



Texas Medicaid Managed Care and Children's Health Insurance Program

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

Contract Year 2013

Measurement Period:

September 1, 2009 through December 31, 2012

The Institute for Child Health Policy

University of Florida

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

Table of Contents

Executive Summary	1
Introduction	14
External Quality Review in Texas Medicaid and CHIP	15
Managed Care Programs and Participating Managed Care Organizations	17
External Quality Review Organization Activities	20
Conceptual Framework	22
1 – The Texas Medicaid and CHIP Populations	25
1.1 – Demographic Characteristics	25
1.2 – Health Status	27
Child Member Health Status	27
STAR+PLUS Member Health Status	29
2 – Access and Utilization of Care	33
2.1 – Pediatric Preventive Care	33
Well-Child Care	33
Childhood Immunization	37
2.2 – Access to Dental Care Services	38
Annual Dental Visit	38
THSteps Dental Checkups	39
Use of Preventive Dental Services	40
Use of Dental Sealants	41
2.3 – Prenatal and Postpartum Care	42
2.4 – Ambulatory Care and Inpatient Utilization	44
Inpatient Utilization—General Hospital/Acute Care	46
AHRQ Pediatric Quality Indicators	47
AHRQ Prevention Quality Indicators	52
2.5 – Potentially Preventable Events	61
3M Potentially Preventable Readmissions	61
3M Potentially Preventable Emergency Department Visits	64
3M Potentially Preventable Complications	65
2.6 – Behavioral Health Service Utilization	67
Mental Health Service Utilization	67
Alcohol and Other Drug Service Utilization	67

3 – Managed Care Organization Structure and Process	68
3.1 – Health Plan Information	68
Encounter Data Validation	69
Electronic Health Records.....	70
Data Certification	71
3.2 – Disease Management Programs.....	73
3.3 – Quality Improvement.....	76
Assessing Managed Care Organization Compliance with CFR Policies	76
Administrative Interviews	77
Quality Assessment and Performance Improvement Evaluations	78
Performance Improvement Projects.....	81
Assessment of Previous Year’s Recommendations	84
4 – Member Satisfaction with Care	86
4.1 – Timeliness of Care.....	86
CAHPS® <i>Getting Care Quickly</i>	86
HHSC Performance Indicator Dashboard – Survey-based Timeliness Measures.....	87
4.2 – Primary and Specialist Care	90
CAHPS® <i>Getting Needed Care</i>	90
CAHPS® <i>Getting Specialized Services</i>	91
CAHPS® <i>Prescription Medicines</i>	91
HHSC Performance Indicator Dashboard – Survey-based Access Measures	92
4.3 – Patient-Centered Medical Home	94
Presence of a Usual Source of Care	95
Member Ratings of their Personal Doctor.....	96
CAHPS® <i>How Well Doctors Communicate</i>	96
CAHPS® <i>Shared Decision-Making</i>	97
CAHPS® <i>Personal Doctor</i>	97
CAHPS® <i>Getting Needed Information</i>	97
CAHPS® <i>Care Coordination</i>	98
4.4 – Customer Service	98
4.5 – Behavioral Health Care.....	99
4.6 – Experiences with Dental Care Services	100
Caregiver Ratings of Dental Services.....	100

5 – Effectiveness of Care	102
5.1 – Acute Respiratory Care	102
Appropriate Testing for Children with Pharyngitis.....	103
5.2 – Care for Chronic Conditions.....	104
Use of Appropriate Medications for People with Asthma.....	104
Comprehensive Diabetes Care	106
Cholesterol Management for Patients With Cardiovascular Conditions	108
5.3 – Behavioral Health Care.....	108
Follow-up After Hospitalization for Mental Illness	108
Follow-up Care for Children Prescribed ADHD Medication	112
Antidepressant Medication Management	115
5.4 – Preventive Care.....	117
Adult BMI Assessment.....	117
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents	118
6 – Focus Studies and Special Projects	121
6.1 – Texas Pay-for-Quality Programs for Health and Dental Plans.....	121
6.2 – Developing Risk-Adjustment Models for Long Term Care.....	122
6.3 – Examining Quality of Care for Members Who Are Dually-Eligible	124
6.4 – Data Quality and the Present on Admission Indicator	129
Appendix A. Fiscal Year 2013 Recommendations	131
Appendix B. Positive Findings and Improvement Areas	142
Appendix C. Fiscal Year 2013 External Quality Review Organization Study Methodologies	145
Endnotes	165

List of Tables

Table 1. Fiscal Year 2013 External Quality Review Organization Recommendations – Program Crosswalk	13
Table 2. Texas Medicaid/CHIP Managed Care Organizations and Service Areas in 2012	19
Table 3. Enrollment Trends in Texas Medicaid and CHIP, 2009-2012	25
Table 4. Sex and Age Distribution in Texas Medicaid and CHIP, 2012	25
Table 5. Texas Medicaid Members by Race/Ethnicity 2009-2012	26

Table 6. Medicaid and CHIP Dental Enrollment – December 2012	27
Table 7. Medicaid and CHIP Dental Enrollment by Race/Ethnicity – December 2012	27
Table 8. Characteristics of Child Members with Special Health Care Needs in STAR, CHIP, and STAR Health	28
Table 9. Child/Adolescent BMI Classification	29
Table 10. STAR+PLUS Member Self-Reported Health Status	30
Table 11. STAR+PLUS Member BMI Classification	30
Table 12. HEDIS [®] <i>Childhood Immunization Status</i> , 2012	37
Table 13. AHRQ Asthma Pediatric Quality Indicator Admission Rates (per 100,000 eligible members), 2012.....	47
Table 14. AHRQ <i>Diabetes Short-Term Complications</i> Pediatric Quality Indicator Admission Rates (per 100,000 eligible members), 2012.....	48
Table 15. AHRQ <i>Gastroenteritis</i> Pediatric Quality Indicator Admission Rates (per 100,000 eligible members), 2012.....	49
Table 16. AHRQ <i>Urinary Tract Infection</i> Pediatric Quality Indicator Admission Rates (per 100,000 eligible members), 2012	50
Table 17. AHRQ <i>Perforated Appendix</i> Pediatric Quality Indicator Admission Rates (per 100 admissions for appendicitis), 2012	51
Table 18. AHRQ <i>Diabetes Short-Term Complications</i> Prevention Quality Indicator Admission Rates (per 100,00 eligible members), 2012.....	53
Table 19. AHRQ <i>Diabetes Long-Term Complications</i> Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012.....	54
Table 20. AHRQ <i>Hypertension</i> Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012.....	54
Table 21. AHRQ <i>Congestive Heart Failure</i> Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012	55
Table 22. AHRQ <i>Dehydration</i> Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012.....	56
Table 23. AHRQ <i>Bacterial Pneumonia</i> Prevention Quality Indicator Admission Rates (per 100,000 eligible members)	57
Table 24. AHRQ <i>Urinary Tract Infection</i> Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012	58
Table 25. AHRQ <i>Angina without Procedure</i> Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012	59
Table 26. AHRQ <i>Uncontrolled Diabetes</i> Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012	60

Table 27. 3M Potentially Preventable Readmissions.....	62
Table 28. Most Common Reasons for Potentially Preventable Readmissions in STAR, CHIP, STAR+PLUS, and STAR Health, 2012.....	63
Table 29. 3M Potentially Preventable Emergency Department Visits	65
Table 30. Most Prevalent Potentially Preventable Emergency Department Visits in STAR, CHIP, STAR+PLUS, and STAR Health, 2012.....	66
Table 31. HEDIS® <i>Mental Health Utilization, 2012</i>	67
Table 32. Member Participation in Asthma and Diabetes Disease Management Programs in CY 2012.....	75
Table 33. HHSC Dashboard Indicators: Timeliness of Care for Adults	87
Table 34. HHSC Dashboard Indicators: Access Measures for Children	92
Table 35. Survey-Based Patient-Centered Medical Home Measures: Children	95
Table 36. Survey-Based Patient-Centered Medical Home Measures: Adults	95
Table 37. CAHPS® <i>Health Plan Information and Customer Service</i>	99
Table 38. ECHO® Behavioral Health Survey Composites.....	100
Table 39. Caregivers Rating their Child's Dental Services a "9" or "10" – 2013	100
Table 40. HEDIS® <i>Cholesterol Management for Patients With Cardiovascular Conditions, 2012</i>	108
Table 41. HEDIS® <i>Adult BMI Assessment, 2012</i>	117
Table 42. Total Potentially Preventable Complications Analysis Exclusions due to Poor Present on Admission Indicator Quality	129
Table 43. Example Recommendations for Managed Care Organization Performance Improvement Projects	132
Table 44. Example Recommendations for Managed Care Organization Quality Assessment and Performance Improvement Programs	133
Table 45. Recommendations for Well-Child Visits.....	134
Table 46. Recommendations for Prenatal Care.....	134
Table 47. Recommendations for Preventive Dental Care.....	135
Table 48. Recommendations for Potentially Preventable Readmissions	136
Table 49. Recommendations for Diabetes Care.....	137
Table 50. Recommendations for Access to Behavioral Health Care.....	138
Table 51. Recommendations for Care Coordination.....	140
Table 52. Recommendations for Dental Encounter Data Validation	141

Table 53. Positive Findings in Quality of Care Evaluation (Texas Medicaid/CHIP - CY 2012) .	142
Table 54. Improvement Areas in Quality of Care Evaluation (Texas Medicaid/CHIP – 2012) ..	143
Table 55. Dental Records Requested and Received	151

List of Figures

Figure 1. Trends in Child Members with Special Health Care Needs in STAR – 2009, 2011, and 2013.....	29
Figure 2. Activities of Daily Living for STAR+PLUS Medicaid-Only Members in 2009, 2011, and 2012.....	32
Figure 3. HEDIS® <i>Well-Child Visits in the First 15 Months of Life</i> , 2012	34
Figure 4. HEDIS® <i>Well-Child Visits in the First 15 Months of Life</i> in STAR and STAR Health, 2009-2012.....	34
Figure 5. HEDIS® <i>Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life</i> , 2012.....	35
Figure 6. HEDIS® <i>Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life</i> in STAR, CHIP, and STAR Health, 2009-2012.....	35
Figure 7. HEDIS® <i>Adolescent Well-Care Visits</i> , 2012.....	36
Figure 8. HEDIS® <i>Adolescent Well-Care Visits</i> in STAR, CHIP, and STAR Health, 2009-2012.....	37
Figure 9. HEDIS® <i>Annual Dental Visit</i> in CHIP – By Age Group, 2012	39
Figure 10. <i>THSteps Dental Checkup</i> in Medicaid, 2012	40
Figure 11. <i>THSteps Dental Checkup Within 90 Days of Enrollment</i> in Medicaid, 2012.....	40
Figure 12. <i>Preventive Dental Services</i> in Medicaid, 2012.....	41
Figure 13. <i>Preventive Dental Services</i> in CHIP, 2012	41
Figure 14. <i>Use of Dental Sealants</i> in Medicaid among Members 6-9 and 10-14 Years Old, 2012	42
Figure 15. <i>Use of Dental Sealants</i> in CHIP among Members 6-9 and 10-14 Years Old, 2012.....	42
Figure 16. HEDIS® <i>Timeliness of Prenatal Care</i> , 2012.....	43
Figure 17. HEDIS® <i>Postpartum Care</i> , 2012.....	43
Figure 18. HEDIS® <i>Timeliness of Prenatal Care</i> , 2009-2012.....	43
Figure 19. HEDIS® <i>Ambulatory Care: Outpatient Visits</i> , 2012.....	44
Figure 20. HEDIS® <i>Ambulatory Care: Emergency Department Visits</i> , 2012.....	44
Figure 21. HEDIS® <i>Ambulatory Care: Outpatient Visits</i> , 2010-2012.....	45
Figure 22. HEDIS® <i>Ambulatory Care: Emergency Department Visits</i> , 2010-2012.....	45
Figure 23. HEDIS® <i>Inpatient Utilization: Total Discharges per 1,000 Member Months</i> , 2012.....	46

Figure 24. HEDIS® <i>Inpatient Utilization: Total Discharges per 1,000 Member Months</i> , 2011	46
Figure 25. AHRQ Asthma Pediatric Quality Indicator Rates (per 100,000 eligible members) in STAR, CHIP, and STAR Health, 2009-2012	48
Figure 26. AHRQ Diabetes Short-Term Complications Pediatric Quality Indicator Rates (per 100,000 eligible members) in STAR and CHIP, 2009-2012.....	49
Figure 27. AHRQ <i>Gastroenteritis</i> Pediatric Quality Indicator Rates (per 100,000 eligible members) in STAR, CHIP, and STAR Health, 2009-2012	50
Figure 28. AHRQ Urinary Tract Infection Pediatric Quality Indicator Rates (per 100,000 eligible members) in STAR, CHIP, STAR+PLUS, and STAR Health, 2009-2012	51
Figure 29. AHRQ <i>Perforated Appendix</i> Pediatric Quality Indicator Admission Rates (per 100 admissions for appendicitis), 2009-2012	52
Figure 30. AHRQ <i>Diabetes Prevention Quality Indicator</i> rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012	53
Figure 31. AHRQ <i>Diabetes Long-Term Complications Prevention Quality Indicator</i> Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012.....	54
Figure 32. AHRQ <i>Hypertension Prevention Quality Indicator</i> Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012	55
Figure 33. AHRQ <i>Congestive Heart Failure Prevention Quality Indicator</i> Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012	56
Figure 34. AHRQ <i>Dehydration Prevention Quality Indicator</i> Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012	57
Figure 35. AHRQ <i>Bacterial Pneumonia Prevention Quality Indicator</i> Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012	58
Figure 36. AHRQ <i>Urinary Tract Infection Prevention Quality Indicator</i> Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012	59
Figure 37. AHRQ <i>Angina Prevention Quality Indicator</i> Rates (per 100,000 eligible members) in STAR and STAR+PLUS, 2009-2012.....	60
Figure 38. AHRQ <i>Uncontrolled Diabetes Prevention Quality Indicator</i> Rates (per 100,000 eligible members) in STAR and STAR+PLUS, 2009-2012	61
Figure 39. Dental Encounter Data Validation Match Rates for Procedure – 2009 and 2012	69
Figure 40. Percentage of Providers who Implemented Electronic Health Records during CY 2012.....	70
Figure 41. Trends in Percentage of Providers Utilizing Electronic Health Records – 2010-2012	71
Figure 42. Percentage of Missing Data for Billing Provider Taxonomy Code, 2009-2012	73

Figure 43. Percentage of Managed Care Organizations Incorporating Selected Formal Components of Disease Management programs in Fiscal Year 2011 and CY 2012.....	76
Figure 44. Overall Quality Assessment and Performance Improvement Program Scores by Health Plan in CY 2012.....	79
Figure 45. Overall Quality Assessment and Performance Improvement Programs Score by Section in CY 2012	80
Figure 46. CY 2013 Performance Improvement Projects, by Specific Topic Categories.....	82
Figure 47. CY 2013 Performance Improvement Projects - Overall Score by Managed Care Organization	85
Figure 48. CAHPS® <i>Getting Care Quickly</i> : STAR Children, 2009-2013.....	87
Figure 49. CAHPS® <i>Getting Care Quickly</i> : CHIP, 2010-2013	87
Figure 50. <i>Good Access to Urgent Care</i> : Children	88
Figure 51. <i>Good Access to Routine Care</i> for Children: STAR, 2009-2013.....	89
Figure 52. <i>Good Access to Routine Care</i> for Children: CHIP, 2010-2013.....	89
Figure 53. <i>No Delays for Health Plan Approval</i> : STAR Children, 2009-2013.....	89
Figure 54. <i>No Delays for Health Plan Approval</i> : CHIP, 2010-2013.....	89
Figure 55. <i>No Delays for Health Plan Approval</i> : STAR Health, 2009-2012.....	89
Figure 56. CAHPS® <i>Getting Needed Care</i> in STAR Health, 2009-2012	91
Figure 57. CAHPS® <i>Getting Needed Care</i> in STAR+PLUS, 2009-2012	91
Figure 58. CAHPS® <i>Prescription Medicines</i> : STAR, 2009-2013	92
Figure 59. CAHPS® <i>Prescription Medicines</i> : CHIP, 2010-2013	92
Figure 60. <i>Good Access to Specialist Referral</i> for Children in STAR Health, 2009-2012.....	93
Figure 61. <i>Good Access to Behavioral Health Treatment or Counseling</i> for Children in STAR, 2009-2013.....	93
Figure 62. Performance on <i>Good Access to Special Therapies</i> for Adults in STAR and STAR+PLUS.....	94
Figure 63. Trends in <i>Good Access to Special Therapies</i> in STAR+PLUS (Medicaid-only), 2009-2012.....	94
Figure 64. Percent of Members with a Personal Doctor in STAR+PLUS (Medicaid-only), 2009-2012.....	95
Figure 65. CAHPS® <i>How Well Doctors Communicate</i> : STAR+PLUS (Medicaid-only), 2009-2012	96
Figure 66. HEDIS® <i>Appropriate Testing for Children with Pharyngitis</i> , 2012.....	103

Figure 67. HEDIS® <i>Appropriate Testing for Children with Pharyngitis</i> in STAR, CHIP, and STAR Health, 2009-2012	103
Figure 68. HEDIS® <i>Use of Appropriate Medications for People with Asthma: 5-11 Years</i> , 2012	105
Figure 69. HEDIS® <i>Use of Appropriate Medications for People with Asthma: 12-50 Years</i> , 2012	105
Figure 70. HEDIS® <i>Use of Appropriate Medication for People with Asthma – 12 to 50 Years</i> , 2009-2012.....	106
Figure 71. HEDIS® <i>Comprehensive Diabetes Care</i> in STAR+PLUS, 2012	107
Figure 72. HEDIS® <i>Comprehensive Diabetes Care: Eye Exam – Results for STAR+PLUS</i> , 2009-2012.....	107
Figure 73. HEDIS® <i>Follow-up After Hospitalization for Mental Illness: 7-Day Follow-Up</i> , 2012	109
Figure 74. HEDIS® <i>Follow-up After Hospitalization for Mental Illness: 30-Day Follow-Up</i> , 2012	110
Figure 75. HEDIS® <i>Follow-up After Hospitalization for Mental Illness: 7-Day Follow-Up</i> , 2009-2012.....	111
Figure 76. HEDIS® <i>Follow-up After Hospitalization for Mental Illness: 30-Day Follow-Up</i> , 2009-2012.....	111
Figure 77. HEDIS® <i>Follow-up Care for Children Prescribed ADHD Medication: Initiation Phase</i> , 2012	112
Figure 78. HEDIS® <i>Follow-up Care for Children Prescribed ADHD Medication: Continuation and Maintenance Phase</i> , 2012	113
Figure 79. HEDIS® <i>Follow-up for Children Prescribed ADHD Medication: Initiation Phase – Results for CHIP and STAR Health 2009-2012 "</i>	114
Figure 80. HEDIS® <i>Follow-up for Children Prescribed ADHD Medication: Continuation and Maintenance Phase – Results for CHIP and STAR Health 2009-2012 "</i>	114
Figure 81. HEDIS® <i>Antidepressant Medication Management: Effective Acute Phase Treatment</i> , 2012	115
Figure 82. HEDIS® <i>Antidepressant Medication Management: Effective Continuation Phase Treatment</i> , 2012.....	116
Figure 83. HEDIS® <i>Antidepressant Medication Management: Effective Acute-Phase Treatment – Results for STAR+PLUS, and NorthSTAR 2010-2012</i>	116
Figure 84. HEDIS® <i>Antidepressant Medication Management: Effective Continuation- Phase Treatment – Results for STAR+PLUS, and NorthSTAR 2010-2012</i>	117
Figure 85. HEDIS® <i>Adult BMI Assessment</i> in STAR+PLUS, 2010-2012.....	118

Figure 86. HEDIS® *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: BMI Percentile Documentation in CY 2012*119

Figure 87. HEDIS® *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Nutrition in CY 2012*119

Figure 88. HEDIS® *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Physical Activity, 2012*119

Figure 89. HEDIS® *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: BMI Percentile Documentation in STAR, 2010-2012*.....120

Figure 90. HEDIS® *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Nutrition, 2010-2012*.....120

Figure 91. HEDIS® *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Physical Activity, 2010-2012*120

Executive Summary

Introduction

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 2013, including reports of administrative quality of care measures using calendar year 2012 data, reports on Medicaid/CHIP health plan activities conducted in calendar year 2012, and survey projects conducted in 2013. It also shows trends in quality of care using data from fiscal year 2009, fiscal year 2010, calendar year 2011, and calendar year 2012. These activities include surveys, medical record reviews, calculation of quality of care measures, and other methods for health plan evaluation conducted during the four measurement years. A companion document to this report includes managed care organization profiles of healthcare quality for each of the managed care organizations participating in Texas Medicaid and CHIP, showing calendar year 2012 results on HHSC Performance Indicator Dashboard measures, as well as time trends on selected measures. The report concludes with a description of study methodologies, as well as recommendations made by the Institute for Child Health Policy in 2013 for improvement at the health plan, program, and state level.

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, STAR+PLUS, STAR Health, NorthSTAR, and CHIP. 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.

Measures

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

Measures that rely on claims and encounter data 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 for children and Prevention Quality Indicators for adults.
- Measures of potentially preventable events developed by 3M, including potentially preventable readmissions and emergency department visits.

Measures based on member and caregiver surveys include 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. In 2013, the external quality review organization conducted CAHPS[®] surveys with caregivers of children enrolled in STAR and CHIP, and ECHO[®] surveys with adult members in STAR+PLUS and caregivers of children in STAR.

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 managed care organizations and dental plans to use in the evaluation of managed care organization 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 fiscal year 2013 show:

- The majority of participating managed care organizations (13 out of 21) scored above average on the annual quality assessment and performance improvement program evaluation, which suggests that the structure and operations of managed care organization 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 92 percent.
- The highest quality assessment and performance improvement program component scores were related to corrective action plans (98 percent), delegation (97 percent), and the role of the governing body (96 percent).

A total of 135 performance improvement projects were reported by 21 managed care organizations, of which 12 were conducted by the dental plans. Performance improvement projects that addressed issues related to access and utilization of care, such as preventive care, prenatal and postpartum care, and well-child visits were most common (41 percent). The second most common performance improvement projects targeted disease-specific treatment, aiming to improve outcomes among individuals with conditions such as asthma, diabetes, and high cholesterol (28 percent).

The STAR program in calendar year 2012 had generally high rates for measures of access and preventive care, and lower rates for process and outcomes measures related to diabetes care. The increase in performance on some of the more common performance improvement project measures (e.g., well-care) between 2009 and 2012 may in part be attributed to performance improvement activities conducted by the managed care organizations prior to the performance improvement projects evaluated in this report. 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.

The external quality review organization also conducts annual data certification studies, which are necessary to ensure the validity of performance measures that use managed care organization claims and encounter data, as well as ensure the efficient and safe delivery of health care through accurate documentation. In fiscal year 2013, managed care organization data were found to meet standards for completeness and validity overall, with some deficiencies in the billing provider taxonomy field having improved over the four-year period.

As a CMS-optional activity, the external quality review organization conducted a validation study of calendar year 2012 encounter data received from CHIP and Medicaid Dental plans, using medical records requested from network providers. The study found the encounter data overall to be valid, with match rates exceeding 90 percent.

STAR – Member Characteristics, Utilization, and Performance Measures

STAR Members (Dec. 2012)	
Enrollment	2,541,901
Mean age	9.6 years
Gender (% members)	
Female	53%
Male	47%
Race/ethnicity (% members)	
Black	16%
Hispanic	64%
White	18%
Child health (% members)*	
Special health care needs**	26%
Obese	28%

* Parent report

** See Child Member Health Status in Section 1.2.

STAR is a Medicaid managed care program that serves primarily children and families. In 2012, 18 managed care organizations participated in STAR, operating in 13 service areas. Membership in STAR is diverse, with nearly two-thirds being of Hispanic race/ethnicity, and over one-quarter of children having special health care needs. The most common special health care need among children in STAR was dependence on medications (18 percent of members), followed by need for or use of behavioral health treatment or counseling (14 percent) and above average need for or use of services (14 percent). More than one-quarter of children and adolescents in STAR were obese, as measured from parent-reported height and weight.

In 2012, members in STAR utilized the emergency department at a rate of 58 visits per 1,000 member-months, outpatient care at a rate of 386 visits per 1,000 member-months, and inpatient care at a rate of 7 discharges per 1,000 member-months. Overall utilization of behavioral health services was lower, with 6.3 percent of members having received a mental health service in emergency department or outpatient care settings.

Access to care in STAR

Statewide performance on measures of access in STAR showed mixed findings in 2012. STAR met or exceeded national HEDIS® means for preventive care measures,

including well-care visits in all age groups – at 61 percent for infants six months or younger, 73 percent for children 3 to 6 years old, and 58 percent for adolescents. Seventy-four percent of children in STAR received the recommended set of vaccines by their second birthday.

Evaluation of access to preventive dental care for children and adolescents in STAR showed a need for improvement. Fifty-eight percent of members had at least one preventive dental service, while use of dental sealants was seen in one-quarter of members six to nine years old (25 percent) and nearly one-third of members 10 to 14 years old (31 percent). Among new members six months to 20 years old, one-quarter had a THSteps dental checkup within 90 days of enrollment (27 percent), while two-thirds had one or two THSteps dental checkups during the measurement year overall (68 percent).

The rate of timely prenatal care (74 percent) was lower than the national HEDIS[®] mean of 83 percent. However, the rate of postpartum care visits (66 percent) was slightly greater than the national HEDIS[®] mean of 64 percent.

Care for chronic conditions in STAR

The external quality review organization found positive results in regard to quality of care for children with chronic conditions in STAR, as measured using AHRQ Pediatric Quality Indicators, as well as HEDIS[®] measures of the effectiveness of care. All STAR managed care organizations had the required asthma and diabetes disease management programs, although the participation rates represented less than one-third of eligible members (31 percent and 32 percent, respectively).

- *Asthma*: STAR performed well on effectiveness measures for asthma, with appropriate asthma medication use observed in 92 percent of children and 90 percent of adults. For children, the rate of potentially avoidable hospitalizations due to asthma (111 per 100,000 population) was slightly lower than reported nationally.
- *Diabetes*: For children and adolescents in STAR, the rate of potentially avoidable hospitalizations due to diabetes short-term complications (19 per 100,000 population) was lower than the HHSC Dashboard standard and AHRQ national rate for children, indicating good performance.
- *Mental/behavioral health medication*: STAR also performed well in regard to rates of follow-up for children prescribed medication for attention-deficit hyperactivity disorder (ADHD), which were comparable to or higher than national HEDIS[®] means at both the initiation phase (39 percent) and the continuation and maintenance phase (51 percent).
- *Mental/behavioral health hospitalization*: Although rates of follow-up after hospitalization for mental illness have improved during the period between 2009 and 2012, performance on this measure was still lower than the national HEDIS[®] means at 7-day follow-up (32 percent) and 30-day follow-up (55 percent) in calendar year 2012. Ensuring that members with mental illness receive timely follow-up after hospitalization is important for reducing the risk of costly readmissions.

Analyses of potentially preventable events, which can result from inadequate management of chronic conditions in outpatient settings, showed relatively low rates of potentially preventable readmissions (2.5 percent) and high rates of potentially preventable emergency department visits (63 percent). The most common reasons for potentially preventable readmissions in STAR

were acute medical conditions or complications, and continuation or recurrence of medical, mental health, or substance abuse conditions that caused the initial admission. The most common reasons for potentially preventable emergency department visits in STAR were infections of the upper respiratory tract; signs, symptoms, and other factors influencing health status; and non-bacterial gastroenteritis, nausea, and vomiting.

STAR caregiver satisfaction with care

Telephone surveys with caregivers of children enrolled in STAR showed good performance on measures of timeliness, provider communication, health plan information and customer service, access to prescription medicines, and personal doctors. A notable improvement was observed between 2009 and 2013 in regard to having no delays for health plan approval (+16 percentage points). Caregivers related lower satisfaction with care coordination and access to specialized services for their child.

CHIP – Member Characteristics, Utilization, and Performance Measures

<u>CHIP Members (Dec. 2012)</u>	
Enrollment	588,160
Mean age	10.3 years
<u>Gender (% members)</u>	
Female	49%
Male	51%
<u>Race/ethnicity (% members)</u>	
Black	13%
Hispanic	61%
White	21%
<u>Child health (% members)*</u>	
Special health care needs**	20%
Obese	27%
* Caregiver report	
** See Child Member Health Status in Section 1.2.	

CHIP is a managed care program that serves children and families whose income is too high to qualify for Medicaid, but too low to afford private insurance. In 2012, 17 managed care organizations participated in CHIP, operating in nine service areas, including the CHIP Rural Service Area. Membership in CHIP is similar to that in STAR, with nearly two-thirds being of Hispanic race/ethnicity, and one-fifth of children having special health care needs. The most common special health care need among children in CHIP was dependence on medications (16 percent of members), followed by above average need for or use of services (8 percent). More than one-quarter of children and adolescents in CHIP were obese, as measured from parent-reported height and weight.

In 2012, members in CHIP utilized the emergency department at a rate of 23 visits per 1,000 member-months, outpatient care at a rate of 230 visits per 1,000 member-months, and inpatient care at a rate of one discharge per 1,000 member-months. Mental health utilization was not reported for CHIP on calendar year 2012 data.

Access to care in CHIP

Statewide performance on measures of access in CHIP showed generally positive findings in 2012, and increases in performance for some measures over the prior four years. Performance on well-care measures was slightly lower than observed in STAR—at 66 percent for children three to six years old, and 51 percent for adolescents. Both measures performed above their respective HHSC Dashboard standards. Seventy-one percent of children in CHIP received the recommended set of vaccines by their second birthday.

In 2012, nearly two-thirds of children and adolescents had an annual dental visit (64 percent), compared to 45 percent nationally. Nearly two-thirds of members 1 to 18 years old in CHIP also had at least one preventive dental service in 2012 (61 percent), which exceeds the HHSC Dashboard standard for this measure. It should be noted that this figure includes dental services provided by Delta Dental, which ceased operations in Texas Medicaid and CHIP on November 30, 2012. The rate of preventive dental service use excluding Delta Dental was 52 percent. Use of dental sealants during the measurement year was low for children 6 to 9 years old (21 percent) and adolescents 10 to 14 years old (24 percent).

Care for chronic conditions in CHIP

The external quality review organization found positive results in regard to quality of care for children with chronic conditions in CHIP, as measured using AHRQ Pediatric Quality Indicators, as well as HEDIS[®] measures of the effectiveness of care. All CHIP managed care organizations had the required asthma and diabetes disease management programs, although the participation rates were relatively low (33 percent and 42 percent, respectively).

- *Asthma*: CHIP performed very well on effectiveness measures for asthma, with appropriate asthma medication use observed in 96 percent of children and 92 percent of adolescents. The rate of potentially avoidable hospitalizations due to asthma (65 per 100,000 population) was the lowest among all child programs in Texas Medicaid and CHIP, and much lower than reported nationally.
- *Diabetes*: CHIP also performed well in regard to potentially avoidable hospitalizations for diabetes short-term complications (20 per 100,000 population), which was approximately the same as reported for children in STAR and lower than reported nationally.
- *Mental/behavioral health medication*: Rates of follow-up for children prescribed ADHD medication were slightly lower than HHSC Dashboard standards at both the initiation phase (34 percent) and the continuation and maintenance phase (45 percent). Across the four-year period, slight decreases occurred on this measure in CHIP, particularly for the continuation and maintenance phase (a decrease of nine percentage points).
- *Mental/behavioral health hospitalization*: Although rates of follow-up after hospitalization for mental illness have improved during the period between 2009 and 2012, in calendar year 2012 performance on this measure in CHIP was still lower than the national HEDIS[®] means and HHSC Dashboard standards at 7-day follow-up (38 percent) and 30-day follow-up (58 percent).

Analyses of potentially preventable events showed relatively low rates of potentially preventable readmissions (5.3 percent) and high rates of potentially preventable emergency department visits (57 percent). It should be noted that among all programs, CHIP had the lowest potentially preventable event costs per 1,000 member-months—at \$536 for potentially preventable readmissions and \$3,914 for potentially preventable emergency department visits. The most common reasons for potentially preventable readmissions in CHIP were continuation or recurrence of mental health, substance abuse, or medical conditions that caused the initial admission, and acute medical conditions or complications. The most common reasons for potentially preventable emergency department visits in CHIP were infections of the upper respiratory tract; signs, symptoms and other factors influencing health status; and non-bacterial gastroenteritis, nausea, and vomiting.

CHIP caregiver satisfaction with care

Telephone surveys with caregivers of children enrolled in CHIP showed good performance on measures of timeliness, provider communication, health plan customer service, access to prescription medicines, and personal doctors. A considerable increase in caregiver-reported access to routine care was observed between 2010 (72 percent) and 2013 (87 percent). Caregivers related lower satisfaction with care coordination, access to specialized services for their child (including specialist care and behavioral health counseling), and time spent waiting to be taken to the exam room.

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

<u>STAR+PLUS Members (Dec. 2012)</u>		
Enrollment (Medicaid-only)	182,061	
Mean age (Medicaid-only)	42.3 years	
Enrollment (Dual-eligible)	221,992	
Mean age (Dual-eligible)	66.7 years	
<u>Gender (% members)</u>		
	Medicaid	Dual
Female	52%	64%
Male	48%	36%
<u>Race/ethnicity (% members)</u>		
	Medicaid-only	
Black	32%	
Hispanic	34%	
White	31%	

STAR+PLUS is a Medicaid managed care program that integrates acute services with long-term services and supports for members who are both 1) either elderly or who have a physical or mental disability and 2) who qualify for either Supplemental Security Income (SSI) benefits or for Medicaid due to low income. In 2012, five managed care organizations participated in STAR+PLUS, operating in ten service areas. STAR+PLUS includes both Medicaid-only and dual-eligible members (individuals enrolled in both Medicaid and Medicare). STAR+PLUS members have more complex health conditions than adult members in STAR. Member-reported health status was low, with nearly two-thirds reporting they were in “fair” or “poor” overall health, and half reporting they were in “fair” or “poor” mental health. About half of STAR+PLUS members

were obese, as measured based on body-mass index (BMI) score. STAR+PLUS members also need high levels of assistance with activities of daily living, with two-thirds reporting they had a condition that interferes with their quality of life.

For calendar year 2012, the external quality review organization calculated utilization and performance measures for STAR+PLUS Medicaid-only members. STAR+PLUS members utilized the emergency department at a rate of 111 visits per 1,000 member-months, outpatient care at a rate of 553 per 1,000 member-months, and inpatient care at a rate of 22 discharges per 1,000 member-months. One-third of STAR+PLUS members received a mental health service in outpatient or emergency department settings (32 percent), and four percent received a mental health service in inpatient settings.

Preventive care in STAR+PLUS

Members in STAR+PLUS 45 years of age and older generally had good access to preventive care, with 86 percent having had an ambulatory or preventive care visit in calendar year 2012. Access to preventive care was lower among 20 to 44-year-old STAR+PLUS members (71 percent). In addition, a hybrid study of outpatient visit records found that two-thirds of STAR+PLUS members who had an outpatient visit in calendar year 2012 had their body mass index (BMI) documented during the measurement year or one year prior. Performance on this measure increased considerably from calendar year 2010 (46 percent) to calendar year 2012 (65 percent).

Care for chronic conditions in STAR+PLUS

The external quality review organization identified a number of areas for improvement in regard to quality of care for adults with chronic conditions in STAR+PLUS, as measured using AHRQ Prevention Quality Indicators, as well as HEDIS[®] measures of the effectiveness of care. All STAR+PLUS managed care organizations had the required disease management programs for asthma, diabetes, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), and coronary artery disease. Relatively high participation rates were observed for the STAR+PLUS asthma and diabetes disease management programs (64 percent and 71 percent, respectively).

- *Asthma*: Over three-quarters of adult STAR+PLUS members with asthma were appropriately prescribed asthma medications during the measurement year (77 percent), which is below the HHSC Dashboard standard. Rates on this measure decreased by 14 percentage points between 2009 and 2012.
- *Diabetes*: Measures of the effectiveness of diabetes care for adults in STAR+PLUS were also low, with 34 percent of members receiving eye exams and 28 percent having HbA1c control <8% in calendar year 2012. Rates of potentially avoidable admissions for diabetes short-term complications (399 per 100,000 population) and diabetes long-term complications (634 per 100,000 population) were high, although a net decrease was observed for both measures across the four-year period – indicating that performance has improved.

- *Mental/behavioral health medication:* Rates of effective antidepressant medication management in STAR+PLUS showed good performance for both the effective acute phase (60 percent) and the effective continuation phase of treatment (47 percent). These rates greatly exceeded their corresponding HHSC Dashboard standards.
- *Mental/behavioral health hospitalization:* Although rates of follow-up after hospitalization for mental illness have improved during the period between 2009 and 2012, in calendar year 2012 performance on this measure in STAR+PLUS at 7-day follow-up (31 percent) and 30-day follow-up (54 percent) was still lower than the HHSC Dashboard standards.

Analyses of potentially preventable events showed moderate rates of potentially preventable readmissions (14 percent) and high rates of potentially preventable emergency department visits (57 percent). Among all programs, STAR+PLUS had the highest potentially preventable event costs per 1,000 member-months—at \$28,570 for potentially preventable readmissions and \$21,697 for potentially preventable emergency department visits. The most common reasons for potentially preventable readmissions in STAR+PLUS were acute medical conditions or complications, and continuation or recurrence of mental health, substance abuse, or medical conditions that caused the initial admission. The most common reasons for potentially preventable emergency department visits in STAR+PLUS were infections of the upper respiratory tract; abdominal pain; and lumbar disc disease.

STAR+PLUS satisfaction with care

Telephone surveys with STAR+PLUS members showed good performance on measures of timeliness, provider communication, and access to service coordination. Members reported lower satisfaction with access to necessary specialist care, access to special therapies, and time spent waiting to be taken to the exam room. The percentage of members with good access to special therapies decreased from 65 percent in 2009 to 52 percent in 2012.

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 2012, STAR Health operated statewide, and was administered by the Superior HealthPlan Network. Membership in STAR Health is unique to the population of children in foster care. According to surveys with caregivers, nearly half of STAR Health members have special health care needs, which is substantially higher than observed for children in STAR and CHIP. The most common types of special health care needs among children in STAR Health were problems that require counseling (40 percent of members), dependence on medications (42 percent), and having greater than routine use of health and educational services (33 percent). Nearly one-third of children and adolescents in STAR Health were obese, as measured from caregiver-reported height and weight.

In 2012, members in STAR Health utilized the emergency department at a rate of 55 visits per 1,000 member-months, and outpatient care at a rate of 452 visits per 1,000 member-months. Overall utilization of behavioral health services was considerably higher, with 88 percent of

STAR Health Members (Dec. 2012)

Enrollment 30,462
Mean age 8.0 years

Gender (% members)

Female 48%
Male 52%

Race/ethnicity (% members)

Black 27%
Hispanic 43%
White 30%

Child health (% members)*

Special health care needs** 48%
Obese 30%

* Caregiver report (2012)

** See Child Member Health Status in Section 1.2.

members having received a mental health service in emergency department or outpatient care settings. Inpatient utilization was not reported for STAR Health for CALENDAR YEAR 2012.

Access to preventive care in STAR Health

Statewide performance on measures of access in STAR Health showed positive findings in 2012. Performance on well-care measures for children and adolescents was notably higher than in the other programs—at 87 percent for children 3 to 6 years old, and 74 percent for adolescents. Both measures performed well above their respective HHSC Dashboard standards.

Acute respiratory care in STAR Health

In calendar year 2012, slightly more than half of STAR Health members 2 to 18 years old with pharyngitis were dispensed an antibiotic after receiving a Group A Streptococcus test for the episode (54 percent). Clinical practice guidelines require that antibiotics for pharyngitis be dispensed only after a positive Group A Streptococcus test. This finding suggests there is some room for improvement in the appropriate prescribing of antibiotics for children and adolescents in STAR Health with pharyngitis.

Care for chronic conditions in STAR Health

The external quality review organization found largely positive results in regard to quality of care for children with chronic conditions in STAR Health, as measured using AHRQ Pediatric Quality Indicators, as well as HEDIS® measures of the effectiveness of care. The Superior HealthPlan Network had the required asthma and diabetes disease management programs for STAR Health, although participation rates were only available for STAR, CHIP, and STAR+PLUS in the 2013 Administrative Interview Tool.

- *Asthma*: STAR Health performed well on asthma measures, with 93 percent of children and 87 percent of adolescents having appropriate asthma medication use. The rate of potentially avoidable hospitalizations due to asthma (82 per 100,000 population) was lower than the HHSC Dashboard standard, indicating good performance. Furthermore, a notable decrease in the Asthma Pediatric Quality Indicator rate was observed between 2009 and 2012.
- *Diabetes*: Performance in STAR Health was lower in regard to potentially avoidable hospitalizations for diabetes short-term complications (54 per 100,000 population), which is

higher than the HHSC Dashboard standard for this measure, as well as results observed for children in STAR and CHIP.

- *Mental/behavioral health medication:* Rates of follow-up for children prescribed ADHD medication were notably higher than HHSC Dashboard standards at both the initiation phase (52 percent) and the continuation and maintenance phase (59 percent). However, it should be noted that while rates in calendar year 2012 were within performance standards, they represented a considerable decline since 2009.
- *Mental/behavioral health hospitalization:* STAR Health performed well in regard to follow-up after hospitalization for mental illness, and was the only program that exceeded HHSC Dashboard standards for both 7-day follow-up (63 percent) and 30-day follow-up (87 percent). As in the other programs, these rates represent an improvement during the period between 2009 and 2012.

Analyses of potentially preventable events showed moderate rates of potentially preventable readmissions (15 percent) and high rates of potentially preventable emergency department visits (63 percent). The most common reasons for potentially preventable readmissions in STAR Health were continuation or recurrence of mental health or substance abuse conditions that caused the initial admission, acute medical conditions or complications, and continuation or recurrence of medical conditions that caused the initial admission. The most common reasons for potentially preventable emergency department visits in STAR Health were infections of the upper respiratory tract; signs, symptoms and other factors influencing health status; and other skin, subcutaneous tissues and breast disorders.

STAR Health caregiver satisfaction with care

Telephone surveys with caregivers of children enrolled in STAR Health showed positive findings in regard to timeliness, access to specialist care, access to prescription medications, access to behavioral health treatment or counseling, communication with doctors, personal doctors, getting needed information, and shared decision-making. Notable improvements were observed between 2009 and 2012 in regard to getting needed care (+13 percentage points) and good access to specialist referral (+25 percentage points). Caregivers reported lower satisfaction with care coordination and time spent waiting to be taken to the exam room.

NorthSTAR – Member Characteristics, Utilization, and Performance Measures

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. In 2012, NorthSTAR services were administered through ValueOptions, a behavioral health organization that is contracted with the Texas Department of State Health Services.

<u>NorthSTAR Members</u> <u>(Dec. 2012)</u>	
Enrollment	471,854
Mean age	14.5 years
<u>Gender (% members)</u>	
Female	52%
Male	48%
<u>Race/ethnicity (% members)</u>	
Black	29%
Hispanic	51%
White	16%

In calendar year 2012, utilization of mental health services in NorthSTAR was relatively low. Including claims submitted by NorthSTAR, as well as STAR, STAR+PLUS, and Medicaid fee-for-service in the Dallas service area, 11.7 percent of NorthSTAR members utilized outpatient or emergency department services for mental health. Utilization rates for mental health services were below one percent for inpatient care (0.5 percent) and intensive outpatient or partial hospitalization services (0.1 percent).

The external quality review organization also measured utilization of alcohol and other drug services in NorthSTAR. In calendar year 2012, NorthSTAR had low rates on this measure for all service categories—at 2.1 percent for ambulatory services, 0.4 percent for inpatient services, and less than 0.1 percent for intensive outpatient or partial hospitalization services.

Effectiveness of Behavioral Health Care

The external quality review organization found mixed findings in regard to measures of the effectiveness of behavioral health care for members in NorthSTAR. Among all programs evaluated, NorthSTAR had the lowest rates of follow-up after hospitalization for mental illness—at both 7-day and 30-day follow-up (25 percent and 49 percent, respectively)—based on a denominator of 2,646 hospitalizations. These rates fall well below the national HEDIS[®] means of 47 percent for 7-day follow-up and 65 percent for 30-day follow-up, and suggest a need for improvement.

NorthSTAR performed particularly well on measures of medication management. Rates of follow-up for children prescribed ADHD medication at both the initiation phase (44 percent) and the continuation and maintenance phase (56 percent) were notably higher than the respective national HEDIS[®] means. Likewise, antidepressant medication management for adults in NorthSTAR, during the acute phase (76 percent) and continuation phase (65 percent), compare favorably to the national HEDIS[®] means of 51 percent and 34 percent, respectively.

External Quality Review Organization Recommendations for Fiscal Year 2013

This report concludes with a list of recommendations that the external quality review organization made in fiscal year 2013 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. 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 recommendations are grouped according to specific domains of health care quality, and are based on both CMS-mandated and optional activities for external quality review organizations. The crosswalk below shows the recommendation domains and the program/s to which they apply.

Table 1. Fiscal Year 2013 External Quality Review Organization Recommendations – Program Crosswalk

Domain	Program						
	STAR	CHIP	STAR+PLUS	STAR Health	North STAR	Medicaid Dental	CHIP Dental
Performance Improvement Projects	✓	✓	✓	✓			
Quality Assessment and Performance Improvement Programs	✓	✓	✓	✓	✓		
Well-Child Visits		✓					
Prenatal Care	✓						
Preventive Dental Care						✓	✓
Potentially Preventable Readmissions				✓			
Diabetes Care			✓				
Behavioral Health Care	✓	✓	✓		✓		
Care Coordination	✓	✓	✓				
Dental Encounter Data						✓	✓

The external quality review organization will implement a number of changes to future external quality review activities and annual reports, including in-depth analyses to assess the influence of demographic, health status, health plan, and local infrastructure factors on outcomes of care. Member, provider, and health plan profiles will be reported from these analyses, which can be used by Texas Medicaid and CHIP managed care organizations to develop targeted performance improvement projects for improving quality of care and reducing potentially preventable events. Profiles will also note any significant differences among the managed care organizations, allowing HHSC to better target efforts in working with managed care organizations that need assistance.

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 numerous 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 Senate Bill 7, 82nd Legislature. Senate Bill 7 covers a range of health care issues including an emphasis on promoting health care quality.

Concerns about the efficiency of health services in Medicaid and other programs have prompted many states to adopt managed care as the predominant delivery model. In contrast to the fee-for-service model, 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 (PCP) or team of professionals that follows a person-based approach to provide comprehensive and continuous preventive and primary care; (2) establishing a network of providers under contract with the managed care organization, which is obligated to maintain access standards established by the state; (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 delivery.

Moving forward, states are expected to rely increasingly on managed care organizations.³ In 2012, about two-thirds of Medicaid beneficiaries received services through managed care nationally, with the exception of Alaska, New Hampshire, and Wyoming operating comprehensive Medicaid managed care programs.^{4,5}

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 had reached 71 percent.⁷ During the summer of 2011, the Texas Legislature passed Senate Bill 7, 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:

- **February 2011:** Due to the termination of operations of the Integrated Care Management program in the Dallas and Tarrant service areas, the STAR+PLUS program expanded into these service areas in February 2011 to provide acute and long-term services to members with chronic and complex conditions.

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

Effective September 1, 2014, the STAR+PLUS program will expand to the Medicaid Rural Service Area and include 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) will be excluded from STAR+PLUS.

In addition, supported employment and employment assistance will be added to the STAR+PLUS Home and Community Based Services waiver service array.¹¹ The Medicaid Rural Service Area expansion will also include certain Medicaid behavioral health services, such as targeted case management, psychiatric rehabilitation, and physical health services (which are currently available through Medicaid fee-for-service) in STAR and STAR+PLUS managed care plans.

Further expansions to occur in 2015 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 age 20 and younger who receive SSI benefits or 1915(c) waiver services (September 2016).

External Quality Review in Texas Medicaid and CHIP

Structural changes made to health care delivery in order to control spending can sometimes compromise the quality of health care. 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 the 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, validate managed care organization 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 consumer surveys, provider surveys, or 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 2013 (September 1, 2012 to August 31, 2013), which include administrative quality of care measures calculated on calendar year 2012 claims and encounter data, studies of quality improvement activities conducted by managed care organizations in calendar year 2012, and member satisfaction surveys with varying measurement periods spanning all or part of calendar year 2013.¹⁵

To further assist Texas HHSC and participating managed care organizations in developing and implementing future quality improvement strategies, this report shows performance trends for selected quality of care measures from 2009 through 2012 (where data are available). For certain survey measures, trends span the period 2009 through 2013. 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 2012, showing each managed care organization’s most currently available results on HHSC Performance Indicator Dashboard measures (calendar year 2012 for administrative measures; 2012 or 2013 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 2012, 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 2012, services were provided to STAR members through 18 managed care organizations and in 13 service areas, including the three Medicaid Rural Service Areas established in March 2012, as listed in Table 2. A number of managed care organizations, including Blue Cross Blue Shield of Texas, CHRISTUS, Scott and White, Sendero, and Seton began operation in STAR in March 2012. As many of the quality measures presented in this report require at least one full year of data, these managed care organizations are not represented in all results. Furthermore, the expansion of STAR in the Medicaid Rural Service Areas occurred in March 2012, and, therefore, these service areas are not represented in all results.
- **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 elderly or who have a physical or mental disability, and who qualify for SSI benefits or for Medicaid due to low income. In 2012, services were provided to STAR+PLUS members through five managed care organizations operating in ten service areas (Table 2). The STAR+PLUS program expanded into the El Paso, Lubbock and Hidalgo service areas in March 2012. As many of the quality measures presented in this report require at least one full year of data, these service areas are not represented in all results.
- **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 PCPs, dentists, behavioral health clinicians, and other specialists. In 2012, 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 members receive behavioral health services through ValueOptions, which is contracted with the Texas Department of State Health Services 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 2012, services were provided to CHIP members through 17 managed care organizations operating in nine service areas, including the CHIP Rural Service Area (Table 2). A number of managed care organizations began operation in CHIP in March 2012, including Blue Cross Blue Shield of Texas, CHRISTUS, and Sendero. As many of the quality measures presented in this report require at least one full year of data, these managed care organizations are not represented in all results.

- **Medicaid Dental** – In March 2012, most children and young adults age 20 and younger enrolled in Texas Medicaid began receiving dental services through one of three Medicaid dental plans: Delta Dental, DentaQuest, or MCNA Dental. On November 30, 2012, HHSC and Delta Dental ended Delta Dental's contract to provide dental services to children in Medicaid and CHIP. The enrollment periods for Medicaid dental quality of care measures presented in this report are nine months for Delta Dental (March 2012 – November 2012) and ten months for DentaQuest and MCNA Dental (March 2012 – December 2012). The dental surveys conducted in fiscal year 2013 include caregivers of child members in DentaQuest and MCNA Dental only.
- **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. 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 addition to Delta Dental, which had been the sole CHIP Dental benefits contractor, DentaQuest and MCNA Dental were added as CHIP Dental plan options for members. As noted above, Delta Dental's contract with HHSC ended on November 30, 2012. The enrollment periods for CHIP Dental quality of care measures presented in this report are 11 months for Delta Dental (January 2012 – November 2012) and ten months for DentaQuest and MCNA Dental (March 2012 – December 2012). The dental surveys conducted in fiscal year 2013 include caregivers of child members in DentaQuest and MCNA Dental only.
- **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 2. Texas Medicaid/CHIP Managed Care Organizations and Service Areas in 2012 ¹⁶

Health Plan	STAR	STAR+PLUS	CHIP
Aetna	✓		✓
Amerigroup	✓	✓	✓
Blue Cross Blue Shield ^a	✓		✓
CHRISTUS	✓		✓
Community First	✓		✓
Community Health Choice (CHC) ^a	✓		✓
Cook Children's	✓		✓
Driscoll	✓		✓
El Paso First	✓		✓
FirstCare	✓		✓
Cigna-HealthSpring ^a		✓	
Molina	✓	✓	✓
Parkland Community	✓		✓
RightCare from Scott & White ^a	✓		
Sendero	✓		✓
Seton	✓		✓
Superior	✓	✓	✓
Texas Children's	✓		✓
UnitedHealthcare ^a	✓	✓	✓
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	✓	✓	✓

^a In many tables and charts in this report, managed care organization names have been shortened or abbreviated to meet space limitations.

External Quality Review Organization Activities

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 (HEDIS[®], AHRQ, 3M)*
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 – see below)
2. Administration or validation of consumer or provider surveys of quality of care
 - a. *Member and Caregiver Satisfaction Surveys* (biennial – see below)

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 (HEDIS[®], AHRQ, 3M)*
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*

Results of administrative measures, such as HEDIS[®], were reported using calendar year 2012 data for STAR, CHIP, STAR+PLUS, STAR Health, and NorthSTAR. The set of measures for each program varies, with measures being selected according to the demographic and health profile of the 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.¹⁷ For more information, readers can consult the external quality review organization Quality of Care reports for these programs.¹⁸

It is important to note that, while the STAR Health program includes young adults (up to age 23), five percent of STAR Health members were 19 years or older in calendar year 2012 (n = 1,428). 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.

In addition, the external quality review organization conducts certain optional activities on a biennial basis, including member and provider 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 2012, the external quality review organization conducted member surveys with adults enrolled in STAR, adults with behavioral health conditions enrolled in STAR, adults enrolled in STAR+PLUS, and caregivers of children enrolled in STAR Health. Member satisfaction surveys conducted in fiscal year 2013 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, 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 five-year period from 2009 through 2013. 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 2013 to assist HHSC in quality of care evaluation activities and policy decisions, including: (1) development of a Pay-for-Quality methodology for Texas Medicaid and CHIP

health and dental plans; (2) initial development of a risk-adjustment approach for evaluating services delivered through the Texas Department of Aging and Disability Services; (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; and (4) studies to assess the completeness and validity of the present on admission indicator, a data element found in claims for services rendered that is essential for calculating measures of potentially preventable hospital complications and potentially preventable readmissions when using the 3M Health Information Systems software.

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 and the development of tools to assist in the dissemination of quality of care results to managed care organizations and members. In fiscal year 2012, the external quality review organization began two initiatives to develop tools for disseminating quality of care information: (1) 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, including potentially preventable event measures; and (2) the Managed Care Organization Report Cards, which summarize quality of care information in a way that is accessible to Medicaid and CHIP members, allowing members to make informed decisions when selecting their managed care organization. These tools were further refined and made accessible to stakeholders in fiscal year 2013. The first set of Managed Care Organization Report Cards was finalized in January 2014; the report cards have been posted to the HHSC website and are being mailed to new members along with their enrollment packets.¹⁹

Detailed methodologies for the external quality review organization activities are included in **Appendix C** of this report.

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} Within this framework, structure and process can affect outcomes of care independently, and measurement of one element can lead to quality improvements in another. 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.

Following the aims for quality improvement outlined by the Institute of Medicine, improvements in structure, process, and outcomes are realized through addressing six general characteristics of quality health care: (1) efficiency; (2) effectiveness; (3) equity; (4) patient-centeredness; (5) timeliness; and (6) safety.²² Furthermore, in evaluating quality of care in Texas Medicaid and CHIP, the external quality review organization 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 six sections:

- **Section 1** addresses the demographic and health characteristics of Texas Medicaid and CHIP members, using data from managed care organization claims and encounters and member surveys.
- **Section 2** addresses access and utilization of care in Texas Medicaid and CHIP. Using HEDIS[®], AHRQ, and 3M Health Information Systems measures, the external quality review organization assesses access to and utilization of pediatric and adult preventive care, ambulatory care, inpatient services, and mental health services.
- **Section 3** 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.
- **Section 4** addresses Texas Medicaid and CHIP member satisfaction with care. Findings include results from the CAHPS[®] survey and the ECHO[®] behavioral health survey, assessing members' experiences and satisfaction with timeliness of care, access to primary and specialist care, the patient-centered medical home, customer service, and care coordination.
- **Section 5** addresses the effectiveness of care in Texas Medicaid and CHIP. Using a number of HEDIS[®] and HEDIS[®]-based administrative measures, the external quality review organization assesses provider compliance with evidence-based practices and member compliance with treatment regimens regarding acute respiratory care, care for chronic conditions, behavioral health care, and preventive care.
- **Section 6** summarizes special studies and projects conducted by the external quality review organization in fiscal year 2013, including the Pay-for-Quality methodology, the Department of Aging and Disability Services risk-adjustment, CMS application for use of Medicare data, and present on admission indicator studies.

For administrative measures (calculated from claims and encounter data), each of the sections presents calendar year 2012 results for all Texas programs for which the measures were calculated. Although the report shows results for these programs together, 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 process and outcome measures between the programs are to be expected. Readers should exercise caution when comparing results across the programs.

In addition, for many of the administrative HEDIS® measures, the 2012 HEDIS® national means for state Medicaid programs are available for comparison with results for the Texas STAR program. All other programs discussed in this report represent populations that are not directly comparable with the national HEDIS® means. 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 Medicaid and CHIP populations.

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

1 – The Texas Medicaid and CHIP Populations

1.1 – Demographic Characteristics

Assessing demographic characteristics of Medicaid and CHIP members is crucial for defining health service needs and targeting appropriate interventions that are population-specific.

Table 3 shows enrollment trends in Texas Medicaid and CHIP using managed care organization administrative data for the months of August 2009, August 2010, December 2011, and December 2012. The membership of all programs increased each year, with the exception of STAR Health, in which the population remained steady between 2009 and 2012.

Table 3. Enrollment Trends in Texas Medicaid and CHIP, 2009-2012 ²³

Number of Members	2009	2010	2011	2012	% Increase
STAR	1,264,763	1,477,897	1,746,595	2,541,901	101%
CHIP	490,646	522,769	562,647	588,160	20%
STAR+PLUS (Medicaid-only)	78,245	80,259	137,372	182,061	133%
STAR+PLUS (Dual-eligible)	NR	89,152	144,092	221,992	149%
STAR Health	30,251	32,523	32,242	30,462	1%
NorthSTAR	372,434	421,202	454,565	471,854	27%

Table 4 shows the sex and age distribution of members for each program in 2012. All programs had a fairly even distribution of male and female members, with the exception of dual-eligible members in STAR+PLUS, among whom nearly two-thirds were female.

Table 4. Sex and Age Distribution in Texas Medicaid and CHIP, 2012

Distribution of Members	Mean Age (yrs.)	Male	Female
STAR	9.56	47%	53%
CHIP	10.28	51%	49%
STAR+PLUS (Medicaid-only)	42.31	48%	52%
STAR+PLUS (Dual-eligible)	66.65	36%	64%
STAR Health	8.03	52%	48%
NorthSTAR	14.47	48%	52%

Table 5 presents the distribution of members by race/ethnicity in each program from 2009 through 2012. Trends are shown for White, non-Hispanics; Black, non-Hispanics; and Hispanic members (the three most populous groups). Hispanic members were the largest group in every program across all four years, with the exception of STAR+PLUS, in which the Hispanic member population was smaller than the White, non-Hispanic and Black, non-Hispanic populations in 2011, following the Medicaid managed care expansion in September 2011.

Table 5. Texas Medicaid Members by Race/Ethnicity 2009-2012

	2009	2010	2011	2012
STAR				
White, non-Hispanic	15%	15%	16%	18%
Black, non-Hispanic	19%	18%	19%	16%
Hispanic	62%	60%	63%	64%
CHIP				
White, non-Hispanic	20%	21%	23%	21%
Black, non-Hispanic	11%	12%	12%	13%
Hispanic	65%	62%	61%	61%
STAR+PLUS				
White, non-Hispanic	26%	26%	33%	31%
Black, non-Hispanic	31%	31%	38%	32%
Hispanic	33%	33%	26%	34%
STAR Health				
White, non-Hispanic	29%	30%	29%	30%
Black, non-Hispanic	28%	27%	27%	27%
Hispanic	40%	40%	43%	43%
NorthSTAR				
White, non-Hispanic	17%	16%	16%	16%
Black, non-Hispanic	30%	29%	29%	29%
Hispanic	48%	49%	51%	51%

Table 6 and **Table 7** display the enrollment distribution and race/ethnicity of Medicaid and CHIP Dental members as of December 31, 2012.

Table 6. Medicaid and CHIP Dental Enrollment – December 2012

Distribution of Members	Number of Members	Mean Age (yrs.)	Male	Female
Medicaid Dental	2,508,530	7.7	51%	49%
CHIP Dental	588,607	10.3	51%	49%

Table 7. Medicaid and CHIP Dental Enrollment by Race/Ethnicity – December 2012

Race/Ethnicity	Medicaid Dental members	CHIP Dental members
White, non-Hispanic	17%	21%
Black, non-Hispanic	16%	13%
Hispanic	65%	61%

1.2 – Health Status

This section examines the health status of members enrolled in Texas Medicaid and CHIP, using survey data collected between 2009 and 2013. Health is a multi-dimensional concept that includes the absence of physical conditions, the absence of pain and/or disability, emotional well-being, and satisfactory social functioning. There is no single standard measurement of health status for individuals or population groups; methods used to assess health can draw from administrative data on health care claims and encounters or from surveys that collect member-reported health status.

Rating the health status of members is important for several reasons. First, knowing the health of an overall member population allows the program or health plan to determine its health care needs and anticipated utilization. Second, the regular monitoring of health status measurements over time helps to inform a managed care organization about efforts that will lead to quality improvement, allowing quality improvement staff to determine the effects of interventions on the health outcomes of its members.

Child Member Health Status

Children with special health care needs comprise a unique group that is more susceptible to adverse outcomes from variations in their health care than a group with no special health care needs. Therefore, identifying children with special health care needs is an especially important component of monitoring access to and quality of care for children in Medicaid and CHIP. Children with special health care needs are defined by the Health Resources and Services Administration (HRSA), an agency of the United States Department of Health and Human Services, as children “who have or are at increased risk for a chronic physical, development, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.”^{24,25} In this report, children with special

health care needs are referred to as child members with special health care needs to be consistent with terminology used in the Texas Medicaid program.

To identify child members with special health care needs, the external quality review organization uses two methods: (1) survey-based classification using the Children with Special Health Care Needs Screener[®] and (2) Clinical Risk Group classification using International Classification of Diseases 9th Edition Clinical Modification (ICD-9-CM) and Current Procedural Terminology (CPT) codes from health care claims and encounter data.^{26,27,28,29,30} In fiscal year 2013, the external quality review organization identified child members with special health care needs in Texas Medicaid and CHIP using the Children with Special Health Care Needs Screener, reporting a prevalence of child members with special health care needs of 26 percent in STAR and 20 percent in CHIP. The prevalence of special needs was considerably higher in STAR Health (48 percent), based on the fiscal year 2012 STAR Health Caregiver Survey.

Characteristics of Child Members with Special Health Care Needs

Caregiver surveys conducted by the external quality review organization contain questions that identify five variations of special health care needs among children in the Texas Medicaid and CHIP populations: (1) dependence on medication; (2) greater than routine use of health and educational services; (3) functional/ability limitations (compared with other children their age); (4) need for/use of special therapies; and (5) need for/use of mental health treatment or counseling.

Table 8 provides the percentage of members in STAR and CHIP who met the criteria for each of the five categories of child special health care needs in 2013, and the percentage of members in STAR Health who met these criteria in 2012. In all three programs, the most common special health care need was dependence on prescription medications. In STAR Health, more than one-third of members were dependent on medications or had problems that required mental health treatment or counseling. One-third of STAR Health members also had use of more medical care, mental health, or educational services than is usual for most children.

Table 8. Characteristics of Child Members with Special Health Care Needs in STAR, CHIP, and STAR Health

	STAR 2013	CHIP 2013	STAR Health 2012
Dependence on prescription medications	18%	16%	42%
Above average need/use of services	14%	8%	33%
Activity limitations	10%	5%	18%
Need/use of special therapies	8%	3%	20%
Need/use of counseling	14%	6%	40%

Figure 1 shows the trends in characteristics of child members with special health care needs in STAR in 2009, 2011, and 2013. While rates remained relatively stable in most of the child

special health care need domains from 2009 to 2011, all five domains saw a noticeable increase in 2013. The sharpest increases were observed in the percentage of children receiving special therapies, which more than doubled from three percent in 2011 to eight percent in 2013.

Figure 1. Trends in Child Members with Special Health Care Needs in STAR – 2009, 2011, and 2013

Childhood Obesity Rate

Body mass index (BMI) was calculated using caregiver-reported height and weight data for children enrolled in STAR, CHIP, and STAR Health. For children and adolescents younger than 18 years old, BMI classification depends on the child’s sex and age and is determined using the BMI-for-age growth charts from the Centers for Disease Control and Prevention (CDC).³¹ This system groups children into one of four clinically relevant BMI categories: (1) underweight; (2) healthy weight; (3) overweight; and (4) obese. **Table 9** displays the reported obesity rates in STAR and CHIP in 2013 and in STAR Health in 2012.

Table 9. Child/Adolescent BMI Classification

	STAR 2013	CHIP 2013	STAR Health 2012
Underweight	11%	8%	7%
Healthy	45%	48%	45%
Overweight	16%	18%	17%
Obese	28%	27%	30%

STAR+PLUS Member Health Status

In member surveys for STAR+PLUS, members are asked a series of questions about their health status, ranging from general health to specific domains such as mental health and role and activity limitations due to physical or emotional problems. Assessing the experiences and satisfaction of members who are in poor health or have chronic conditions is important to ensure

the population has adequate provider access, an appropriate range of services, and financing for health services.

Member-Reported Health Status

Overall, STAR+PLUS member self-rated health status was low, with over 60 percent of Medicaid-only and dual-eligible members reporting “fair” or “poor” health in 2012 and 2011, respectively (**Table 10**). Low health status rates are generally expected for the STAR+PLUS population due to higher rates of chronic illness and disability in this program. Self-reported mental health status among STAR+PLUS members was generally higher, with more than one-fourth of Medicaid-only members in 2012 and dual-eligible members in 2011 reporting their mental health as “excellent” or “very good.”

Table 10. STAR+PLUS Member Self-Reported Health Status³²

	Medicaid-only 2012	Dual-eligible 2011
Overall health		
“Excellent” or “Very Good”	15%	16%
“Good”	22%	23%
“Fair or Poor”	64%	62%
Mental health		
“Excellent” or “Very Good”	26%	27%
“Good”	24%	29%
“Fair or Poor”	51%	44%

Obesity Rate

BMI values were computed for STAR+PLUS members based on the members’ self-reported height and weight. Men and women 18 years of age and older are grouped into one of four clinically relevant BMI categories, which are recognized by the CDC: (1) Underweight (below 18.5); (2) Healthy weight (18.5 to 24.9); (3) Overweight (25.0 to 29.9); and (4) Obese (30.0 and above).³³ As **Table 11** shows, survey results from the external quality review organization’s most recent analyses of the STAR+PLUS Medicaid-only and dual-eligible populations indicated that approximately one-half of all members were considered obese. The high rate of obesity observed among STAR+PLUS members suggests that managed care organizations should continue efforts to monitor, document, and implement interventions for members to achieve a healthy weight.

Table 11. STAR+PLUS Member BMI Classification

	Medicaid-only 2012	Dual-eligible 2011
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Underweight	3%	4%
Healthy weight	23%	26%
Overweight	25%	25%
Obese	50%	45%

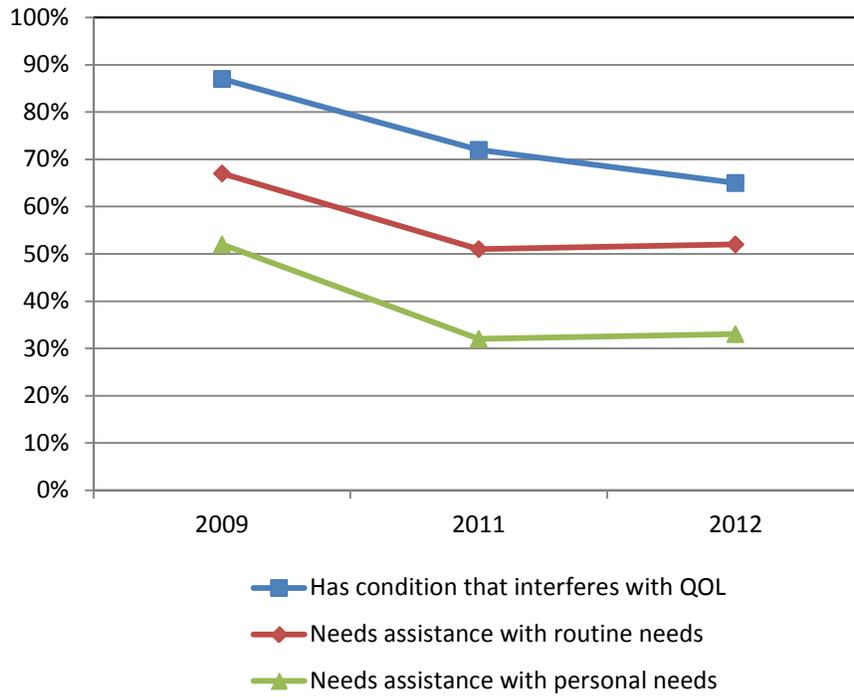
Basic and Instrumental Activities of Daily Living

An important component of health status involves a person’s independence and ability to perform specific tasks of daily living. Low levels of functioning indicate disability and dependence on others. Functional tasks in the daily lives of individuals who are elderly or have a chronic illness include activities of daily living and instrumental activities of daily living. Activities of daily living refer to fundamental self-care activities such as bathing, eating, walking, dressing, toileting, and brushing teeth.^{34,35} Instrumental activities of daily living refer to activities associated with maintaining an independent lifestyle, such as cooking, shopping, driving, housekeeping, laundry, managing medications, using the computer or telephone, and keeping track of finances.^{36, 37}

STAR+PLUS members generally needed high levels of assistance with activities of daily living and instrumental activities of daily living. Approximately two-thirds of members in both eligibility groups—65 percent of Medicaid-only members in 2012 and 68 percent of dual-eligible members in 2011—reported having a condition that interferes with their quality of life. During the same reporting years, 52 percent of Medicaid-only members and 53 percent of dual-eligible members reported needing assistance with *routine* needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes. Approximately one-third of members in both eligibility groups reported needing assistance with *personal* needs, such as eating, dressing, or getting around the house (33 percent and 37 percent, respectively).

In the STAR+PLUS Medicaid-only population, some changes were observed in the percentage of members needing assistance with activities of daily living following the Medicaid managed care expansion in September 2011. **Figure 2** displays the percentage of Medicaid-only members who had a condition that interfered with their quality of life (QOL), needed assistance with routine needs, and needed assistance with personal needs in 2009, 2011, and 2012. For all three categories, a considerable decrease occurred between the 2009 and 2011 reporting periods, suggesting that the 2011 expansion added members with higher functional status.

Figure 2. Activities of Daily Living for STAR+PLUS Medicaid-Only Members in 2009, 2011, and 2012



2 – Access and Utilization of Care

Access to health care is defined as “the timely use of personal health services to achieve the best possible outcomes.”³⁸ Many quality of care metrics only evaluate quality for individuals who actually interacted with the health care system, which can overstate the quality of care received by the general population. Therefore, measures of access are critical to understanding whether *all* members in public insurance programs are receiving the care they need, and whether it is being delivered quickly enough to meet their health care needs. Similarly, monitoring the utilization of health services by program can reveal whether members are receiving appropriate levels of care relevant to the population served by that program.

2.1 – Pediatric Preventive Care

The external quality review organization assesses pediatric preventive care in Texas Medicaid and CHIP using several HEDIS[®] measures, including: (1) HEDIS[®] *Well-Child Visits in the First 15 Months of Life*; (2) HEDIS[®] *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*; (3) HEDIS[®] *Adolescent Well-Care Visits*; (4) HEDIS[®] *Childhood Immunization Status*; and (5) HEDIS[®] *Annual Dental Visit*.

Well-Child Care

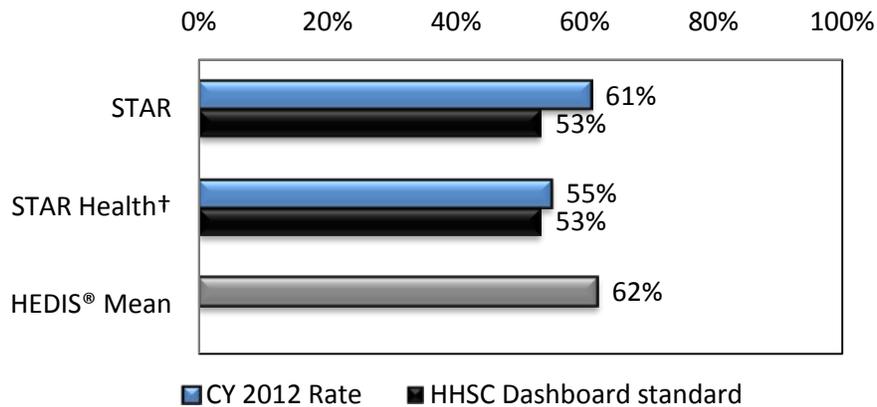
Well-child visits play an essential role in monitoring a child’s health and development, enable the identification of childhood illnesses and developmental delays, and provide the opportunity for early intervention at a crucial point in the child’s life.^{39,40} Standards regarding the frequency of such visits vary depending upon the age of the child. The American Academy of Pediatrics recommends six well-child visits in the first year of life, and an annual well-child visit for children 3 to 6 years of age.⁴¹ The external quality review organization uses measures that track well-care at three distinct stages of development.

To assess whether infants received the recommended level of well-child care, the external quality review organization uses the HEDIS[®] measure *Well-Child Visits in the First 15 Months of Life*. This measure reveals the percentage of members who turned 15 months old during the measurement year and who had at least six well-child visits during their first 15 months of life.

Figure 3 provides results for this measure for STAR and STAR Health. Both programs had rates that were higher than their respective HHSC Dashboard standards.

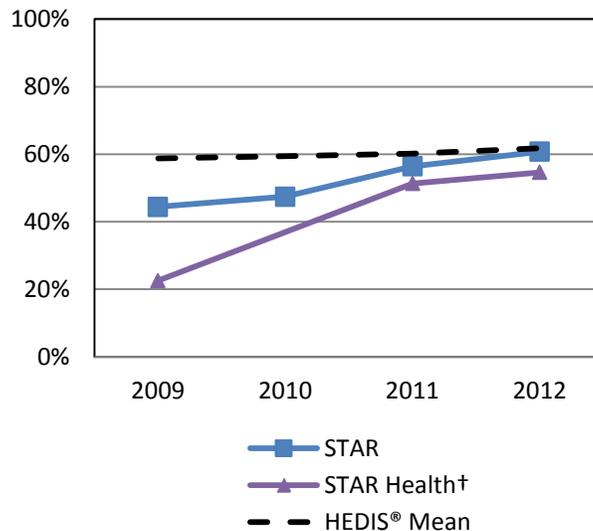
Although the percentage of infants in STAR receiving the appropriate number of well-child visits increased from 2009 to 2012, such rates were lower than the HEDIS[®] mean across the four-year period (**Figure 4**). In 2012, STAR was only one percentage point below the HEDIS[®] mean of 62 percent. Rates for STAR Health increased between 2009 and 2012.

Figure 3. HEDIS® Well-Child Visits in the First 15 Months of Life, 2012



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

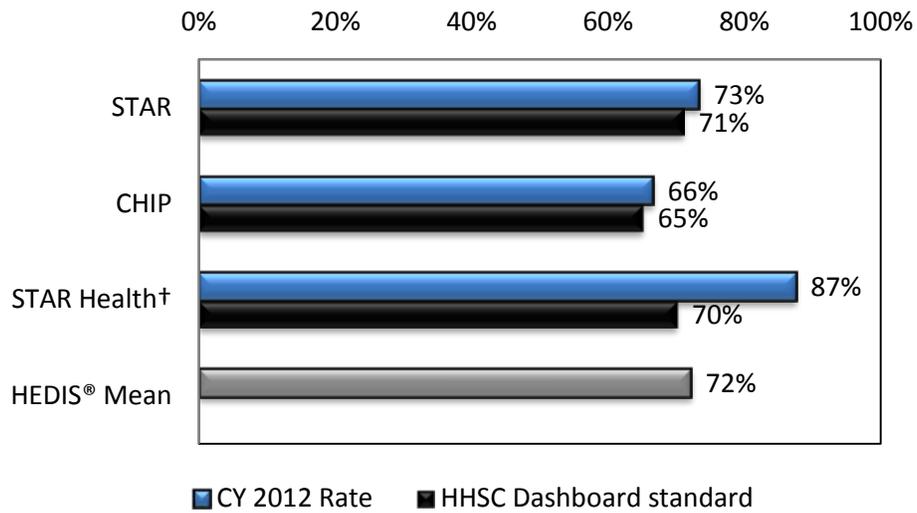
Figure 4. HEDIS® Well-Child Visits in the First 15 Months of Life in STAR and STAR Health, 2009-2012



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

To assess whether young children are receiving the recommended level of well-child care, the external quality review organization uses the HEDIS® *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* measure. This item provides the percentage of members three to six years of age who received one or more well-child visits with a primary care physician during the measurement year. **Figure 5** presents results for this measure in STAR, CHIP, and STAR Health. The percentage of children in this age group who had at least one well-child visit with a PCP during the measurement year exceeded the HHSC Dashboard standard in all three programs.

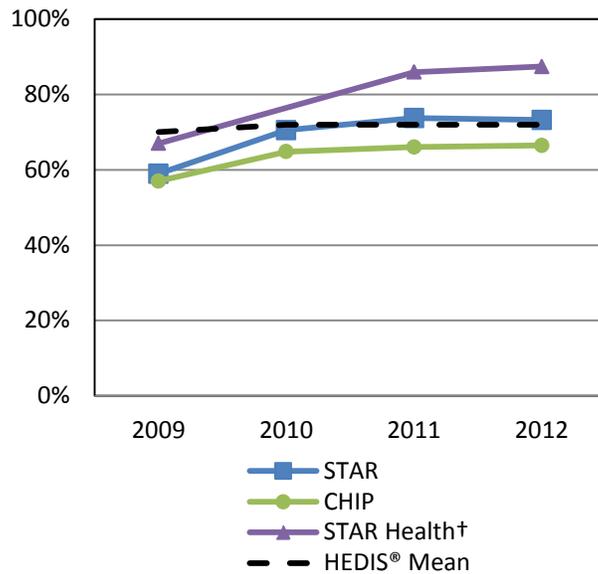
Figure 5. HEDIS® Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life, 2012



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

Figure 6 displays program-level trends for *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* from 2009 to 2012. All three programs demonstrated slight improvements over the four-year period.

Figure 6. HEDIS® Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life in STAR, CHIP, and STAR Health, 2009-2012

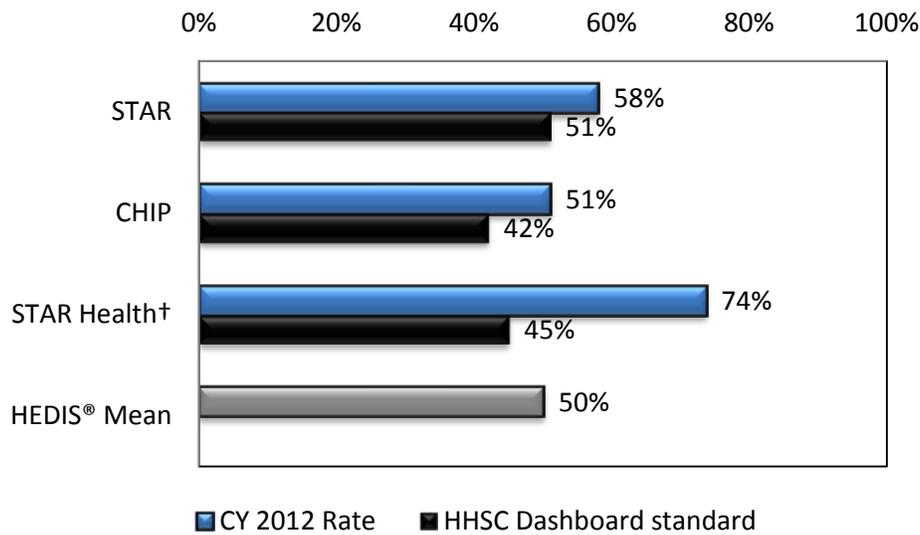


†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

Well-care visits are also important for adolescents, whose health-related issues are often associated with lifestyle factors such as risky sexual behaviors, unhealthy diet, and use of alcohol, tobacco, or recreational drugs.⁴² The American Academy of Pediatrics recommends that adolescents have at least one well-care visit annually.⁴³ To assess well-child care for this age group, the external quality review organization uses the HEDIS[®] measure *Adolescent Well-Care Visits*, which assesses the percentage of members 12 to 21 years of age who had at least one comprehensive well-care visit with either a PCP or an obstetrics/gynecology provider during the measurement year.

Figure 7 displays program-level rates for the *Adolescent Well-Care Visits* measure in STAR, CHIP, and STAR Health. The percentage of adolescents who had at least one comprehensive well-care visit with either a PCP or an obstetrics/gynecology provider during the measurement year exceeded the HHSC Dashboard standard in all three programs.

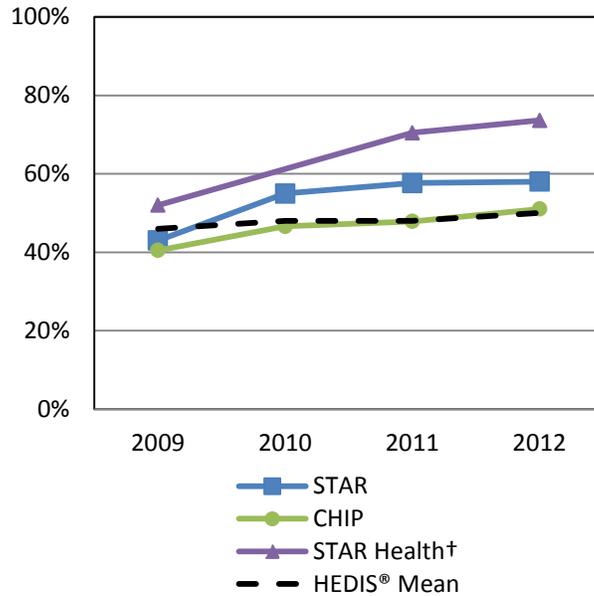
Figure 7. HEDIS[®] Adolescent Well-Care Visits, 2012



†The HEDIS[®] mean is not comparable to this program and is included for illustrative purposes only.

Figure 8 displays program-level trends for *Adolescent Well-Care Visits* from 2009 to 2012. In general, all three programs demonstrated slight improvements over the four-year period. STAR had rates that were higher than the HEDIS[®] mean from 2010 to 2012.

Figure 8. HEDIS® Adolescent Well-Care Visits in STAR, CHIP, and STAR Health, 2009-2012



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

Childhood Immunization

Childhood immunizations prevent the spread of dangerous diseases and ultimately save billions of dollars in direct and societal costs.⁴⁴ Certain vaccine-preventable illnesses, such as hepatitis, measles, and pertussis, can lead to severe complications, including death.⁴⁵ Infants are especially vulnerable and often have a more severe reaction to infections because their immune systems are still developing.⁴⁶

Table 12 presents results for the HEDIS® *Childhood Immunization Status (CIS) – Combination 4* measure, which represents the percentage of children two years of age who had a series of recommended vaccines by their second birthday, including: four diphtheria, tetanus and acellular pertussis; three polio; one measles, mumps and rubella; three H influenza type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; and one hepatitis A. This is a hybrid measure, with results based on claims data, ImmTrac immunization registry data, and medical record review.⁴⁷ Results for this measure were reported in 2012 for STAR and CHIP.

Table 12. HEDIS® Childhood Immunization Status, 2012

	CY 2012 results
STAR	74 percent
CHIP	71 percent

Approximately three-quarters of eligible children in STAR and CHIP received the appropriate series of vaccinations by their second birthday.

2.2 – Access to Dental Care Services

Good oral health is integral to a child's overall physical well-being. Inadequate dental care during childhood can have negative impacts on speech, growth and social development, nutrition, and quality of life.^{48,49} Children from low-income families are particularly vulnerable to experiencing problems related to poor dental health, including oral disease and untreated tooth decay.^{50, 51} However, compared to the general population, children from low-income households receive fewer dental services and are less likely to have routine dental checkups.^{52,53,54}

The external quality review organization evaluates access to dental care and services among members enrolled in Medicaid and CHIP Dental using: (1) The HEDIS[®] *Annual Dental Visit* Measure; and (2) dental prevention and treatment measures developed by the Institute for Child Health Policy.

Medicaid Dental Enrollment. On March 1, 2012, members enrolled in Medicaid who were age 20 and younger began receiving dental services through a dental plan. Three dental plans provided dental services to eligible Medicaid members in calendar year 2012: Delta Dental, DentaQuest, and MCNA Dental.⁵⁵ On November 30, 2012, Delta Dental ceased to provide dental services to Medicaid members, and HHSC transitioned members enrolled in Delta Dental to MCNA and DentaQuest.⁵⁶

CHIP Dental Enrollment. To address dental care needs among children in CHIP, dental services were added to CHIP coverage on April 1, 2006, and Delta Dental was identified as the sole dental benefit contractor for CHIP. In March 2012, the CHIP dental benefit was expanded to include two additional plans: DentaQuest and MCNA Dental.⁵⁷ Thus, three dental plans—Delta Dental, DentaQuest, and MCNA—provided dental services to CHIP members in 2012. On November 30, 2012, Delta Dental ceased to provide dental services to CHIP members, and HHSC transitioned members enrolled in Delta Dental to MCNA and DentaQuest.⁵⁸

Overall Medicaid and CHIP rates are reported with and without Delta Dental to provide information on all enrollees and current programs.⁵⁹

When applicable, results are compared to the calendar year 2012 Medicaid and CHIP Dental HHSC Performance Indicator Dashboard standards.

Annual Dental Visit

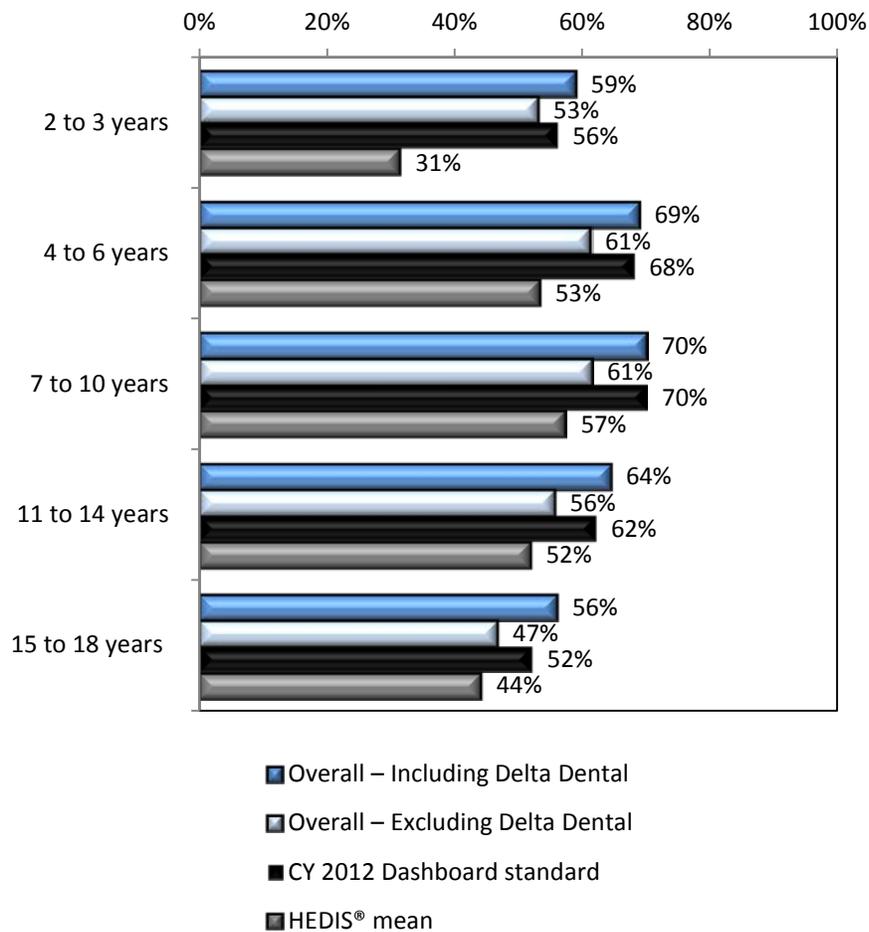
The HEDIS[®] *Annual Dental Visit* measure represents the percentage of members who had at least one dental visit during the measurement year.

Figure 9 presents results for the HEDIS® *Annual Dental Visit* measure in CHIP Dental. Results are displayed by age group. The 19 to 21 age group was omitted from CHIP Dental specifications because it does not apply to this population.

For all age groups, the overall CHIP rates including Delta Dental were equal to or higher than their respective HHSC Dashboard standards. However, the overall CHIP rates excluding Delta Dental were lower than their respective HHSC Dashboard standards for all age groups. The rate for this measure across all age groups combined (not shown in chart) was 64 percent including Delta Dental, and 55 percent excluding Delta Dental.

Additionally, the rates in CHIP for all age groups were higher than the HEDIS® means.

Figure 9. HEDIS® *Annual Dental Visit* in CHIP – By Age Group, 2012



THSteps Dental Checkups

Figure 10 presents results for the *THSteps Dental Checkups* measure, which represents the percentage of enrolled members six months through 20 years of age who had one or two

THSteps Dental Checkups during the measurement year. The majority of Medicaid Dental members had one THSteps dental checkup, but approximately one-quarter had two checkups.

Figure 10. THSteps Dental Checkup in Medicaid, 2012

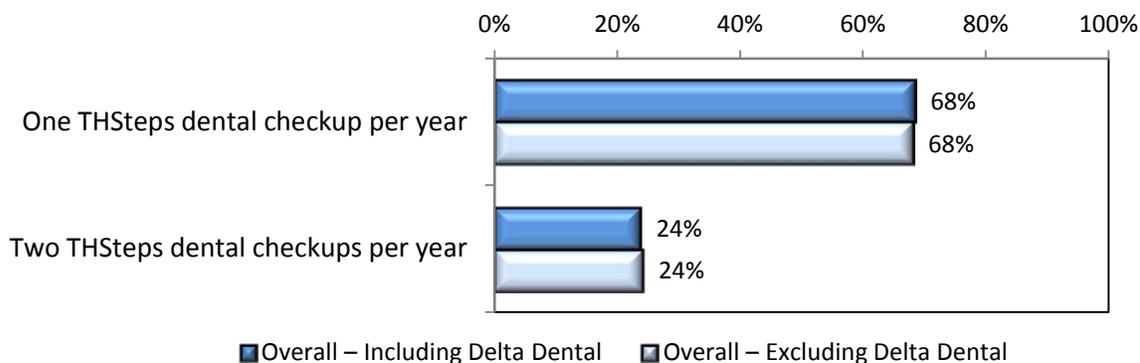
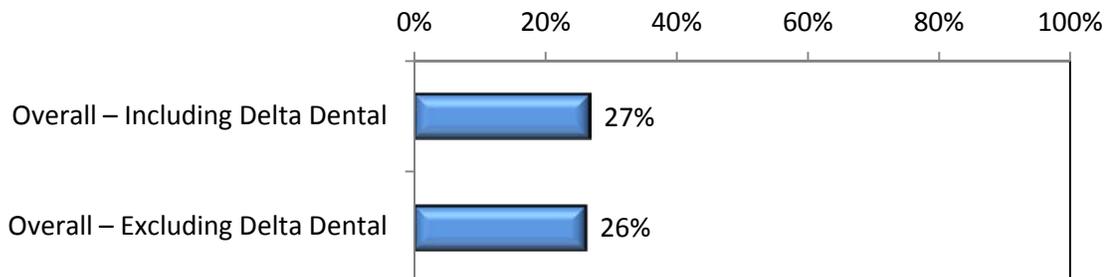


Figure 11 presents results for the *THSteps Dental Checkup Within 90 Days of Enrollment* measure, which represents the percentage of new members six months through 20 years of age who had at least one THSteps Dental Checkup within 90 days of enrollment. Slightly greater than one-quarter of newly enrolled Medicaid members received a THSteps Dental Checkup within 90 days of enrollment.

Figure 11. THSteps Dental Checkup Within 90 Days of Enrollment in Medicaid, 2012



Use of Preventive Dental Services

Figure 12 and **Figure 13** provide results for the *Use of Preventive Dental Services* measure for Medicaid Dental and CHIP Dental, respectively. This measure assesses the percentage of members who had at least one preventive dental service during the measurement year, with results presented for members enrolled nine of ten months. Members included in this measure are 1 through 20 years old for Medicaid, and 1 through 18 years old for CHIP.

Preventive dental services are important because they inhibit and reverse the development of oral health problems. Research has shown that such services are cost-effective in reducing disease burden, including treatment costs associated with tooth decay.⁶⁰

The American Academy of Pediatric Dentistry recommends that all children and adolescents receive preventive dental services, including fluoride topical treatments and cleaning of teeth, every six months. Such services should start by the time the child is one year old.⁶¹

Texas Medicaid has adopted these guidelines to serve as a guide and reference for dentists when providing services to members. Therefore, findings for Medicaid suggest that rates of preventive dental services in Texas Medicaid could be improved.

For CHIP, although the rate including Delta Dental was higher than the HHSC Dashboard standard, the rate excluding Delta Dental fell below the HHSC Dashboard standard.

Figure 12. Preventive Dental Services in Medicaid, 2012

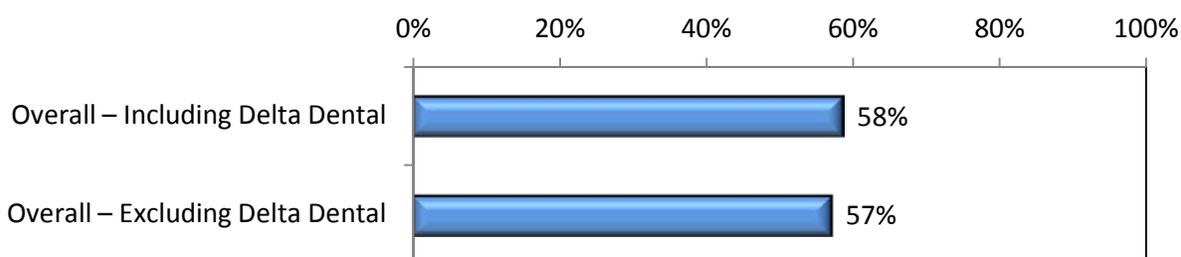
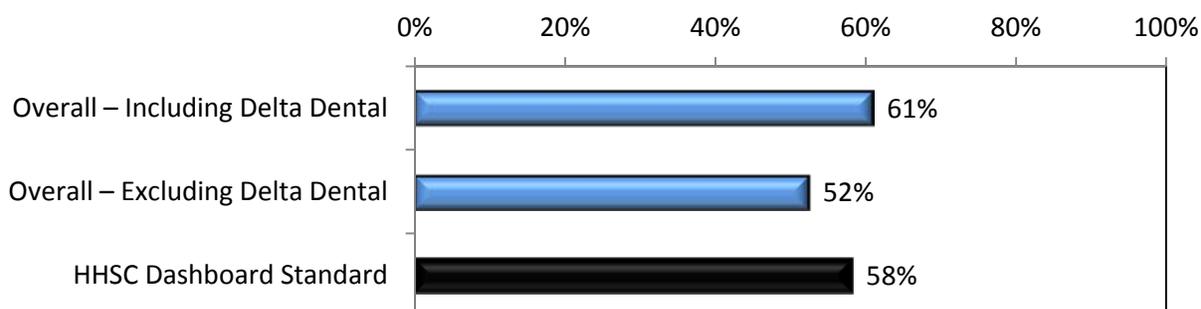


Figure 13. Preventive Dental Services in CHIP, 2012



Use of Dental Sealants

Dental sealants are a cost-effective preventative measure that protect against pit and fissure caries.⁶² It is ideal to complete this procedure as soon as possible to lower susceptibility to caries,⁶³ which is why this is a relevant measure for child dental care. **Figure 14** and **Figure 15** show results for the *Use of Dental Sealants* measure, which represents the percentage of enrolled members who had at least one dental sealant service during the measurement year. Results are presented for two age groups: 6 to 9 years old and 10 to 14 years old. For Medicaid Dental and CHIP Dental, the percentage of children and adolescents that received dental sealants was low.

Figure 14. Use of Dental Sealants in Medicaid among Members 6-9 and 10-14 Years Old, 2012

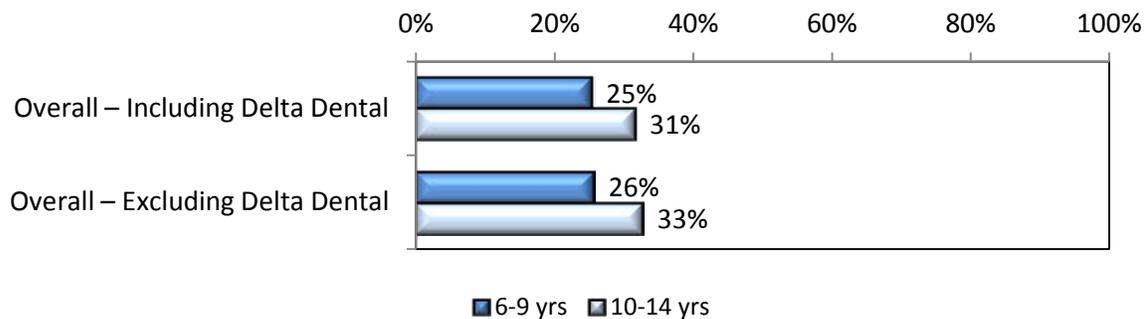
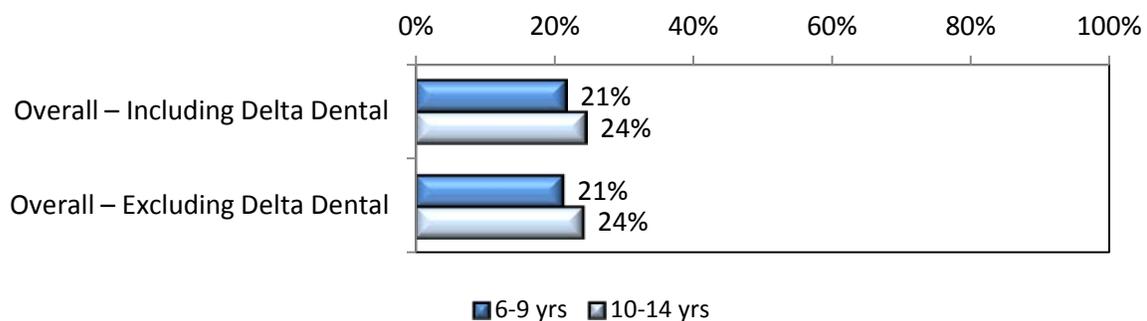


Figure 15. Use of Dental Sealants in CHIP among Members 6-9 and 10-14 Years Old, 2012



Overall, rates for the *Use of Preventive Dental Services* and the *Use of Dental Sealants* measures were low in Medicaid and CHIP. To improve preventive dental services for children in these programs, the external quality review organization recommends that Medicaid and CHIP dental plans implement or improve upon strategies found to be effective in other settings (see recommendations in **Appendix A**).

2.3 – Prenatal and Postpartum Care

Timely prenatal and postpartum care provides the opportunity to screen for health conditions that affect mother and child during and after pregnancy. Depression, diabetes, and anemia are prenatal and postpartum conditions that can lead to adverse consequences if they are not detected early.^{64,65} The American College of Obstetricians and Gynecologists recommends a prenatal evaluation within the first trimester and a postpartum evaluation between 21 days and 56 days after delivery.⁶⁶

Figure 16 and **Figure 17** display results for the HEDIS® *Prenatal and Postpartum Care* measure in STAR, which assesses two aspects of perinatal care for live births that occurred during the measurement period: (1) *Timeliness of Prenatal Care*: the percentage of deliveries that received a prenatal care visit in the first trimester or within 42 days of enrollment; and (2) *Postpartum Care*: the percentage of deliveries that had a postpartum visit between 21 and 56 days after delivery.

The STAR rates for the *Timeliness of Prenatal Care* sub-measure are administrative, and the STAR rates for the *Postpartum Care* sub-measure are hybrid. HEDIS[®] specifications allow for different data collection methodologies between the two sub-measures.^{67,68} In 2012, the percentage of STAR members that received timely prenatal care fell below the HHSC Dashboard standard.

Figure 16. HEDIS[®] *Timeliness of Prenatal Care*, 2012

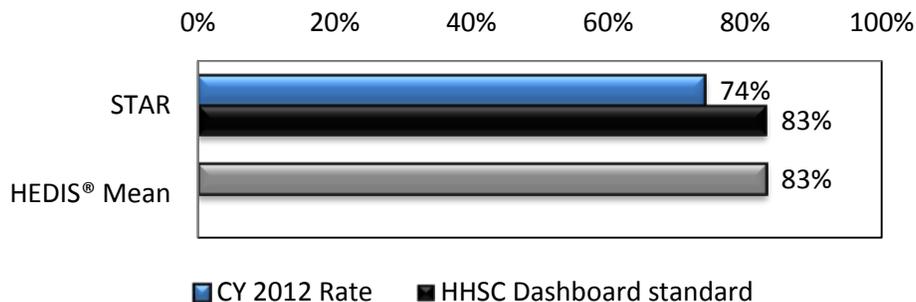


Figure 17. HEDIS[®] *Postpartum Care*, 2012

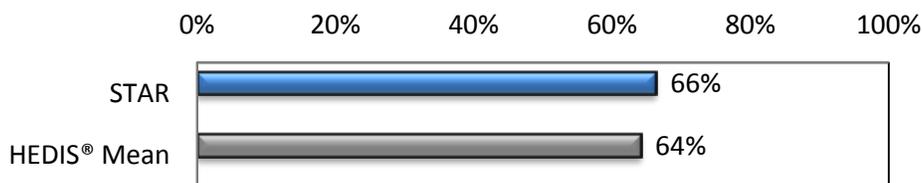
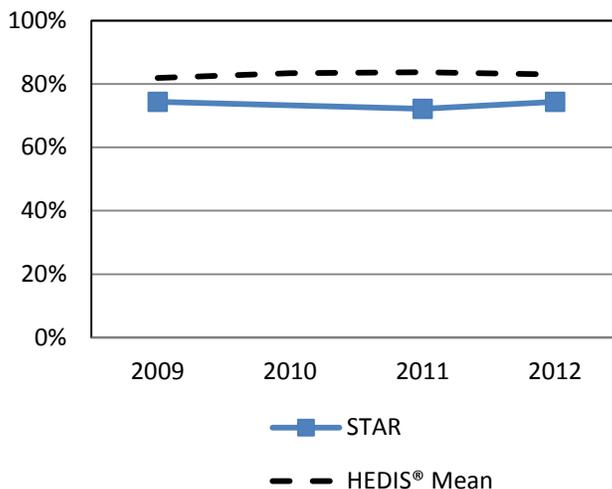


Figure 18 displays results for *Timeliness of Prenatal Care* from 2009 to 2012 for STAR.⁶⁹ STAR performed below the applicable HEDIS[®] means across all measurement years.⁷⁰

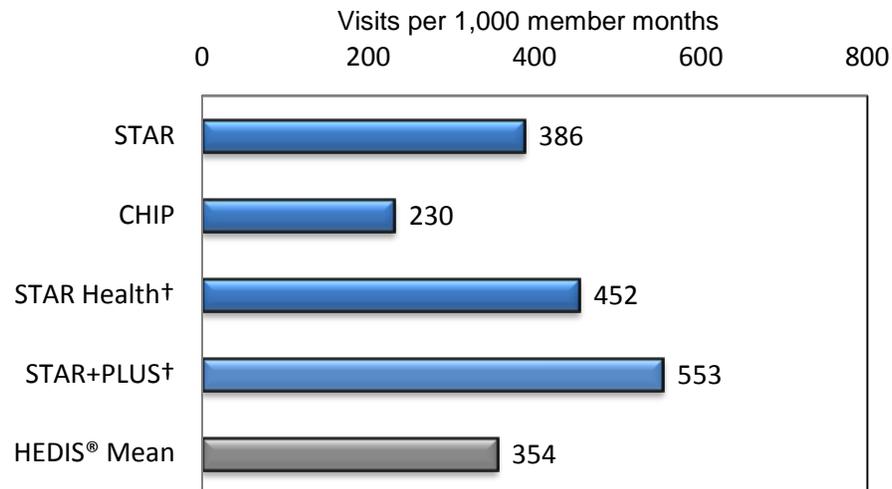
Figure 18. HEDIS[®] *Timeliness of Prenatal Care*, 2009-2012



2.4 – Ambulatory Care and Inpatient Utilization

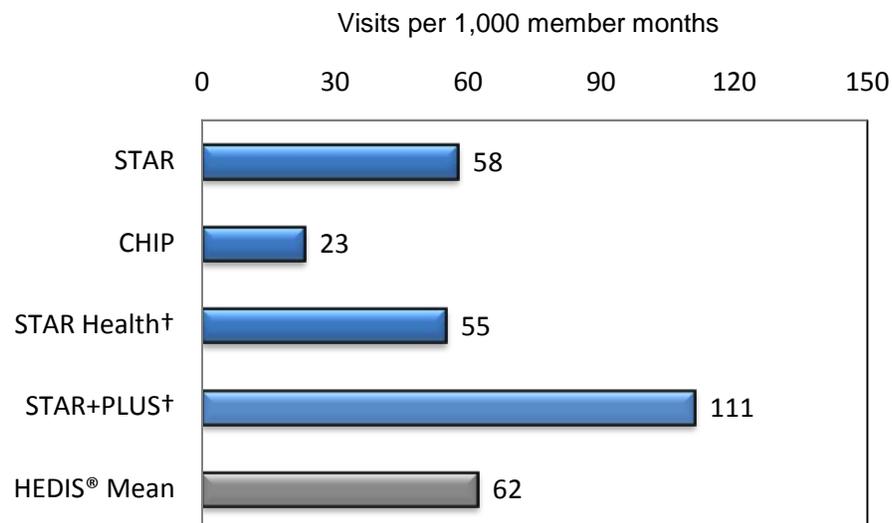
Figure 19 and **Figure 20** present results for the HEDIS® *Ambulatory Care* measure for 2012, which summarizes utilization of two types of ambulatory care: (1) outpatient care, showing the rate of outpatient visits per 1,000 member months; and (2) emergency department visits, showing the rate of emergency department visits per 1,000 member months. The rates of outpatient visits were higher than the rates of emergency department visits for all programs.

Figure 19. HEDIS® Ambulatory Care: Outpatient Visits, 2012



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

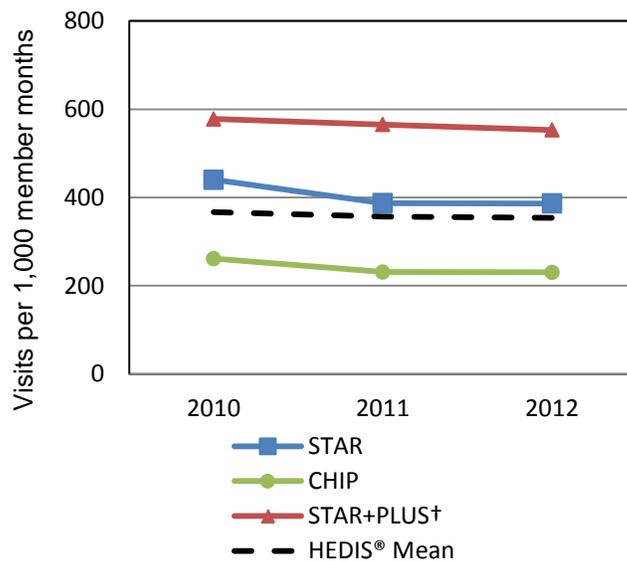
Figure 20. HEDIS® Ambulatory Care: Emergency Department Visits, 2012



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

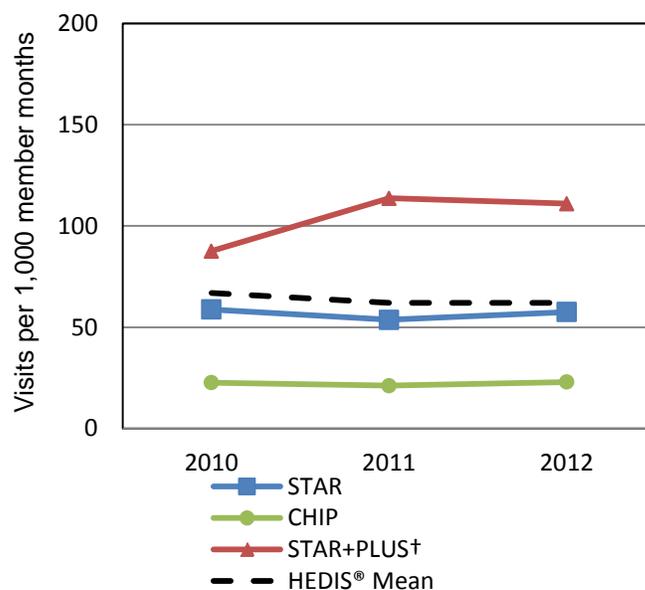
Figure 21 and **Figure 22** display results for the HEDIS[®] *Ambulatory Care* measure from 2010 to 2012. STAR Health is not included in these figures because only two years of data are available for this program. Across the four-year period, CHIP had rates that were lower than the HEDIS[®] mean for both sub-measures.

Figure 21. HEDIS[®] *Ambulatory Care: Outpatient Visits, 2010-2012*



†The HEDIS[®] mean is not comparable to this program and is included for illustrative purposes only.

Figure 22. HEDIS[®] *Ambulatory Care: Emergency Department Visits, 2010-2012*



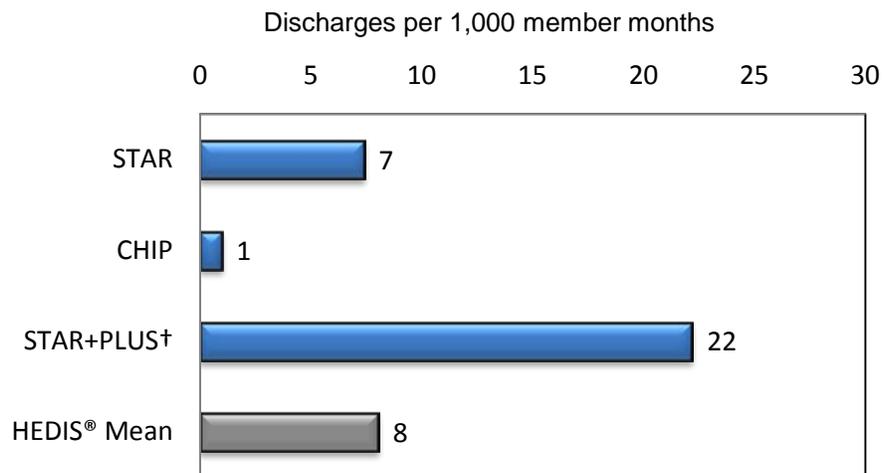
†The HEDIS[®] mean is not comparable to this program and is included for illustrative purposes only.

Inpatient Utilization—General Hospital/Acute Care

Figure 23 presents 2012 results for the HEDIS® *Inpatient Utilization—General Hospital/Acute Care* measure, which summarizes utilization of acute inpatient care. Specifically, this figure presents the total inpatient discharges per 1,000 member months. **Figure 24** presents results for this measure in 2011.⁷¹

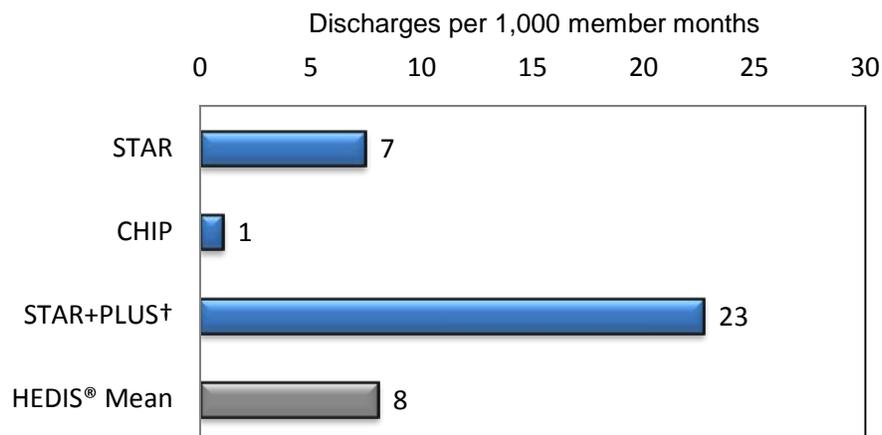
For all programs, the total inpatient discharges per 1,000 member months changed little from 2011 to 2012. Across both years, STAR and CHIP had total inpatient discharges that were lower than the HEDIS® mean.

Figure 23. HEDIS® Inpatient Utilization: Total Discharges per 1,000 Member Months, 2012



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

Figure 24. HEDIS® Inpatient Utilization: Total Discharges per 1,000 Member Months, 2011



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

AHRQ Pediatric Quality Indicators

The external quality review organization uses the Pediatric Quality Indicators to analyze pediatric admissions for five ambulatory care sensitive conditions among members 17 years of age and younger: (1) *Asthma*; (2) *Diabetes Short-Term Complications*; (3) *Gastroenteritis*; (4) *Perforated Appendix*; and (5) *Urinary Tract Infection*. Rates are expressed per 100,000 eligible members, with the exception of *Perforated Appendix*, which is expressed per 100 admissions for appendicitis. It should be noted that in smaller programs, such as STAR Health, the number of pediatric admissions for a particular indicator can be very small. For measures where the number of admissions in these programs was less than 20, observed year-to-year changes may not reflect true differences in quality of care. In these cases, changes in Pediatric Quality Indicator rates should be interpreted with caution. Measures where the number of admissions were below 20 have been noted with footnotes (e.g., “†”) in the narrative of this section.⁷²

Asthma

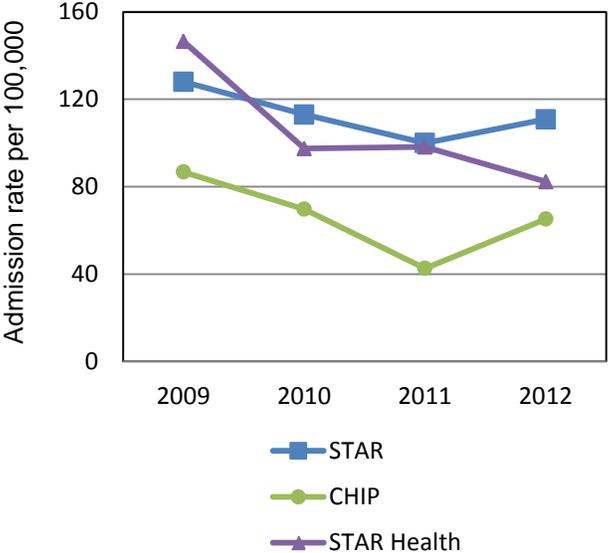
Table 13 presents results for the AHRQ *Asthma* Pediatric Quality Indicator. In 2012, the *Asthma* Pediatric Quality Indicator admission rates in all three programs were lower than their respective HHSC Dashboard standards and the AHRQ national rate.

Table 13. AHRQ Asthma Pediatric Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	Admission rate per 100,000		
			CY 2012 rate	HHSC Dashboard standard	AHRQ National Rate
STAR	2,771	2,499,683	111	181	120
CHIP	536	822,455	65	88	120
STAR Health	30	36,447	82	181	--

As shown in **Figure 25**, pediatric inpatient admissions decreased overall in STAR, CHIP, and STAR Health from 2009 to 2012, despite some fluctuation.

Figure 25. AHRQ Asthma Pediatric Quality Indicator Rates (per 100,000 eligible members) in STAR, CHIP, and STAR Health, 2009-2012



Diabetes Short-Term Complications

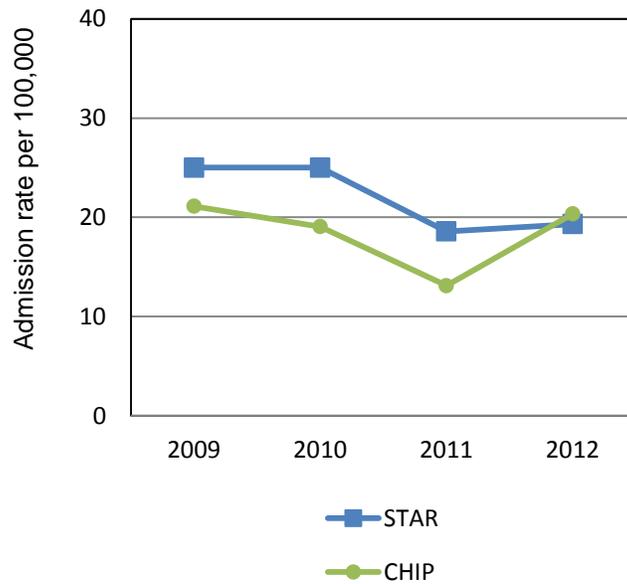
Table 14 presents results for the AHRQ *Diabetes Short-Term Complications* Pediatric Quality Indicator. STAR and CHIP had rates that were lower than their respective HHSC Dashboard standards and the AHRQ national rate. However, STAR Health’s admission rate was higher than its HHSC Dashboard standard.

Table 14. AHRQ *Diabetes Short-Term Complications* Pediatric Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	Admission rate per 100,000		
			CY 2012 rate	HHSC Dashboard standard	AHRQ National Rate
STAR	318	1,645,565	19	28	25
CHIP	140	688,222	20	24	25
STAR Health	12	22,400	54	29	--

Despite some fluctuation, inpatient admissions for diabetes short-term complications had little net change from 2009 to 2012 in STAR and CHIP (**Figure 26**). STAR Health was not included in this figure because its numerators were less than 20 for three of four years from 2009 to 2012.

Figure 26. AHRQ Diabetes Short-Term Complications Pediatric Quality Indicator Rates (per 100,000 eligible members) in STAR and CHIP, 2009-2012



Gastroenteritis

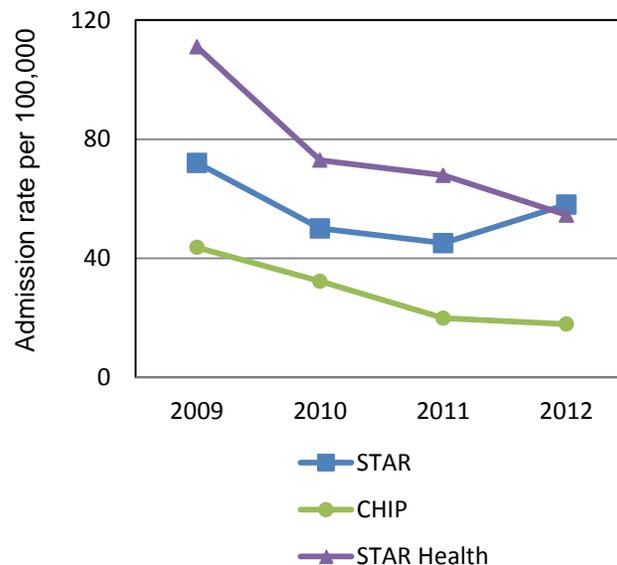
Table 15 presents results for the AHRQ *Gastroenteritis* Pediatric Quality Indicator in 2012. STAR, CHIP, and STAR Health had rates that were lower than their respective HHSC Dashboard standards. In addition, the admission rates for STAR and CHIP were lower than the AHRQ national rate.

Table 15. AHRQ *Gastroenteritis* Pediatric Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	Admission rate per 100,000		
			CY 2012 rate	HHSC Dashboard standard	AHRQ National Rate
STAR	1,701	2,931,700	58	146	63
CHIP	150	839,786	18	42	63
STAR Health	23	42,225	54	183	--

Figure 27 shows rates for the AHRQ *Gastroenteritis* Pediatric Quality Indicator from 2009 to 2012. CHIP and STAR Health rates decreased steadily across the four-year period. The rate for STAR decreased from 2009 to 2011, and then increased the following year. However, STAR had little net change across the four-year period.

Figure 27. AHRQ Gastroenteritis Pediatric Quality Indicator Rates (per 100,000 eligible members) in STAR, CHIP, and STAR Health, 2009-2012



Urinary Tract Infection

Table 16 displays results for the AHRQ *Urinary Tract Infection* Pediatric Quality Indicator. STAR and CHIP had admission rates that were lower than their respective HHSC Dashboard standards, while STAR Health had a rate higher than its HHSC Dashboard standard.

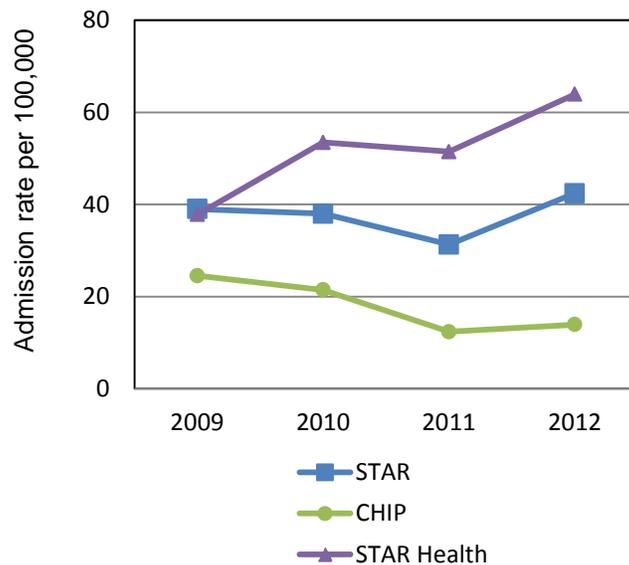
In comparison to the AHRQ national average, CHIP had a lower rate of admissions; however, STAR had a higher rate of admissions.

Table 16. AHRQ *Urinary Tract Infection* Pediatric Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	Admission rate per 100,000		
			CY 2012 rate	HHSC Dashboard standard	AHRQ National Rate
STAR	1,244	2,931,700	42	53	36
CHIP	117	839,786	14	26	36
STAR Health	27	42,225	64	53	--

From 2009 to 2012, rates changed little for STAR, decreased slightly for CHIP, and increased for STAR Health (Figure 28).[†]

Figure 28. AHRQ Urinary Tract Infection Pediatric Quality Indicator Rates (per 100,000 eligible members) in STAR, CHIP, STAR+PLUS, and STAR Health, 2009-2012



Perforated Appendix

Table 17 displays results for the AHRQ *Perforated Appendix* Pediatric Quality Indicator. STAR Health was not included in this report due to a low denominator (less than 30). In STAR and CHIP, Pediatric Quality Indicator admission rates for perforated appendix were higher than their respective HHSC Dashboard standards and the AHRQ national rate.

Table 17. AHRQ *Perforated Appendix* Pediatric Quality Indicator Admission Rates (per 100 admissions for appendicitis), 2012

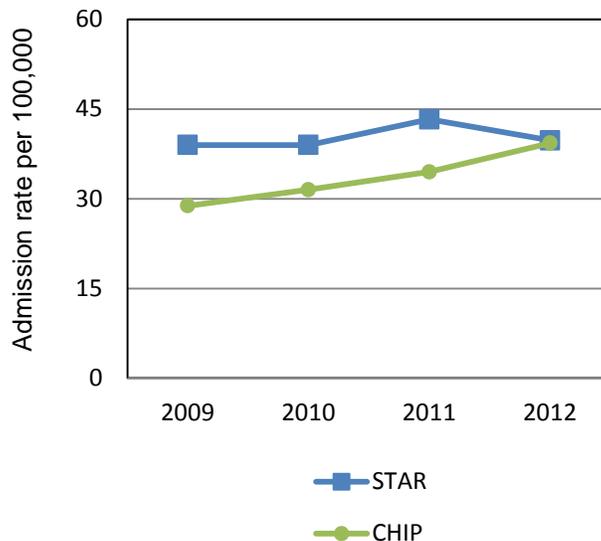
	Numerator	Denominator	Admission rate per 100 admissions for appendicitis		
			CY 2012 rate	HHSC Dashboard standard	AHRQ National Rate ⁷³
STAR	758	1,906	40	31	31

[†] In STAR Health, the number of admissions for Urinary Tract Infection increased from 15 in 2009 to 27 in 2012. Due to the small numbers of admissions, these changes may not represent true changes in quality of care and should be interpreted with caution.

CHIP	232	590	39	31	31
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Figure 29 shows results for trends in the AHRQ *Perforated Appendix* Pediatric Quality Indicator from 2009 to 2012. STAR Health was excluded from this chart due to low denominators (less than 30) for the majority of its rates across the four-year period. From 2009 to 2012, admission rates changed little for STAR and increased slightly for CHIP.

Figure 29. AHRQ *Perforated Appendix* Pediatric Quality Indicator Admission Rates (per 100 admissions for appendicitis), 2009-2012



AHRQ Prevention Quality Indicators

The external quality review organization uses the AHRQ Prevention Quality Indicators to assess adult hospital admissions associated with the following ambulatory care sensitive conditions: (1) *Diabetes Short-Term Complications*; (2) *Perforated Appendix*; (3) *Diabetes Long-Term Complications*; (4) *Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults*; (5) *Low Birth Weight*; (6) *Hypertension*; (7) *Congestive Heart Failure*; (8) *Dehydration*; (9) *Bacterial Pneumonia*; (10) *Urinary Tract Infection*; (11) *Angina without Procedure*; (12) *Uncontrolled Diabetes*; (13) *Asthma in Younger Adults*; and (14) *Rate of Lower Extremity Amputation among Patients with Diabetes*. Members ages 18 or older are eligible for these measures.

Results for STAR+PLUS Prevention Quality Indicators are presented in this section. This report focuses on Prevention Quality Indicators for which specifications remained consistent over the four-year period. Four-year trends are available for most indicators.⁷⁴ Rates are per 100,000 eligible members. STAR+PLUS does not have HHSC Dashboard standards for the Prevention Quality Indicators; thus, no standards are presented in the tables for this program. The AHRQ Prevention Quality Indicators are sensitive to case-mix, meaning that managed care organizations with sicker memberships tend to have higher Prevention Quality Indicator rates.

Due to the differences in health status between the STAR+PLUS population and the Medicaid population, the AHRQ national rates are not presented as a means of comparison for STAR+PLUS.

Diabetes Short-Term Complications

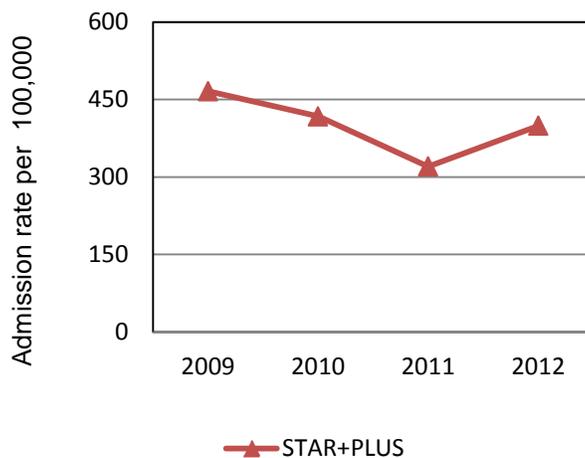
Table 18 presents 2012 results for the AHRQ *Diabetes Short-Term Complications* Prevention Quality Indicator in 2012, and **Figure 30** presents trends for this measure from 2009 to 2012.

Admissions for diabetes short-term complications decreased considerably from 2009 to 2011 in STAR+PLUS, but increased the following year. Overall, STAR+PLUS Prevention Quality Indicator rates for diabetes short-term complications showed a net decrease across the four-year period.

Table 18. AHRQ *Diabetes Short-Term Complications* Prevention Quality Indicator Admission Rates (per 100,00 eligible members), 2012

	Numerator	Denominator	CY 2012 admission rate per 100,000
STAR+PLUS	772	193,444	399

Figure 30. AHRQ *Diabetes Prevention Quality Indicator* rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012



Diabetes Long-Term Complications

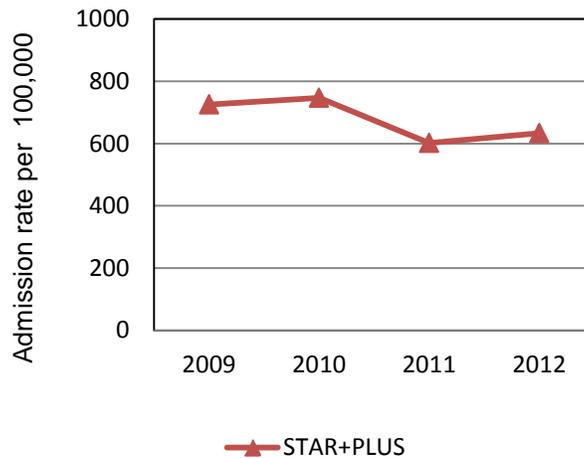
Table 19 presents 2012 results for the AHRQ *Diabetes Long-Term Complications* Prevention Quality Indicator in 2012, and **Figure 31** presents trends for this measure from 2009 to 2012.

Adult inpatient admissions for diabetes long-term complications dropped considerably from 2009 to 2011 in STAR+PLUS, but increased slightly from 2011 to 2012. Across the four-year period, the STAR+PLUS admission rate had a net decrease.

Table 19. AHRQ Diabetes Long-Term Complications Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	CY 2012 admission rate per 100,000
STAR+PLUS	1,226	193,444	634

Figure 31. AHRQ Diabetes Long-Term Complications Prevention Quality Indicator Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012



Hypertension

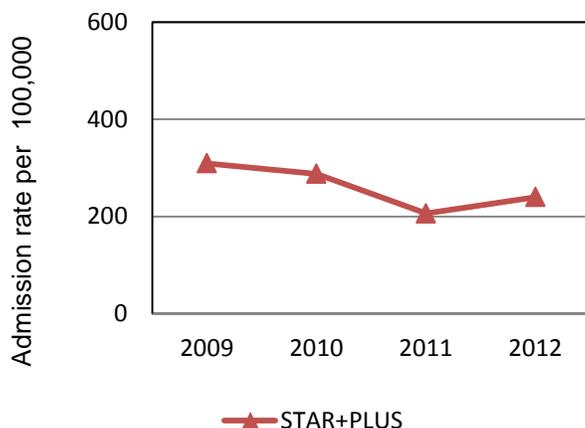
Table 20 presents 2012 results for the AHRQ *Hypertension* Prevention Quality Indicator in 2012, and **Figure 32** displays trends for this measure between 2009 and 2012.

STAR+PLUS decreased from 2009 to 2011, and then increased slightly from 2011 to 2012. Overall, STAR+PLUS had a net decrease of 70 per 100,000 across the four-year period.

Table 20. AHRQ Hypertension Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	CY 2012 admission rate per 100,000
STAR+PLUS	464	193,444	240

Figure 32. AHRQ Hypertension Prevention Quality Indicator Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012



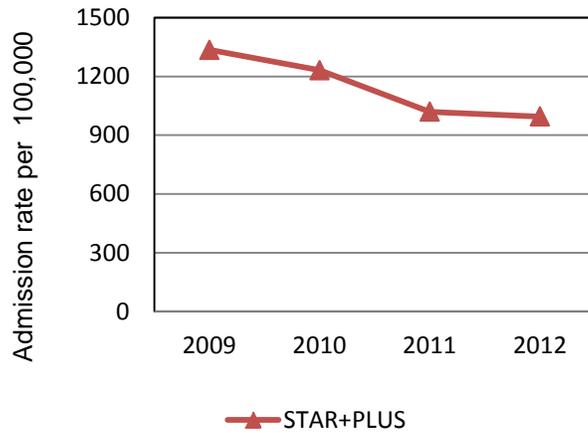
Congestive Heart Failure

Table 21 presents results for the AHRQ *Congestive Heart Failure* Prevention Quality Indicator in 2012, and **Figure 33** shows trends in AHRQ Prevention Quality Indicator rates for congestive heart failure in STAR+PLUS between 2009 and 2012. The admission rate for STAR+PLUS steadily decreased across the four-year period, with a net decrease of 340 per 100,000 members in the population.

Table 21. AHRQ Congestive Heart Failure Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	CY 2012 admission rate per 100,000
STAR+PLUS	1,926	193,444	996

Figure 33. AHRQ Congestive Heart Failure Prevention Quality Indicator Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012



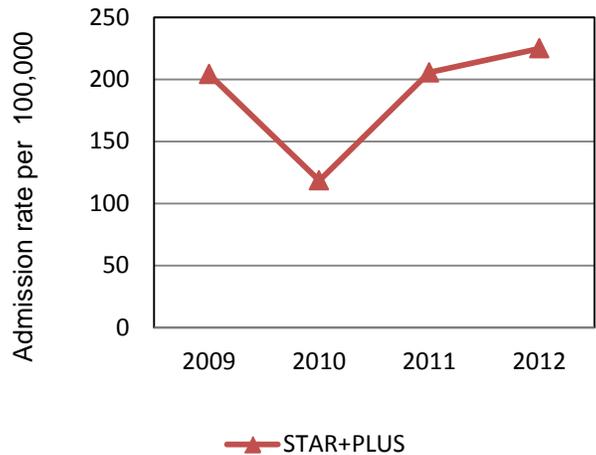
Dehydration

Table 22 presents results for the AHRQ *Dehydration* Prevention Quality Indicator in 2012, and **Figure 34** presents results for this measure from 2009 to 2012. Rates for STAR+PLUS decreased from 2009 to 2010, and then steadily increased from 2010 to 2012. Overall, STAR+PLUS had a net increase of 21 per 100,000.

Table 22. AHRQ *Dehydration* Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	CY 2012 admission rate per 100,000
STAR+PLUS	435	193,444	225

Figure 34. AHRQ *Dehydration* Prevention Quality Indicator Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012



Bacterial pneumonia

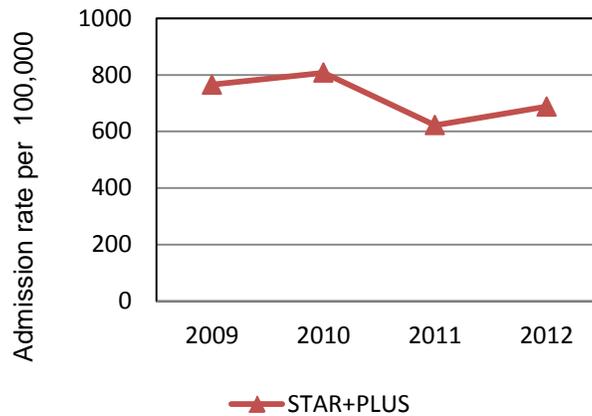
Table 23 presents results for the AHRQ *Bacterial Pneumonia* Prevention Quality Indicator in 2012, and **Figure 35** presents results for this measure from 2009 to 2012.

Adult inpatient admissions for bacterial pneumonia fluctuated from 2009 to 2012 in STAR+PLUS. Overall, STAR+PLUS had a net decrease of 78 per 100,000.

Table 23. AHRQ *Bacterial Pneumonia* Prevention Quality Indicator Admission Rates (per 100,000 eligible members)

	Numerator	Denominator	CY 2012 admission rate per 100,000
STAR+PLUS	1,330	193,444	688

Figure 35. AHRQ *Bacterial Pneumonia* Prevention Quality Indicator Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012



Urinary Tract Infection

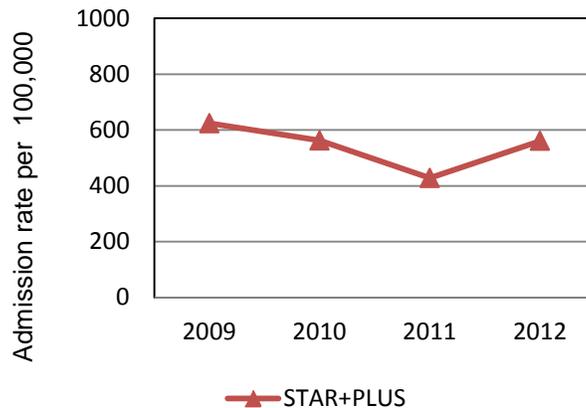
Table 24 presents results for the AHRQ *Urinary Tract Infection* Prevention Quality Indicator in 2012. In addition, **Figure 36** shows trends for this measure from 2009 to 2012.

Adult inpatient admissions for urinary tract infection showed a steady decline in STAR+PLUS from 2009 to 2011, and then increased in 2012. Overall, STAR+PLUS had a net decrease of 63 per 100,000.

Table 24. AHRQ *Urinary Tract Infection* Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	CY 2012 admission rate per 100,000
STAR+PLUS	1,085	193,444	561

Figure 36. AHRQ *Urinary Tract Infection* Prevention Quality Indicator Rates (per 100,000 eligible members) in STAR+PLUS, 2009-2012



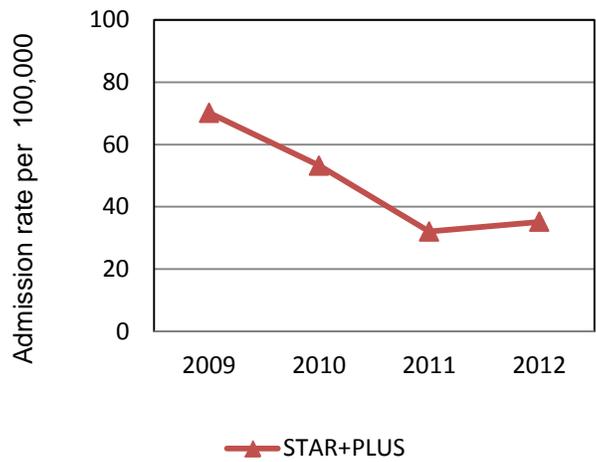
Angina without Procedure

Table 25 presents results for the AHRQ *Angina without Procedure* Prevention Quality Indicator in 2012, and **Figure 37** shows trends for this measure from 2009 to 2012. Adult inpatient admissions for angina without procedure showed a steady decrease from 2009 to 2011, with little change from 2011 to 2012. Overall, STAR+PLUS had a net decrease of 35 per 100,000 across the four-year period.

Table 25. AHRQ *Angina without Procedure* Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	CY 2012 admission rate per 100,000
STAR+PLUS	68	193,444	35

Figure 37. AHRQ *Angina* Prevention Quality Indicator Rates (per 100,000 eligible members) in STAR and STAR+PLUS, 2009-2012



Uncontrolled Diabetes

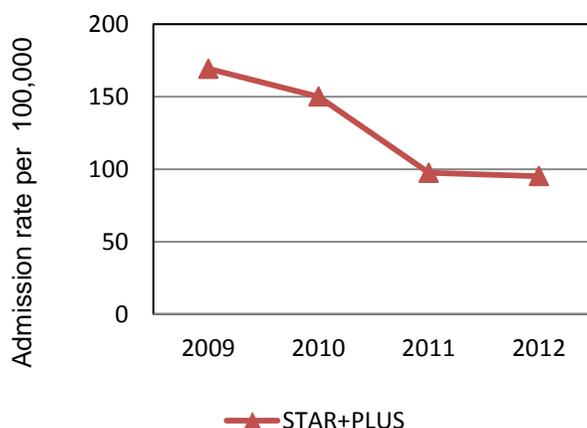
Table 26 presents results for the AHRQ *Uncontrolled Diabetes* Prevention Quality Indicator in 2012, and

Figure 38 describes trends between 2009 and 2012. Rates of adult inpatient admissions for uncontrolled diabetes in STAR+PLUS decreased from 2009 to 2011, with little change from 2011 to 2012. Overall, STAR+PLUS had a net decrease of 74 per 100,000 across the four-year period.

Table 26. AHRQ *Uncontrolled Diabetes* Prevention Quality Indicator Admission Rates (per 100,000 eligible members), 2012

	Numerator	Denominator	CY 2012 admission rate per 100,000
STAR+PLUS	184	193,444	95

Figure 38. AHRQ *Uncontrolled Diabetes* Prevention Quality Indicator Rates (per 100,000 eligible members) in STAR and STAR+PLUS, 2009-2012



2.5 – Potentially Preventable Events

Potentially preventable events are inpatient stays, hospital readmissions, and emergency department visits that may have been avoidable had the patient received high quality primary and preventive care prior to, after, or during the event in question. High potentially preventable event rates may reflect inadequacies in the health care provided to the patient in multiple settings, including inpatient and outpatient facilities and clinics. A better understanding of the factors that contribute to potentially preventable events in these programs can assist HHSC and participating managed care organizations in developing intervention strategies to reduce their occurrence and to estimate the potential cost savings associated with implementing these interventions. The external quality review organization used the 3M Health Information Systems software to identify expenditures and visits associated with potentially preventable events. This section summarizes the results of the external quality review organization’s analyses of potentially preventable readmissions and potentially preventable emergency department visits. Data quality issues related to identifying potentially preventable complications are also discussed below, as well as in Section 6. Methodologies for calculating and reporting on the different forms of potentially preventable events, including risk adjustment procedures, are described in detail in the methodological appendix.

3M Potentially Preventable Readmissions

Potentially preventable readmissions are return hospitalizations that may arise from factors such as poor coordination of services at the time of discharge and during follow-up (such as incomplete discharge planning or inadequate access to care after discharge), or deficiencies in the process of care and treatment, including actions taken or omitted during the initial hospital stay.⁷⁵ Patient-level factors associated with readmissions include poor health status, co-morbidities, and increasing severity of illness.⁷⁶ Some studies have also found associations between various health care structure and process factors and readmissions. As with other

forms of avoidable health care events, potentially preventable readmissions tend to be more common among patients insured by Medicaid or self-pay.⁷⁷ Possible reasons for these associations include greater financial barriers to medications and access barriers to primary care, as well as reliance on hospitals as the most convenient or preferred source of primary care by Medicaid and self-pay patients.^{78,79,80}

Table 27 shows potentially preventable readmission rates and expenditures in STAR, CHIP, STAR+PLUS, and STAR Health. STAR Health and STAR+PLUS exhibited the highest potentially preventable readmission rates, while potentially preventable readmission expenditures per 1,000 member months were also highest in STAR+PLUS.

Table 27. 3M Potentially Preventable Readmissions

CY 2012 results	Candidate admissions	Admissions that resulted in a potentially preventable readmission	Potentially preventable readmission rate	Potentially preventable readmission cost per 1,000 member-months
STAR	190,479	4,718	2.48%	\$1,230.05
CHIP	7,395	393	5.31%	\$535.81
STAR+PLUS	41,107	5,889	14.33%	\$28,570.19
STAR Health	4,058	595	14.66%	\$15,778.16

The 3M measure for potentially preventable readmissions uses hospital inpatient discharge data to calculate rates of readmissions that could have been prevented with better outpatient care. Potentially preventable readmissions are identified using a combination of All Patient Refined Diagnosis Related Groupings (APR-DRGs) and severity of illness categories within each APR-DRG.

For all readmissions determined to be potentially preventable, the 3M Health Information Systems software also assesses reasons for readmission, using the following nine categories:

Medical readmissions

- *Medical continuation/recurrence*: Medical readmission for a continuation or recurrence of the reason for the initial admission, or for a closely related condition.
- *ACSC*: Ambulatory care sensitive conditions as designated by AHRQ.⁸¹
- *Chronic problem*: All other readmissions for a chronic problem that may be related to care either during or after the initial readmission.
- *Acute medical condition or complication*: Medical readmission for an acute medical condition or complication that may be related to or may have resulted from care during initial admission or in the post-discharge period after initial admission.

Surgical readmissions

- *Surgical continuation/recurrence*: Readmission for a surgical procedure to address a continuation or recurrence of the problem causing the initial admission.
- *Surgical complication*: Readmission for a surgical procedure to address a complication that may be related to or may have resulted from care during the initial admission.

Behavioral health readmissions

- *Mental health problem following physical health admission*: Readmission for mental health reasons following an initial admission for a non-mental health, non-substance abuse reason.
- *Substance abuse problem following physical health admission*: Readmission for a substance abuse diagnosis reason following an initial admission for a non-mental health, non-substance abuse reason.
- *Mental health or substance abuse continuation/recurrence*: Mental health or substance abuse readmission following an initial admission for a substance abuse or mental health diagnosis.

Based on the above categories, **Table 28** presents the five most common reasons for potentially preventable readmissions in 2012 in STAR, CHIP, STAR+PLUS, and STAR Health.

Overall, potentially preventable readmissions were most frequently attributed to behavioral health recurrences, acute medical complications, and medical continuations or recurrences. While the exact order varied, these three categories comprised the top three reasons for potentially preventable readmissions in all four programs.

Table 28. Most Common Reasons for Potentially Preventable Readmissions in STAR, CHIP, STAR+PLUS, and STAR Health, 2012

Top 5 Reasons for Potentially Preventable Readmissions - STAR
1. Acute medical condition or complication
2. Medical continuation/recurrence
3. Mental health or substance abuse continuation/recurrence
4. Chronic problem
5. Ambulatory care sensitive conditions
Top 5 Reasons for Potentially Preventable Readmissions - CHIP
1. Mental health or substance abuse continuation/recurrence
2. Medical continuation/recurrence
3. Acute medical condition or complication

4. Chronic problem
5. Mental health problem following physical health admission
Top 5 Reasons for Potentially Preventable Readmissions - STAR+PLUS
1. Acute medical condition or complication
2. Mental health or substance abuse continuation/recurrence
3. Medical continuation/recurrence
4. Chronic problem
5. Mental health problem following physical health admission
Top 5 Reasons for Potentially Preventable Readmissions - STAR Health
1. Mental health or substance abuse continuation/recurrence
2. Acute medical condition or complication
3. Medical continuation/recurrence
4. Ambulatory care sensitive conditions
5. Chronic problem

3M Potentially Preventable Emergency Department Visits

Potentially preventable emergency department visits can often occur because of poor availability, accessibility, and effectiveness of primary care. Potentially preventable emergency department visits present a particularly relevant challenge for the efficient delivery of health services in state Medicaid programs. Research has found that Medicaid beneficiaries comprise a disproportionate share of emergency department visits for ACSCs, such as asthma, chronic obstructive pulmonary disease, congestive heart failure, diabetes, and hypertension.⁸² The occurrence of preventable emergency department visits can be influenced by chronic illness burden. Therefore, methods for defining and measuring potentially preventable emergency department visits are critical for a comprehensive and effective evaluation of the quality of care in Medicaid.

The external quality review organization used claims and encounter data to identify and calculate rates and expenditures associated with potentially preventable emergency department visits. The 3M software identifies potentially preventable emergency department procedures using Enhanced Ambulatory Patient Groupings.

Potentially preventable emergency department visit rates and expenditures are reported in **Table 29**. While the highest potentially preventable emergency department visit rates were observed in STAR and STAR Health, potentially preventable emergency department visit expenditures per 1,000 member months were highest in STAR+PLUS.⁸³

Table 29. 3M Potentially Preventable Emergency Department Visits

CY 2012 results	Total Eligible Emergency Department Visits	Emergency department visits that were potentially preventable	Potentially preventable emergency department visit rate	Potentially preventable emergency department visit cost per 1,000 member-months
STAR	1,392,596	883,883	63.47%	\$7,916.34
CHIP	146,041	83,333	57.06%	\$3,914.01
STAR+PLUS	207,630	117,594	56.64%	\$21,696.82
STAR Health	19,185	11,999	62.54%	\$6,309.52

Table 30 displays the five most common types of potentially preventable emergency department visits (by Enhanced Ambulatory Patient Grouping) in STAR, CHIP, STAR+PLUS, and STAR Health in 2012. In all four programs, infections of the upper respiratory tract were the most prevalent of all Enhanced Ambulatory Patient Groupings associated with potentially preventable emergency department visits.

3M Potentially Preventable Complications

Potentially preventable complications are harmful events or negative outcomes that develop during a hospital admission and may result from the process of care and treatment rather than from the patient's underlying disease or condition.⁸⁴ Potentially preventable complications are associated with higher hospital charges, longer lengths of stay, and increased mortality.^{85,86,87} Quality improvement efforts that focus on reducing the occurrence of potentially preventable complications are essential for ensuring the highest standards of safety for inpatient care, improved health outcomes, and reduced health care costs.

To identify potentially preventable complications in the Texas fee-for-service, STAR, and STAR+PLUS programs, the external quality review organization used the 3M Health Information Systems software classification system, which identifies in-hospital complications.⁸⁸ The 3M system uses the present on admission indicator to ascertain whether these secondary diagnoses were already present when the patient was admitted to the facility.

The external quality review organization evaluated data quality with regard to completeness and validity of the present on admission indicator at the provider level. Claims from providers with questionable data were excluded from the calculations. As Section 6 discusses in greater depth, the external quality review organization's most relevant finding was the considerably high rate of exclusions due to poor data quality across Texas Medicaid programs. More than half of the providers were excluded from the analysis due to poor data quality in fee-for-service (61 percent), STAR (71 percent), and STAR+PLUS (51 percent).

Table 30. Most Prevalent Potentially Preventable Emergency Department Visits in STAR, CHIP, STAR+PLUS, and STAR Health, 2012

Top Five Enhanced Ambulatory Patient Groupings - STAR
1. Infections Of Upper Respiratory Tract
2. Signs, Symptoms & Other Factors Influencing Health Status
3. Non-Bacterial Gastroenteritis, Nausea & Vomiting
4. Other Skin, Subcutaneous Tissue & Breast Disorders
5. Level I Other Ear, Nose, Mouth, Throat & Cranial/Facial Diagnoses
Top Five Enhanced Ambulatory Patient Groupings - CHIP
1. Infections Of Upper Respiratory Tract
2. Signs, Symptoms & Other Factors Influencing Health Status
3. Non-Bacterial Gastroenteritis, Nausea & Vomiting
4. Other Skin, Subcutaneous Tissue & Breast Disorders
5. Abdominal Pain
Top Five Enhanced Ambulatory Patient Groupings - STAR+PLUS
1. Infections Of Upper Respiratory Tract
2. Abdominal Pain
3. Lumbar Disc Disease
4. Dental & Oral Diseases & Injuries
5. Signs, Symptoms & Other Factors Influencing Health Status
Top Five Enhanced Ambulatory Patient Groupings - STAR Health
1. Infections Of Upper Respiratory Tract
2. Signs, Symptoms & Other Factors Influencing Health Status
3. Other Skin, Subcutaneous Tissue & Breast Disorders
4. Non-Bacterial Gastroenteritis, Nausea & Vomiting
5. Level I Other Ear, Nose, Mouth, Throat & Cranial/Facial Diagnoses

2.6 – Behavioral Health Service Utilization

Mental Health Service Utilization

Table 31 displays results for the HEDIS® *Mental Health Utilization* measure, which 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 external quality review organization uses this measure to assess utilization of mental health services in STAR, STAR+PLUS, NorthSTAR, and STAR Health. For all programs in calendar year 2012, the vast majority of services utilized by members were outpatient or emergency department mental health services.

Table 31. HEDIS® *Mental Health Utilization*, 2012⁸⁹

CY 2012 results	Inpatient services	Intensive outpatient or partial hospitalization services	Outpatient or emergency department services
STAR	0.4 percent	0.1 percent	6.3 percent
STAR+PLUS	4.1 percent	0.4 percent	31.7 percent
STAR Health	7.1 percent	1.5 percent	87.6 percent
NorthSTAR	0.5 percent	0.1 percent	11.7 percent

Alcohol and Other Drug Service Utilization

The HEDIS® *Identification of Alcohol and Other Drug Services* measure provides the percentage of members with an alcohol and other drug dependence claim who received chemical dependency services during the measurement year. In calendar year 2012, NorthSTAR had low rates for this measure in all service categories—at 2.1 percent for ambulatory services, 0.4 percent for inpatient services, and less than 0.1 percent for intensive outpatient or partial hospitalization services.

3 – Managed Care Organization Structure and Process

3.1 – Health Plan Information

Producing and maintaining valid, complete, and up-to-date health care claims and encounter data is critical for ensuring high quality of care in state Medicaid and CHIP managed care organizations. These data are necessary for: (1) implementing timely and comprehensive care coordination based on member diagnostic and healthcare use profiles; and (2) calculating and validating numerous quality of care measures that are based on administrative data. Following recommendations made by the Institute of Medicine in 2001, managed care organizations have worked toward implementing electronic health records, permitting the automation of clinical, financial, and administrative information, and the electronic sharing of this information.⁹⁰ The American Recovery and Reinvestment Act of 2009 includes an incentive program to encourage Medicaid and Medicare providers to implement electronic health record technology. The approach to adopting electronic health record technology for meaningful use was presented as a three stage approach – phase 1 in 2011 (data capture and sharing); phase 2 in 2013 (advanced clinical practices); and phase 3 in 2015 (improved outcomes).^{91,92}

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

- Studies of managed care organization data systems capabilities and processes, including managed care organization-reported electronic claims submission rates, using the annual Managed Care Organization Administrative Interviews
- Data certification to assess the completeness and validity of claims and encounter data maintained by Texas Medicaid and CHIP managed care organizations
- Studies of managed care organization disease management programs, evaluating the elements of disease management programs using the annual Managed Care Organization Administrative Interviews
- Evaluations of managed care organization quality improvement programs through review of the annual Managed Care Organization Quality Assessment and Performance Improvement Evaluation Summaries
- 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.⁹³

This section presents Medicaid and CHIP Dental Encounter Data Validation Study results from 2012, as well as trends in electronic claims submissions and data certification findings at the program level from 2010 to 2012. In addition, the section provides a summary of the managed care organization disease management programs, quality assessment and performance improvement program evaluations, and performance improvement project evaluations for the calendar year 2012 measurement period.

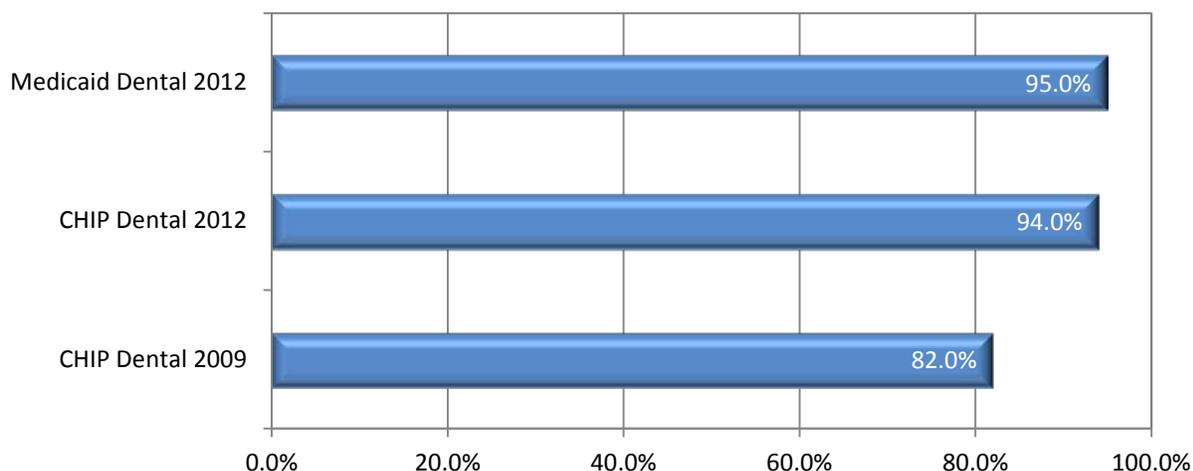
Encounter Data Validation

According to CMS guidelines for Medicaid managed care organizations, states can set a targeted match rate between information found in a managed care organization's claims and encounter data and information found in the members' health records.⁹⁴ A match rate of 95 percent or greater between the two data sources is desired, and states are encouraged to work toward that goal. To determine Texas Medicaid and CHIP managed care organization compliance with standards for encounter data completeness and quality, the external quality review organization conducts biennial encounter data validation studies using provider health records to calculate match rates for a random sample of encounters, focused on the validation of three data elements: (1) date of service; (2) diagnosis codes; and (3) procedure codes. There has consistently been high data quality among the managed care organizations participating in STAR, STAR+PLUS, STAR Health, and CHIP. Encounter data validation studies for these programs, therefore, are conducted on a biennial basis and will be conducted for the 2013 measurement period in August of 2014.

In 2013, as a value-added service, the external quality review organization conducted encounter data validation on a sample of 2012 CHIP and Medicaid dental records. A random sample of records from March 1, 2012 through September 31, 2012 was reviewed. The congruence between the procedures identified in the claims and documentation in the dental records was examined. This showed a marked improvement from the previous dental encounter data validation, which was conducted in 2009 for CHIP dental services provided by Delta Dental. CHIP dental services were provided exclusively by Delta Dental until March 1, 2012, at which time MCNA Dental and DentaQuest were added to CHIP Dental. HHSC's contract with Delta Dental was terminated on November 30, 2012. MCNA Dental and DentaQuest also began providing Medicaid dental services on March 1, 2012.

Figure 39 provides match rates for procedure data elements in CHIP and Medicaid Dental for CY 2009 and CY 2012, with match rates exceeding 90 percent in 2012.

Figure 39. Dental Encounter Data Validation Match Rates for Procedure – 2009 and 2012



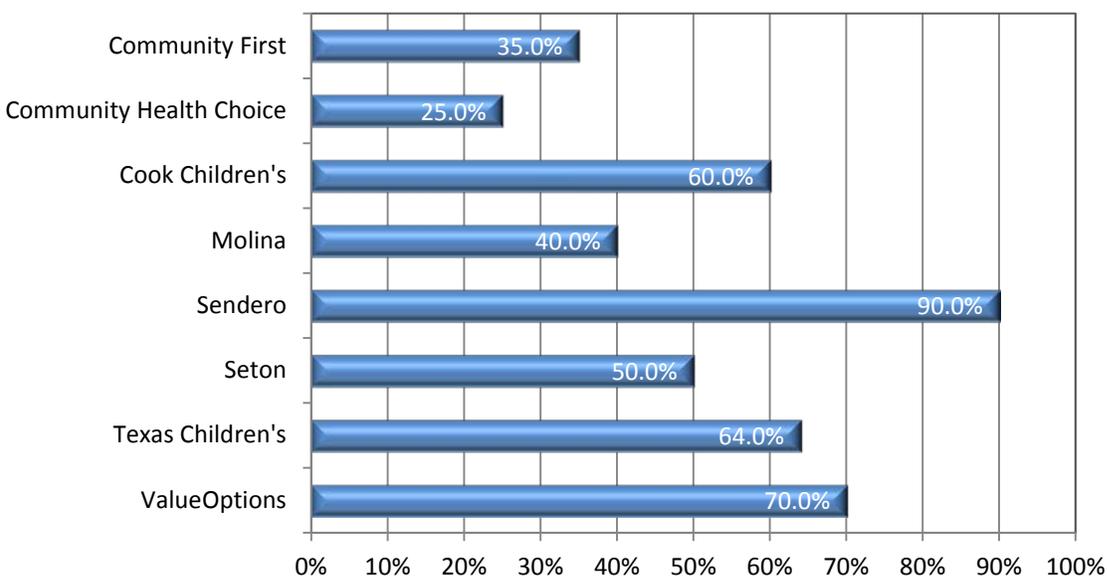
Electronic Health Records

Electronic health records are becoming more widespread in the United States, as changes in health care require a shift in the medical record system away from paper records. The widespread use of electronic health records will result in more accessible records for providers and improved outcomes for patients. In 2009, to overcome barriers to implementing an electronic health record system, Congress passed the Health Information Technology for Economic and Clinical Health Act, which endorses incentive payments for the private and secure use of electronic health records by Medicare and Medicaid providers and hospitals.⁹⁵ Efforts by CMS to employ the concept of “meaningful use” of electronic health records are based on improving health outcomes and quality of care while engaging patients and their families in a secure, protected manner.

The CMS initiative to encourage utilization of certified electronic health records is a three-phased approach: (1) data capture and sharing by 2011; (2) advanced clinical practices by 2013; and (3) improved health outcomes by 2015. Participation in the program is incentivized and voluntary. Eligible providers and hospitals, however, will receive negative adjustments in their Medicare/Medicaid payments if they do not adopt the initiative by 2015.⁹⁶

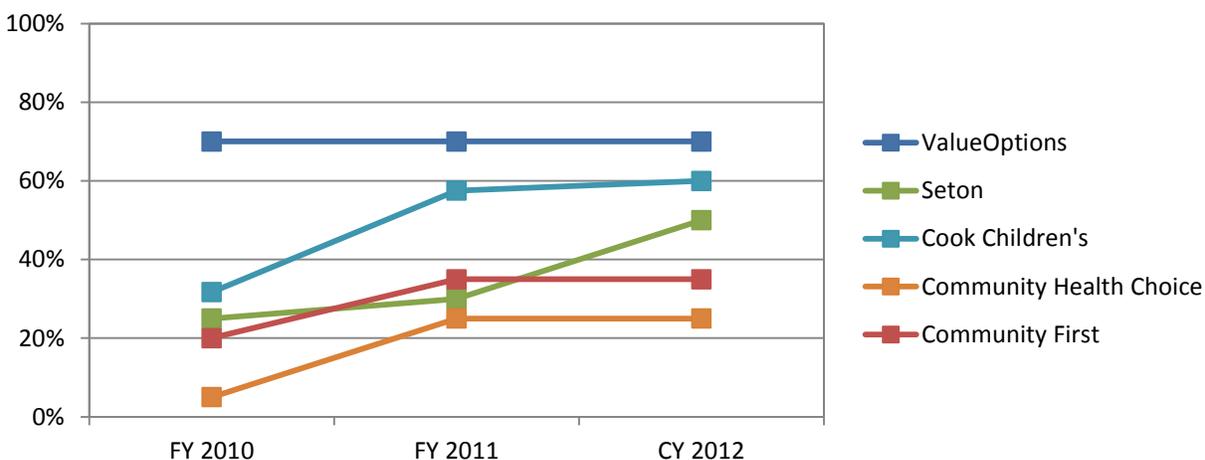
Fewer than half of the managed care organizations monitored the percentage of their providers who implemented electronic health records during calendar year 2012. **Figure 40** presents the percentage of providers who implemented electronic health records during calendar year 2012 by health plan (for managed care organizations that reported this information).⁹⁷ Sendero had the highest percentage of providers who implemented electronic health record (90 percent). The remaining six managed care organizations varied in the percentage of providers who implemented electronic health records, ranging from 25 percent to 70 percent.

Figure 40. Percentage of Providers who Implemented Electronic Health Records during CY 2012



Five managed care organizations monitored and reported the percentage of providers who utilized electronic health records over a three year period – Community First, Community Health Choice, Cook Children’s, Seton, and the behavioral health organization, Value Options (**Figure 41**).⁹⁸ The percentage of Seton and Cook Children’s providers utilizing electronic health records steadily increased over time (25 percent to 50 percent and 32 percent to 60 percent for Seton and Cook Children’s, respectively). There was an initial increase in the percentage of providers utilizing electronic health records from fiscal year 2010 to fiscal year 2011 for all managed care organizations. However, the percentages did not change from fiscal year 2011 to calendar year 2012 for the remaining managed care organizations.

Figure 41. Trends in Percentage of Providers Utilizing Electronic Health Records – 2010-2012



Data Certification

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 analysis: (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, such as:

- Place of service code;
- Admission date;
- Discharge status;
- Discharge date;
- Primary diagnosis code;

- Billing provider National Provider Identifier (NPI);
- Billing provider taxonomy code;
- Procedure code; and
- Present-on-admission code.

For fiscal year 2012 data certification, the external quality review organization's analysis was guided by: (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*.^{99,100} The external quality review organization used these documents to develop procedures for certifying the Texas STAR, STAR+PLUS, STAR Health, CHIP, CHIP Dental, CHIP Perinate, and NorthSTAR encounter data. For managed care programs served by multiple managed care organizations (e.g., STAR, CHIP, and STAR+PLUS), analyses were conducted at the plan code level (managed care organization and service area combined).

Volume analysis based on service category: For each plan code within each program, the external quality review organization determined the number of records for facility, physician, dental (where present), and total services for each month of fiscal year 2012. The external quality review organization examined the monthly totals 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: For each plan code, the external quality review organization examined the presence and validity of critical data elements in the claims extracts submitted by the managed care organizations. The external quality review organization derived data validity standards from accepted lists of valid information taken from a variety of sources, including data dictionaries supplied by HHSC, CPT manuals, and ICD-9-CM manuals.^{101,102} The external quality review organization performed the analysis on the final image of all fiscal year 2012 claims it received from Texas Medicaid and Healthcare Partnership (TMHP) through December 2012.

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 claims data to payment dollars in the managed care organizations' self-reported financial summary reports, which HHSC provided to the external quality review organization for fiscal year 2012. 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[®] measures, to conduct provider surveys, and to obtain medical records for the purposes of validating encounter data and calculating hybrid HEDIS[®] measures. When provider identification numbers and/or taxonomy (provider specialty) codes are missing in the encounter data, the external quality review organization is hindered in its ability to provide HHSC with accurate and complete information about Texas Medicaid and CHIP.

Although data quality has generally been improving in terms of completeness and accuracy over the past four years, there remain a few areas of data reporting that have yet to meet the external quality review organization's standards.

As evident in **Figure 42**, missing rates for billing provider taxonomy code declined (STAR, STAR+PLUS) or remained stable (CHIP) from 2011 to 2012, representing an overall decline in all programs since 2009. However, rates in CHIP and STAR remain well over 10 percent.

Valid coding of present on admission indicators for reported diagnoses is critical to the external quality review organization's efforts to calculate measures of potentially preventable complications. Continuing deficiencies of these codes can result in the inability to fully include managed care organizations in quality incentive programs. Detailed present on admission indicator information can be found in Appendix C.

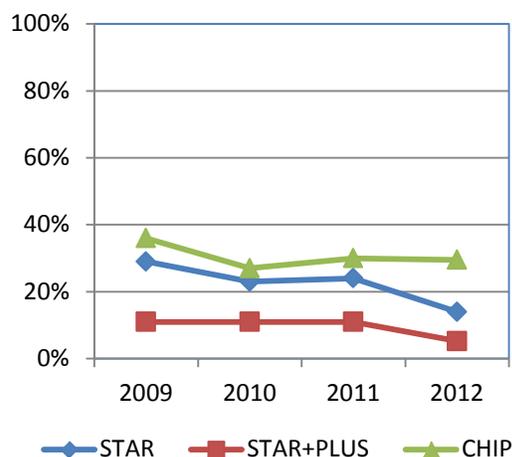
Overall, the results of these analyses are positive and suggest there has been improvement in the completeness of managed care organization administrative data.

3.2 – Disease Management Programs

Although approximately three-quarters of the national Medicaid population are children, parents, and pregnant women, about two-thirds of Medicaid expenditures go to care for elderly and disabled adults.¹⁰³ These members use more long-term care services, which account for more than one-third of Medicaid spending. Many states are adopting Medicaid disease management programs as a way to improve health care quality and reduce costs for these members.

HHSC requires that all managed care organizations participating in STAR, STAR+PLUS, CHIP, and STAR Health provide disease management services covering asthma and diabetes.¹⁰⁴ In addition to asthma and diabetes, HHSC requires managed care organizations participating in

Figure 42. Percentage of Missing Data for Billing Provider Taxonomy Code, 2009-2012



STAR+PLUS to offer disease management services 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 services for other chronic diseases based upon an evaluation of disease prevalence within each managed care organization's membership.¹⁰⁵

This section presents findings from the calendar year 2012 Managed Care Organization Administrative Interview on the structure and practices of disease management programs operating in Texas Medicaid and CHIP managed care organizations, focusing on programs that are required by the state. 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.

In some cases, disease management functions were administered through an externally contracted disease management organization. Three STAR managed care organizations delegated asthma and diabetes disease management functions fully or in part to a disease management organization in 2012.¹⁰⁶ In STAR+PLUS, only Superior delegated disease management functions to a disease management organization, while Amerigroup, Cigna-HealthSpring, Molina, and UnitedHealthcare administered disease management programs in-house. Across Medicaid and CHIP, Parkland Community consistently delegated all disease management functions, and Cook Children's, FirstCare, Seton, and Superior used a combination of in-house and delegated programs. Behavioral health disease management programs were the most common type of disease management program to be delegated to a disease management organization, with 5 out of the 19 managed care organizations delegating behavioral health disease management programs. Overall, a greater percentage of managed care organizations utilized only internal disease management programs in calendar year 2012 compared to fiscal year 2011 (73.7 percent and 46.2 percent, respectively).

Table 32 shows details on asthma and diabetes disease management program participation in STAR, CHIP, and STAR+PLUS in calendar year 2012, where active members are defined as members (or their representatives) who received one or more telephonic or face-to-face encounters with disease management staff.^{107,108} For asthma disease management, STAR had both the highest number of eligible members (105,787) and the highest number of active members (33,052). However, the resulting participation rate of 31.2 percent was the lowest among the programs. STAR also had the lowest participation rate for diabetes disease management (31.7 percent). The participation rates for the asthma and diabetes disease management programs were highest in STAR+PLUS (63.9 percent and 71.0 percent, respectively).

Table 32. Member Participation in Asthma and Diabetes Disease Management Programs in CY 2012

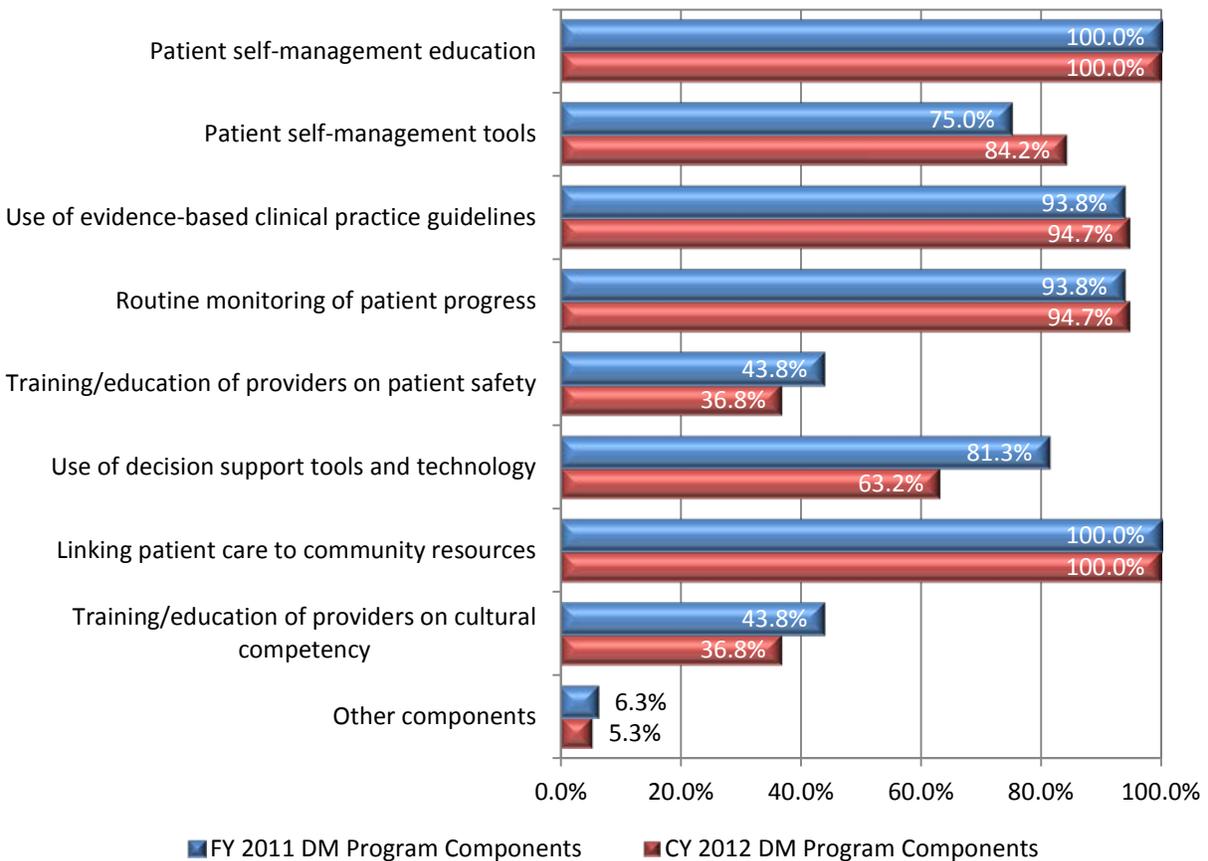
	Asthma Disease Management			Diabetes Disease Management		
	Members Eligible	Active Members	Participation Rate	Members Eligible	Active Members	Participation Rate
STAR	105,787	33,052	31.2%	17,182	5,439	31.7%
CHIP	23,871	7,899	33.1%	1,755	732	41.7%
STAR+PLUS	10,812	6,905	63.9%	41,984	29,795	71.0%

Nine out of 19 managed care organizations have ‘opt-in’ disease management programs, where eligible members must agree to participate in the program to be considered enrolled.^{109,110}

The external quality review organization identifies specific components of the managed care organizations’ disease management programs using the Administrative Interview tool. **Figure 43** presents the percentage of managed care organizations that have incorporated the following as formal components of their fiscal year 2011 and calendar year 2012 disease management programs: (1) patient self-management education; (2) patient self-management tools (e.g., glucose meter); (3) use of evidence-based clinical practice guidelines; (4) routine monitoring of patient progress; (5) training/education of providers on patient safety; (6) use of decision support tools and technology; (7) linking patient care to community resources; (8) training/education of providers on cultural competency; and (9) other components.

The change in the percentage of managed care organizations offering specific components between fiscal year 2011 and calendar year 2012 is primarily due to the addition of new managed care organizations offering coverage for the Medicaid and CHIP populations.¹¹¹ According to the information provided on the Administrative Interview tool, Aetna is the only health plan that offered different disease management services in calendar year 2012 than in fiscal year 2011. In fiscal year 2011, Aetna’s disease management programs incorporated all of the components. In calendar year 2012, however, Aetna no longer offered training/education of providers on patient safety or cultural competency, or use of decision support tools and technology. Cook Children’s reported offering additional components geared toward improving health literacy (e.g., “Ask Me Three”) and the Text4Baby program.

Figure 43. Percentage of Managed Care Organizations Incorporating Selected Formal Components of Disease Management programs in Fiscal Year 2011 and CY 2012



3.3 – 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. This section discusses the external quality review organization’s evaluation of calendar year 2012 managed care organization quality assessment and performance improvement programs, calendar year 2013 performance improvement projects, and calendar year 2012 Administrative Interview submissions.

Assessing Managed Care Organization Compliance with CFR Policies

The external quality review organization assesses managed care organization compliance with relevant policies specified in the Code of Federal Regulations (CFR) through evaluation and assessment of the annual Administrative Interview tool, quality assessment and performance improvement programs, and performance improvement projects. The following sections

describe the evaluation process of and results obtained from the Administrative Interview tool, quality assessment and performance improvement program evaluations, and performance improvement project evaluations as they pertain to CFR §438.358 and §438.364.

Administrative Interviews

According to CMS protocols, Medicaid managed care external quality review should include interviews with managed care organization administrators to understand how managed care organizations provide care and how they monitor the quality of that care. The external quality review organization uses information from these interviews to support evaluation activities and to assist HHSC in determining managed care organization compliance with state and federal requirements.

The 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, and the Medicaid Dental and CHIP Dental questionnaires included items specific to dental health.

The external quality review organization conducted teleconferences and site visits with the managed care organizations after the completion of the web-based Administrative Interview tool in order to address pertinent information related to quality and compliance, in concert with the Administrative Interview questionnaire and Quality Assessment and Performance Improvement Program Summary. The external quality review organization conducted site visits with the five managed care organizations in the expansion areas (Cigna-HealthSpring, Driscoll, Molina, Superior, and UnitedHealthcare-Texas) and teleconferences 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.

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. According to CMS, there are 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.¹¹² The external quality review organization Quality Assessment and Performance Improvement Program Evaluation reviews the first three elements and partially reviews the fifth element. The external quality review organization reviews the fourth and fifth elements as part of its annual Performance Improvement Project Evaluation, which is discussed in the next section. The fifth element is reviewed in both the Quality Assessment and Performance Improvement Program Evaluations and the Performance Improvement Project Evaluations when determining whether a root cause analysis was conducted. Please see Appendix C for the quality assessment and performance improvement program evaluation and scoring methodology. 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 September 1, 2011, through December 31, 2012. This measurement period was longer than usual due to the transition from fiscal year reporting to calendar year reporting.

Figure 44 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 91.7 percent. Most managed care organizations scored above average, with only seven managed care organizations or dental plans scoring below the average score. The score for CHRISTUS (80.6 percent) was significantly lower than the average because the managed care organization did not report on access to care indicators under the Accessibility and Availability section.¹¹³

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 45** 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 delegation of quality assessment and performance improvement program activities and corrective action plans, with an average score of nearly 100 percent. The sections with the greatest opportunity for improvement were the quality assessment and performance improvement program effectiveness and improvement opportunities, with an average score of 82 percent and 83 percent, respectively.

Figure 44. Overall Quality Assessment and Performance Improvement Program Scores by Health Plan in Calendar Year 2012

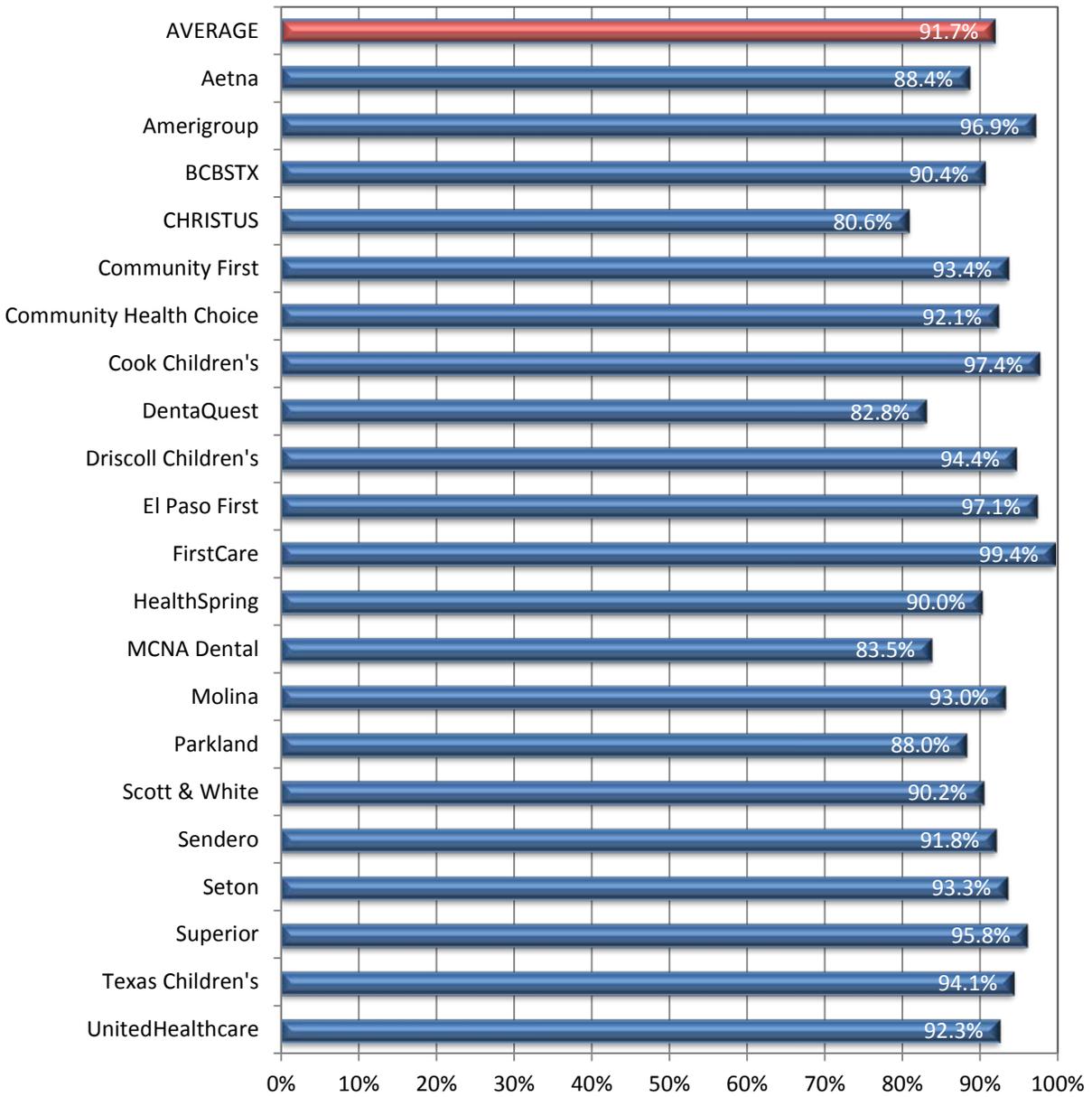
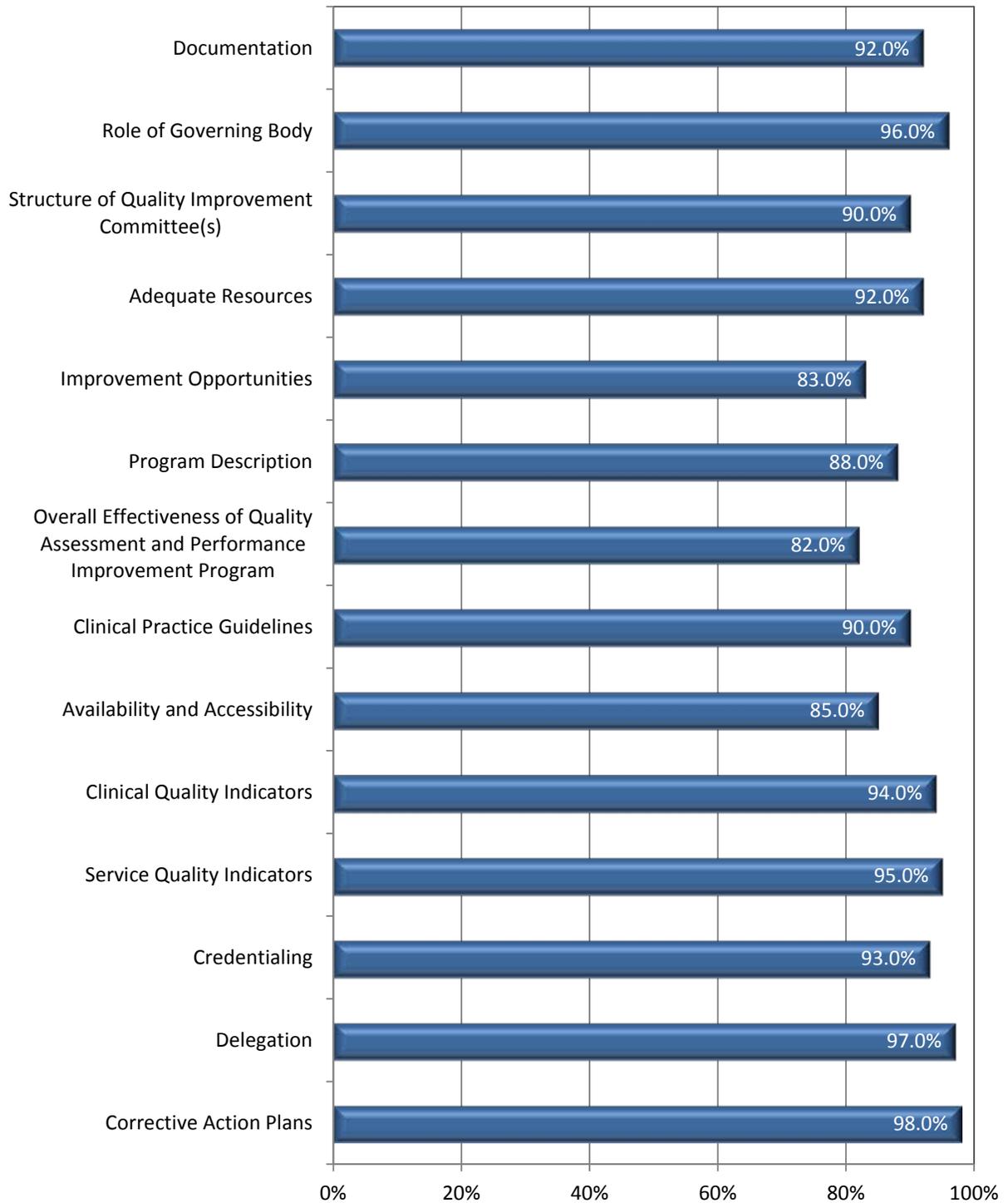


Figure 45. Overall Quality Assessment and Performance Improvement Programs Score by Section in Calendar Year 2012



Performance Improvement Projects

Performance improvement projects are the fourth essential element of a quality improvement program. The purpose of a performance improvement project is to develop a project with interventions that target a specific problem, with the aim of improving quality of care and health outcomes.¹¹⁴ Key components of a performance improvement project include the topic, study indicators, and interventions. Topic selection should be based on the results of monitoring and evaluating clinical and service indicators. Once an opportunity for improvement is identified, managed care organizations should conduct a root cause analysis in order to identify the underlying cause of the problem, and appropriate study indicators should be selected. Interventions should be developed to target the root cause of the problem at the member, provider, and system levels.

The external quality review organization's Performance Improvement Project Evaluation addresses these three components and evaluates the following ten activities:

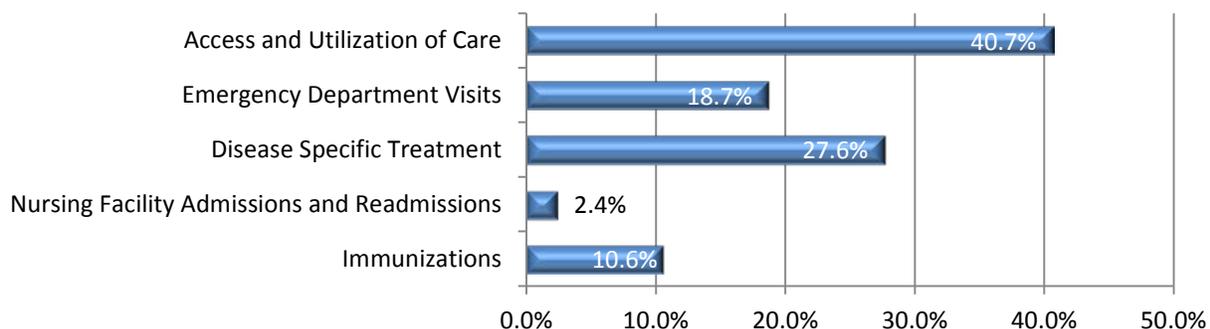
1. *Study Topic(s)* – In this section, managed care organizations report the topic of the performance improvement project and provide supporting evidence for why the topic was selected.
2. *Study Question(s)* – The managed care organizations pose the question they would like to answer with the performance improvement project. For example, “Does X result in Y?”
3. *Study Indicator(s)* – This section should include the measures or study indicators the managed care organization will use to measure change. Many managed care organizations use HEDIS[®] measures with standardized numerators and denominators.
4. *Study Population* – This section should describe the population the performance improvement project 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. *Sampling Techniques (if sampling is used)* – 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. *Data Collection* – 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. *Interventions and Improvement Strategies* – The managed care organization 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 Activity 3. Interventions implemented should be based on the results of the root cause analysis.
8. *Data Analysis and Interpretation of 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 managed care organization 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. *“Real” Improvement* – This section summarizes whether or not the performance improvement project resulted in a statistically significant improvement. The managed care organization should address how the interventions resulted in a statistically significant improvement.
10. *Sustained Improvement* – If there was a statistically significant improvement, this section should report whether or not the improvement was sustained over time.

Performance Improvement Project Topics

A variety of topics were selected by the managed care organizations for the calendar year 2013 performance improvement projects, based on state-specified overarching goals and goals specific to the managed care organizations. A total of 135 performance improvement projects were reported by 21 managed care organizations, of which 12 were conducted by the dental managed care organizations. **Figure 46** presents the percentage of managed care organization performance improvement projects conducted within each of five common categories. Performance improvement projects that addressed issues related to access and utilization of care, such as preventive care, prenatal and postpartum care, and well-child visits were most common (40.7 percent). Performance improvement projects targeting disease-specific treatment were the second most common (27.6 percent). These performance improvement projects were targeted to improve outcomes among individuals with conditions such as asthma, diabetes, and high cholesterol. Performance improvement projects targeting the rate of emergency department visits were the third most common (18.7 percent). Among performance improvement projects focused on the general category of emergency department visits, the most common topic was reduction of the rate of emergency department visits for ACSCs, such as otitis media, rash, and upper respiratory infections. The topics for the 12 dental performance improvement projects 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).

Figure 46. CY 2013 Performance Improvement Projects, by Specific Topic Categories



Strengths and Weaknesses of Interventions

Details of the interventions and robustness of the interventions are two important components in assessing the appropriateness and effectiveness of the proposed interventions. Although both components are closely related, it is possible for the interventions to be described in great detail, but still not be robust enough to have adequate reach. For example, 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 managed care organization 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. While sufficient details regarding performance improvement project 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. A majority of the calendar year 2013 performance improvement projects (72.6 percent) would have received better evaluations if more details of the interventions had been provided. Additionally, it was recommended that the managed care organization develop more robust interventions for 79.3 percent of the performance improvement projects.

Performance Improvement Project Evaluation and Validation of Results

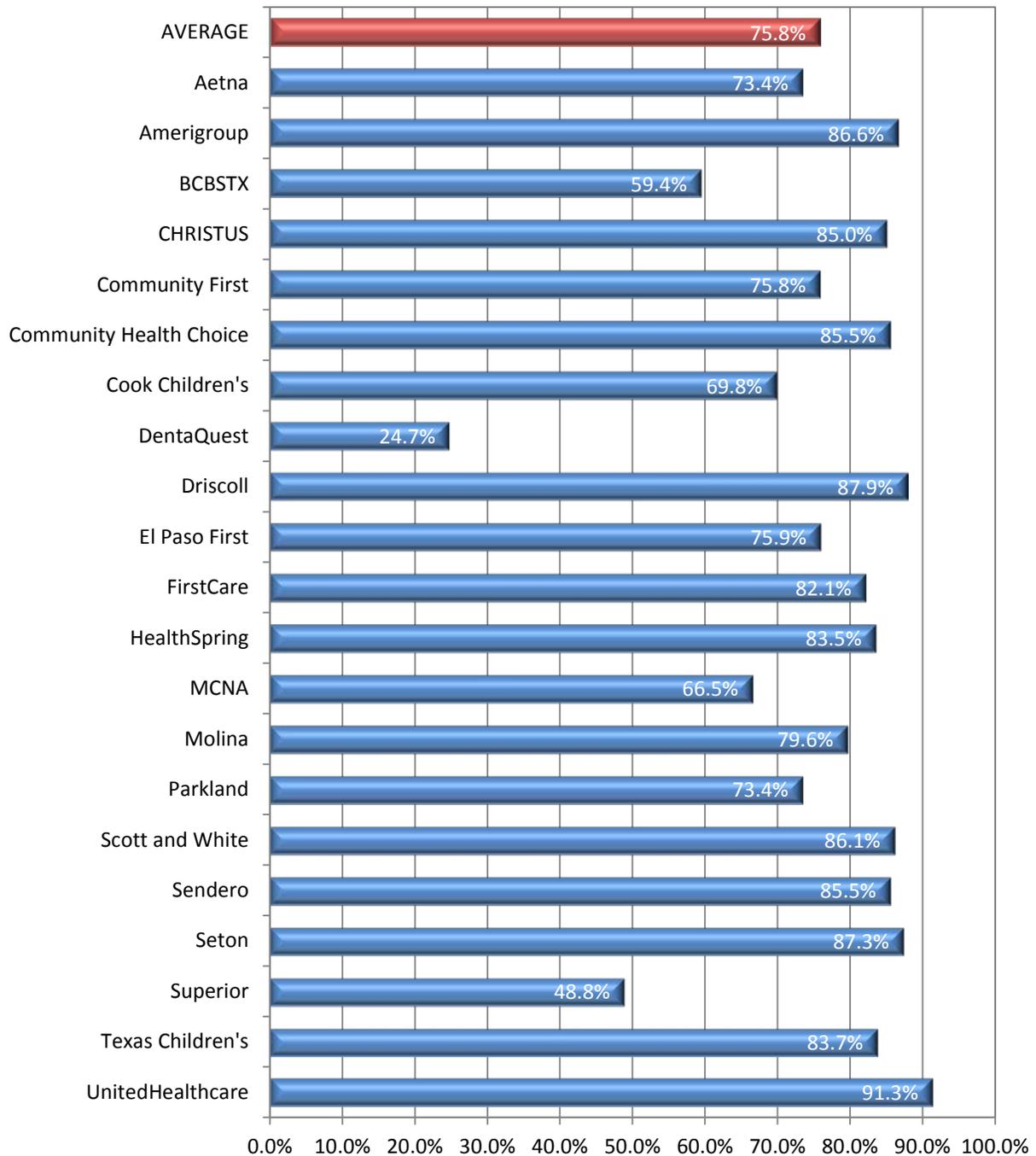
The calendar year 2013 performance improvement projects were implemented on January 1, 2013. In order to provide feedback to the managed care organizations prior to implementation, the external quality review organization conducted a qualitative evaluation of the calendar year 2013 performance improvement project Activities 1-7 in October 2012 and reported recommendations to the managed care organizations for strengthening study topics and designs. In 2013, the external quality review organization modified the performance improvement project evaluation methods to allow for a more systematic analysis of managed care organization performance on the performance improvement projects by assigning a score for managed care organization compliance with each component—100 percent if the component was fully met; 50 percent if the component was partially met; and 0 percent if the component was not met. The external quality review organization has applied this new scoring methodology to the evaluations of the implementation plans for the calendar year 2013 performance improvement projects. The results of the quantitative analysis for Activities 1-7 are presented in this section. Activities 8-10 will be evaluated in October of 2014 once the managed care organizations submit the final results for the external quality review organization to review.¹¹⁵ Each section includes different components that target key elements of a performance improvement project. See the Appendix C for a list and description of each performance improvement project activity evaluated.

Figure 47 presents the overall implementation review scores for the calendar year 2013 performance improvement projects, showing the percentage of maximum achievable points earned by each health plan across the different managed care programs. UnitedHealthcare-Texas had the highest overall score (91.3 percent), and DentaQuest had the lowest score (24.7 percent). DentaQuest's average score was low because the managed care organization only proposed to monitor data and did not propose any interventions to implement. The average score was 75.8 percent, with 14 out of the 22 managed care organizations scoring at or above the average. Amerigroup, CHRISTUS, Community Health Choice, Driscoll, FirstCare, Cigna-HealthSpring, Scott and White, Sendero, Seton, Texas Children's, and UnitedHealthcare-Texas scored over 80 percent. Factors that contributed to higher scores included strong interventions that were described in detail. These scores are based on the external quality review organization's evaluation from the managed care organizations' first submission. The external quality review organization feedback was provided to the managed care organizations, at which time the managed care organizations made modifications to their performance improvement projects. The incorporation of external quality review organization feedback and recommendations will be evaluated for the year-end performance improvement project evaluations. The above summary therefore does not account for the final version of the implemented performance improvement projects.

Assessment of Previous Year's 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 programs and performance improvement project reviews for each 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 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.

Figure 47. Calendar Year 2013 Performance Improvement Projects - Overall Score by Managed Care Organization



4 – Member Satisfaction with Care

Measuring patients' satisfaction with the health care they receive is an important component of health care quality evaluation. High ratings of patient satisfaction tend to be related to positive health outcomes and behaviors, such as adherence to treatment plans and appropriate use of preventive health care services.^{116,117,118,119} Surveying parents about their child's health care can also reveal deficiencies in access and utilization that may not otherwise be detected, as low parental satisfaction has been associated with shorter length of well-child visits and missed or delayed care.^{120,121} Satisfaction measures provide implicit ratings of patients' judgments about the delivery of health services and have been found to reflect parents' expectations of their children's health care.¹²²

The assessment of patient satisfaction is even more relevant in light of the current policy emphasis on patient-reported outcomes.¹²³ There is evidence that individuals have better health outcomes, higher satisfaction and well-being, and better treatment adherence when they are able to help define what is important to them.¹²⁴ Decisions on the comparative effectiveness of treatment options should take into account the patient's perspective, reflecting the outcomes that patients care about.¹²⁵

This section presents findings from the external quality review organization's telephone surveys with adult members and parents of child members in Texas Medicaid and CHIP, focusing on the most recent results from fiscal year 2012 and 2013 surveys and presenting trends in cases where satisfaction ratings have changed notably over the years. For adult STAR and STAR+PLUS members, performance on most survey measures (compared to HHSC Dashboard standards) and observed trends are discussed generally, as no new adult CAHPS® studies were conducted in fiscal year 2013. Readers can consult the external quality review organization's fiscal year 2012 Summary of Activities Report for more detailed information on adult STAR and STAR+PLUS survey findings.¹²⁶

4.1 – Timeliness of Care

Timeliness of care is one of the most critical determinants of patient satisfaction. Prolonged waits to receive care can result in emotional distress for patients and can increase the risk for physical harm when delays in diagnosis or treatment result in preventable complications.¹²⁷ To assess member-reported timeliness of care, the external quality review organization uses items from the CAHPS® Health Plan Survey, which include the CAHPS® *Getting Care Quickly* composite, as well as questions regarding the timeliness of urgent care, routine care, health plan approval, and exam room visits that have been incorporated into the HHSC Performance Indicator Dashboard.^{128, 129}

CAHPS® *Getting Care Quickly*

The CAHPS® *Getting Care Quickly* composite combines members' responses to questions about the timeliness of two different aspects of needed care: (1) care needed right away for an illness, injury, or condition (urgent care); and (2) appointments for health care at a doctor's office

(routine care). This core composite is calculated for both adult members and parents of child members. Following AHRQ specifications, the score represents the percentage of members who “usually” or “always” had positive experiences with timeliness of care.

Children in STAR (**Figure 48**) and CHIP (**Figure 49**) showed positive trends in CAHPS® measures of timeliness of care, while scores for adult members appear to have remained stable over time. In 2012, the rate for this measure in STAR Health was 90 percent.

Figure 48. CAHPS® Getting Care Quickly: STAR Children, 2009-2013

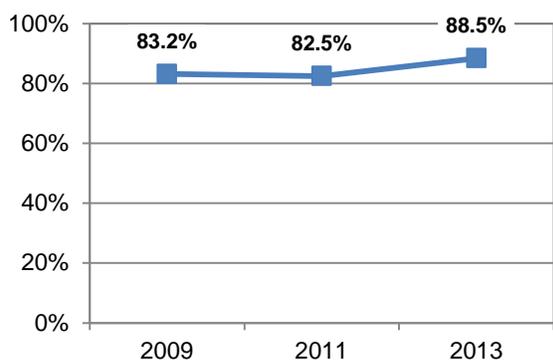
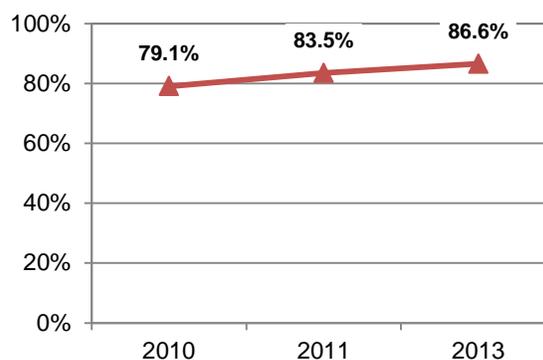


Figure 49. CAHPS® Getting Care Quickly: CHIP, 2010-2013



HHSC Performance Indicator Dashboard – Survey-based Timeliness Measures

The HHSC Performance Indicator Dashboard includes four survey-based measures of timeliness of care, each with standards set by the state for Texas Medicaid and CHIP managed care organization performance: (1) Good Access to Urgent Care; (2) Good Access to Routine Care; (3) No Delays for Health Plan Approval; and (4) No Wait to be Taken to the Exam Room Greater than 15 Minutes. **Table 33** shows results for the adult populations in STAR and STAR+PLUS (Medicaid-only) in 2012, and for the STAR+PLUS dual-eligible population in 2011.

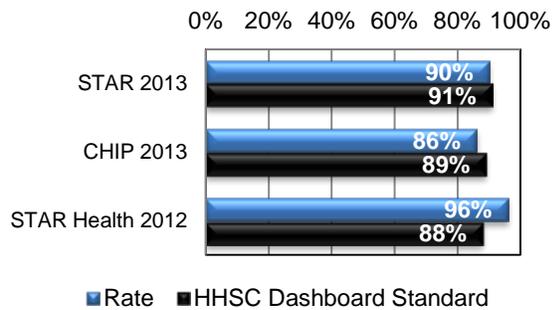
Table 33. HHSC Dashboard Indicators: Timeliness of Care for Adults

	Good Access to Urgent Care	Good Access to Routine Care	No Delays for Health Plan Approval	No Wait for Exam Room > 15 Minutes
STAR 2012	74%	67%	50%	21%
STAR+PLUS (Medicaid) 2012	77%	73%	38%	28%
STAR+PLUS (Dual) 2011	81%	80%	49%	33%

Access to Urgent Care

The HHSC Dashboard indicator *Good Access to Urgent Care* is based on responses to a CAHPS® item that assesses how often the member (or the member’s child) received urgent care as soon as it is needed. Members who answer “usually” or “always” to this question are considered to have good access to urgent care. **Figure 50** shows results and HHSC Dashboard standards for this measure from the caregiver surveys for STAR and CHIP in 2013 and for STAR Health in 2012. The rate for children in STAR Health exceeded the HHSC Dashboard standard by nearly ten percentage points. Rates among children enrolled in STAR increased slightly between 2009 and 2013, but overall, survey results indicate that access to urgent care for children has remained relatively stable over the four-year period.

Figure 50. Good Access to Urgent Care: Children



Adult rates for *Good Access to Urgent Care* were lower than 2012 state-specified standards for adults in STAR and STAR+PLUS Medicaid-only members. Trends over time suggest that performance on this measure is relatively stable among adults in Texas Medicaid.

Access to Routine Care

Good Access to Routine Care is an HHSC Dashboard indicator based on responses to a CAHPS® item assessing how often the member (or their child) received an appointment for routine care as soon as it was needed. Members who answer “usually” or “always” to this question are considered to have had good access to routine care.

Program-level rates in the most recent caregiver surveys for STAR, CHIP, and STAR Health all exceeded the HHSC Dashboard standards for *Good Access to Routine Care*. The rate for children in STAR Health was 84 percent, which exceeded the HHSC Dashboard standard by nearly ten percentage points. Positive trends in access to routine care were observed for children in STAR between 2009 and 2013 (**Figure 51**), and for those in CHIP between 2010 and 2013 (**Figure 52**).

Program-level rates were below the HHSC Dashboard standard for adults in 2012, both in STAR and in the STAR+PLUS Medicaid-only population. Results of the adult member surveys show that scores in the adult population have remained stable over time.

Figure 51. Good Access to Routine Care for Children: STAR, 2009-2013

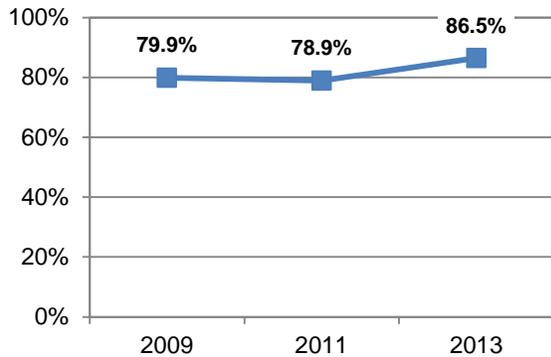
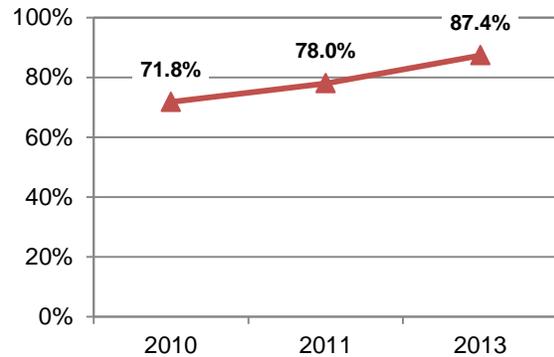


Figure 52. Good Access to Routine Care for Children: CHIP, 2010-2013



Delays for Health Plan Approval

No Delays for Health Plan Approval was an HHSC Dashboard indicator through 2012. This item was based on responses to a modified CAHPS® 3.0 question that examined how often the member (or the member’s child) experienced delays in their health care while waiting for approval from their health plan. Members answering “never” to this question were considered to have had no delays for health plan approval. Since 2009, survey results have shown positive trends for children in STAR (Figure 53), CHIP (Figure 54), and STAR Health (Figure 55).

Figure 53. No Delays for Health Plan Approval: STAR Children, 2009-2013

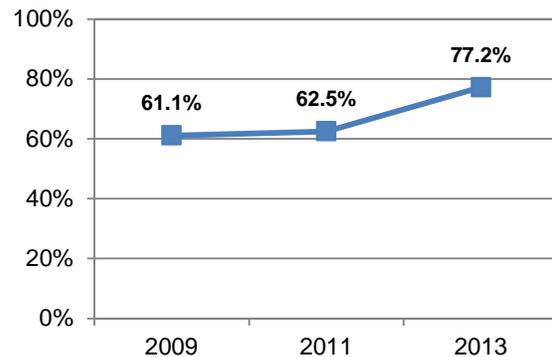


Figure 54. No Delays for Health Plan Approval: CHIP, 2010-2013

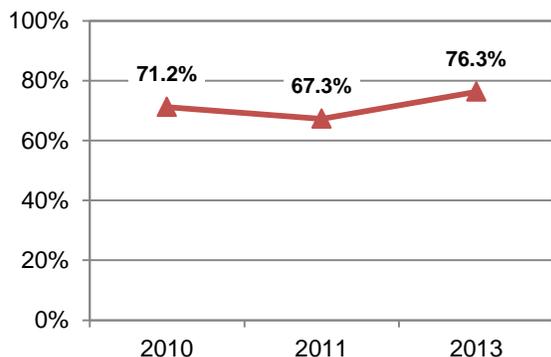
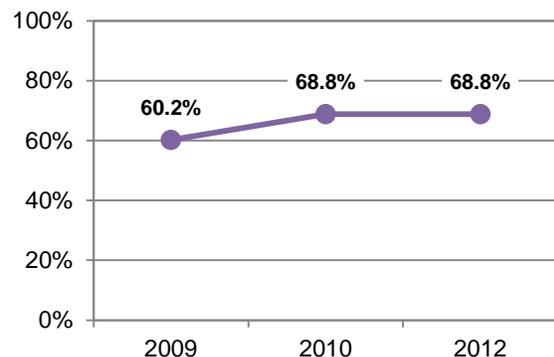


Figure 55. No Delays for Health Plan Approval: STAR Health, 2009-2012



For adults, rates for this HHSC Dashboard indicator were lower than 2012 standards for adults in STAR and STAR+PLUS Medicaid-only members. A negative trend was observed among STAR+PLUS Medicaid-only members between 2009 and 2012. In 2011, results for dual-eligible STAR+PLUS members were lower than the year's state-specified standards for delays in health plan approval.

Waiting to be Taken to the Exam Room

No Wait to be Taken to the Exam Room Greater than 15 Minutes was included on the HHSC Dashboard through 2012. This indicator was based on responses to a CAHPS® 3.0 item assessing how often the member (or their child) was taken to the exam room within 15 minutes of their appointment. Members who answer “always” to this question were considered to have had no wait greater than 15 minutes. In 2012, the STAR Health rate for *No Wait to be Taken to the Exam Room Greater than 15 Minutes* (30 percent) was 20 percentage points below the HHSC Dashboard standard. Rates were particularly low for children in STAR (27 percent) and CHIP (24 percent) in 2013.

Rates for this measure were also below 2012 state-specified standards for STAR adults, STAR+PLUS Medicaid-only members, and STAR+PLUS dual-eligible members. Results of the adult member surveys show that scores in the adult population have remained stable over time.

4.2 – Primary and Specialist Care

The external quality review organization uses three items from the CAHPS® Health Plan Survey to assess member-reported access to primary and specialist care: (1) *Getting Needed Care*; (2) *Getting Specialized Services*; and (3) *Prescription Medicines*. Scores for the three CAHPS® composites follow AHRQ specifications, which represent the percentage of members who “usually” or “always” had positive experiences with access to care.

CAHPS® *Getting Needed Care*

The CAHPS® *Getting Needed Care* composite probes how often it was easy for members to get: (1) appointments with specialists and (2) care, tests, or treatment they needed through their health plan. *Getting Needed Care* scores for both child and adult members are below those reported nationally for Medicaid and CHIP. In 2013, 71 percent of caregivers of children in STAR and 69 percent of caregivers of children in CHIP “usually” or “always” had positive experiences on this measure.

Figure 56 shows rates of *Getting Needed Care* in STAR Health between 2009 and 2012. Improvements in getting needed care could be related to increased access to network providers in STAR Health since the program was implemented in 2008. During the same period, a negative trend was observed for this composite in the STAR+PLUS (Medicaid-only) population, as shown in **Figure 57**. The decline may indicate the need for improved access to primary and specialist care in this program, especially for Medicaid-only members.

Figure 56. CAHPS® Getting Needed Care in STAR Health, 2009-2012

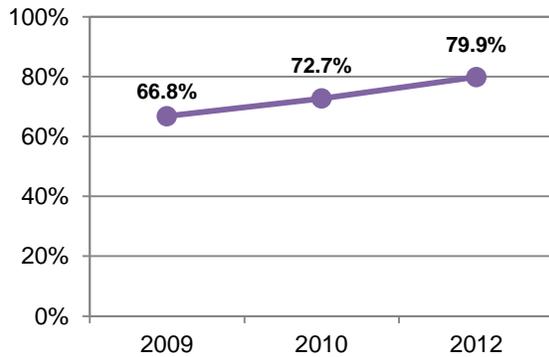
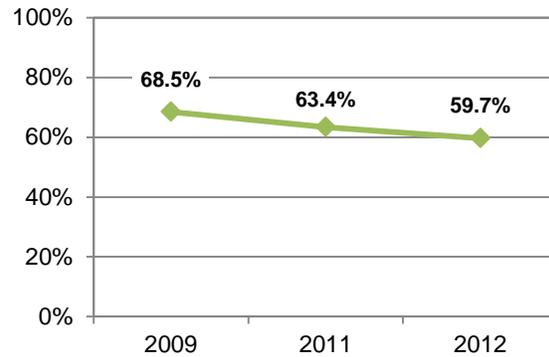


Figure 57. CAHPS® Getting Needed Care in STAR+PLUS, 2009-2012



CAHPS® Getting Specialized Services

The CAHPS® *Getting Specialized Services* composite combines responses to questions about access to: (1) special medical equipment or devices; (2) special therapies such as physical, occupational, or speech therapy; and (3) treatment or counseling for emotional, developmental, or behavioral problems.

In 2013, approximately two-thirds of caregivers in STAR (66 percent) and CHIP (64 percent) “usually” or “always” had positive experiences getting specialized services for their child. In 2012, the rate for this measure in STAR Health was 72 percent. Although no national standards are available for this measure, these scores are considered low and suggest there is need to improve access to specialized services for children in STAR and CHIP. The lowest rates of access among the three items in this composite 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. Results show that performance for this measure remained stable between 2009 and 2013.

CAHPS® Prescription Medicines

CAHPS® *Prescription Medicines* is a single-item measure that assesses how often it was easy for caregivers to get prescription medicines through their child’s health plan. Although national comparisons are not available for this measure, scores in STAR (85 percent), CHIP (85 percent), and STAR Health (93 percent) are considered high, indicating good access to prescription medication for children overall. It should be noted, however, that rates have declined by four percentage points in STAR since 2009 (**Figure 58**), and by over five percentage points in CHIP since 2010 (**Figure 59**).

Figure 58. CAHPS® Prescription Medicines: STAR, 2009-2013

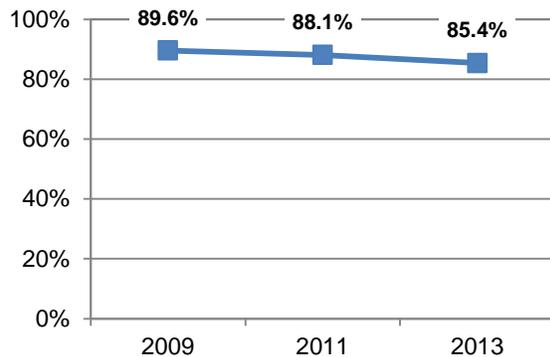
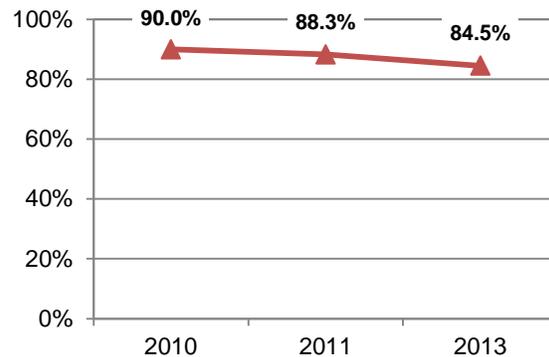


Figure 59. CAHPS® Prescription Medicines: CHIP, 2010-2013



HHSC Performance Indicator Dashboard – Survey-based Access Measures

The HHSC Performance Indicator Dashboard includes three survey-based measures of access to primary and specialist care, each with standards set by the state for Texas Medicaid and CHIP managed care organization performance: (1) Good Access to Specialist Referral; (2) Good Access to Behavioral Health Treatment or Counseling; and (3) Good Access to Special Therapies. Results for these measures are presented for children in **Table 34**.

Table 34. HHSC Dashboard Indicators: Access Measures for Children

	Good Access to Specialist Referral	Good Access to BH Treatment/ Counseling	Good Access to Special Therapies
STAR 2013	73%	57%	75%
CHIP 2013	70%	62%	61%
STAR Health 2012	84%	78%	NR

Good Access to Specialist Referral

The HHSC Dashboard measure *Good Access to Specialist Referral* is obtained from responses to a CAHPS® item assessing how often it was easy for the member (or the member’s child) to receive a referral to see a specialist. Member responses of “usually” or “always” to this question are considered indicative of good access to specialist referrals. Performance on this HHSC Dashboard indicator ranged from 70 percent for children in CHIP to 84 percent for those enrolled in STAR Health. The rate in STAR Health increased notably between 2009 and 2012 (**Figure 60**). For adults, performance on this measure ranged from 61 percent for STAR+PLUS Medicaid-only members to 78 percent for STAR+PLUS dual-eligible members.

Figure 60. Good Access to Specialist Referral for Children in STAR Health, 2009-2012

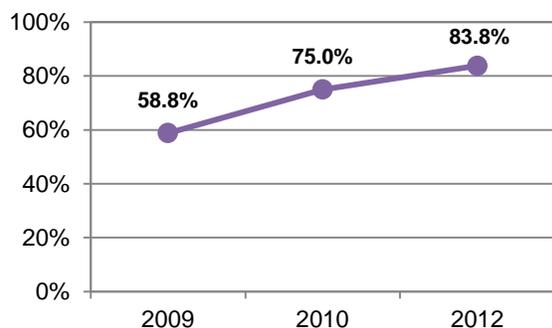
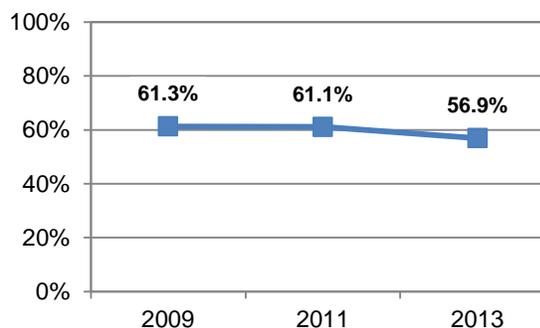


Figure 61. Good Access to Behavioral Health Treatment or Counseling for Children in STAR, 2009-2013



Good Access to Behavioral Health Treatment or Counseling

Good Access to Behavioral Health Treatment or Counseling is an HHSC Dashboard indicator based on caregiver responses to a CAHPS[®] question that asks how easily the caregiver was able to get treatment or counseling for their child for a behavioral health problem. Children of caregivers who answer “usually” or “always” in response to this question are considered to have good access to behavioral health treatment or counseling. Performance on this HHSC Dashboard indicator was well below the state-specified standards for STAR and CHIP, while the rate in STAR Health was approximately equal to the HHSC Dashboard standard for 2012. Rates decreased slightly for children in STAR between 2009 and 2013 (**Figure 61**).

Good Access to Special Therapies

Good Access to Special Therapies, based on responses to a CAHPS[®] item assessing how often it was easy for members to get physical, speech, occupational therapy, or other special therapies, was used only in adult surveys through 2012, and has since been added to the external quality review organization’s analysis of caregiver surveys. (Results on this measure for the most recent caregiver surveys are shown in Table 34.) Those who respond “usually” or “always” to this question are considered to have good access to special therapies. The rate for *Good Access to Special Therapies* among adults in STAR was higher than the 2012 HHSC Dashboard standard of 58 percent; however, the STAR+PLUS rate dropped below the standard of 66 percent among both Medicaid-only and dual-eligible members (**Figure 62**).

Both groups in STAR+PLUS saw declines in access to special therapies. As shown in **Figure 63**, the rate among STAR+PLUS Medicaid-only members dropped from 65 percent in 2009 to 52 percent in 2012. Most of this decrease occurred between 2009 and 2011, suggesting that the negative trend in access to special therapies is not explained by the Medicaid managed care expansion that occurred in September 2011. A similar decline in access to special therapies was seen for STAR+PLUS dual-eligible members, from 66 percent in 2010 to 53 percent in 2011.

Figure 62. Performance on Good Access to Special Therapies for Adults in STAR and STAR+PLUS

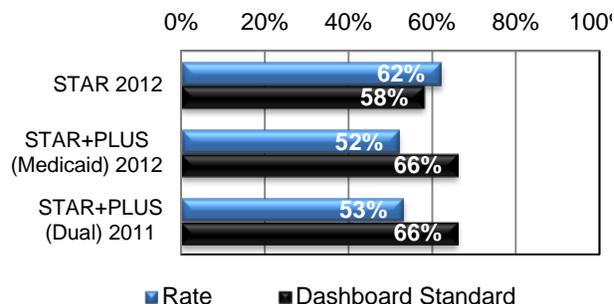
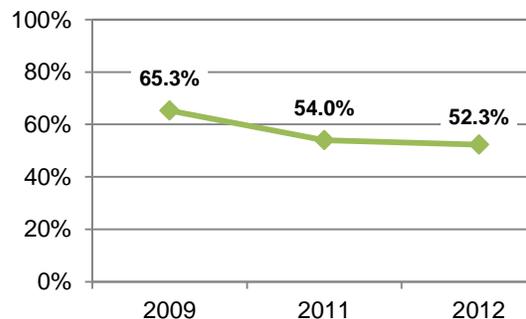


Figure 63. Trends in Good Access to Special Therapies in STAR+PLUS (Medicaid-only), 2009-2012



4.3 – Patient-Centered Medical Home

The American Academy of Family Physicians defines the patient-centered medical home as a “system of comprehensive coordinated primary care for children, youth and adults.”¹³⁰ In the patient-centered medical home model, patients have a personal physician who coordinates care within a team, ensures that patients’ needs are being met, and respects patients’ preferences. In a joint statement released in 2007, the American Academy of Pediatrics, the American Academy of Family Physicians, the American College of Physicians, and the American Osteopathic Association identified seven principles of the patient-centered medical home model.¹³¹

- 1) Personal physician;
- 2) Physician-directed medical practice;
- 3) Whole person orientation;
- 4) Care that is coordinated and/or integrated across settings and providers;
- 5) Quality and safety;
- 6) Enhanced access (e.g., open scheduling, extended hours); and
- 7) Payment structure that promotes coordination, health information technology, and quality incentives.

The patient-centered medical home may improve not only outcomes of care and patient satisfaction, but also utilization and costs of care. A demonstration project in Washington State found that after one year of implementation, use of the patient-centered medical home model in a health care system resulted in higher patient experience ratings, lower emotional exhaustion among staff, increased use of e-mail, phone, and specialist visits, and decreased emergency department visits.¹³²

The external quality review organization member satisfaction surveys include a number of CAHPS® core and supplemental items that address the presence and quality of the patient-centered medical home for members in Texas Medicaid and CHIP, including: (1) the percentage

of members with a personal doctor; (2) member ratings of their personal doctor (on a scale of 0 to 10); and (3) CAHPS® composite scores for *How Well Doctors Communicate*; *Shared Decision-Making*; *Personal Doctor*; *Getting Needed Information*; and *Care Coordination*. In addition, STAR+PLUS members' experiences with care coordination are assessed using the HHSC Performance Dashboard indicator, *Good Access to Service Coordination*. **Table 35** provides survey-based patient-centered medical home measure results for children. Results for adults are shown in **Table 36**.

Table 35. Survey-Based Patient-Centered Medical Home Measures: Children

	Percent of Members with a Personal Doctor	Percent of Caregivers Rating Their Child's Personal Doctor a "9" or "10"	CAHPS® How Well Doctors Communicate	CAHPS® Personal Doctor	CAHPS® Getting Needed Information	CAHPS® Care Coordination
STAR 2013	86%	77%	88%	89%	94%	72%
CHIP 2013	86%	71%	89%	87%	90%	69%
STAR Health 2012	93%	74%	94%	90%	90%	74%

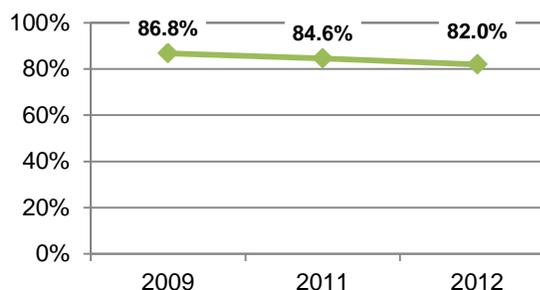
Table 36. Survey-Based Patient-Centered Medical Home Measures: Adults

	Percent of Members with a Personal Doctor	Percent of Members Rating Their Personal Doctor a "9" or "10"	CAHPS® How Well Doctors Communicate
STAR 2012	68%	63%	89%
STAR+PLUS (Medicaid) 2012	82%	64%	82%
STAR+PLUS (Dual) 2011	85%	73%	90%

Presence of a Usual Source of Care

The majority of Texas Medicaid and CHIP members reported having a personal doctor whom they see when they need a checkup, want advice about a health problem, or get sick or hurt. Rates of having a personal doctor were higher among children in the STAR Health program than among those in STAR or CHIP.

Figure 64. Percent of Members with a Personal Doctor in STAR+PLUS (Medicaid-only), 2009-2012



Among adults, rates of having a personal doctor were higher for STAR+PLUS Medicaid-only and dual-eligible members than for STAR

members, despite a slight decrease in these rates in the STAR+PLUS Medicaid-only population between 2009 and 2012 (Figure 64).

Member Ratings of their Personal Doctor

For members who report having a personal doctor, the CAHPS® Health Plan Survey also asks them to rate their personal doctor on a scale from 0 to 10. The proportion of caregivers who rated their child’s personal doctor a “9” or “10” ranged from 71 percent in CHIP to 77 percent in STAR. Between 2009 and 2012, personal doctor ratings for caregivers of children in STAR Health exhibited a positive trend, with the percentage of caregivers rating their child’s personal doctor as 9 or above increasing by over ten percentage points. Overall, these findings show high levels of satisfaction among parents of children in Texas Medicaid and CHIP.

Ratings for personal doctors among adult members were slightly lower than among parents of child members (with the exception of STAR+PLUS dual-eligible members). The percentage of STAR+PLUS members who rated their personal doctor a “9” or “10” was higher among dual-eligible members (73 percent) than among Medicaid-only members (64 percent).

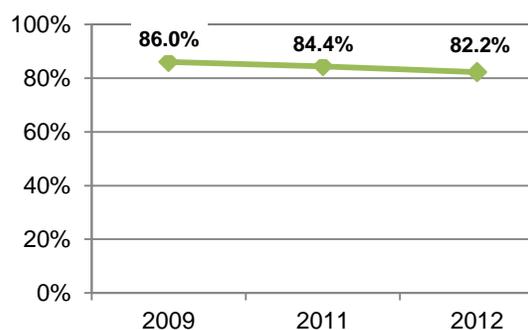
CAHPS® *How Well Doctors Communicate*

Doctor-patient communication is an important determinant of patient satisfaction and outcomes of care. Patients who report good communication with their doctors are more likely to be satisfied with their care, share information for accurate diagnosis of their problems, and adhere to prescribed treatment.¹³³ The external quality review organization uses the CAHPS® composite *How Well Doctors Communicate* to assess member- and parent-reported experiences and satisfaction with communicating with their personal doctors. This composite combines responses to questions about how often personal doctors: (1) explained things in a way that was easy for members to understand; (2) listened carefully to members; (3) showed respect for what members had to say; and (4) spent enough time with members. *How Well Doctors Communicate* is a core CAHPS® composite for both adults and children. Scores follow AHRQ specifications, representing the percentage of members who “usually” or “always” had positive experiences communicating with personal doctors.¹³⁴

Caregivers of child members were generally satisfied with how well their child’s personal doctors communicated. The percentage of members who “usually” or “always” had positive experiences communicating with their child’s doctors ranged from 88 percent in STAR to 94 percent in STAR Health.

The most recent external quality review organization adult member surveys found that 89 percent of STAR adults had positive experiences communicating with their personal doctors. In STAR+PLUS, the *How Well Doctors Communicate* composite was lower among Medicaid-only

Figure 65. CAHPS® *How Well Doctors Communicate*: STAR+PLUS (Medicaid-only), 2009-2012



members (82 percent) and higher among dual-eligible members (90 percent). Between 2009 and 2012, a slight decrease was observed in the percentage of surveyed STAR+PLUS Medicaid-only members who “usually” or “always” had positive experiences communicating with personal doctors (**Figure 65**).

CAHPS® *Shared Decision-Making*

Shared decision-making, wherein physicians advise patients of available options and elicit patients’ treatment preferences, is considered an important component of the patient-centered medical home. Active patient involvement in such decisions is especially appropriate for long-term decisions such as those made in the context of chronic illness.¹³⁵

To assess parents’ experiences with this process for their children in Texas Medicaid and CHIP, the external quality review organization uses the CAHPS® composite *Shared Decision-Making*. In Version 4.0 of the CAHPS survey, this composite combined responses to questions about whether or not the child’s doctor or other health providers: (1) informed the parent about pros and cons of each option for their child’s health care; and (2) asked the parent which choice they thought was best for their child. Overall, parents reported positive experiences with shared decision-making for their child’s care. Although no national averages are available for comparison, the score in STAR Health (89 percent) is considered high and indicates good effectiveness of shared decision-making practices in the clinical setting. In 2013, scores on this measure for STAR (55 percent) and CHIP (54 percent) were considerably lower. However, Version 5.0 of the CAHPS® survey saw a complete revision of the *Shared Decision-Making* composite. The external quality review organization began using version 5.0 in 2013. Therefore, comparisons of performance between STAR Health and STAR or CHIP are not appropriate, and data for prior years are not available for trending.¹³⁶

CAHPS® *Personal Doctor*

The CAHPS® *Personal Doctor* composite, which is calculated for children in Medicaid and CHIP, combines caregivers’ responses to questions about whether or not their child’s personal doctor: (1) talked with the parent about how their child was feeling, growing, or behaving; and (2) understood how the child’s medical, behavioral, or other health conditions affected the child’s and family’s day-to-day life.

In general, caregivers reported positive experiences with their child’s personal doctor. Although national averages are not available for comparison, the scores in STAR (89 percent), CHIP (87 percent), and STAR Health (90 percent) are considered high, indicating that personal doctors in Medicaid and CHIP are attentive to the broader impacts associated with children’s physical and emotional development. No observable trends were seen in scores for this composite over the four-year period.

CAHPS® *Getting Needed Information*

The CAHPS® *Getting Needed Information* composite is based on a single question about how often caregivers had their questions answered by their child’s doctors or other health providers.

Although no national averages are available for comparison, scores for this measure in STAR (94 percent), CHIP (90 percent), and STAR Health (90 percent) are considered high and suggest that providers are adequately answering parents' questions about their child's health care.

CAHPS® Care Coordination

The external quality review organization uses the CAHPS® composite *Care Coordination* to evaluate caregivers' experiences with care coordination for their children in Texas Medicaid and CHIP. The composite combines responses to questions asking: (1) whether or not the child's doctors or other health providers helped the parent in contacting their child's school or daycare; and (2) whether or not anyone from the child's health plan, doctor's office, or clinic helped the parent coordinate their child's care among different providers and health care services. Although national averages are not available for comparison, scores for this composite in STAR (72 percent), CHIP (69 percent), and STAR Health (74 percent) indicate that there is room for improvement in care coordination practices for children in these programs. The *Care Coordination* score in STAR Health increased by approximately six percentage points between 2010 and 2012.

Members in STAR+PLUS can elect to receive assistance from a service coordinator through their health plan, who can help arrange their care and find the services that they need. For these members, the HHSC Dashboard indicator, *Good Access to Service Coordination*, represents the percentage of members who "usually" or "always" received service coordination help as soon as they needed it.

Results for this indicator are available for Medicaid-only members in 2012 and dual-eligible members in 2010.¹³⁷ Among Medicaid-only members who had a service coordinator, 67 percent had good access to service coordination, which exceeds the 2012 HHSC Dashboard standard of 63 percent. Survey results suggest that performance on this indicator has remained relatively stable across time.

4.4 – Customer Service

Customer service is an important component of managed care that impacts member satisfaction, member compliance with treatment, performance improvement, and, ultimately, the size of a managed care organization's overall membership. Better service translates to higher member satisfaction, which in turn means that members are more likely to return to the same providers, helping to ensure continuity of care. Conversely, dissatisfaction with customer service generates potential new costs, lowers treatment compliance, and leads to worse health outcomes.

To assess member satisfaction with health plan customer service in Texas Medicaid and CHIP, the external quality review organization uses the CAHPS® composite *Health Plan Information and Customer Service*. This is a core composite for both adults and children and combines responses to questions regarding how often health plan customer service staff: (1) gave members the information or help they needed; and (2) treated members with courtesy and

respect. Scores follow AHRQ specifications and represent the percentage of members who “usually” or “always” had positive experiences with health plan customer service.

Results shown in **Table 37** reveal that Texas Medicaid and CHIP members have generally positive experiences with health plan customer service. The score for children in STAR was higher than the Medicaid national average of 80 percent, while the score for those in CHIP was comparable to the CHIP national average of 81 percent.

Table 37. CAHPS® Health Plan Information and Customer Service

Child – 2012/2013	
STAR ^a	83%
CHIP ^a	81%
STAR Health ^b	75%
Adult – 2011/2012	
STAR ^b	78%
STAR+PLUS Medicaid-only ^b	69%
STAR+PLUS Dual-eligible ^c	74%

^a 2013, ^b 2012, ^c 2011

4.5 – Behavioral Health Care

In response to recommendations made by the Texas Legislative Budget Board Staff,¹³⁸ the external quality review organization began conducting behavioral health satisfaction surveys for Texas Medicaid members in fiscal year 2010. The behavioral health surveys use the CAHPS® ECHO® tool, which assesses members’ satisfaction with the behavioral health services they received through their managed care organization or behavioral health organization. The external quality review organization has conducted this survey twice for children in STAR (in 2010 and 2011), twice for adults in STAR (in 2010 and 2012), twice for adults in the STAR+PLUS Medicaid-only population (in 2011 and 2013), and once for the STAR+PLUS dual-eligible population (in 2013).

The ECHO® behavioral health survey includes four reporting composites that combine responses to closely related survey items:¹³⁹

1. *Getting Treatment Quickly*, which assesses how often members got professional counseling over the phone, urgent counseling and treatment, and routine counseling appointments. Scores are calculated on a scale ranging from 1.00 to 3.00.
2. *How Well Clinicians Communicate*, which assesses how often clinicians listened carefully to members, explained things in a way members could understand, showed respect for what members had to say, spent enough time with members, made members feel safe, and involved members as much as they wanted. Scores are calculated on a scale ranging from 1.00 to 3.00.
3. *Information About Treatment Options*, which assesses whether members were told about self-help or support groups, and whether they were given information about different kinds of counseling options available to them. Scores are calculated on a scale ranging from 0.00 to 1.00.
4. *Perceived Improvement*, which assesses how members would rate their ability to deal with daily problems, ability to deal with social situations, ability to accomplish things they want to, and their problems or symptoms compared to six months prior to the survey. Scores are calculated on a scale ranging from 1.00 to 4.00.

Table 38 presents findings from the external quality review organization’s most recent behavioral health surveys in STAR and STAR+PLUS. Results for the ECHO® composites show adequate scores for *Getting Treatment Quickly* and good scores for *How Well Clinicians Communicate*. Scores for *Information About Treatment Options* for adults in STAR and STAR+PLUS suggest there is room for improvement in the quality of information that behavioral health providers give to members. Additionally, the *Perceived Improvement* score for STAR+PLUS could be improved, as it shows that certain members may not be benefitting from their behavioral health counseling and treatment.

Table 38. ECHO® Behavioral Health Survey Composites

	STAR Child 2013		STAR Adult 2012		STAR+PLUS 2013	
	Mean	95% CI	Mean	95% CI	Mean	95% CI
Getting Treatment Quickly (1.0 – 3.0)	2.18	2.17-2.20	1.96	1.86-2.07	2.05	2.04-2.06
How Well Clinicians Communicate (1.0 - 3.0)	2.48	2.47-2.49	2.26	2.18-2.29	2.36	2.35-2.36
Information About Treatment Options (0.0 -1.0)	0.67	0.67-0.68	0.50	0.46-0.53	0.55	0.54-0.55
Perceived Improvement (1.0 – 4.0)	3.22	3.21-3.23	2.78	2.73-2.86	2.65	2.64-2.65

4.6 – Experiences with Dental Care Services

Nationally, low-income and underprivileged children are less likely to see a dental provider or receive the care they need than children of higher socioeconomic status.^{140,141} While caregivers might say that it is difficult to find consistent dental care for their child, they still believe it is an important part of their child’s overall health.¹⁴² It is therefore important to learn as much as possible about how caregivers feel about their child’s dental plan and any changes that can be made to improve the treatment or care they receive.

This section shows results of surveys with caregivers of children enrolled in Medicaid Dental and CHIP Dental about their experiences and satisfaction with the dental health services their child received during fiscal year 2013.

Caregiver Ratings of Dental Services

Caregivers were asked to rate four components of their child’s dental services on a scale from 0 to 10, with 0 representing the worst care possible and 10 representing the best care possible (**Table 39**). The majority of caregivers provided high ratings for each item, indicated by a rating of 9 or 10.

Table 39. Caregivers Rating their Child’s Dental Services a “9” or “10” – 2013

	Caregivers’ ratings of...			
	How easy it was for them to find a dentist for their child	Their child’s dental care	Their child’s dental plan	Their child’s regular dentist

Medicaid Dental	82 percent	78 percent	82 percent	80 percent
CHIP Dental	63 percent	66 percent	65 percent	71 percent

5 – Effectiveness of Care

The Institute of Medicine defines *effectiveness* as a quality of care that uses “systematically acquired evidence to determine whether an intervention, such as a preventive service, diagnostic test, or therapy, produces better outcomes than alternatives – including the alternative of doing nothing.”¹⁴³ Ensuring that care is effective and requiring that services based on scientific knowledge are provided to all who could benefit are two of six aims outlined by the Institute of Medicine for improving the 21st-century health care system.

To evaluate effectiveness of care in Texas Medicaid and CHIP, the external quality review organization uses HEDIS[®] process measures that assess: (1) provider compliance with evidence-based practices; and (2) patient compliance with follow-up and treatment regimens. Outlined in this section, these measures address the appropriate and effective management of a number of acute and chronic conditions, including pediatric pharyngitis; asthma; diabetes; and behavioral conditions such as ADHD and depression. This section also presents preventive care measures related to the promotion of healthy weight and diet in children and adults. Many of these measures are also HHSC Dashboard indicators for STAR, CHIP, STAR Health, and STAR+PLUS.

5.1 – Acute Respiratory Care

Acute respiratory conditions, such as upper respiratory infections in children and acute bronchitis in adults, account for a large proportion of outpatient visits in the United States. Children typically experience six to eight upper respiratory infections each year, with common infections including pharyngitis and the common cold.¹⁴⁴ Pharyngitis, in particular, results in more than seven million pediatric outpatient visits each year; approximately one-third of the visits are due to a bacterial infection caused by Group A Streptococcus, which can be treated with antibiotics.^{145,146} However, antibiotics are prescribed as a treatment for the majority of respiratory infection cases, which may lead to an increase in drug-resistant bacteria.^{147,148}

Acute bronchitis is a common reason for ambulatory care visits among adults in the United States, although its diagnostic requirements and treatment vary widely in clinical practices.¹⁴⁹ As with pediatric upper respiratory infections, most cases of acute bronchitis in adults are caused by viruses; however, prescription of antibiotics is a frequent practice and has contributed to the emergence of antibiotic-resistant bacteria.¹⁵⁰

The CDC and the American Academy of Pediatrics recommend against antibiotic prescriptions for most types of pediatric upper respiratory infections, including viral pharyngitis and bronchitis.¹⁵¹ Evidence-based practice guidelines by the CDC also recommend against the routine use of antibiotics for cases of acute bronchitis in adults.¹⁵² This report includes two HEDIS[®] measures to assess the compliance of Texas Medicaid and CHIP providers with treatment guidelines for acute respiratory infections:

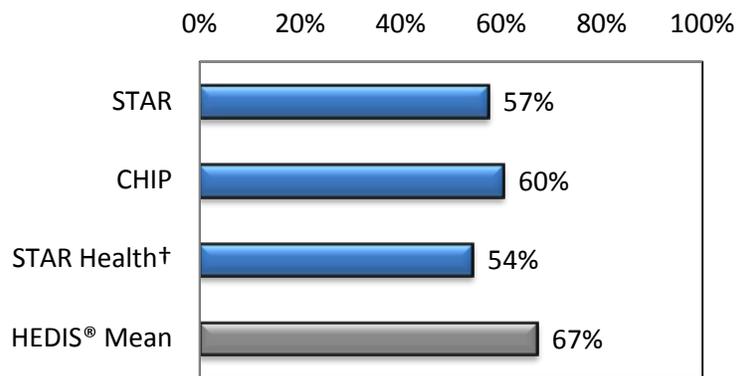
- HEDIS[®] *Appropriate Testing for Children with Pharyngitis*
- HEDIS[®] *Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis*

Appropriate Testing for Children with Pharyngitis

Figure 66 displays results for the HEDIS[®] *Appropriate Testing for Children with Pharyngitis* measure in STAR, CHIP, and STAR Health. This measure assesses the percentage of children 2 to 18 years of age who were diagnosed with pharyngitis and dispensed an antibiotic after receiving a Group A Streptococcus test for the episode. An antibiotic prescription for pharyngitis *without* a positive test for Group A Streptococcus is not recommended, high percentages on this measure indicate good performance.

In 2012, rates for STAR and CHIP were below the HEDIS[®] mean.

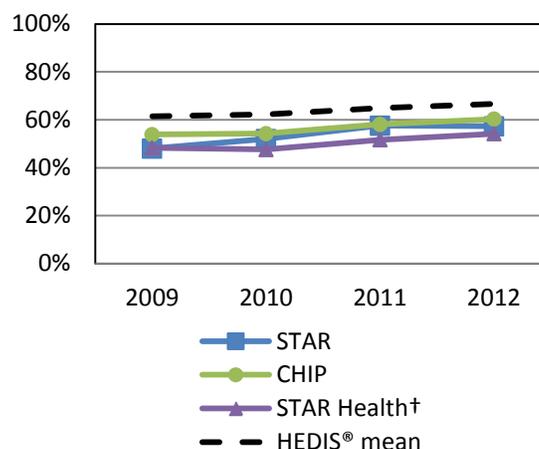
Figure 66. HEDIS[®] *Appropriate Testing for Children with Pharyngitis*, 2012



†The HEDIS[®] mean is not comparable to this program and is included for illustrative purposes only.

Figure 67 shows trends in HEDIS[®] *Appropriate Testing for Children with Pharyngitis* in STAR, CHIP, and STAR Health from 2009 to 2012. Rates of appropriate testing for pharyngitis across all three programs were low, with little change in rates for CHIP and STAR Health. STAR and CHIP performed below the HEDIS[®] mean across the four-year period.

Figure 67. HEDIS[®] *Appropriate Testing for Children with Pharyngitis* in STAR, CHIP, and STAR Health, 2009-2012



†The HEDIS[®] mean is not comparable to this program and is included for illustrative purposes only.

5.2 – Care for Chronic Conditions

Use of Appropriate Medications for People with Asthma

Asthma is one of the most common conditions that affect children and adults in Texas Medicaid and CHIP. When managed improperly, the condition can lead to asthma attacks that contribute to potentially avoidable emergency department and hospital admissions, missed school days for children, and missed work days for adults.¹⁵³ The National Asthma Education and Prevention Program recommends that patients with persistent asthma be prescribed long-term control medications for daily use to control their symptoms and reduce the occurrence of adverse events due to asthma attacks.¹⁵⁴

To assess the appropriateness of asthma medication use in Texas Medicaid and CHIP, the external quality review organization uses the HEDIS[®] *Use of Appropriate Medications for People with Asthma* measure, which is also an HHSC Performance Dashboard indicator. This measure assesses the percentage of members who were identified as having persistent asthma and were appropriately prescribed medication during the measurement period.

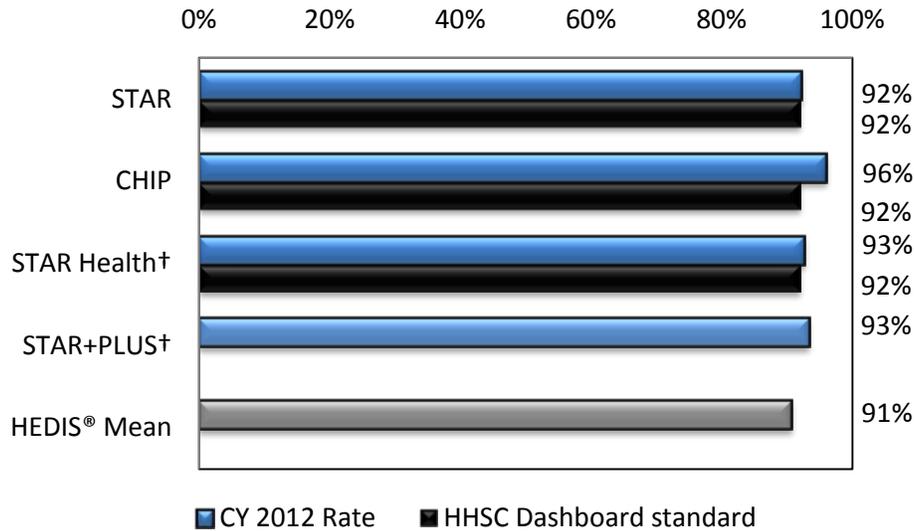
Figure 68 and **Figure 69** present calendar year 2012 results for the HEDIS[®] *Use of Appropriate Medications for People with Asthma* measure. The 2013 HEDIS[®] specifications for this measure provide rates for four age cohorts: 5 to 11 years, 12 to 18 years, 19 to 50 years, and 51 to 64 years. Following the specified age cohorts from the 2012 HHSC Performance Indicator Dashboard, this report shows results for the 5- to 11-year age group in STAR, CHIP, STAR+PLUS, and STAR Health; and for members 12 to 50 years old in STAR, CHIP, STAR+PLUS, and STAR Health (representing the 12- to 18-year and 19- to 50-year age groups combined).¹⁵⁵ However, rates that follow the HEDIS[®] specified age groups are also discussed for STAR and CHIP to enable comparisons to the national HEDIS means[®].

For members 5 to 11 years old, rates of appropriate asthma medication were equal to or higher than the HHSC Dashboard standard of 92 percent for all applicable programs. In addition, STAR and CHIP exceeded the HEDIS[®] national mean of 91 percent.

For members 12 to 50 years old, rates for STAR, CHIP, and STAR Health were higher than their respective HHSC Dashboard standards. However, the rate for STAR+PLUS fell below the HHSC Dashboard standard.

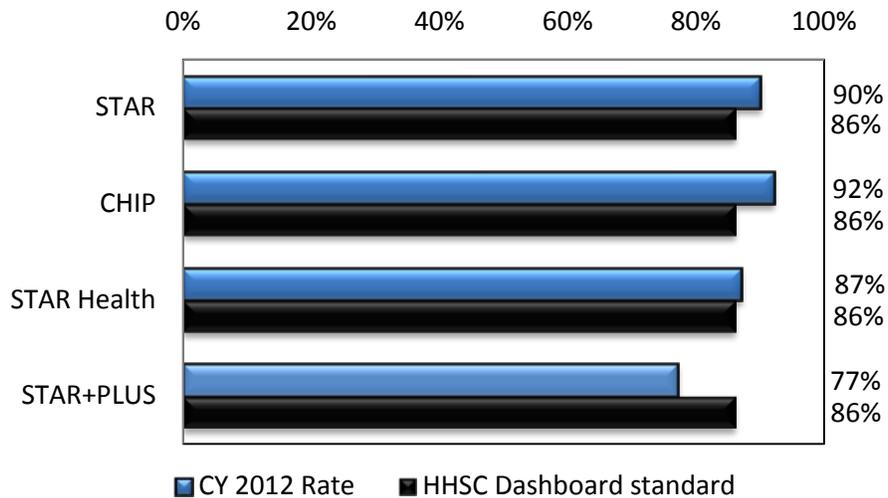
The STAR and CHIP programs performed well in comparison to national means. Specifically, the rates for members who were 12 to 18 years old in STAR and CHIP (90 percent and 96 percent, respectively) and 19 to 50 years old in STAR (81 percent in STAR) were higher than the national HEDIS[®] means of 87 percent and 75 percent, respectively.¹⁵⁶

Figure 68. HEDIS® Use of Appropriate Medications for People with Asthma: 5-11 Years, 2012



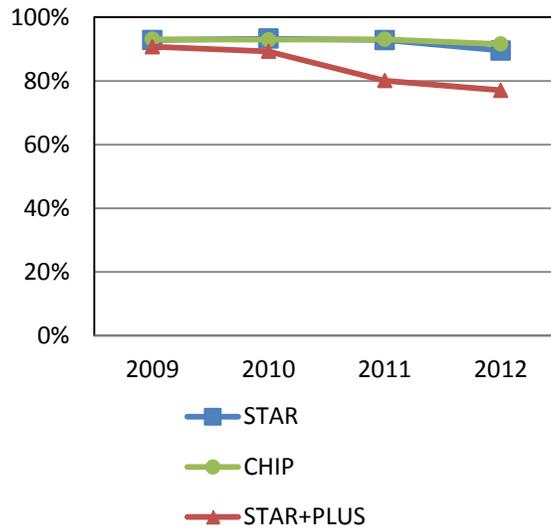
†The HEDIS® mean is not comparable to these programs and is included for illustrative purposes only.

Figure 69. HEDIS® Use of Appropriate Medications for People with Asthma: 12-50 Years, 2012



Among members 5 to 11 years old, rates for all programs had little change across the four-year period. Among members 12 to 50 years old, there were no notable changes for STAR and CHIP over the four-year period; however, rates for STAR+PLUS declined by approximately 14 percentage points from 2009 to 2012 (**Figure 70**).

Figure 70. HEDIS® Use of Appropriate Medication for People with Asthma – 12 to 50 Years, 2009-2012



Comprehensive Diabetes Care

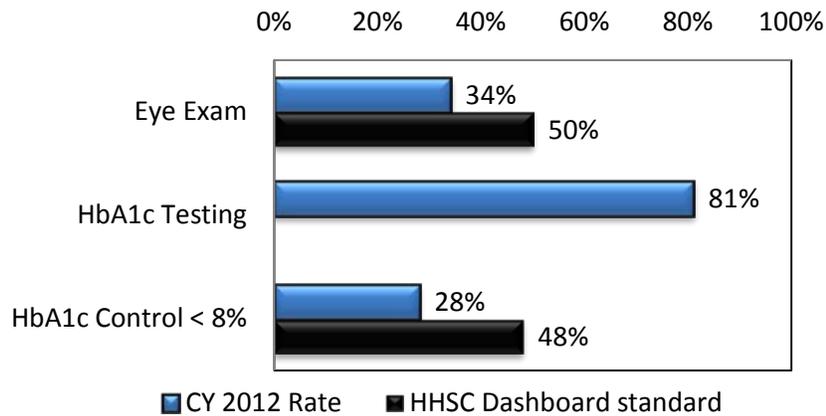
Diabetes is a very prevalent chronic condition among adults in Texas Medicaid. Inappropriate management of diabetes can lead to serious complications, including blindness, kidney damage, and lower extremity amputation resulting from neuropathy. Diabetes also makes it difficult to control blood pressure and cholesterol, which can lead to heart attacks or strokes.¹⁵⁷ Complications resulting from the improper treatment of diabetes frequently result in potentially preventable emergency department and hospital admissions.

The monitoring and treatment of diabetes-related complications can reduce the adverse effects that arise from this disease.¹⁵⁸

To assess the effectiveness of diabetes care for adults in STAR+PLUS, the external quality review organization uses the HEDIS® *Comprehensive Diabetes Care* measure, which is also an HHSC Dashboard indicator for this program. This measure provides the percentage of members 18 to 75 years of age with diabetes (type 1 or 2) who had HbA1c testing, eye exams, LDL-C screening, medical attention for diabetic nephropathy, adequate HbA1c control, and adequate LDL-C control during the measurement period. HEDIS® technical specifications for the *Comprehensive Diabetes Care* measures include the use of both administrative and medical record review data. The measures for adequate hemoglobin control and hemoglobin testing are hybrid measures, assessed through medical record reviews.

Figure 71 presents calendar year 2012 results for three HEDIS® *Comprehensive Diabetes Care* sub-measures: *Eye Exam*, *HbA1c Testing*, and *HbA1c Control <8%*. The rates of eye exams and HbA1c control in STAR+PLUS members with diabetes were substantially lower than their respective HHSC Dashboard standards.

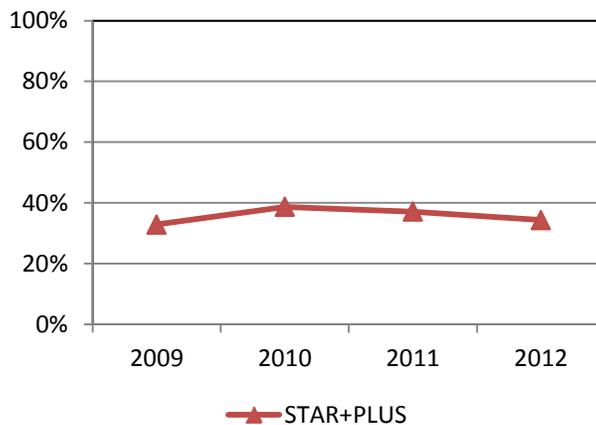
Figure 71. HEDIS® Comprehensive Diabetes Care in STAR+PLUS, 2012 ¹⁵⁹



Overall, measures of effectiveness of diabetes care revealed deficiencies in numerous areas, indicating a need for improvement in this area for the STAR+PLUS population. The external quality review organization recommends that Texas HHSC and STAR+PLUS managed care organizations improve HbA1c control for STAR+PLUS members with diabetes by exploring and/or improving upon options that have been found to be successful in other settings (see recommendations in **Appendix A**).

Four-year trends from 2009 to 2012 were assessed for the *Eye Exam* sub-measure in STAR+PLUS (**Figure 72**). Such rates had little change across the four-year period.

Figure 72. HEDIS® Comprehensive Diabetes Care: Eye Exam – Results for STAR+PLUS, 2009-2012



Cholesterol Management for Patients With Cardiovascular Conditions

Table 40 presents results for the HEDIS[®] *Cholesterol Management for Patients With Cardiovascular Conditions* measure, which assesses the percentage of members 18 to 75 years of age who were discharged alive for acute myocardial infarction, coronary artery bypass graft or percutaneous coronary interventions from January 1 to November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease during the measurement year and the year prior to the measurement year, who had low-density lipoprotein cholesterol (LDL-C) screening during the measurement year.¹⁶⁰

In 2012, 80 percent of eligible STAR+PLUS members had LDL-C screening during the measurement year.

Table 40. HEDIS[®] *Cholesterol Management for Patients With Cardiovascular Conditions*, 2012

	CY 2012 results
STAR+PLUS	80 percent

5.3 – Behavioral Health Care

Follow-up After Hospitalization for Mental Illness

Approximately 600,000 youths and two million adults are hospitalized annually for mental health disorders. Follow-up after hospitalization for mental illness is an important component of ongoing post-discharge care. Patients have a lower probability of being readmitted to the hospital if they are in contact with a mental health provider after being discharged from the hospital.

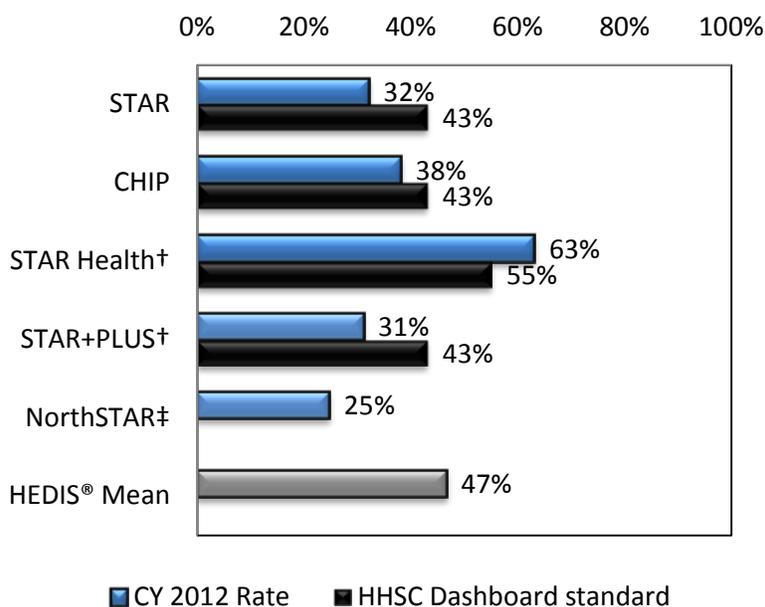
The external quality review organization uses the HEDIS[®] *Follow-Up after Hospitalization for Mental Illness* measure to assess follow-up care in Texas STAR, CHIP, STAR+PLUS, STAR Health, and NorthSTAR. This measure provides the percentage of members six years of age or older who were hospitalized for treatment of mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or a partial hospitalization with a provider during the measurement period. Two sub-measures comprise this HEDIS[®] measure: (1) The percentage of members who received follow-up care within 7 days of discharge; and (2) The percentage of members who received follow-up care within 30 days of discharge. This measure is also an HHSC Performance Indicator for the Texas Medicaid and CHIP programs, with the exception of NorthSTAR.

Figure 73 and **Figure 74** show calendar year 2012 results for this measure for all programs. STAR, CHIP, and STAR+PLUS had rates that fell below their respective HHSC Dashboard standards. However, STAR Health had particularly high rates and performed above its

respective HHSC Dashboard standards for both sub-measures. NorthSTAR does not have an HHSC Dashboard standard for comparison; however, its rates were particularly low.

Due to the low rates in NorthSTAR, the external quality review organization recommends that Texas HHSC and NorthSTAR improve the quality of follow-up after hospitalization for mental illness by implementing a performance improvement project and examining the feasibility of strategies shown to be effective in other settings (see recommendations in **Appendix A**).

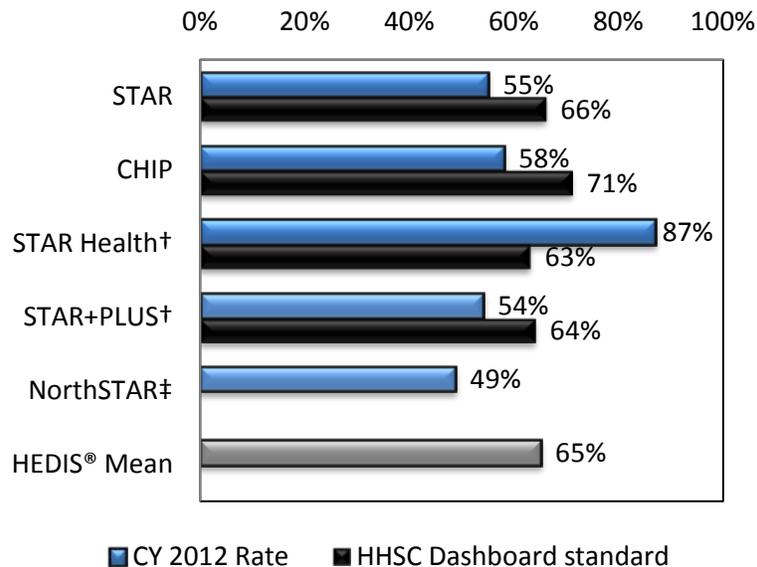
Figure 73. HEDIS® Follow-up After Hospitalization for Mental Illness: 7-Day Follow-Up, 2012



†The HEDIS® mean is not comparable to these programs and is included for illustrative purposes only.

‡NorthSTAR does not have an HHSC Dashboard standard.

Figure 74. HEDIS® Follow-up After Hospitalization for Mental Illness: 30-Day Follow-Up, 2012



†The HEDIS® mean is not comparable to these programs and is included for illustrative purposes only.
 ‡NorthSTAR does not have an HHSC Dashboard standard.

Figure 75 and **Figure 76** show trends in HEDIS® Follow-up After Hospitalization for Mental Illness from 2009 to 2012. Rates in NorthSTAR could not be trended due to changes in the measure calculation methodology across the four-year period.¹⁶¹

7-Day Follow-Up

All programs had an increase in rates from 2009 to 2012. Notably:

- STAR+PLUS had a net increase of approximately 18 percentage points across the four-year period.
- STAR Health had a net increase of approximately 20 percentage points.

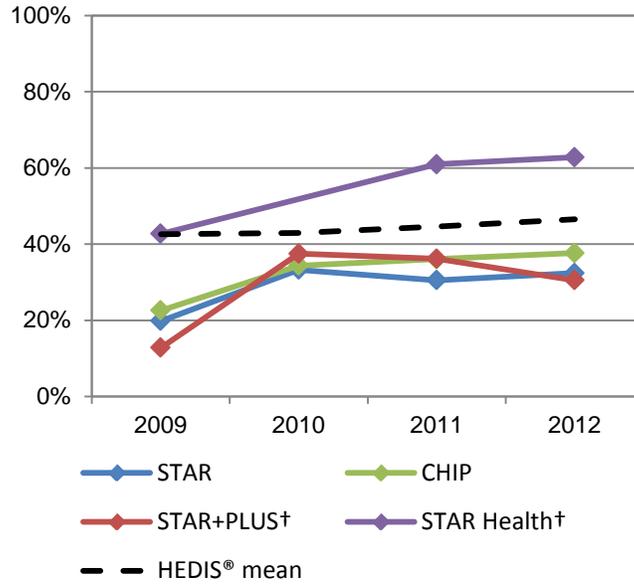
30-Day Follow-Up

All programs had a notable increase in rates from 2009 to 2012. Specifically:

- STAR and CHIP had a net increase of approximately 21 percentage points and 20 percentage points, respectively.
- STAR+PLUS had a net increase of approximately 34 percentage points across the four-year period.
- STAR Health had a net increase of approximately 21 percentage points.

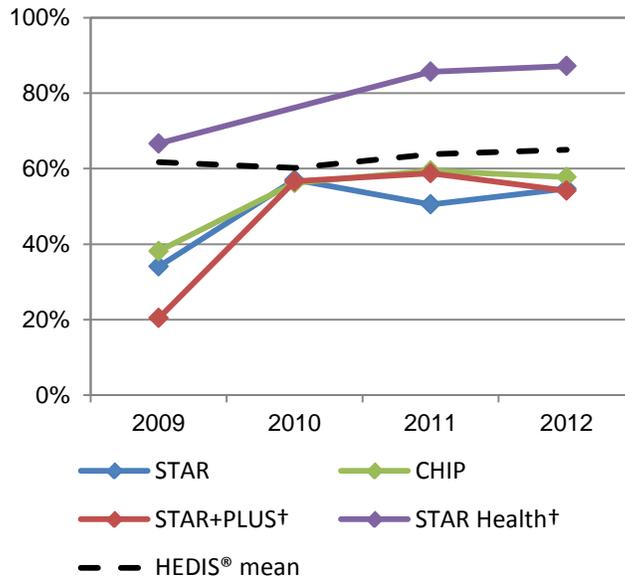
Although most programs show increased performance between 2009 and 2012, rates for 2012 still fell below HHSC Dashboard standards and national HEDIS® means, where applicable.

Figure 75. HEDIS® Follow-up After Hospitalization for Mental Illness: 7-Day Follow-Up, 2009-2012



†The HEDIS® mean is not comparable to these programs and is included for illustrative purposes only.

Figure 76. HEDIS® Follow-up After Hospitalization for Mental Illness: 30-Day Follow-Up, 2009-2012



†The HEDIS® mean is not comparable to these programs and is included for illustrative purposes only.

Follow-up Care for Children Prescribed ADHD Medication

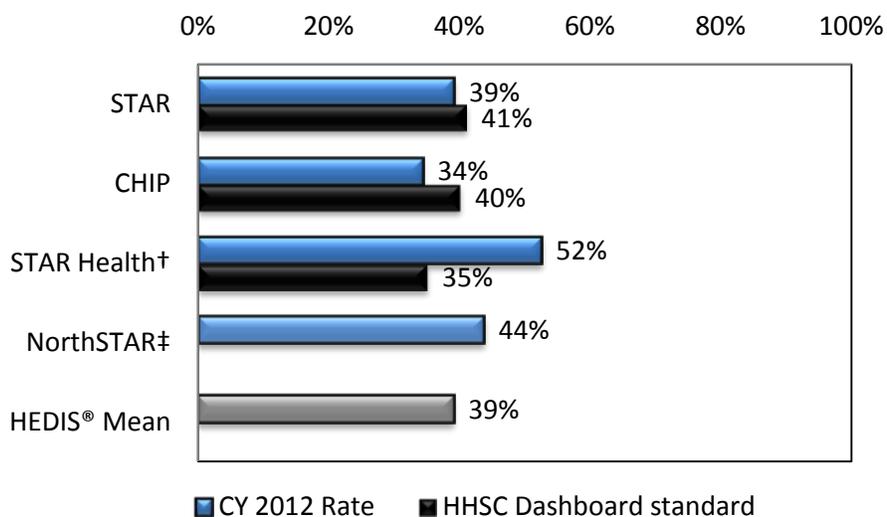
Over five million children in the United States have ADHD, a problem with inattentiveness or impulsivity that affects a child's functioning.^{162,163} Medication is an effective primary treatment for ADHD. However, children prescribed medication should be monitored to ensure that they are receiving appropriate care. Specifically, the AAP recommends follow-up visits at regular intervals to assess the effectiveness of pharmacological treatment and to adjust the child's treatment plan accordingly.¹⁶⁴ Children who attend follow-up visits and adhere to medication treatment are less likely to experience adverse events such as emergency department visits.¹⁶⁵

The HEDIS[®] *Follow-up for Children Prescribed ADHD Medication* measure assesses the percentage of children 6 to 12 years of age with newly prescribed ADHD medication who received two types of follow-up care during the measurement period:

- *Initiation Phase*: The percentage of children with an ambulatory prescription dispensed for ADHD medication who had a follow-up visit with a provider during the 30-day initiation phase; and
- *Continuation and Maintenance (C&M) Phase*: The percentage of children with an ambulatory prescription dispensed for ADHD medication who continued taking the medication for at least 210 days (30 weeks), and who had at least two follow-up visits with the provider within nine months after the initiation phase ended.

The external quality review organization calculates this measure annually for STAR, CHIP, STAR Health, and NorthSTAR (**Figure 77** and **Figure 78**). This measure is also an HHSC Performance Indicator for these programs, with the exception of NorthSTAR.

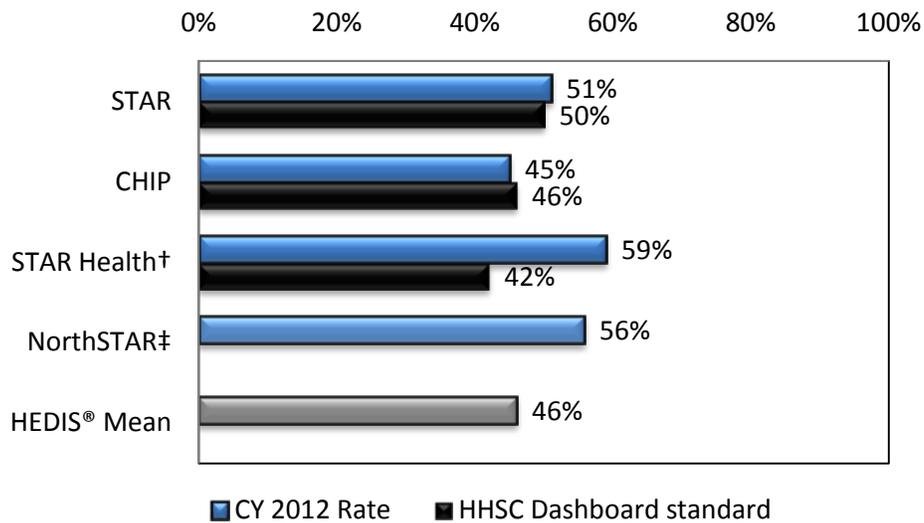
Figure 77. HEDIS[®] Follow-up Care for Children Prescribed ADHD Medication: Initiation Phase, 2012¹⁶⁶



†The HEDIS[®] mean is not comparable to these programs and is included for illustrative purposes only.

‡NorthSTAR does not have an HHSC Dashboard standard.

Figure 78. HEDIS® Follow-up Care for Children Prescribed ADHD Medication: Continuation and Maintenance Phase, 2012¹⁶⁷



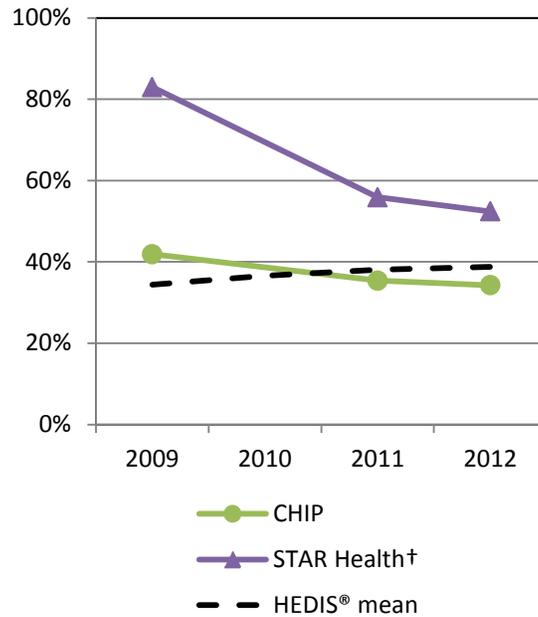
†The HEDIS® mean is not comparable to these programs and is included for illustrative purposes only.
‡NorthSTAR does not have an HHSC Dashboard standard.

In STAR Health, rates for both sub-measures were substantially higher than their respective HHSC Dashboard standards. The only other rate that met or exceeded its respective HHSC Dashboard standard was the STAR rate for the *Continuation and Maintenance Phase* sub-measure.

For the *Initiation Phase*, the STAR rate was equal to the HEDIS® mean of 39 percent. For the *Continuation and Maintenance Phase*, the STAR rate was slightly higher than the HEDIS® mean of 46 percent. CHIP had rates that were slightly lower than the national means.

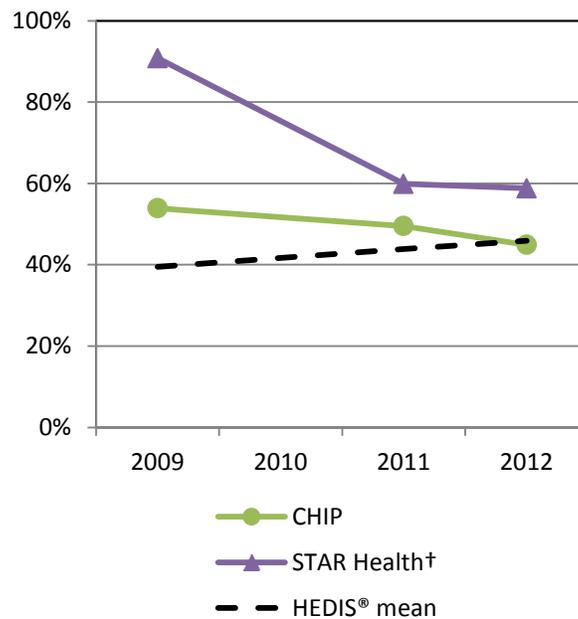
Figure 79 and **Figure 80** show trends in HEDIS® *Follow-up for Children Prescribed ADHD Medication* in CHIP and STAR Health from 2009 to 2012. STAR Health had a large decrease in rates from 2009 to 2012. Specifically, the *Initiation Phase* sub-measure decreased by approximately 31 percentage points, and the *Continuation and Maintenance Phase* sub-measure decreased by approximately 32 percentage points.

Figure 79. HEDIS® Follow-up for Children Prescribed ADHD Medication: Initiation Phase – Results for CHIP and STAR Health 2009-2012 ^{168,169,170}



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

Figure 80. HEDIS® Follow-up for Children Prescribed ADHD Medication: Continuation and Maintenance Phase – Results for CHIP and STAR Health 2009-2012 ^{171,172,173}



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

Antidepressant Medication Management

Approximately 25 million adults in the United States suffer from depression.¹⁷⁴ Depression impairs an individual's quality of life and is a leading cause of disability. In addition, people who have depression are at an increased risk of suicide if they do not undergo treatment.¹⁷⁵ It is often necessary to stay on medication to maintain its therapeutic effect. Because half of patients stop medication prematurely, it is necessary to assess the percentage of patients who stay on antidepressant medication for the duration of the treatment period.¹⁷⁶

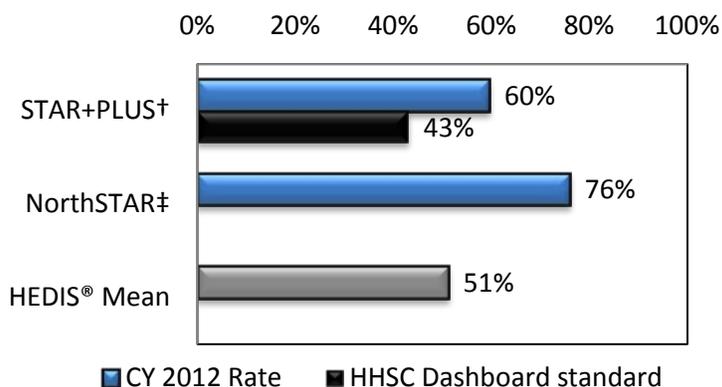
The HEDIS[®] *Antidepressant Medication Management* measure assesses the percentage of members 18 years or older who were diagnosed with a new episode of major depression and were treated with antidepressant medication.

This measure is comprised of two sub-measures that address both the acute and continuation phases of treatment:

- The *Effective Acute-Phase Treatment* sub-measure shows the percentage of adults newly diagnosed with major depression that were treated with an antidepressant medication and remained on the medication for at least 84 days (12 weeks).
- The *Effective Continuation-Phase Treatment* sub-measure shows the percentage of adults newly diagnosed with major depression that were treated with an antidepressant medication and remained on the medication for at least 180 days (6 months).

Figure 81 and **Figure 82** provide results for this measure in calendar year 2012. Rates for STAR+PLUS were higher than the respective HHSC Dashboard standards for both sub-measures. NorthSTAR does not have HHSC Dashboard standards for comparison; however, its rates were particularly high for these two sub-measures.

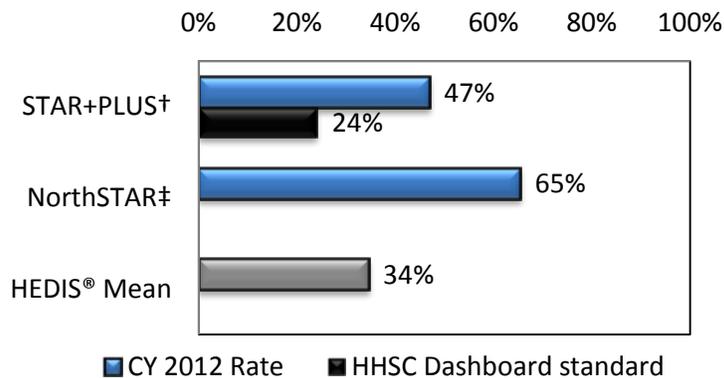
Figure 81. HEDIS[®] Antidepressant Medication Management: Effective Acute Phase Treatment, 2012¹⁷⁷



†The HEDIS[®] mean is not comparable to this program and is included for illustrative purposes only.

‡NorthSTAR does not have an HHSC Dashboard indicator.

Figure 82. HEDIS® Antidepressant Medication Management: Effective Continuation Phase Treatment, 2012¹⁷⁸



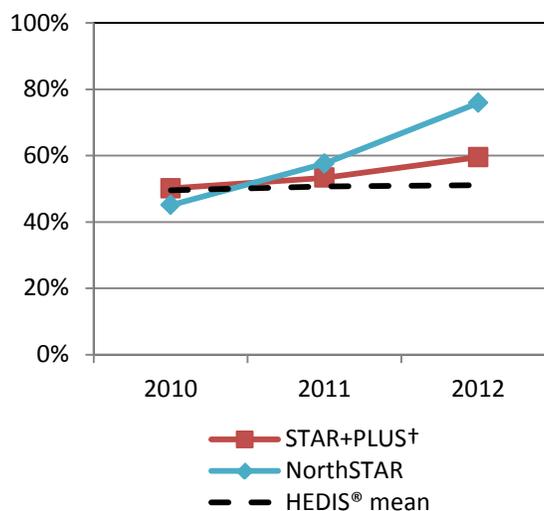
†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

‡This program does not have an HHSC Dashboard indicator.

Figure 83 and **Figure 84** display trends for HEDIS® Antidepressant Medication Management from 2010 to 2012 in STAR+PLUS and NorthSTAR.

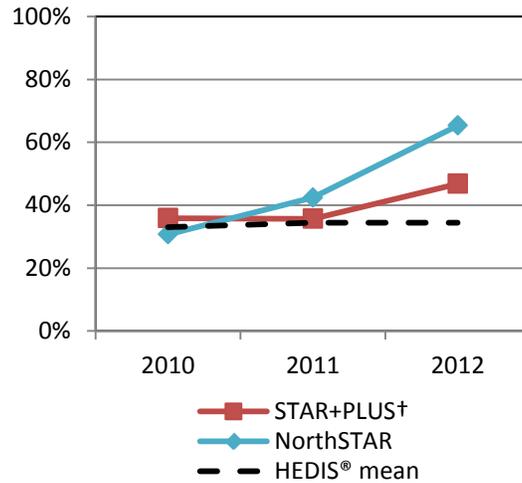
- The rates for STAR+PLUS increased slightly across the three-year period for both sub-measures.
- NorthSTAR had a net increase of 31 percentage points for *Effective Acute Phase Treatment* and 35 percentage points for *Effective Continuation Phase Treatment*.

Figure 83. HEDIS® Antidepressant Medication Management: Effective Acute-Phase Treatment – Results for STAR+PLUS, and NorthSTAR 2010-2012



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

Figure 84. HEDIS® Antidepressant Medication Management: Effective Continuation-Phase Treatment – Results for STAR+PLUS, and NorthSTAR 2010-2012



†The HEDIS® mean is not comparable to this program and is included for illustrative purposes only.

5.4 – Preventive Care

Adult BMI Assessment

Approximately 33 percent of adults in the United States are overweight, with an additional 36 percent classified as obese.¹⁷⁹ Overweight and obesity substantially increase the risk of morbidity from several conditions, including coronary artery disease, type 2 diabetes, and stroke.¹⁸⁰ Screening for BMI provides the opportunity to distinguish between healthy weight categories and weight categories that may lead to health problems.¹⁸¹

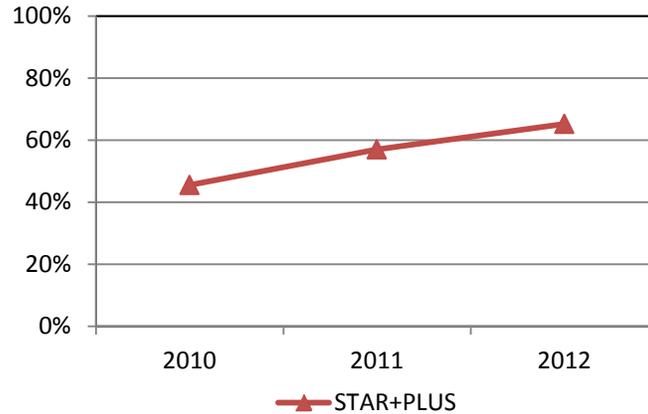
Table 41 shows results for the HEDIS® *Adult BMI Assessment* measure, which represents the percentage of members aged 18 to 74 who had an outpatient visit and whose BMI was documented during the measurement year or one year prior. The external quality review organization calculated this measure for calendar year 2010, 2011, and 2012 for STAR+PLUS. This is a hybrid measure, with results based on medical record review. Results for hybrid studies are not available at the service area level. **Figure 85** displays results for HEDIS® *Adult BMI Assessment* in STAR+PLUS from 2010 to 2012.

In 2012, approximately two-thirds of eligible members in STAR+PLUS had their BMI documented during the measurement year and prior. From 2010 to 2012, the *Adult BMI Assessment* measure had a net increase of approximately 19 percentage points.

Table 41. HEDIS® Adult BMI Assessment, 2012

	CY 2012 Results
STAR+PLUS	65 percent

Figure 85. HEDIS® Adult BMI Assessment in STAR+PLUS, 2010-2012



Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents

Nearly one in five children and adolescents in the United States today are classified as obese.¹⁸² Childhood obesity is a strong predictor of obesity in adulthood and, along with several of its comorbidities—such as hypertension and diabetes—is associated with cardiovascular risk, higher health care costs, and early death.^{183,184} Because nutrition, physical activity, and other lifestyle choices are controllable risk factors of obesity, both documentation of obesity and counseling in these areas are of particular importance.^{185,186}

Figure 86 through **Figure 88** display results for the HEDIS® *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents* measure. This measure represents the percentage of members 3 to 17 years of age who had an outpatient visit with a PCP or obstetrics/gynecology provider and had the following sub-measures during the measurement year: (1) *BMI Percentile Documentation*; (2) *Counseling for Nutrition*; and (3) *Counseling for Physical Activity*. Each sub-measure is reported separately, for all age groups combined. This is a hybrid measure that was conducted in: (1) calendar year 2010 for STAR; and (2) calendar year 2011 and 2012 for STAR and CHIP. Results are based on medical record review. Results for hybrid studies are not available at the service area level.

Approximately half of STAR and CHIP members had their BMI percentile documented in 2012. In both programs, the rate of counseling for nutrition was higher than the rate of counseling for physical activity.

Figure 86. HEDIS® Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: BMI Percentile Documentation in CY 2012

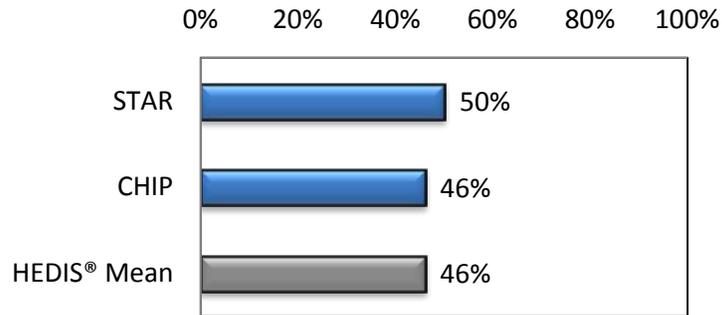


Figure 87. HEDIS® Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Nutrition in CY 2012

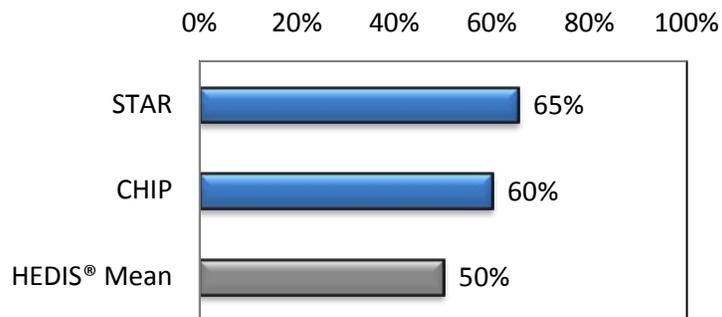


Figure 88. HEDIS® Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Physical Activity, 2012

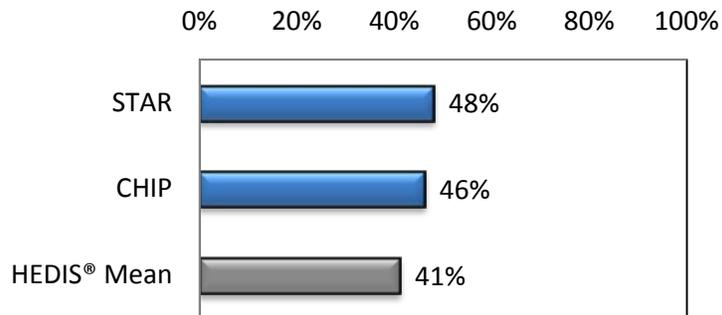


Figure 89 through Figure 91 display results for the HEDIS® *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents* measure in STAR from 2010 to 2012.¹⁸⁷ STAR rates increased across the four-year period for all sub-measures. In addition, rates of counseling for nutrition and physical activity were higher than the HEDIS® means across all years.

Figure 89. HEDIS® Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: BMI Percentile Documentation in STAR, 2010-2012

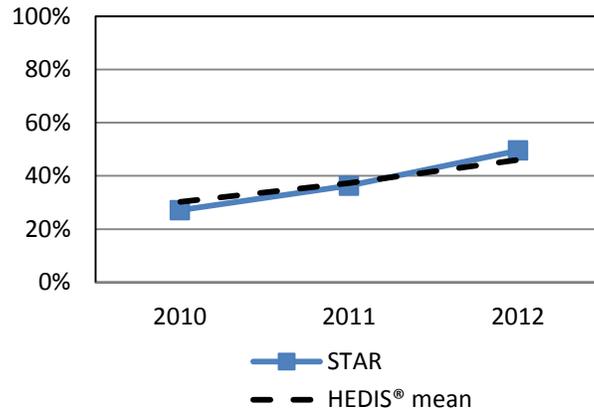


Figure 90. HEDIS® Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Nutrition, 2010-2012

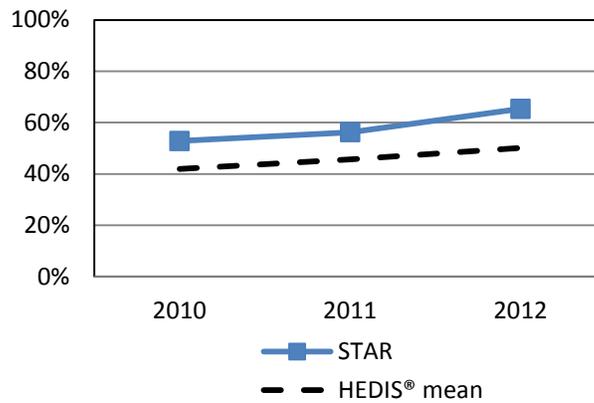
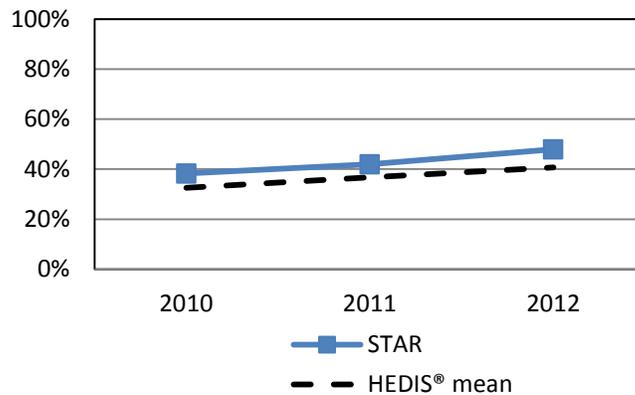


Figure 91. HEDIS® Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Counseling for Physical Activity, 2010-2012



6 – Focus Studies and Special Projects

6.1 – 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 Pay-for-Quality design work centered on HHSC's desire to emphasize an "incremental improvement" perspective on quality incentives. In particular, rather than holding managed care organizations to arbitrary external benchmarks, the goal was to provide more plans with stronger incentives through an annual evaluation of the quality improvements of current plans. The external quality review organization operationalized this concept by defining a target rate of "gap closure" to reward managed care organizations that improved gradually over time toward a defined level of attainable improvement. The external quality review organization also developed a system of positive and negative quality points based on plan improvement and specified how such quality points would translate into dollar rewards and penalties in accordance with the intent of the Pay-for-Quality program.

Much of this work has involved constructing and running various analytic simulations of alternative approaches to Pay-for-Quality, using historical data to show how the different approaches would have worked based on the historical data. The goal of these simulations was to test the feasibility and fiscal consequences of various design options and to identify areas where the Pay-for-Quality design needed to be adjusted prior to implementation. The external quality review organization conducted baseline Pay-for-Quality simulations for STAR and STAR+PLUS using calendar year 2010-2011 data and compared the results to those obtained from using calendar year 2011-2012 data. The consequences of using a two-year baseline and the consistency of the Pay-for-Quality results across years also were studied.

The external quality review organization also adapted the concept of incremental improvement to the new Pay-for-Quality program for Texas Medicaid and CHIP dental plans. Because only two dental plans presently serve the Medicaid market in Texas, HHSC requested that the dental Pay-for-Quality design be based on the opportunity to "earn back" some or all of the revenues placed at-risk under the Pay-for-Quality program. The external quality review organization designed such a Pay-for-Quality program and demonstrated how it might perform, using a combination of dental fee-for-service and managed care data.

Last year, the external quality review organization organized and conducted Pay-for-Quality workshops with the Texas health and dental plans and drafted and revised a Pay-for-Quality technical specifications report that documents the measures, thresholds, goals, point

assignments, and points-to-dollars calculations used in Pay-for-Quality programs for both managed care organizations and dental plans. This report also discusses emerging issues related to the Pay-for-Quality program, including alternative approaches to risk adjustment and the appropriate role of statistical significance testing in Pay-for-Quality.

As managed care organizations have increasingly begun to monitor their own Pay-for-Quality performance, the external quality review organization also developed and expanded a web-based list of frequently asked questions to assist managed care organizations in their Pay-for-Quality monitoring.

6.2 – Developing Risk-Adjustment Models for Long Term Care

Health care financing and risk adjustment are important components of health care quality assurance. Risk-adjusted payments ideally reflect the “differing health needs of enrollees” such that higher payments are made to those managed care organizations with members needing more care.¹⁸⁸ In fiscal year 2013, HHSC asked the external quality review organization to: (1) recommend possible risk adjustment strategies for payment for long-term care and (2) examine the adequacy of the data available within Texas to conduct risk adjustment for long-term care. Risk adjustment for long-term care is particularly important due to the increasing number of Americans requiring long-term care and the wide variability of member needs.¹⁸⁹ The variables used for risk adjustment in long-term care also need to be carefully conceptualized because of the importance of considering both diagnostic and functional status information.

Long-term care databases that include information such as Resource Utilization Groups and diagnostic information have been successfully used for long-term care risk adjustment for both payment and quality of care assessment purposes.¹⁹⁰ Resource Utilization Groups include critical information about the member’s activities of daily living. In long-term care, the ability to carry out activities of daily living and the member’s functional status are the most important risk factors influencing resource needs. Many different types of conditions can contribute to functional deficits. These functional deficits, in turn, form an important basis for decision-making about the member’s long-term care needs.

While there is general consensus about the importance of Resource Utilization Groups and activities of daily living in developing risk adjustment strategies—for payment as well as for examining outcomes of care—there is no firm agreement upon the best strategies for using these critical variables as predictors. For example, information on activities of daily living present in the Resource Utilization Groups can be used by assessing individual elements or aggregations of activities of daily living. Each of the approaches has advantages and disadvantages.

As part of this focus study, the external quality review organization conducted a literature review related to risk adjustment in long-term care and examined strategies used by other states. In addition, the external quality review organization worked with HHSC to obtain the Resource Utilization Groups for Medicaid members from the Department of Aging and Disability Services.

The external quality review organization conducted quality assessments of the Department of Aging and Disability Services data to ensure it met minimum requirements for further use. The summary of the testing is listed in the following section.

Data Quality Assessment Summary

The data received by the Department of Aging and Disability Services contains information about the Department of Aging and Disability Services Medicaid waiver participants and nursing facility residents having a service within the previous two years from the current quarter. Going forward, data will be available on a quarterly basis. The external quality review organization assessed data quality of client and enrollment files, and the facility, service, and assessment files, as described below.

1. Client and Enrollment Files.

- The client and enrollment files include the client's basic information, such as Medicaid ID, name, birthdate, Social Security Number, enrollment start and end dates, and service group code.
- There were 239,605 unique members with 345,650 enrollment records on file. Almost half (44.6 percent) of enrollment records had an end date of "9999," meaning that the member was currently enrolled.
- The most common service group codes were: Nursing Facility (45.3 percent), STAR+PLUS (15.5 percent), and Community-Based Alternatives (14.5 percent).

2. Facility File.

- The facility file includes the client's ID, facility enrollment date, and basic information about the facility, including facility name, address, TAX ID, service, and program.
- There were 178,974 records for 145,718 unique members identified in the file.
- The top two service groups/programs in the facility file were Nursing Facility (93 percent) and Non-State Operated ICF for Individuals with an Intellectual Disability or Related Conditions (4.5 percent).

3. Service File.

- The service file includes the client's ID, enrollment date, and service information.
- There were 4,498,620 service records in the service file, 40 percent of which had an end date in or after year of 2011.
- The top service codes were: Daily Care (12.5 percent), Nursing Services (8 percent), Adaptive Aids/Durable Medical Equipment (6.2 percent), Personal Assistance Services (5 percent), Medical Supplies (4.9 percent), and Extended Care Facility (4.8 percent).

4. Assessment File.

- The assessment file includes member ID, Assessment Type, category and score, Level of Care, Level of Need, and Resource Utilization Group information. Medical and psychiatry diagnosis codes were also filled in some of the records (about 4 percent) with the assessment category “MHMR”.
- There were 620,798 records on file.
- About 85 percent of the records had Level of Need type listed as “RUG”, and 83 percent had Level of Need category listed as “NF” and “Hospice” or “CBA”. Each Resource Utilization Group code had its own corresponding score and order.

Next Steps

During fiscal year 2014, the external quality review organization will develop and test risk adjustment models for long-term care for both payment and quality of care assessment purposes. HHSC will be provided with a full proposal documenting the proposed strategies. Interim models will be presented to HHSC for review and modifications will be made based on model performance and HHSC stakeholder input.

6.3 – Examining Quality of Care for Members Who Are Dually-Eligible

At HHSC’s request, the external quality review organization developed a focus study entitled, “Examining the Effects of STAR+PLUS on the Quality and Outcomes of Care among Dual-Eligibles.” The external quality review organization currently houses all of the claims and encounter data for Medicaid recipients. In order to examine the quality and outcomes of care among members who are dually-eligible (enrolled in both Medicaid and Medicare), the external quality review organization requested claims and encounter data files from CMS for the 578,546 dual-eligible members in Texas. In addition, the State of Texas requested Medicare data from 2010 going forward. The external quality review organization will use the longitudinal Medicare data linked to Medicaid data to examine the quality and outcomes of care for dual-eligible members in STAR+PLUS. Following is a list of data files that the external quality review organization will receive from CMS, and the types of information available from these data sources as they relate to the *specific aims outlined below*.

- Carrier Research Identifiable File, 2006-2010. This data set will be used to evaluate the diagnosis codes, procedure codes, beneficiary demographics, and claims.
- Durable Medical Equipment Research Identifiable File, 2006-2010. This data set will be used to evaluate the diagnosis codes, beneficiary demographics, and claims submitted by durable medical equipment suppliers.
- Home Health Agency Research Identifiable File, 2006-2010. This data set will be used to evaluate the diagnosis codes, beneficiary demographics, and claims submitted by HHA providers.

- Hospice Research Identifiable File, 2006-2010. This data set will be used to evaluate the diagnosis codes, beneficiary demographics, and claims submitted by hospice providers.
- Inpatient Research Identifiable File, 2006-2010. This data set will be used to evaluate the diagnosis codes, procedure codes, beneficiary demographics, and claims submitted by inpatient hospital providers.
- Master Beneficiary Summary File, 2006-2010:
- Base (A/B/D) segment, 2006-2010. This data set will be used to evaluate the beneficiary demographics.
- Chronic Conditions segment, 2006-2010. This data set will be used to evaluate the diagnosis codes for chronic conditions.
- Cost and Utilization segment, 2006-2010. This data set will be used to evaluate the cost and utilization of services through Medicare claims.
- National Death Index segment, 2006-2008. This data set will be used to evaluate the National Death Index cause and date of death.
- Outpatient Research Identifiable File, 2006-2010. This data set will be used to evaluate the diagnosis codes, procedure codes, beneficiary demographics, and claims submitted by institutional outpatient providers.
- Skilled Nursing Facility Research Identifiable File, 2006-2010. This data set will be used to evaluate the diagnosis codes, procedure codes, beneficiary demographics, and claims submitted by Skilled Nursing Facility providers.
- Part D Drug Event File, 2006-2010. This data set will be used to evaluate the effect the drugs prescribed and covered under the Part D benefit have on outcomes of care.
- Part D Formulary File, 2010. This data set will be used to evaluate the effect the drug formulary has on outcomes of care.
- Part D Drug Characteristics File, 2006-2010. This data set will be used to evaluate the effects the characteristics of the prescribed drugs have on outcomes of care.
- Part D Pharmacy Characteristics File, 2006-2010. This data set will be used to evaluate the effects the type of pharmacy, location of the pharmacy, and the pharmacy's relationship with a parent organization have on outcomes of care.
- Part D Plan Characteristics File, 2006-2010. This data set will be used to evaluate the effect the plan characteristics (benefit package, premiums, cost sharing tiers, and service area) have on outcomes of care.
- Part D Prescriber Characteristics File, 2006-2010. This data set will be used to evaluate the effect the prescriber characteristics (specialty and academic/professional credentials) have on outcomes of care.

- Health Outcomes Survey (RIF), 2006-2010. This data set will be used to evaluate beneficiaries' health status based on the Health Outcomes Survey assessment.
- Home Health Outcome and Assessment Information Set, 2006-2010. This data set will be used to evaluate beneficiaries' health status.
- Long-Term Care Minimum Data Set 2.0, 2006-2010. This data set will be used to evaluate the health status of beneficiaries who are residents of long-term care facilities.
- Long-Term Care Minimum Data Set 3.0, 2010. This data set will be used to evaluate the health status of beneficiaries who are residents of long-term care facilities.

The proposed study will examine the effect of the STAR+PLUS program on the quality and outcomes of care among dual-eligible enrollees. The STAR+PLUS program was phased into different service areas throughout Texas over more than a decade. STAR+PLUS began in the Harris Service Area in 1997, and the program has undergone expansion through 2012. This phased approach provides an opportunity to use a difference-in-difference analysis to examine the effects of the STAR+PLUS program on the quality and outcomes of care for dual-eligible enrollees. The comparison group is dual-eligible enrollees who meet the criteria for enrollment in STAR+PLUS, but were: (1) residing in service areas where STAR+PLUS was not offered and (2) enrolled in either Medicaid fee-for-service or Primary Care Case Management (PCCM).¹⁹¹ Comparisons will be made between dual-eligible enrollees in STAR+PLUS and the comparison group (using data from 2006 to 2010) on a number of measures, as described in the aims and methodology below. In addition to the comparison group, we will examine quality and outcomes of care for dual-eligible enrollees in STAR+PLUS pre- and post-program implementation.

Specific Aims

- **Aim 1.** Examine the effects of STAR+PLUS on the quality of primary and chronic care within racial and ethnic subgroups, urban and rural areas, and areas with varying levels of socioeconomic disadvantage pre- and post-STAR+PLUS implementation and relative to a comparison group of dual-eligible enrollees in the fee-for-service or PCCM programs.
- **Aim 2.** Examine the effects of STAR+PLUS on the occurrence of and expenditures for potentially preventable admissions, readmissions, and emergency department visits overall and within racial and ethnic subgroups, urban and rural areas, and areas with varying levels of socioeconomic disadvantage pre- and post-STAR+PLUS implementation and relative to a comparison group of dual-eligible enrollees in the fee-for-service or PCCM programs.
- **Aim 3.** Examine the effects of STAR+PLUS on the quality of primary and chronic care for STAR+PLUS enrollees with co-morbid physical and mental health conditions and within racial and ethnic subgroups, urban and rural areas, and areas with varying levels of socioeconomic disadvantage pre- and post-STAR+PLUS implementation and relative to a comparison group of dual-eligible enrollees in fee-for-service or PCCM programs.
- **Aim 4.** Examine the effects of STAR+PLUS on the occurrence of and expenditures for potentially preventable admissions, readmissions, and emergency department visits for

STAR+PLUS enrollees with co-morbid physical and mental health conditions within racial and ethnic subgroups, urban and rural areas, and areas with varying levels of socioeconomic disadvantage pre- and post-STAR+PLUS implementation and relative to a comparison group of dual eligible enrollees in fee-for-service or PCCM.

Methods

Population: The study will evaluate a sample population comprised of the 578,546 beneficiaries enrolled as dual-eligibles in Texas during 2006-2010. Specifically, this study will include: (1) all dual-eligible beneficiaries enrolled in STAR+PLUS (intervention group) and (2) all dual-eligible beneficiaries who were not enrolled in STAR+PLUS and were instead enrolled in fee-for-service or, PCCM (comparison group) during the study period. Individuals will be grouped into the intervention group if STAR+PLUS was adopted into their county during the specified time frame (2006-2010) and the individual did not meet the exclusion criteria for enrolling in STAR+PLUS when available. Dual-eligible enrollees are required to enroll in the STAR+PLUS program if it is available in their service area, unless they are enrolled in the Program of All-inclusive Care for the Elderly, living in a nursing facility (until March 1, 2015), or are enrolled in a Home and Community Based Services waiver not included in the program. Individuals enrolled in the fee-for-service or PCCM programs will be grouped into the comparison group.

Study Design: This study will use a difference-in-difference approach to calculate the effects of STAR+PLUS on quality of care. STAR+PLUS was phased in across large service areas in Texas over more than a decade. The difference-in-difference approach is recommended when a randomized design is not feasible, which is the case in this context. A traditional difference-in-difference approach relies on both pre- and post-intervention observations on both treatment and comparison groups. Changes in the study outcomes of interest from the pre- to post-intervention time period are compared to changes in outcomes within a group not exposed to the intervention.

Measures: This study will focus on chronic care measures, behavioral health measures, potentially preventable events, and preventive care. The following NCQA HEDIS[®] measures, 3M Potentially Preventable Event measures, and AHRQ Quality Indicators (Pediatric Quality Indicators/Prevention Quality Indicators) will be used to measure the quality and outcomes of care:

1. HEDIS[®] Pharmacotherapy Management of COPD Exacerbation
2. HEDIS[®] Use of Appropriate Medication for People with Asthma
3. HEDIS[®] Medication Management for People with Asthma
4. HEDIS[®] Persistence of Beta-Blocker Treatment After a Heart Attack
5. HEDIS[®] Cholesterol Management for People with Cardiovascular Conditions
6. HEDIS[®] Follow-up After Hospitalization for Mental Illness
7. HEDIS[®] Initiation and Engagement of Alcohol and Other Drug Dependence Treatment

8. HEDIS® Antidepressant Medication Management
9. HEDIS® Adult's Access to Preventive/Ambulatory Health Services
10. 3M Potentially Preventable Complications
11. 3M Potentially Preventable Admissions
12. 3M Potentially Preventable Readmissions
13. 3M Potentially Preventable Emergency Department Visits
14. 3M Potentially Preventable Ancillary Services
15. AHRQ Pediatric Quality Indicators)
16. AHRQ Prevention Quality Indicators

Analysis Plan: Mixed models will be used to examine the effects of the STAR+PLUS program on quality of care. Each quality of care measure for which the member qualifies will be computed once for each individual in each county per calendar year. The county will be treated as the independent sampling unit, and within-county members will be treated as elements of a cluster. The baseline year (pre-treatment) will be 2006, and years 2007, 2008, 2009, and 2010 will comprise the post-treatment responses.

The independent variable of interest is the implementation of the STAR+PLUS program and the interaction between year and program expansion. Predictor variables include: age, gender, months enrolled in STAR+PLUS, and health status (as measured by the Clinical Risk Groups). These predictors are baseline covariates. Health status and age will be treated as repeated covariates because age changes annually and health status has the potential to change. Additionally, because outcomes of care can be influenced by the contextual variables in the area where the member lives, a county economic variable (county personal income) will be included as a repeated covariate (i.e., measured distinctly each year). These repeated covariates are county, poverty, unemployment, and median family income.

Level of significance will be set to $\alpha=0.05$. The proposed sample size is 578,546. Not all individuals will qualify for each quality of care measure. For example, only those with diabetes will qualify for inclusion in the *Comprehensive Diabetes Care* measure. The external quality review organization has conducted the analyses proposed for the dual-eligible population with the Medicaid-only disabled population in STAR+PLUS. The Medicaid-only population in STAR+PLUS is comprised of approximately 600,000 individuals. Statistical significance was reached in analyses with the Medicaid-only population and should also be reached with the dual-eligible group, given the size of the population.

This study has been reviewed and approved by the Institutional Review Board (IRB) at the University of Florida.

6.4 – Data Quality and the Present on Admission Indicator

Good data quality is critical for ensuring that potentially preventable complications are correctly identified by the 3M Health Information Systems software. The 3M system uses the present on admission indicator to ascertain whether these secondary diagnoses were already present when the patient was admitted to the facility. As part of its examination of potentially preventable complications, the external quality review organization evaluated data quality with regard to completeness and validity of the present on admission indicator at the provider level. Claims from providers with questionable data were excluded from the calculations. As the Methodological Appendix discusses in greater depth, the external quality review organization conducted four specific types of data quality checks:

1. High % not present on admission for secondary diagnoses on the pre-existing list;
2. High % present on admission for secondary diagnosis codes;
3. Low % present on admission for secondary diagnosis codes; and
4. High % present on admission for secondary diagnosis on elective surgical cases.

Table 42 contains results from the external quality review organization's quality check on the Texas data. The highest rates of data loss were observed in STAR, where 71 percent of providers and 85 percent of claims were excluded from the potentially preventable complications analysis. In all three programs that were evaluated, the external quality review organization identified a high level of data loss due to poor present on admission indicator quality.

Table 42. Total Potentially Preventable Complications Analysis Exclusions due to Poor Present on Admission Indicator Quality

	Fee-for-Service		STAR		STAR+PLUS	
	N	%	N	%	N	%
Providers excluded	294	61.1%	486	71.3%	323	50.8%
Claims excluded	90,582	45.3%	224,211	85.0%	7,755	16.5%

The most relevant finding from the external quality review organization's study was the considerably high rate of exclusions due to poor data quality across Texas Medicaid programs. In fee-for-service, STAR, and STAR+PLUS, more than half of providers were excluded from the analysis due to poor data quality. The considerable percentage of providers and claims excluded from the analysis due to poor present on admission indicator quality brings into the question the validity of potentially preventable complications rates presented in this report. In all three programs, improvements in the quality of present on admission indicator values are warranted to ensure the valid reporting of potentially preventable complications. Until these improvements are made, potentially preventable complications results can only demonstrate

areas where the quality of inpatient care is *potentially* low, and should not be used to inform targeted quality improvement activities or interventions.

Appendix A. Fiscal Year 2013 Recommendations

The following pages provide tables that list recommendations made by the external quality review organization in 2013 for improving the quality of care received by Texas Medicaid and CHIP members.

In addition to recommendations for HHSC and the Texas Medicaid and CHIP managed care organizations, the external quality review organization will also implement a number of changes to future external quality review activities and annual reports. At the request of HHSC, the external quality review organization will conduct and provide results of in-depth analyses related to quality and outcomes of care in Medicaid and CHIP. These analyses will use multi-level modeling to examine the relationship between quality and outcomes of care and:

- Member socio-demographic characteristics, such as age, gender, race/ethnicity, and place of residence
- Member health status, measured from administrative data using the Clinical Risk Group classification system
- Health plan code (managed care organization and service area)
- Local health care infrastructure, such as the number of physicians per 1,000 population and the availability of tertiary care centers

Results of future in-depth analyses will show the odds of being compliant with selected measures (e.g., HEDIS[®]) or the odds of having a potentially preventable event, controlling for the factors listed above. Profiles developed from these analyses can be used to develop performance improvement projects specifically targeting members with characteristics that place them at the highest risk for non-compliance and/or the occurrence of a potentially preventable event. Profiles will also note any significant differences among the managed care organizations, allowing HHSC to better target efforts in working with managed care organizations that need assistance.

Table 43. Example Recommendations for Managed Care Organization Performance Improvement Projects

Program/s	Recommendation Topic	Example Recommendation
STAR, CHIP, STAR+PLUS, STAR Health	Root Cause Analysis	It is recommended that the managed care organization conduct a root cause analysis and develop interventions that address the underlying cause of the problem.
	Details of Interventions	The managed care organization should strengthen its performance improvement project by providing greater details about the interventions.
	Weak Interventions	It is recommended the managed care organization implement more robust interventions, such as monetary or non-monetary incentives to providers and members, community outreach events, and health fairs.
	Baseline Goal	It is recommended that the managed care organization set a goal that will result in a statistically significant improvement ($p\text{-value} \leq 0.05$) from the baseline rate.
	Re-measurements	It is recommended that the managed care organization conduct re-measurements on a six (6) month timeframe. This will better allow the managed care organization to evaluate the effectiveness of interventions.
	Members with Special Healthcare Needs	It is recommended that the managed care organization address the inclusion/exclusion of members with special health care needs.
	Cultural and Linguistic Needs	It is recommended that the managed care organization address the cultural and linguistic needs of the members when developing interventions.
	Baseline Rates	It is recommended that the managed care organization use the most recent data for baseline rates.
	Study Question	It is recommended that the managed care organization revise the study question.
	Study Indicator	It is recommended that the managed care organization utilize a different study indicator.
Weak Topic	It is recommended that the managed care organization select a new topic or include additional measures.	

Table 44. Example 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	It is recommended the managed care organization submit a copy of the managed care organization's quality improvement organizational chart.
	Role of Governing Body	It is recommended the managed care organization include how often the governing body receives and reviews written reports.
	Structure of Quality Improvement Committee(s)	It is recommended the managed care organization include provider representatives on quality improvement committees and indicate whether or not they are active members.
	Adequate Resources	It is recommended that the managed care organization describe material resources in greater detail.
	Opportunities for Improvement	It is recommended that the managed care organization provide results of clinical improvements
	Program Description	It is recommended that the managed care organization develop objectives that are action-oriented and measurable.
	Overall Effectiveness	It is recommended that the managed care organization provide greater detail of overall effectiveness of the quality improvement program and efforts, and include results.
	Clinical Practice Guidelines	It is recommended that the managed care organization provide more specific information regarding relevance to member needs.
	Access to Care Monitoring and Results	It is recommended that the managed care organization report the effectiveness of actions and provide future actions for all indicators.
	Clinical Indicator Monitoring and Results	It is recommended the managed care organization set appropriate goals for all indicators.
	Service Indicator Monitoring	It is recommended the managed care organization report results as directed.
	Credentialing and Re-credentialing	It is recommended the managed care organization separate out the number of providers and facilities credentialed/re-credentialed.
	Delegation of Quality Assessment and Performance Improvement Program Activities	It is recommended the managed care organization provide the results of its on-going evaluation of the organization to which the activity was delegated.
Corrective Action Plans	It is recommended the managed care organization provide the completion date or targeted date for completion.	

Table 45. Recommendations for Well-Child Visits

Program/s	Recommendations	Rationale
CHIP	<p>To improve well-child visits among children three to six years old, CHIP managed care organizations should explore and/or improve upon options that have been found to be successful for other pediatric age groups, including:</p> <p>Utilizing a stepped intervention, with each step targeted to a progressively smaller number of children:¹⁹²</p> <ul style="list-style-type: none"> • Step 1: Send out reminder cards to all children before every well-child visit. • Step 2: Use a telephone reminder plus postcard and telephone recall for children who have missed a well-child visit. • Step 3: Use intensive outreach and home visitation for mothers of children who are still missing well-child visits after Step 2. 	<p>In CHIP, 14 of 16 managed care organizations had rates of well-child visits among children three to six years old that were lower than the HEDIS[®] mean.</p> <p>Well-child visits provide the opportunity to monitor a child's development and to perform preventive care screenings.^{193,194}</p> <p>There is moderate evidence that a stepped intervention of reminder/recall/case management increases well-child visits among low-income infants.¹⁹⁵ This approach may also be effective with older children.</p>

Table 46. Recommendations for Prenatal Care

Program/s	Recommendations	Rationale
STAR	<p>To improve timeliness of prenatal care, STAR managed care organizations should explore or improve upon efforts to:</p> <p>Assess factors that may inhibit timely prenatal care, including: (1) network adequacy; (2) members' ability to schedule prenatal visits within a reasonable time frame; (3) geographic access to prenatal care; and (4) transportation needs.</p> <p>Target interventions towards at-risk Medicaid members who may be less likely to receive adequate prenatal care, including those who: (1) have alcohol or other drug dependence; and (2) have work-limiting disabilities.¹⁹⁶</p>	<p>In STAR, 17 of 18 managed care organizations had rates that were lower than the HEDIS[®] mean for <i>Timeliness of Prenatal Care</i>.</p> <p>There is moderate evidence that women who have a diagnosis of alcohol or other drug dependence or who have work-limiting disabilities are significantly less likely to receive timely prenatal care.¹⁹⁷</p>

Table 47. Recommendations for Preventive Dental Care

Program/s	Recommendations	Rationale
STAR, CHIP	<p>To increase preventive dental service use among children, Medicaid and CHIP dental plans should implement or improve upon efforts to:</p> <ul style="list-style-type: none"> • 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.^{198,199} • 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.²⁰⁰ 	<p>Rates for preventive dental service measures, including <i>Use of Preventive Dental Services</i> and <i>Use of Dental Sealants</i> among children and adolescents in Medicaid and CHIP were low.</p> <p>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.²⁰¹</p> <p>Use of preventive dental care is significantly higher among child and adolescent Medicaid members who are assigned a dental care coordinator that provides assistance and support regarding dental services.²⁰²</p>

Table 48. Recommendations for Potentially Preventable Readmissions

Program/s	Recommendations	Rationale
STAR Health	<p>To reduce behavioral health related potentially preventable readmissions among STAR Health members, Superior HealthPlan and Cenpatico should examine the feasibility of options found to be successful for the general Medicaid pediatric population.</p> <p>One promising strategy involves the integration of behavioral health and nutrition services into primary care clinics, including elements such as:²⁰³</p> <ul style="list-style-type: none"> • Onsite behavioral health counselors and nutritionists. • Initial PCP assessment, including assessment for behavioral health conditions, and in-house referral to a counselor if needed. • Reimbursement, with the provision of behavioral health services incorporated into compensation arrangements with PCPs. <p>Other strategies include:²⁰⁴</p> <p>Behavioral health managers who meet with facility administrators to review data on admissions and plan for discharge.</p> <p>Arranging for a behavioral health practitioner to visit inpatients on the day of discharge to arrange follow-up appointments.</p> <p>Authorization of outpatient follow-up services while the child is still in the hospital. Staff should work with the patients' foster parents before discharge to schedule a follow-up mental health appointment.</p>	<p>STAR Health had high rates of risk-adjusted expenditures per 1,000 member-months for potentially preventable readmissions.</p> <p>Mental health issues accounted for the majority of potentially preventable readmissions among STAR Health members. Specifically, mental health or substance abuse readmission following an initial admission for a substance abuse or mental health diagnosis accounted for 81 percent of potentially preventable readmissions.</p> <p>There is moderate evidence that integrating BH services into primary care practices reduces mental health related hospitalizations in a pediatric Medicaid population.²⁰⁵</p> <p>There is moderate evidence that implementation of a behavioral health manager and strategies to help patients to access outpatient services post-discharge can reduce rates of readmission.²⁰⁶</p>

Table 49. Recommendations for Diabetes Care

Program/s	Recommendations	Rationale
STAR+PLUS	<p>To improve HbA1c control, STAR+PLUS managed care organizations should implement and/or improve upon strategies to bolster the medical home model, including:²⁰⁷</p> <ul style="list-style-type: none"> • Emphasis on team-based, customer driven care. • Options for same-day appointments. • Integrated behavioral health. <p>STAR+PLUS managed care organizations should also explore the feasibility of implementing strategies that have been successful in other settings, including:</p> <ul style="list-style-type: none"> • Telemedicine-based diabetes management sessions held at local community centers, which incorporate self-education and promote self-management.²⁰⁸ • Arrangements with network providers to implement a personal health record system that assists diabetes patients with self-management. Such a system can also be used by clinicians to monitor a patient's status.²⁰⁹ 	<p>In STAR+PLUS, all managed care organizations fell below the HEDIS[®] mean for the <i>Comprehensive Diabetes Care – Adequate HbA1c Control (8.0%)</i> measure.</p> <p>Medical homes that emphasize team-based, customer driven care, same-day appointments, and integrated behavioral health for patients with diabetes show improved rates of HbA1c control in Medicaid patients.²¹⁰</p> <p>Telemedicine-based education sessions for low-income patients with diabetes have been shown to lower HbA1c levels.²¹¹</p> <p>A personal health record system has demonstrated enhanced levels of patient engagement and improved HbA1c control among Medicaid patients.²¹²</p>

Table 50. Recommendations for Access to Behavioral Health Care

Program/s	Recommendations	Rationale
STAR	<p>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.</p>	<p>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).</p> <p>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 and behavior disorders.²¹³</p>
STAR, STAR+PLUS	<p>STAR and STAR+PLUS managed care organizations should implement or maintain efforts to facilitate members' access to:</p> <ul style="list-style-type: none"> • Urgent behavioral health counseling through county Local Mental Health Authorities (e.g. crisis hotlines).²¹⁴ • Information about local services for emergency or crisis counseling or treatment services. <p>Access to urgent mental health services for children and adolescents can also be improved through intensive-based approaches to service delivery, where services are provided based on the continuum of mental health. For example, Levels of Care have been designed to make services available that correspond to the intensity and complexity of the identified needs of the youth.²¹⁵</p>	<p>Based on the 2013 STAR Child Behavioral Health Survey, 24 percent of caregivers reported their child needed emergency counseling or treatment in the past 12 months. Among these caregivers, 53 percent said their child "always" saw someone as soon as they wanted.</p> <p>Based on the 2013 STAR+PLUS Behavioral Health Survey, 36 percent of members reported they needed emergency counseling or treatment in the past 12 months. Among these members, 47 percent said they "always" saw someone as soon as they wanted.</p>

<p>STAR, CHIP</p>	<p>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:²¹⁶</p> <ul style="list-style-type: none"> Making emergency psychiatric services available to schools. Working to overcome 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. 	<p>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.</p>
<p>NorthSTAR</p>	<p>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 strategies shown to be effective in other settings including:²¹⁷</p> <ul style="list-style-type: none"> Behavioral health managers who meet with facility administrators to review data on admissions and plan for discharge. Arranging for a behavioral health practitioner to visit inpatients on the day of discharge to arrange follow-up appointments. Authorization of outpatient follow-up services while the patient is still in the hospital. Working with the patient or the patients’ parents before discharge to schedule a follow-up mental health appointment. 	<p>In NorthSTAR, rates for HEDIS® <i>Follow-Up After Hospitalization for Mental Illness</i> were substantially lower than their corresponding HEDIS® means.</p> <p>Rider 50 of the 2010-2011 General Appropriations Act and the Texas Senate Bill 58 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.^{218,219} Senate Bill 58 calls for access to comprehensive care and coordination of services in order to improve behavioral health outcomes.</p>

Table 51. Recommendations for Care Coordination

Program/s	Recommendations	Rationale
STAR+PLUS	<p>Managed care organizations participating in STAR+PLUS should ensure that the following practices are instituted for all new members who screen positive for behavioral health conditions in their initial health risk assessment:</p> <ul style="list-style-type: none"> • Ensure that members are given informational materials on service coordination prior to the conclusion of their health-risk assessment. • Collect up-to-date contact information on members to ensure that mailed informational materials and telephone contact attempts successfully reach them. • Evaluate and implement improvements to practices that connect service coordinators with their assigned members—including home visits that may be warranted when telephone contact is not successful. • Ensure that STAR+PLUS service coordinators are up-to-date on initiatives implemented by Disability Care Coordination Organizations, which facilitate direct linkages between medical and behavioral health providers in the clinical setting and at the point of provider-patient contact.²²⁰ 	<p>One in four members responding to the 2013 STAR+PLUS Behavioral Health Survey reported they had a service coordinator, while 59 percent of members said that a family member or a friend was responsible for coordinating their care. These findings suggest that many STAR+PLUS members with behavioral health conditions are not aware of the availability of service coordination, or do not have the information needed to establish coordination services.</p>
STAR, CHIP	<p>Managed care organizations participating in STAR and CHIP should explore the feasibility of implementing or bolstering interventions that show promise for improving care coordination in other states, including:²²¹</p> <ul style="list-style-type: none"> • Having a process in place for beneficiaries to choose or be assigned to a medical home--typically a primary care provider. • Providing enhanced payments to providers of care coordination services. • Monitoring providers who participate in care coordination improvement initiatives. • Improving upon practices to document care by “closing the feedback loop” between PCPs and community service providers.²²² 	<p>Based on the 2013 STAR and CHIP Caregiver Surveys, low scores were observed for the CAHPS® Care Coordination composite in STAR (73 percent) and CHIP (69 percent).</p>

Table 52. Recommendations for Dental Encounter Data Validation

Program/s	Recommendation	Rationale
Medicaid Dental, CHIP Dental	HHSC should continue monitoring accuracy of encounter data and adjust accuracy thresholds and parameters on an ongoing basis.	Encounter data is used for many policy and payment decisions. Quality of the encounter data is critically important. Dental plans, as part of their network management and payment processes, should monitor the accuracy of encounter data on an ongoing basis.
	Dental plans should identify minimal components of documentation and routinely assess providers' documentation.	Poor documentation may pose significant problems with continuity of care and risks to patient safety.

Appendix B. Positive Findings and Improvement Areas

Table 53. Positive Findings in Quality of Care Evaluation (Texas Medicaid/CHIP - CY 2012)

Pediatric Preventive Care		
Program/s	Quality Indicator	Findings
STAR	<i>Well-Child Visits</i>	The percentage of infants in the STAR program who received at least six well-child visits during the measurement year (61 percent) surpassed the HHSC Dashboard standard. Between 2009 and 2012, the STAR rate has steadily increased and remained above the HHSC Dashboard standard.
STAR, CHIP	<i>Adolescent Well-Care Visits</i>	The percentage of adolescents who had a well-care visit during the measurement year in STAR (58 percent) and CHIP (51 percent) exceeded HHSC Dashboard standards.
STAR, CHIP	<i>Childhood Immunizations</i>	Approximately three-quarters of eligible children in STAR and CHIP received the appropriate series of vaccinations by their second birthday (74 percent and 71 percent, respectively).
Care for Chronic Conditions		
STAR, CHIP, STAR Health	<i>Use of Appropriate Medications for People with Asthma</i>	For members in all age groups, rates of appropriate asthma medication use in STAR, CHIP, and STAR Health met or exceeded the HHSC Dashboard standards and the HEDIS [®] mean. Rates for members 5 to 11 years old were 92 percent in STAR, 96 percent in CHIP, and 93 percent in STAR Health. Rates for members 12 to 50 years old were 90 percent in STAR, 92 percent in CHIP, and 87 percent in STAR Health.
Behavioral Health Care		
STAR Health	<i>Follow-up After Hospitalization for Mental Illness</i>	The percentage of members in STAR Health who received follow-up after hospitalization for mental illness exceeded HHSC Dashboard standards at both 7-day and 30-day follow-up (63 percent and 87 percent, respectively).

STAR+PLUS, NorthSTAR	<i>Antidepressant Medication Management</i>	Rates of antidepressant medication management in STAR+PLUS exceeded HHSC Dashboard standards for both the effective acute phase (60 percent) and the effective continuation phase (47 percent) by over 20 percentage points. Rates were particularly high in NorthSTAR for the effective acute phase (76 percent) and the effective continuation phase (65 percent).
Preventive Care		
STAR+PLUS	<i>Adult BMI Assessment</i>	Two-thirds of STAR+PLUS members who had an outpatient visit during the measurement year had their BMI documented (65 percent). From 2010 to 2012, the rate of BMI assessment increased by 19 percentage points.
STAR, CHIP	<i>Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents</i>	In STAR and CHIP, approximately half of children and adolescents had their BMI percentile documented (50 percent and 46 percent, respectively), two-thirds received counseling for nutrition (65 percent and 60 percent, respectively), and about half received counseling for physical activity (48 percent and 46 percent, respectively). Performance in both programs met or exceeded the HEDIS® means for all sub-measures.

Table 54. Improvement Areas in Quality of Care Evaluation (Texas Medicaid/CHIP – 2012)

Dental Care Services		
Medicaid Dental	<i>Use of Preventive Dental Services</i>	The percentage of children in Medicaid Dental who had at least one preventive dental service during the measurement year was low (58 percent). Among new members, 27 percent received a THSteps dental visit within 90 days.
Medicaid Dental, CHIP Dental	<i>Use of Dental Sealants</i>	Low rates for use of dental sealants were observed in Medicaid and CHIP Dental for both age groups. For children six to nine years old, rates of dental sealants were 25 percent in Medicaid and 21 percent in CHIP. For children 10 to 14 years old, rates of dental sealants were 31 percent in Medicaid and 24 percent in CHIP.

Adult Preventive Care		
STAR	<i>Timeliness of Prenatal Care</i>	The rate of timely prenatal care in STAR (74 percent) fell below the HEDIS® mean.
Potentially Preventable Events		
STAR, CHIP, STAR+PLUS, STAR Health	<i>Potentially Preventable Emergency Department Visits</i>	Rates of potentially preventable emergency department visits were greater than 50 percent in STAR (63 percent), CHIP (57 percent), STAR+PLUS (57 percent), and STAR Health (63 percent).
Acute Respiratory Care		
STAR, CHIP	<i>Appropriate Testing for Children with Pharyngitis</i>	Rates of appropriate testing for children with pharyngitis in STAR and CHIP were lower than the HEDIS® means across all four years. In 2012, the rate was 57 percent in STAR and 60 percent in for CHIP.
Care for Chronic Conditions		
STAR+PLUS	<i>Use of Appropriate Medications for People with Asthma</i>	The rate of appropriate medications for people with asthma among STAR+PLUS members 12 to 50 years old (77 percent) fell below the HHSC Dashboard standard, and declined by approximately 14 percentage points between 2009 and 2012.
STAR+PLUS	<i>Comprehensive Diabetes Care</i>	In STAR+PLUS, the rates of eye exams (34 percent) and HbA1c control (28 percent) for members with diabetes were substantially lower than their respective HHSC Dashboard standards.
Behavioral Health Care		
STAR, CHIP, STAR+PLUS, NorthSTAR	<i>Follow-up After Hospitalization for Mental Illness (FUH)</i>	Rates of follow-up after hospitalization for mental illness fell below HHSC Dashboard standards at both 7-day and 30-day follow-up periods for STAR (32 percent and 55 percent, respectively), CHIP (38 percent and 58 percent, respectively), and STAR+PLUS (31 percent and 54 percent, respectively). Rates in NorthSTAR were also particularly low—at 25 percent for 7-day follow-up and 49 percent for 30-day follow-up.

Appendix C. Fiscal Year 2013 External Quality Review Organization Study Methodologies

Managed Care Organization Administrative Interviews

According to CMS protocols, Medicaid managed care external quality review should include interviews with managed care organization administrators to understand how managed care organizations provide care and how they monitor the quality of that care. The external quality review organization uses information from these interviews to support evaluation activities and to assist HHSC in determining managed care organization compliance with state and federal requirements.

The Managed Care Organization Administrative Interview addressed managed care organizations' calendar year 2012 structure and process in the following areas:

- Organizational structure
- Member enrollment and disenrollment
- Children's programs and preventative 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, and the Medicaid Dental and CHIP Dental questionnaire included items specific to dental health.

The external quality review organization conducts teleconferences and site visits with the managed care organizations after the completion of the web-based Administrative Interview tool in order to address pertinent information related to quality and compliance, in concert with the Administrative Interview questionnaire and the Quality Assessment and Performance Improvement Program Summary. The external quality review organization conducted site visits with six of the managed care organizations and teleconferences 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.

Quality Assessment and Performance Improvement Evaluations

CMS Guidelines

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. According to CMS, there are five essential elements to a quality assessment and performance improvement program:²²³

1. *Design and Scope* – an on-going and comprehensive program that addresses all services provided and all systems of care, in addition to defining and measuring goals.
2. *Governance and Leadership* – strong leadership and oversight from the governing body, as well as adequate resources to ensure work is conducted as needed.
3. *Feedback, Data Systems, and Monitoring* – systems for monitoring care and services; conducting internal and external comparative summaries; seeking, identifying, and addressing improvement opportunities; and disseminating findings throughout the organization.
4. *Performance Improvement Projects* – conducting Performance Improvement Projects.
5. *Systematic Analysis and Systematic Action* – identifying opportunities for improvement and barriers encountered; in-depth analysis of barriers (root cause analysis) and actions taken to prevent future occurrences; striving for continual learning and continuous improvement.

Evaluation Sections

The external quality review organization Quality Assessment and Performance Improvement Programs Evaluation reviews the first three elements and partially reviews the fifth element. The external quality review organization reviews the fourth and fifth elements as part of its annual Performance Improvement Project Evaluation, which is discussed in the next section. The fifth element is reviewed in both the Quality Assessment and Performance Improvement Program and Performance Improvement Project Evaluations when determining whether a root cause analysis was conducted.

Using documentation submitted by the managed care organizations, the Quality Assessment and Performance Improvement Program Evaluation reviews 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 and managed care organization quality activities through review 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 implementation of 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 (whether or not the managed care organization utilizes the Plan-Do-Study-Act model or something similar), 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 identify and address barriers to implementation, the factors of success, and overall 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 of providers/facilities that were reduced, suspended, or had privileges terminated during calendar year 2012, 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 how the results are incorporated into 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.^{224,225}

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

It is important to note that the remaining seven 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; and
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. Some managed care organizations did not have a Texas Department of Insurance audit during the measurement year, in which case the activity for Corrective Action Plans was not included in the overall score, and each of the remaining six activities accounted for 5 percent of the overall score. Overall, the final weighted scores allow for a more accurate analysis of the managed care organizations' quality improvement programs.

Performance Improvement Project Evaluations

Performance improvement projects are the fourth essential element of a quality improvement program, and the evaluation of Medicaid managed care performance improvement projects is listed by the CMS as a mandatory activity for external quality review organizations. The purpose of a performance improvement project is to develop a project with interventions that target a specific problem with the aim of improving quality of care and health outcomes.²²⁶

Key Components and Evaluation Sections

Key components of a performance improvement project include the topic, study indicators, and interventions. Topic selection should be based on the results of monitoring and evaluating clinical and service indicators. Once an opportunity for improvement is identified, managed care organizations should conduct a root cause analysis in order to identify the underlying cause of the problem, and appropriate study indicators should be selected. Interventions should be developed to target the root cause of the problem at the member, provider, and system levels.

The external quality review organization's performance improvement project evaluation addresses the topic, study indicators, and interventions and evaluates the following ten activities:

1. *Study Topic(s)* – In this section, managed care organizations report the topic of the performance improvement project and provide supporting evidence for why the topic was selected.
2. *Study Question(s)* – The managed care organizations pose the question they would like to answer with the performance improvement project. For example, “Does X result in Y?”
3. *Study Indicator(s)* – This section should include the measures or study indicators the health plan will use to measure change. Many managed care organizations use HEDIS[®] measures with standardized numerators and denominators.
4. *Study Population* – This section should describe the population the performance improvement project is targeting. For example, all STAR members, or only STAR members

age three to six years. The study population should be representative of and generalizable to the health plan's membership.

5. *Sampling Techniques (if sampling is used)* – 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. *Data Collection* – 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. *Interventions and Improvement Strategies* – The managed care organization 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 Activity 3. Interventions implemented should be based on the results of the root cause analysis.
8. *Data Analysis and Interpretation of 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 managed care organization 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. *“Real” Improvement* – This section summarizes whether or not the performance improvement project resulted in a statistically significant improvement. The managed care organization should address how the interventions resulted in a statistically significant improvement.
10. *Sustained Improvement* – If there was a statistically significant improvement, this section should report whether or not the improvement was sustained over time.

A variety of topics were selected by the managed care organizations for the calendar year 2013 performance improvement projects, based on state-specified overarching goals and goals specific to the managed care organizations.

Claims and Encounter Data Quality Certification

The external quality review organization evaluated the quality of the administrative encounter data for STAR, STAR Pharmacy, STAR+PLUS, STAR+PLUS Pharmacy, STAR Health, STAR Health Pharmacy, NorthSTAR, CHIP, CHIP Perinate, CHIP Pharmacy, CHIP Dental, and Medicaid Dental for fiscal year 2012. Two documents defined the procedures used to certify this 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.*²²⁷

The external quality review organization performed three types of analyses to generate the CHIP, CHIP Perinate, Medicaid Dental, STAR Health, STAR+PLUS, STAR Pharmacy, STAR+PLUS Pharmacy, STAR Health Pharmacy, CHIP Pharmacy, and STAR reports:

1. Volume analysis based on service category: To assess whether the data was consistent, the external quality review organization determined whether the number of records for facility, physician, and total services in each service category varied significantly from month to month.
2. Data validity and completeness analysis: The external quality review organization checked whether the managed care organizations or dental care organizations provided critical data elements in their claims extracts and whether the elements provided were valid.
3. Consistency checks between encounter data and financial summary reports provided by the managed care organizations or dental care organizations: The external quality review organization compared payments documented in the claims data to payments reported by the managed care organizations or dental care organizations in their financial summary reports.

The external quality review organization only performed the first two of these analyses for the NorthSTAR certification.

Dental Encounter Data Validation

The study aimed to review 200 records for each of the two dental plans, with 100 records from the CHIP program and 100 records from the Medicaid program for each plan during the time period from March 1, 2012 to October 31, 2012. As **Table 55** shows, the external quality review organization requested a total of 600 records, 150 records per dental plan per program, with an expected 65 percent return rate to yield 100 records per dental plan per program.

Table 55. Dental Records Requested and Received

Dental Plan	Program	Requested	Received	Received
DentaQuest	CHIP	150	102	68%
DentaQuest	Medicaid	150	93	62%
MCNA Dental	CHIP	150	109	73%
MCNA Dental	Medicaid	150	115	77%
TOTAL		600	419	70%

Records received and reviewed exceeded the target of 400 records to review. The first three procedure codes, if present, were reviewed for each claim. A total of 1,135 procedure codes were reviewed. The reviews were conducted by certified coders, April 2013 through early May

2013. Records of 366 unique providers were reviewed. Of these, 49 providers had two or more records in the study, 10 had three, and one provider had four. The remaining 306 providers had one record each in the study.

Member and Caregiver Satisfaction Surveys

There were three categories of member and caregiver satisfaction survey projects for 2013: (1) Surveys of caregivers' experiences and satisfaction with health care their children received through STAR and CHIP managed care organizations, using the CAHPS[®] survey tool; (2) Surveys of members and caregivers regarding the behavioral health services they received through their managed care organization or behavioral health organization in STAR+PLUS (adults), STAR (children), and NorthSTAR (adults/children), using the ECHO[®] survey tool; and (3) Surveys of caregivers' experiences and satisfaction with dental health services their children received through Medicaid and CHIP dental plans, using a modified version of the CAHPS[®] Dental Plan Survey.

Sample Selection

Survey participants for the STAR Child Caregiver Survey were selected from a stratified random sample of beneficiaries age 17 years or younger who were continuously enrolled in the STAR program for six months between October 2012 and March 2013. The sample was stratified to include representation from the 18 managed care organizations that operated in STAR in 2013, as well as children in Medicaid fee-for-service.

Survey participants for the CHIP Caregiver Survey were selected from a stratified random sample of beneficiaries age 17 years or younger who were continuously enrolled in CHIP for six months between September 2012 and February 2013. The sample was stratified to include representation from the 17 managed care organizations that operated in CHIP and two managed care organizations that operated in the CHIP Rural Service Area in 2013.

For both the STAR Child and STAR+PLUS Behavioral Health Surveys, participants were selected from stratified random samples of members with continuous enrollment in the same managed care organization between April 2012 and March 2013. STAR members younger than 18 years old were eligible for the STAR Child Behavioral Health Survey, and STAR+PLUS members 18 years or older were eligible for the STAR+PLUS Adult Behavioral Health Survey. The samples were also restricted to members with 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.²²⁸

Survey participants for the Medicaid/CHIP Managed Care Dental Caregiver Survey were selected from a stratified random sample of children age 17 years and younger who were enrolled in Medicaid or CHIP for six months between December 2012 and May 2013. The sample was 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 were eligible for inclusion. Member age was determined based on the last day of the enrollment period.

Survey Data Collection

The external quality review organization obtained contracts with the Bureau of Economic and Business Research at the University of Florida and the National Opinion Research Center at the University of Chicago to conduct the 2013 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 Bureau of Economic and Business Research administered the STAR Child Caregiver Survey between June 2013 and December 2013, the CHIP Caregiver Survey between May 2013 and December 2013, and the Medicaid/CHIP Dental Caregiver Survey between May 2013 and September 2013. The National Opinion Research Center administered the STAR Child and STAR+PLUS Behavioral Health Surveys between May 2013 and August 2013.

Both survey vendors telephoned adult members or caregivers of members seven days a week between 9:00 a.m. and 9:00 p.m. Central Time. Up to 25 attempts were made to reach a family before a member's phone number was removed from the calling circuit. If a respondent was unable to complete the interview in English, the survey vendor referred the respondent to a Spanish-speaking interviewer for a later time.

Survey Instruments

The 2013 STAR Child and CHIP Caregiver Surveys included: (1) The CAHPS[®] Health Plan Survey (Medicaid module), Version 5.0H,²²⁹ (2) Items from the CAHPS[®] Clinician and Group Surveys;²³⁰ (3) Items developed by the external quality review organization pertaining to caregiver and member demographic and household characteristics; and (4) The Family Strain Index.²³¹ 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, as listed on HHSC's Performance Indicator Dashboard. It also allows for the calculation and reporting of health care composites, which produce scores that combine results for closely related survey items. Composites provide a comprehensive, yet concise summary of results for multiple survey questions. The external quality review organization calculated CAHPS[®] composite scores in the following domains: (1) *Getting Needed Care*; (2) *Getting Care Quickly*; (3) *How Well Doctors Communicate*; (4) *Customer Service*; (5) *Shared Decision-Making*; (6) *Getting Specialized Services*; (7) *Personal Doctor*; (8) *Care Coordination*; (9) *Access to Prescription Medication*; and (10) *Getting Needed Information*.

The 2013 STAR Child and STAR+PLUS Behavioral Health Surveys included: (1) The ECHO[®] Survey 3.0, (2) Items developed by the external quality review organization pertaining to member demographic and household characteristics, and (3) member experiences and satisfaction with service coordination (for STAR+PLUS only).

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 composites, which combine results for closely related survey items. ECHO[®] composite scores were calculated in the following domains: *Getting Treatment Quickly, How Well Clinicians Communicate, Getting Treatment and Information from the Plan or Managed Behavioral Healthcare Organization, Information About Treatment Options, and Perceived Improvement.*

The 2013 Medicaid/CHIP Managed Care Dental Caregiver Survey included: (1) An adaptation of the CAHPS[®] Dental Plan Survey for adults;²³² and (2) Items developed by the external quality review organization pertaining to caregiver and member demographic and household characteristics.

All 2013 surveys used questions developed by the external quality review organization regarding the demographic and household characteristics of members, 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.^{233,234,235} 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.

Data Analysis

The external quality review organization followed both AHRQ and NCQA specifications for scoring the CAHPS[®] composites. Specifications by AHRQ produce scores that represent the percentage of members who had positive experiences in the given domain. These percentage-based scores can be compared with Medicaid national data available through the NCQA Quality Compass database. Composite scores were calculated following AHRQ specifications for all domains.

For most composites, specifications by NCQA produce scaled scores ranging from 1 to 3, rather than percentage-based scores. It should be noted that analyses comparing CAHPS[®] composite scores across different demographic groups and managed care organizations used a modified version of NCQA specifications. In order to permit statistical comparisons, a separate score was calculated for each member, and then averaged. This differs from NCQA specifications, in which means are calculated by averaging the aggregate scores on a composite's individual items. As a result, individual item responses in the means calculated for statistical comparison are weighted according to their frequency.

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.).

Calculation of Performance Measures

Physical and Behavioral Health Measures

Measurement Period: January 1, 2012 through December 31, 2012

Data Sources and Measures

Three data sources were used to calculate the 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 the drug name, dose, date filled, number of days prescribed, and refill information.

Quality of Care Indicators

Quality of care indicators in this report include: (1) The HEDIS[®] 2013 measures; (2) The AHRQ Pediatric Quality Indicators and Prevention Quality Indicators; and (3) The 3M Health Information Systems measures of expenditures for Potentially Preventable Readmissions and Potentially Preventable Emergency Department Visits.

Rates for HEDIS[®] measures were calculated using NCQA-certified software. Results for all measures are based on administrative rates only, with the exception of the following hybrid HEDIS[®] measures: (1) Comprehensive Diabetes Care - HbA1c adequate control, (2) Adult BMI Assessment; and (3) Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents. 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 the hybrid measures, with a record review of a systematic sample of 411 members drawn from the eligible population from each STAR+PLUS and STAR managed care organization. For the STAR+PLUS HEDIS[®] *Comprehensive Diabetes Care* measure, the target sample number of 411 records was met for all managed care organizations except HealthSpring, which had fewer than 411 members that met inclusion criteria. For STAR, the target number of records was met for all managed care organizations that qualified for the hybrid measures. Blue Cross and Blue Shield of Texas, CHRISTUS Health Plan, RightCare from Scott & White Health Plan, Sendero

Health Plans, and Seton Health Plan were excluded because their members only had ten months of continuous enrollment and did not satisfy the continuous enrollment requirements for these measures. The hybrid measures were calculated at the state level and not at the STAR+PLUS service area level. Please refer to “HEDIS® Hybrid Review” section below for a description of medical record collection and review methods.

Results for the HEDIS® measures are compared to results 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 socio-demographic 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. Where applicable, for all programs, the Medicaid Managed Care Plans 2012 mean results are shown and labeled “HEDIS® mean” in the figures and tables.

Pediatric Quality Indicators and Adult Prevention Quality Indicators, developed by AHRQ, were used to evaluate performance related to inpatient admissions for ACSCs. In this report, Pediatric Quality Indicator and Prevention Quality Indicator rates are provided for STAR, while Pediatric Quality Indicator rates are provided for STAR Health. 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 Indicator and Prevention Quality Indicator versions 4.5. 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 members in the population. 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 Pediatric Quality Indicators is up to age 17.

The full set of adult Prevention Quality Indicators 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; and (14) Rate of Lower Extremity Amputation among Patients with Diabetes. For these measures, adults are individuals ages 18 or older.

The 3M Potentially Preventable Readmission and Potentially Preventable Emergency Department Visit measures function as indicators of the quality of primary and outpatient care. Potentially preventable readmissions are defined as return hospitalizations that may be a result of deficiencies in the process of care and treatment during the initial hospital stay and/or poor coordination of services at the time of discharge and during follow-up. The external quality review organization used a readmission interval of 30 days for calculating potentially preventable readmission rates. Potentially preventable emergency department visits are emergency department visits for conditions that could be treated effectively with adequate patient monitoring and follow-up, rather than requiring emergency medical attention.

For potentially preventable readmissions, the 3M software assigns APR-DRGs to every admission, then compares all admissions for the same person within a specified time period, and identifies potentially preventable readmissions according to the relationship between each admission's APR-DRG.

For potentially preventable emergency department visits, the 3M software assigns an Enhanced Ambulatory Patient Grouping to every emergency department procedure, then crosswalks each Enhanced Ambulatory Patient Grouping into one of several categories of potentially preventable procedures, or identifies it as not being potentially preventable. It is important to note that potentially preventable emergency department visits are assigned at the level of each CPT or Revenue Code, referred to as an "item", and not at the visit level.

Dental Health Measures

Data Sources and Measures

Two data sources were used to calculate the Medicaid and CHIP dental measures: (1) member-level enrollment information and (2) dental care claims and encounter data. The enrollment data contain information about the person's age, gender, the dental plan in which the person is enrolled, and the number of months the person has been enrolled in the program. The encounter data contain CPT codes, Current Dental Terminology codes, Healthcare Common Procedure Coding System codes, place of service codes, and other information necessary to calculate quality of care indicators.

A four-month time lag was used for the claims and encounter data.

Quality of Care Indicators

Dental quality of care indicators in this report include: (1) The HEDIS® 2013 *Annual Dental Visit Measure* and (2) dental prevention and treatment measures developed by the Institute for Child Health Policy.

The HEDIS® *Annual Dental Visit* measure provides the percentage of members who had at least one dental visit during the measurement year. An NCQA-certified auditor reviewed the calculated rates and provided letters of certification to the Institute for Child Health Policy. These letters and an official letter from NCQA providing their seal for the results are available from HHSC. Results from Medicaid programs who participate in the NCQA reporting program are also included in this report for comparison to Medicaid Dental rates.

When applicable, results are compared to the calendar year 2012 Medicaid and CHIP Dental HHSC Performance Indicator Dashboard standards.

In addition to the narrative and figures contained in this report, technical appendices were provided to HHSC that contain all of the data to support key findings.^{236,237} The interested reader can review those for more details.

Medicaid Dental Measurement Period

Delta Dental provided dental services to Medicaid members from March 1, 2012 to November 30, 2012, while MCNA and DentaQuest provided dental services to Medicaid members from March 1, 2012 to December 31, 2012. In order to calculate results for these measures, the enrollment requirement was relaxed to nine months. Overall Medicaid rates were calculated with and without Delta Dental to provide information on all enrollees and current programs.

CHIP Dental Measurement Period

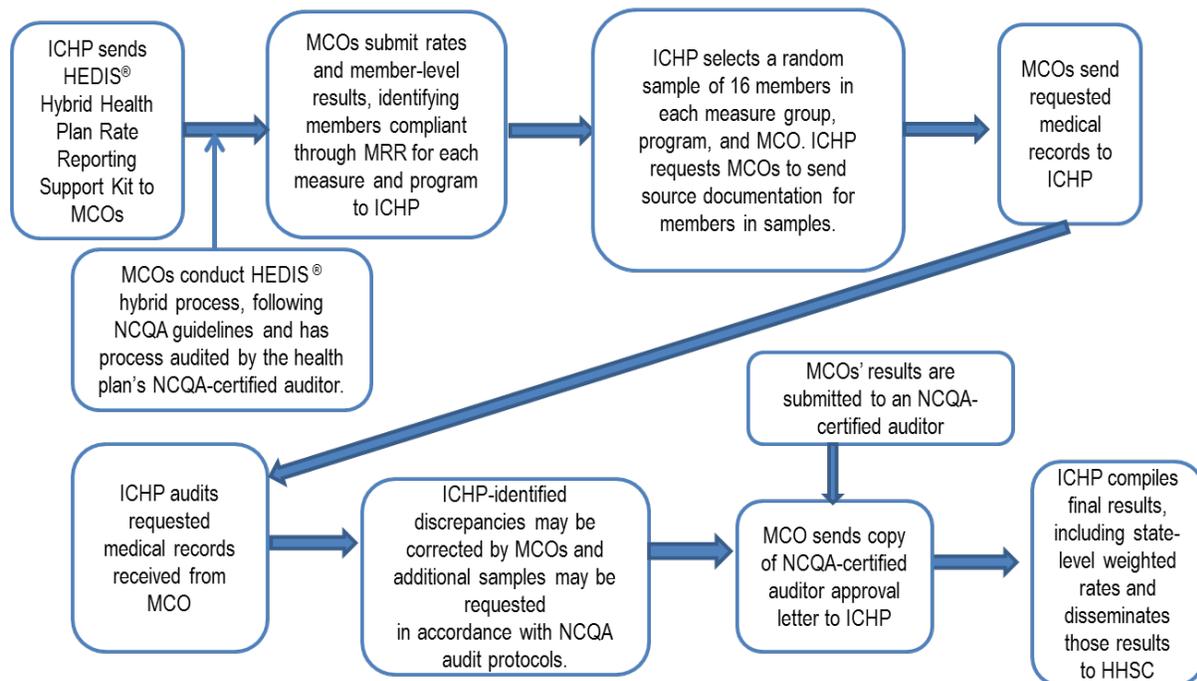
Delta Dental provided dental services to CHIP members from January 1, 2012 to November 30, 2012, while MCNA and DentaQuest provided dental services to CHIP members from March 1, 2012 to December 31, 2012. In order to calculate results for these measures, the enrollment requirement was decreased to nine months. Medicaid rates were calculated with and without Delta Dental to provide information on all enrollees and current programs.

HEDIS® Hybrid Review

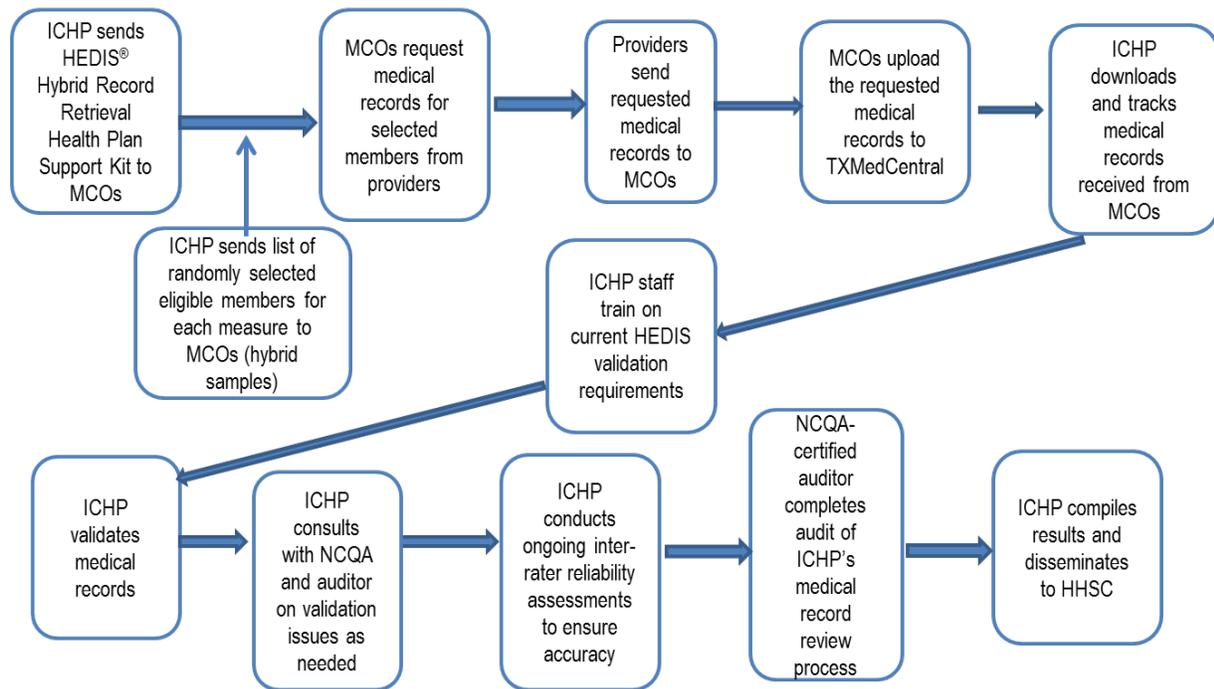
The external quality review organization followed HEDIS® specifications for the hybrid measures, with a systematic sample of health records drawn from the eligible population from each managed care organization and a target of 411 records per managed care organization. The hybrid measures were calculated at the state level and not at the service area level.

The managed care organizations selected one of three options for medical record validation:

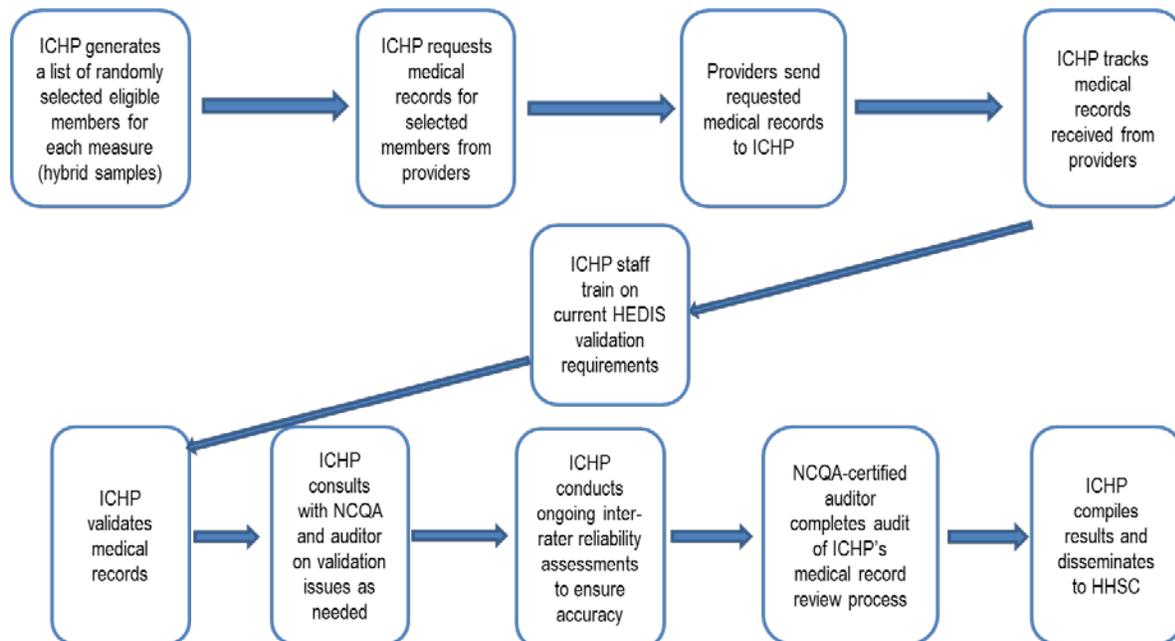
Option 1 – managed care organizations submit audited rates:



Option 2 – Managed care organizations provide records for the Institute for Child Health Policy to review:



Option 3 – The Institute for Child Health Policy retrieves and reviews medical records:



Medical records were obtained for all HEDIS® participants. The medical records were collected as outlined below by the Institute for Child Health Policy Medical Record team.

Process for Obtaining Medical Records

1. The Institute for Child Health Policy programming team will receive administrative data of the various populations for the studies from TXMedCentral.
2. The study participants will be chosen at random for the various studies by the programming team.
3. The information will be loaded into the Quality Spectrum Hybrid Reporter, and a list containing the names and addresses of the providers will be uploaded as an Excel file for the Medical Record team to review, correct or update as time allows.
4. The Institute for Child Health Policy team will then review and update our file in preparation for the first mailing.
5. The Medical Records team will prepare and mail the initial medical record request for each member to the appropriate provider.
6. The request includes a copy of the TX general letter of explanation, general submission instructions for the particular study, Medical Record Request Member List and the date the records are due back to the Institute for Child Health Policy.
7. Providers may mail, using a return label we provide, or fax, via our secure fax line, the member records.
8. If the provider chooses to send the records to its managed care organization, then the managed care organization can forward those records to the Institute for Child Health Policy via mail or secure fax.
9. Two weeks after the initial mailing, the Medical Records team will follow-up by phone to those providers considered high-volume (more than six medical records requests).
10. Approximately two to three weeks after the initial mailing, a second request will be sent to those providers who have not responded (sent records).
11. If the Institute for Child Health Policy is unable to contact any provider by mail or phone, the medical record request is considered unavailable.

Additional Information Involving Medical Records Requests

The Institute for Child Health Policy created and updated, as needed, a master provider list to include facility name, provider name, NPI number, phone number, fax number, address, and contact information.

All medical records received (mail and fax) are logged in daily and are validated as quickly as possible.

Additionally, record requests that are returned by the Postal Service as undeliverable are logged in and reviewed for accuracy of information by the Medical Records team. Methods employed in this review include utilization of the NPI Look-Up website, the Texas Medicaid & Healthcare Partnership website, phone calls and, as a last resort, the Google search engine. All medical records chases returned as undeliverable with six or more patient medical record requests are, as time allows, reviewed and corrected with accurate address or fax information.

All reasonable efforts are made to contact every provider possible within the time constraints allowed by the particular study.

Potentially Preventable Complications – Data Quality Checks

Potentially preventable complications are complications that arise following discharge from a hospital admission that could have been prevented with appropriate care during the inpatient stay or the follow-up period. The 3M software algorithm identifies potentially preventable complications based on diagnostic and procedure codes, procedure dates, discharge status, present-on-admission indicators, and the patient's age and gender. In order to determine whether data quality was adequate for calculating valid potentially preventable complications rates and expenditures at the provider level, the external quality review organization conducted an analysis based on the fee-for-service and Medicaid managed care population in calendar year 2012.

Data Sources

Two data sources are used to calculate the potentially preventable complications rates: (1) member-level enrollment information; and (2) member-level health care claims/encounter data. The enrollment files contain information about the member's age, gender, and the number of months the member has been enrolled in the program. The member-level claims/encounter data contain ICD-9-CM codes, place of service codes, present on admission indicators, ICD-9 procedure codes, procedure dates, and other information necessary to calculate the potentially preventable complications measures. Encounters submitted by the managed care organizations were supplemented with fee-for-service claims paid for by the State for benefits that are carve-outs.

Unique Identification of Facility Providers Using NPIs

For this analysis, each provider is uniquely identified based on its National Provider Identifier (NPI). The NPI is a ten-digit unique identification number for covered health care providers, and a Health Insurance Portability and Accountability Act (HIPAA) Administrative Simplification Standard. Under HIPAA, all covered health care providers as well all managed care organizations and health care clearinghouses must use NPIs in their financial and administrative transactions. The NPI is "intelligence-free," which means the numbers do not convey other information about providers, such as their medical specialty or the state in which they operate.

Present on Admission Indicator

Using inpatient claims data, the 3M potentially preventable complication classification system identifies in-hospital complications from among secondary diagnoses that were not present on admission.²³⁸ The present on admission indicator is especially important for identifying potentially preventable complications, as providers use it to report whether each diagnosis was acquired during the hospital stay or was already present when the patient was admitted. The present on admission indicator allows only those secondary diagnoses that were present on admission to be used in the risk adjustment process, meaning that an event occurring after admission would not be used to determine risk of a possible complication.

Data Loss and Exclusions

Exempt Providers: Some providers were exempt from present on admission reporting requirements during this measurement period. Of the 876 Texas Medicaid provider NPIs, 132 (or 15 percent) were exempt from present on admission reporting in fiscal year 2012. Examples of exempt providers included children's hospitals and state-owned teaching facilities, as well as hospitals designated as critical access under Medicare. All exempt providers were omitted from the analysis even if they reported present on admission indicators voluntarily, because there was no obligation for them to ensure the accuracy or completeness of the data. As of September 1, 2012, all providers, even those who were previously exempt, are required to submit present on admission information. Because the current analysis addresses calendar year 2012, the providers who were exempt throughout the first nine months of the year remained excluded from these analyses due to the short time-span during which they reported present on admission.

Low-Volume Providers: After present on admission-exempt providers were omitted, the external quality review organization ensured that providers had sufficient data volume for inclusion in the analysis. For this analysis, low-volume providers were classified as those with fewer than 30 inpatient stays. Low-volume providers were excluded from the analysis in order to avoid generating misleading results.

Data Quality - Present on Admission Indicator Reporting: Good data quality, particularly in regard to the present on admission indicator, is essential to ensure that potentially preventable complications are correctly identified and the resulting rates are accurate. When assessing the preventability of a complication, it is important to know whether the diagnosis associated with a given complication was already present when the patient was admitted. After omitting exempt and low-volume providers, data quality was assessed for the remaining nonexempt providers with sufficient volume. The external quality review organization evaluated data quality with regard to completeness and validity of the present on admission indicator at the provider level, and claims from providers with questionable data were excluded from the calculations.

Specifically, four types of quality checks were conducted:

- High % not present on admission for secondary diagnoses on the pre-existing list: This data quality check excludes providers with a high percentage of present on admission values indicating that the condition was acquired in the hospital for a set of conditions that are unlikely to be acquired during a hospital stay.
- High % present on admission for secondary diagnosis codes:²³⁹ This data quality check excludes providers with an abnormally high percentage of secondary diagnosis codes with present on admission values indicating that the condition was present on admission. This will lead to underestimating the potentially preventable complications rate.
- Low % present on admission for secondary diagnosis codes:²⁴⁰ This data quality check excludes providers with an abnormally low percentage of secondary diagnosis codes listing that the condition was present on admission. Typically, between 70 percent and 95 percent of the secondary diagnosis codes should indicate that conditions are likely present at the time of the inpatient admission and any deviation from these thresholds questions the quality of the data. A low percentage of present on admission indicators for secondary diagnosis will lead to over-estimating the potentially preventable complications rate.
- High % present on admission for secondary diagnosis on elective surgical cases: This data quality check excludes providers with a very high present on admission rate on diagnosis codes that map to elective surgical DRG cases (e.g., postoperative shock, transfusion reaction).

Endnotes

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¹⁵ Throughout the report, references to “calendar year” (CY) correspond with the period January 1 through December 31, and are used in regard to data periods (e.g., claims and encounter data from CY 2012). References to “fiscal year” correspond with the period September 1 through August 31. For projects conducted on 2009 data and earlier, “fiscal year” is used for data periods. In reference to external quality review organization reports, the term “fiscal year” may also refer to the external quality review organization contract year for which the report was written.

¹⁶ In CY 2012, STAR Health was served by one managed care organization – Superior HealthPlan 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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⁴⁷ The external quality review organization followed HEDIS[®] 2013 technical specifications for this measure, which require that the child have one hepatitis A vaccination by their second birthday. However, the HEDIS[®] national rates followed HEDIS[®] 2012 technical specifications, which require that the child have two hepatitis A vaccines by their second birthday. Due to the difference in technical specifications, the HEDIS[®] national mean is not included for comparison, and prior year results cannot be trended.

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⁶⁹ The STAR CY 2012 Postpartum Care data was collected using a hybrid method, while in prior years, the data was administrative. Due to different data collection methodologies, the STAR results cannot be trended across years.

⁷⁰ The 2010 rate for STAR is not reported due to unavailability of data.

⁷¹ Two years of data are available for the IPU measure; thus, a figure for 2011 results is presented in place of a trending chart for prior year results.

⁷² The AHRQ national rates referenced in this report are from version 4.4 of the Pediatric Quality Indicator benchmark tables published on the AHRQ website. Version 4.4 is the most current benchmark data for the Pediatric Quality Indicators and utilizes data from 2010. Because AHRQ does not publish Pediatric Quality Indicator national rates annually, such rates are not provided for comparison in the Pediatric Quality Indicator trending charts. For more information, visit: <http://www.qualityindicators.ahrq.gov>.

⁷³ The AHRQ national rate, originally assessed per 1,000 admissions, was adjusted for data consistency.

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- ⁷⁴ Trends are not available due to changes to the specifications for *COPD* and *Adult Asthma Prevention Quality Indicators* that occurred in 2012. See:
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¹⁰⁸ Parkland Community combined the STAR and CHIP populations for its asthma and diabetes disease management programs. Therefore, the numbers and rates provided in Table 32 do not include the data for Parkland Community disease management programs. Parkland Community reported a combined STAR and CHIP participation rate of 40.0 percent and 44.4 percent in its asthma and diabetes disease management programs, respectively. Blue Cross Blue Shield of Texas reported the same number of eligible members in both its asthma disease management program and its diabetes disease management program in STAR (12,665 members) and CHIP (3,385 members); therefore, member disease management enrollment and participation data for Blue Cross Blue Shield of Texas are not included in Table 32. Sendero reported that the number of eligible members for its diabetes disease management program was “not applicable”. Therefore, eligibility and participation data for Sendero’s STAR and CHIP diabetes disease management programs are not included in Table 32.

¹⁰⁹ This information is drawn from the Administrative Interview Conference Calls with the health plans.

¹¹⁰ In Community Health Choice, asthma and diabetes disease management programs are opt-in; however, the perinatal disease management program is opt-out. Seton’s STAR disease management programs are opt-in; all other disease management programs are opt-out. Members in case management for Cook Children’s are opt-in; all other members must opt-out.

¹¹¹ The new STAR and CHIP health plans include Blue Cross Blue Shield of Texas, CHRISTUS, RightCare from Scott and White (only offers STAR), and Sendero.

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¹¹⁴ CMS. 2012.

¹¹⁵ Activity 7 includes a description of the interventions. The external quality review organization evaluates Activity 7 prior to the implementation of the performance improvement projects and re-evaluates Activity 7 for the year-end review. The initial evaluation of Activity 7 assesses the robustness of the interventions, whether the interventions are described in detail, whether or not the interventions are based on the root cause analysis, and compliance with state and federal regulations. The year-end evaluation of Activity 7 assesses whether the implementation of the interventions was described in detail (how many providers targeted, how many were reached, etc.), whether any modifications were made to the interventions, whether the interventions had adequate reach, and compliance with state and federal regulations, among other components.

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different data collection methodologies, the rate for this sub-measure is not comparable to the HHSC Dashboard standard. Thus, the HHSC Dashboard for this sub-measure is not presented in this report.

¹⁶⁰ Results for this measure were not reported for prior years; thus, a trending chart is not presented for this measure.

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¹⁶⁷ NorthSTAR results for this measure include STAR, STAR+PLUS, and fee-for-service claims in the Dallas service area.

¹⁶⁸ STAR and NorthSTAR only have two years of available data; therefore, they are not included in this figure.

¹⁶⁹ CHIP and STAR Health results for 2010 are not included in this graph due to unavailability of data.

¹⁷⁰ NorthSTAR results were only reported for CY 2011 and CY 2012; therefore, results for this program are not included in this figure.

¹⁷¹ STAR and NorthSTAR only have two years of available data; therefore, they are not included in this figure.

¹⁷² CHIP and STAR Health results for 2010 are not included in this graph due to unavailability of data.

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