication*
AMB	*Ambulatory Care*
AMR	*Asthma Medication Ratio*
ASM	*Use of Appropriate Medications for People with Asthma*
AWC	*Adolescent Well-Care Visits*
CIS	*Childhood Immunization Status*
CWP	*Appropriate Testing for Children with Pharyngitis*
FUH	*Follow-up After Hospitalization for Mental Illness*
MMA	*Medication Management for People with Asthma*
PPC	*Prenatal and Postpartum Care*
W34	*Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*

Endnotes

[1] HHSC (Texas Health and Human Services Commission). 2015. *Texas Medicaid and CHIP in Perspective – 10th Edition.* Available at: http://www.hhsc.state.tx.us/medicaid/about/PB/PinkBook.pdf.

[2] CMS. 2012a. *Quality of Care External Quality Review (EQR).* Available at: http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care-External-Quality-Review.html.

[3] CMS. 2012b. *External Quality Review Toolkit for States*. Available at: http://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/eqr-toolkit.pdf.

[4] CMS. 2012c. *EQR Protocol 3: Validating Performance Improvement Projects (PIPs)*. Available at: http://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/eqr-protocol-3.pdf.

[5] The reporting forms used in this assessment (and in PIP validation projects of prior years) were organized according to earlier CMS protocols for PIP evaluation, in which the order of Steps 3 and 4 is now switched, and the order of Steps 7 and 8 is switched. Beginning with the calendar year 2014 validation study, the reporting forms will reflect the order in the current CMS protocols.

[6] In the case of DentaQuest, which changed topics for all six of its PIPs, this resulted in a PIP Plan Evaluation score of "N/A".

[7] Managed care organizations with PIP plans submitted in 2012 were permitted to use 2011 data and update the PIP with 2012 baseline data when it became available.

[8] Methods of communication should include more than simple mailings or robo calls.

[9] Examples of gifts for members included a yearly subscription to *American Baby*, a newborn first aid kit, and a robe offered by Texas Children's.

[10] For Seton's *ER Visit Utilization* measure, the following emergency room revenue codes were used: 0450, 0451, 0456, and 0459. Only one visit is counted when a claim and single date of service include more than one of these revenue codes.

[11] See Endnote #10, above.

[12] Managed care organizations that used sampling in one or more PIPs included Community First, Driscoll, Cigna-HealthSpring, Sendero, and Texas Children's.

[13] Department of Health and Human Services, Centers for Medicare and Medicaid Services. 2012. Validating Encounter Data: A Protocol for Use in Conducting External Quality Review of Medicaid Managed Care Organizations and Prepaid Health Plans. Baltimore, MD.

[14] Totals in this table exceed the total number of records assessed (N = 6,656) because many encounters had multiple primary diagnoses and procedures.