

# **Annual Chart Book**

**Fiscal Year 2007**

## **Texas Medicaid Managed Care STAR+PLUS Quality of Care Measures**

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**Measurement Period:**

**September 1, 2006 through August 31, 2007 (AMERIGROUP and Evercare in Harris SDA)  
February 1, 2007 through August 31, 2007 (All Other MCOs/SDAs)**

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## Table of Contents

Introduction .....	1
<b>STAR+PLUS Descriptive Information</b>	
Chart 1. Total Unduplicated Members .....	4
Chart 2. Total Unduplicated Members—SDA Breakout .....	5
Chart 3. Total Unduplicated Members by Race/Ethnicity .....	6
Chart 4. Total Unduplicated Members by Race/Ethnicity and MCO .....	7
<b>STAR+PLUS AHRQ Prevention and Pediatric Quality Indicators</b>	
Chart 5A. AHRQ Adult Prevention Quality Indicators by MCO .....	8
Chart 5B. AHRQ Adult Prevention Quality Indicators by MCO .....	9
Chart 6. AHRQ Pediatric Quality Indicators by MCO.....	12
<b>STAR+PLUS Quality of Care</b>	
Chart 7. HEDIS® Follow-Up after Hospitalization for Mental Illness.....	14
Chart 8. HEDIS® Follow-Up after Hospitalization for Mental Illness—SDA Breakout .....	16
Chart 9. Readmission within 30 Days after an Inpatient Stay for Mental Health .....	17
Chart 10. Readmission within 30 Days after an Inpatient Stay for Mental Health—SDA Breakout .....	18
Chart 11. HEDIS® Outpatient Drug Utilization - Average Cost of Prescriptions per Member per Month .....	19
Chart 12. HEDIS® Outpatient Drug Utilization - Average Number of Prescriptions per Member per Year .....	20
Chart 13. Percent of Enrollees with One or More Hospital Stays Due to an Ambulatory Care Sensitive Condition.....	21
Chart 14. Percent of Enrollees with One or More Hospital Stays Due to an Ambulatory Care Sensitive Condition—SDA Breakout.....	22
Chart 15. Percent of Hospitalizations with a Primary Diagnosis of an Ambulatory Care Sensitive Condition.....	23
Chart 16. Percent of Hospitalizations with a Primary Diagnosis of an Ambulatory Care Sensitive Condition—SDA Breakout.....	25
Chart 17. Percent of Enrollees with One or More Emergency Department Visits Due to an Ambulatory Care Sensitive Condition .....	26
Chart 18. Percent of Enrollees with One or More Emergency Department Visits Due to an Ambulatory Care Sensitive Condition—SDA Breakout .....	27
Chart 19. Percent of Emergency Department Visits with a Primary Diagnosis of an Ambulatory Care Sensitive Condition .....	28
Chart 20. Percent of Emergency Department Visits with a Primary Diagnosis of an Ambulatory Care Sensitive Condition -- SDA Breakout .....	29
Chart 21. HEDIS® Comprehensive Diabetes Care (medical record review) .....	30
Chart 22. HEDIS® Controlling High Blood Pressure .....	32
Endnotes .....	33

# Introduction

## Purpose

The purpose of this report is to provide an annual update of the quality of care provided to enrollees in the STAR+PLUS Program in Texas. STAR+PLUS is a Texas Medicaid managed care program designed to provide health care, acute and long-term services and support through a managed care system. This update is for September 1, 2006, to August 31, 2007, covering State Fiscal Year (SFY) 2007. Results for the quality of care measures are presented at the individual managed care organization (MCO) and service delivery area (SDA) levels. When possible, comparisons to national data are provided. This year's rates are presented for the Medicaid only and Dual Enrollee (Medicaid and Medicare) populations combined. This is a change since the last reporting period, during which the rates were reported for the Medicaid only population. This year the Texas Health and Human Services Commission (HHSC) requested that we combine the two populations for the current report, because the MCOs are responsible for care coordination for the dual eligible population and therefore influence the quality of care these beneficiaries receive.

Another change in the present report is that rates for the Healthcare Effectiveness Data and Information Set (HEDIS<sup>®</sup>) measures are produced using a 2008 National Committee for Quality Assurance (NCQA) certified software tool. HHSC approved the use of this software so that all HEDIS<sup>®</sup> results could be reported using a tool recognized by the NCQA. In the past, the HEDIS<sup>®</sup> measures were calculated using programming code developed by the Institute for Child Health Policy (ICHP). After discussion with HHSC, ICHP developed a methodology to allow for flexibility in the provider specialty codes used in the HEDIS<sup>®</sup> measures. Following NCQA specifications, the certified software tool requires validation of the provider specialty against the type of service rendered before a beneficiary can be considered eligible for inclusion in a HEDIS<sup>®</sup> measure. This year, ICHP modified the NCQA specifications to lift these provider constraints when determining eligibility for HEDIS<sup>®</sup> measures. Provider specialty codes are an important component for some HEDIS<sup>®</sup> measures and lifting the provider constraint may result in some rate inflation for these measures. For example, NCQA specifications require that a mental health provider be the provider of record for a beneficiary to be considered compliant with the HEDIS<sup>®</sup> measures for seven-day and 30-day follow-up after an inpatient mental health stay. The current methodology allows any visit with a physician provider to count toward compliance with the mental health follow-up measures.

On February 1, 2007, STAR+PLUS expanded to four additional SDAs (Bexar, Harris Expansion, Nueces, and Travis) to include a total of 29 counties. ***The data used to calculate the measures cover the period of February 1, 2007, to August 31, 2007, for all MCOs except AMERIGROUP and Evercare, which were serving clients in the Harris SDA prior to February 1, 2007. The data used to calculate the measures for AMERIGROUP and Evercare in the Harris SDA cover the period of September 1, 2006 to August 31, 2007.*** Because of the expansion, for the 2007 reporting year, the evaluation was restricted to measures that had no minimum eligibility criteria. HEDIS<sup>®</sup> measures that required a minimum of 12 months of eligibility and claims data were not reported, as only seven months of available history for the expansion counties was available. Those measures were:

- a) HEDIS<sup>®</sup> Use of Appropriate Medications for People with Asthma
- b) HEDIS<sup>®</sup> Comprehensive Diabetes Care

A 12-month time lag was used for the claims and encounter data. Prior analyses with Texas data showed that, on average, over 99 percent of the claims and encounters are complete by that time period.

This chart book presents the following information:

1) Descriptive Results

- Total Unduplicated Members
- Total Unduplicated Members by Race/Ethnicity

2) AHRQ Prevention and Pediatric Quality Indicators

- AHRQ Adult Prevention Quality Indicators (PQIs)
- AHRQ Pediatric Quality Indicators (PDIs)

3) Quality of Care

- HEDIS® Follow-Up after Hospitalization for Mental Illness
- Readmission within 30 Days after an Inpatient Stay for Mental Health
- HEDIS® Outpatient Drug Utilization
- Percent of Emergency Department Visits with a Primary Diagnosis of an Ambulatory Care Sensitive Condition (ACSC)
- Percent of Enrollees with One or More Emergency Department Visits Due to an Ambulatory Care Sensitive Condition (ACSC)
- Percent of Hospitalizations with a Primary Diagnosis of an Ambulatory Care Sensitive Condition (ACSC)
- Percent of Enrollees with One or More Hospital Stays Due to an Ambulatory Care Sensitive Condition (ACSC)

The charts provide results for the above listed indicators, distributed by MCO and by MCO/SDA, allowing for comparison of findings across the four health plans that serve the STAR+PLUS Program.

### Data Sources and Measures

Three data sources were used to calculate the quality of care indicators: (1) person-level enrollment information, (2) person-level health care claims/encounter data, and (3) person-level pharmacy data. The enrollment files contain information about the person's age, gender, the MCO in which the person is enrolled, and the number of months the person has been enrolled in the program. The person-level claims/encounter data contain Current Procedural Terminology (CPT) codes, International Classification of Diseases, 9th Revision (ICD-9-CM) codes, place of service (POS) codes, and other information necessary to calculate the quality of care indicators. The person-level pharmacy data contain information about filled prescriptions, including the drug name, dose, date filled, and refill information.

Information regarding the calculation of all measures included in this report can be found in the document "Quality of Care Measures Technical Report Specifications, January 2009."<sup>1</sup> This document, prepared by ICHP, provides specifications for HEDIS® and other quality of care measures.

Whenever possible, comparisons are provided to other Medicaid Programs. NCQA gathers and compiles data from Medicaid managed care plans nationally.<sup>2</sup> Submission of HEDIS® data to NCQA is a voluntary process; therefore, health plans that submit HEDIS® data are not fully representative

of the industry. Health plans participating in NCQA HEDIS<sup>®</sup> 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 health plans in the United States.<sup>3</sup> NCQA reports the national results as a mean and at the 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentiles for the participating plans. For comparison with the STAR+PLUS Program findings, the Medicaid Managed Care Plans 2007 mean results are shown and labeled “HEDIS<sup>®</sup> Mean” in the graphs. This information is not available for all of the quality of care indicators.

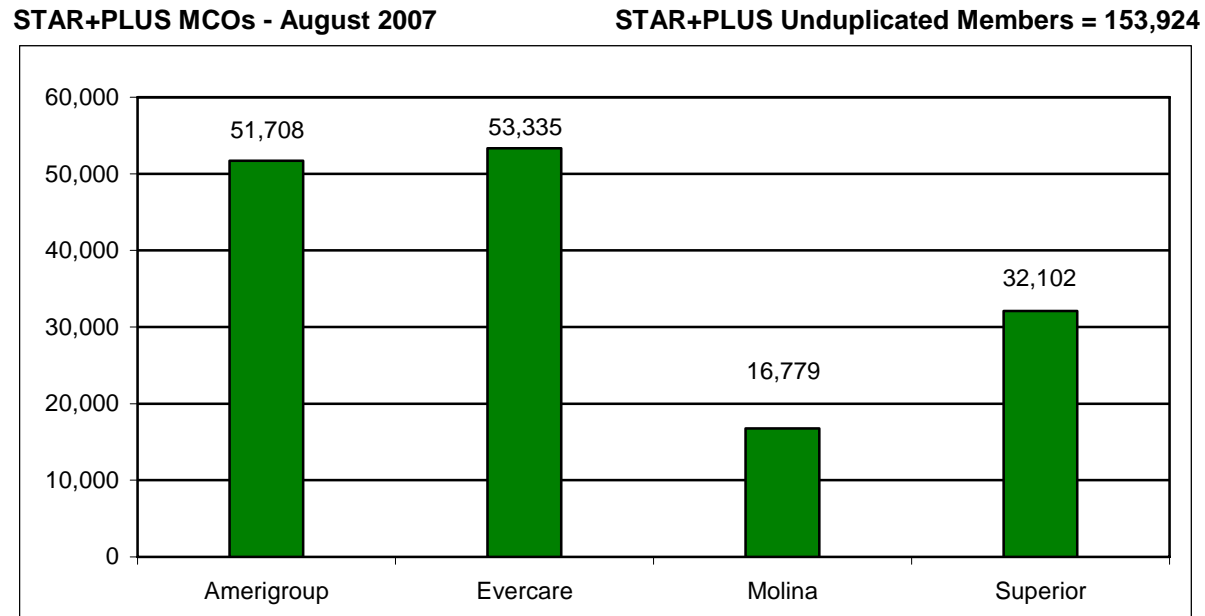
Indicators developed for the Agency for Healthcare Research and Quality (AHRQ) were used to evaluate the performance of STAR+PLUS MCOs related to inpatient admissions for various ambulatory care sensitive conditions (ACSCs). The AHRQ considers ACSCs “conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.”<sup>4</sup> The quality indicators use hospital inpatient discharge data and are measured as rates of admission to the hospital. Specifically, two sets of indicators were used in the analysis and are reported herein: Prevention Quality Indicators (PQIs) for adult enrollees and Pediatric Quality Indicators (PDIs) for child enrollees. Unlike most other measures provided in this chart book, low quality indicator rates are desired as they suggest a better quality of the health care system outside the hospital setting.

Adult admissions for the following ambulatory care sensitive conditions were assessed: (1) Diabetes Short-term Complications; (2) Perforated Appendix; (3) Diabetes Long-term Complications; (4) Chronic Obstructive Pulmonary Disease; (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) Adult Asthma; and (14) Rate of Lower Extremity Amputation among Patients with Diabetes. Individuals age 18 or older were considered in the calculations for these measures.

For children, there are five quality indicators measuring pediatric admissions for the following ambulatory care sensitive conditions: (1) Asthma; (2) Diabetes Short-term Complications; (3) Gastroenteritis; (4) Perforated Appendix; and (5) Urinary Tract Infection.

In addition to the narrative and graphs contained in this chart book, technical appendices were provided to HHSC that contain all of the data to support key findings.<sup>5</sup> As previously noted, many, but not all, of the quality of care indicator results are presented for each MCO. Some results were not displayed for each MCO in order to facilitate ease of presentation and understanding of the material and/or because the findings were similar for each MCO. However, all of the results are contained in the technical appendices. The interested reader can review those for more details. The corresponding reference table is listed beneath each graph.

## Chart 1. Total Unduplicated Members



Reference: STAR+PLUS Table 1

Note: The eligibility figures used in the chart are for August 2007.

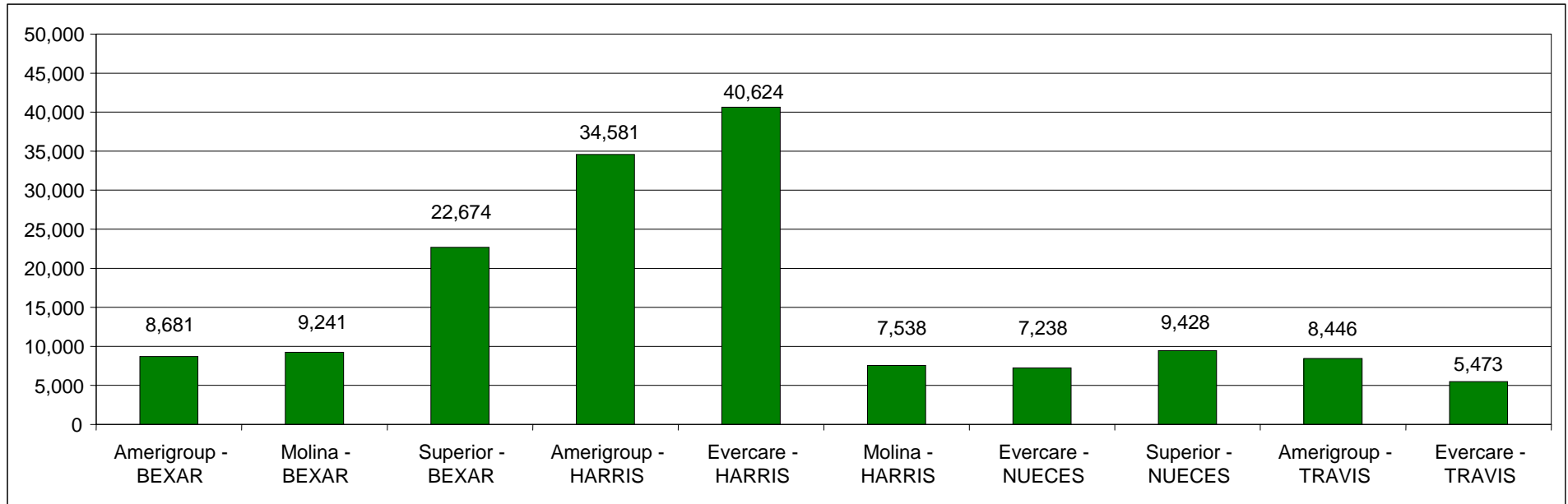
### Key Points:

1. Chart 1 provides the total number of unduplicated members in the STAR+PLUS program during August 2007, distributed by health plan. During the measurement period, there were 153,924 unduplicated members in the STAR+PLUS Program.
2. The majority of members (69 percent) belong to AMERIGROUP (34 percent) or Evercare (35 percent). Since the previous reporting period, Molina and Superior have been added to the STAR+PLUS program. Molina serves 11 percent and Superior serves 21 percent of STAR+PLUS members.
3. Across all health plans, females accounted for 61 percent and males accounted for 39 percent of STAR+PLUS members.

## Chart 2. Total Unduplicated Members—SDA Breakout

STAR+PLUS MCOs - August 2007

STAR+PLUS Unduplicated Members = 153,924



Reference : STAR+PLUS Table 1

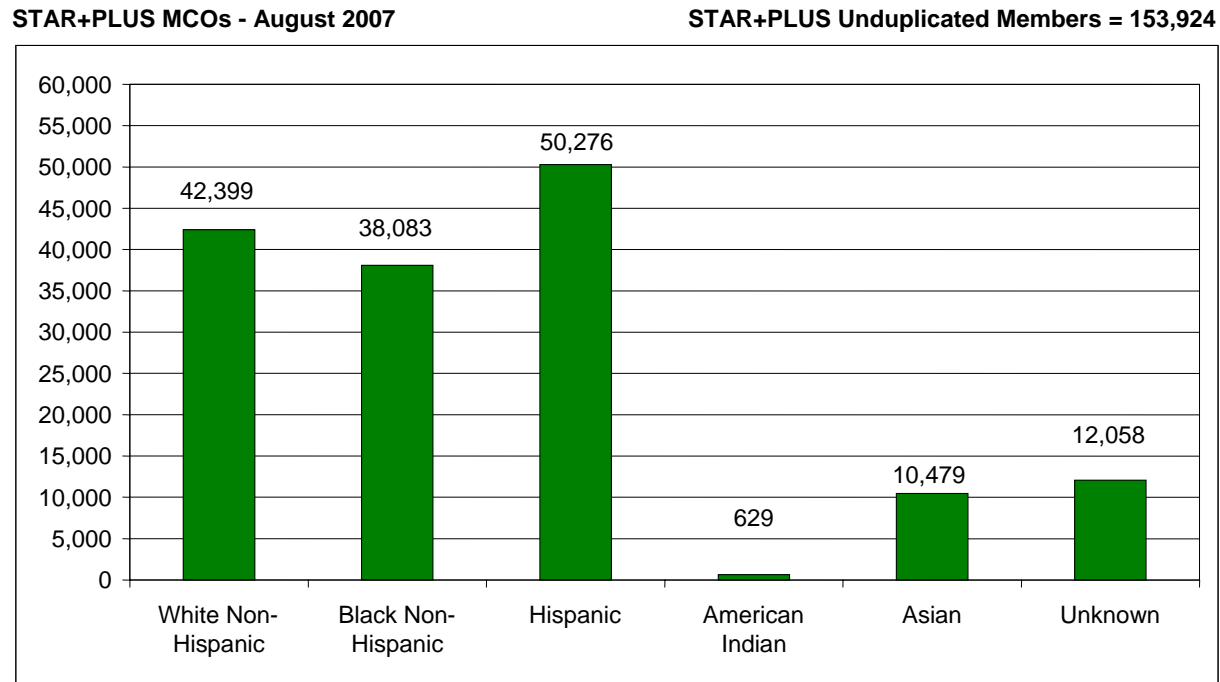
Note : The eligibility figures used in the chart are for August 2007.

SDA	Bexar	Harris	Nueces	Travis
	40,596	82,743	16,666	13,919

### Key Points:

1. Chart 2 provides the total number of unduplicated members in the STAR+PLUS program during August 2007, distributed by MCO/SDA group.
2. The three MCO/SDA groups with the largest number of members were Evercare – Harris (26 percent), AMERIGROUP – Harris (22 percent), and Superior – Bexar (15 percent). Evercare – Travis had the fewest members (4 percent).
3. At the SDA level, the Harris SDA had the largest number of members (54 percent), followed by Bexar (26 percent), Nueces (11 percent), and Travis (9 percent).

### Chart 3. Total Unduplicated Members by Race/Ethnicity



Reference: STAR+PLUS Table 2

Note: The eligibility figures used in the chart are for August 2007.

#### Key Points:

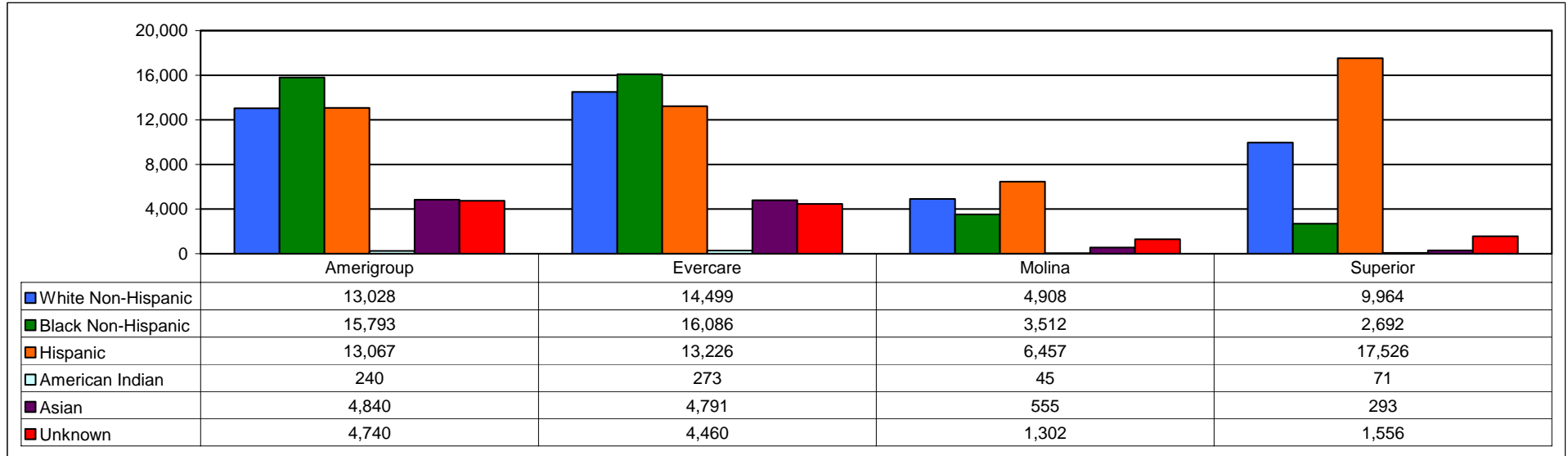
1. Chart 3 provides the distribution of STAR+PLUS members by race/ethnicity for August 2007.
2. Hispanics comprised 33 percent of STAR+PLUS members, followed by White, Non-Hispanics (28 percent), Black, Non-Hispanics (25 percent), and Asians (7 percent). American Indians represented only 0.4 percent of the STAR+PLUS membership. Eight percent of members could not be classified according to race/ethnicity.
3. The STAR+PLUS membership is racially and ethnically diverse. Addressing the health care needs of an ethnically diverse population – especially among those with high rates of chronic conditions and disability – requires that special attention be given to the cultural competence of providers and the availability of linguistically appropriate health care. Recent studies have found linguistic and ethnic group differences in self-reported disability and activities of daily living, with higher risks of developing disability among older African-Americans and Hispanics interviewed in Spanish (compared to whites and Hispanics interviewed in English).<sup>6,7</sup> HHSC may wish to consider these findings in ensuring equitable access to care and quality of care for all STAR+PLUS members.



## Chart 4. Total Unduplicated Members by Race/Ethnicity and MCO

STAR+PLUS MCOs - August 2007

STAR+PLUS Unduplicated Members = 153,924



Reference: STAR+PLUS Table 2

Note: The eligibility figures used in the chart are for August 2007.

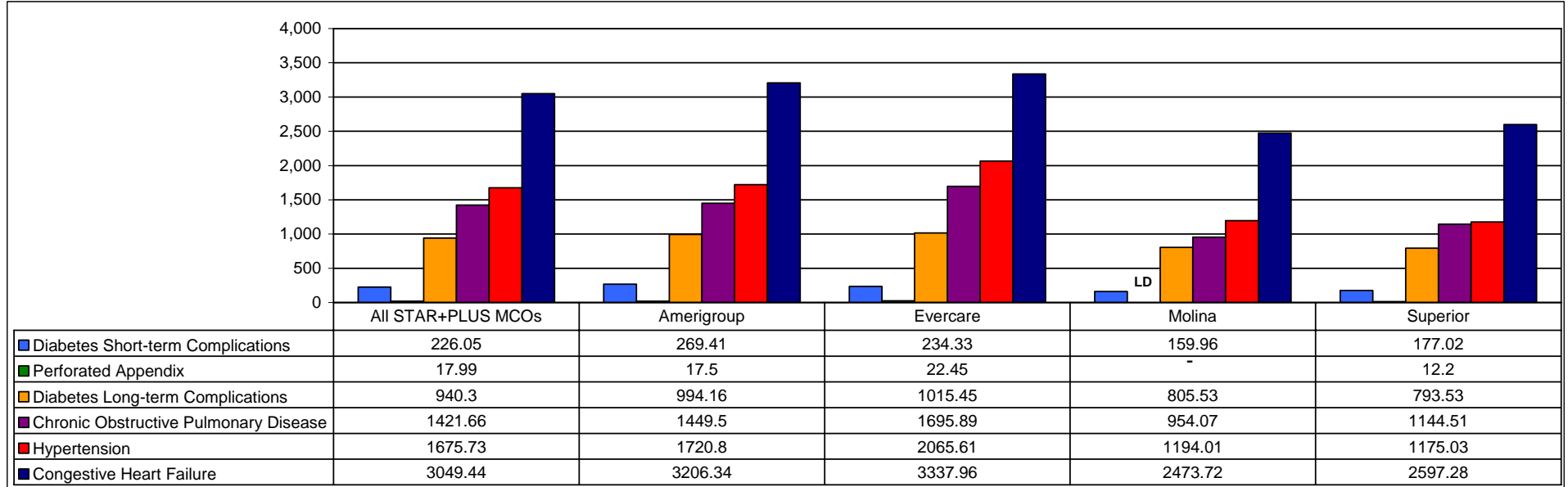
### Key Points:

1. Chart 4 provides the distribution of STAR+PLUS members by race/ethnicity and MCO using August 2007 eligibility information.
2. Superior had the highest percentage of Hispanic members (55 percent) and White, Non-Hispanic members (31 percent), and the lowest percentage of Black, Non-Hispanic members (8 percent).
3. AMERIGROUP had the greatest percentage of Black, Non-Hispanic members (31 percent).
4. AMERIGROUP and Evercare had the lowest percentages of Hispanic members (25 percent each).

## Chart 5A. AHRQ Adult Prevention Quality Indicators by MCO

STAR+PLUS Number of Appendicitis Cases = 139  
 STAR+PLUS Number of Births = 0  
 STAR+PLUS Universe for All Other Measures = 160,587

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007



Reference: STAR+PLUS Table PQI08

Note: Rates are per 100,000 enrollees ages 18 and older except for perforated appendix which is per 100 admissions for appendicitis and low birth weight which is per 100 births.

Note: The denominator for low birth weight measure is less than 30, therefore this measure is not reported this year.

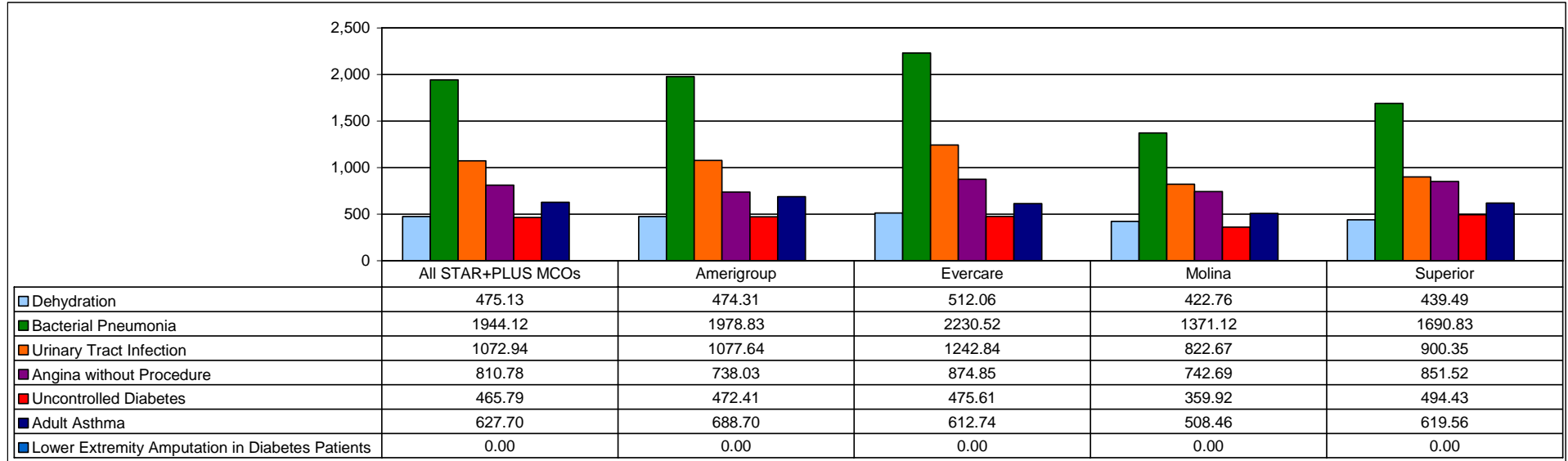
### Key Points:

1. Chart 5A presents results for six of the 13 AHRQ Prevention Quality Indicators (PQIs) addressed in this report. The remaining seven PQIs are shown in Chart 5B. Key points for both charts are provided under Chart 5B.

## Chart 5B. AHRQ Adult Prevention Quality Indicators by MCO

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Universe for All Measures = 160,587



Reference: STAR+PLUS Table PQI08

Note: Rates are per 100,000 enrollees ages 18 and older.

### Key Points:

1. The Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators (PQIs) use hospital discharge data to calculate rates of admission for various ambulatory care sensitive conditions among adults. PQIs screen for inpatient stays that were potentially avoidable with better access to care in outpatient settings. This information is useful for monitoring trends, comparing MCO performance, and addressing access to care issues.
2. Charts 5A and 5B provide rates of inpatient admissions for 13 ambulatory care sensitive conditions among adults in the STAR+PLUS Program, 18 years or older, distributed by MCO. PQIs are per 100,000 enrollees for all conditions except perforated appendix, for which the rate is per 100 appendicitis cases admitted. **Table 1** describes each of the AHRQ PQIs shown in Charts 7A and 7B.
3. STAR+PLUS Program admissions rates for all conditions except perforated appendix and lower extremity amputation in diabetes patients substantially exceeded national estimates reported by the AHRQ.<sup>8</sup> These differences may be attributed to the fact that the national rates are based on a general community population, while the STAR+PLUS population is comprised of individuals with chronic conditions. It should also be noted that the AHRQ national estimates for PQIs are based on data collected in 2004 and are area-level indicators, including both commercial and Medicaid populations. However, differences between STAR+PLUS admissions and national admissions were of notable magnitude for the following three conditions:

- a. Hypertension: 1675.73 per 100,000 in STAR+PLUS, compared with 49.70 per 100,000 nationally (~34 times greater).
  - b. Uncontrolled diabetes: 465.79 per 100,000 in STAR+PLUS, compared with 22.24 per 100,000 nationally (~21 times greater).
  - c. Angina without procedure: 810.78 per 100,000 in STAR+PLUS, compared with 45.92 per 100,000 nationally (~18 times greater).
4. PQIs varied slightly across the MCOs. For most conditions, rates were higher in AMERIGROUP and Evercare than in Molina or Superior.
- a. Evercare had the highest admission rates for all conditions except asthma, diabetes short-term complications, and uncontrolled diabetes. The admission rate for hypertension among Evercare members (2065.61 per 100,000) was considerably higher than the STAR+PLUS Program average (1675.73 per 100,000). HHSC may wish to consider improved monitoring of outpatient treatment for Evercare members to help reduce the rates of potentially avoidable admissions.
5. High rates of potentially avoidable hypertension admissions are cause for concern in both Evercare and at the overall program level. Research has found that hypertension management in aging populations is hindered by non-compliance with antihypertensive drugs, depression, loss of memory, vascular dementia, and other conditions that compromise cognition.<sup>9</sup> Recently, it has been suggested that management of hypertension be viewed as part of a patient's global cardiovascular risk.<sup>10</sup> Recommendations for improving standards of hypertension control include: (1) increasing the awareness of total risk management; (2) initiating an integrated management strategy tailored to the patient's global cardiovascular risk; (3) using elevations in blood pressure as a gateway to begin total risk management; and (4) utilizing combination therapies to achieve more rapid and persistent blood pressure control and improve patient compliance with therapy.<sup>11</sup> Finally, HHSC may wish to consider the development and implementation of lifestyle modification programs for STAR+PLUS members with hypertension, focusing on proper nutrition, sodium restriction, weight reduction, increased physical activity, and moderation of alcohol consumption.<sup>12</sup>

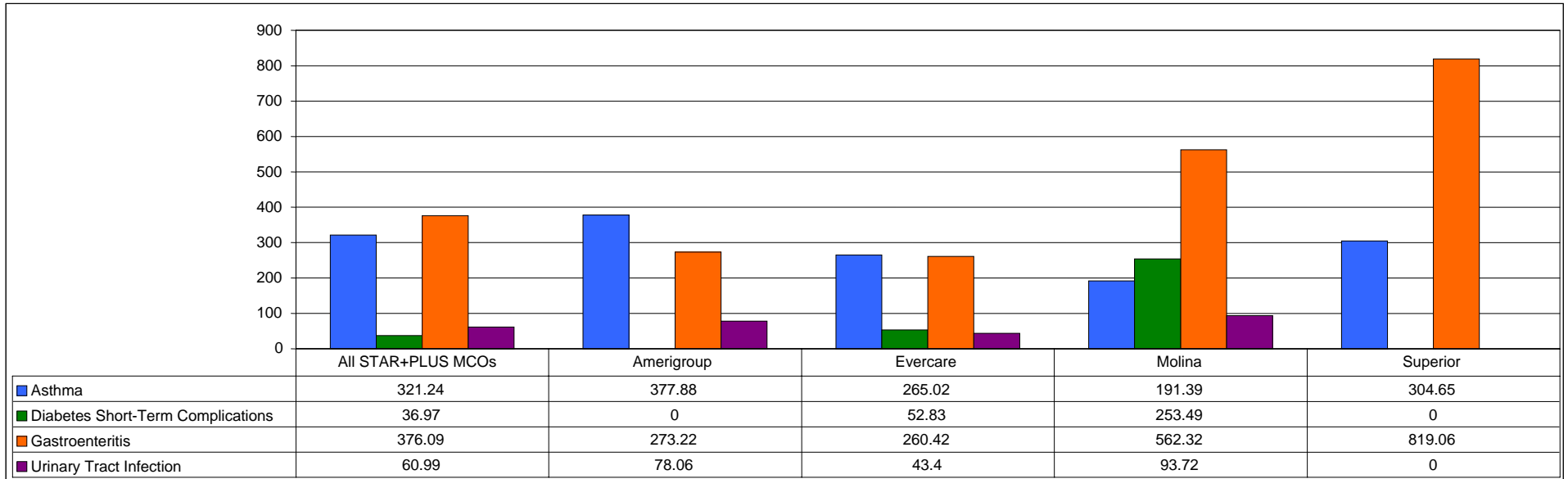
**Table 1. Adult Prevention Quality Indicators**

<b>AHRQ Indicator Number</b>	<b>Indicator Name</b>	<b>Description</b>
PQI 1	Diabetes Short-term Complications Admission Rate	Number of admissions for diabetes short-term complications per 100,000 population
PQI 2	Perforated Appendix Admission Rate	Number of admissions for perforated appendix as a share of all admissions for appendicitis within an area
PQI 3	Diabetes Long-term Complications Admission Rate	Number of admissions for long-term diabetes per 100,000 population
PQI 5	Chronic Obstructive Pulmonary Disease Admission Rate	Number of admissions for COPD per 100,000 population
PQI 7	Hypertension Admission Rate	Number of admissions for hypertension per 100,000 population
PQI 8	Congestive Heart Failure Admission Rate	Number of admissions for CHF per 100,000 population
PQI 9	Low Birth Weight Rate	Number of low birth weight births as a share of all births in an area
PQI 10	Dehydration Admission Rate	Number of admissions for dehydration per 100,000 population
PQI 11	Bacterial Pneumonia Admission Rate	Number of admissions for bacterial pneumonia per 100,000 population
PQI 12	Urinary Tract Infection Admission Rate	Number of admissions for urinary infection per 100,000 population
PQI 13	Angina without Procedure Admission Rate	Number of admissions for angina without procedure per 100,000 population
PQI 14	Uncontrolled Diabetes Admission Rate	Number of admissions for uncontrolled diabetes per 100,000 population ( <i>Note: This indicator is designed to be combined with diabetes short-term complications.</i> )
PQI 15	Adult Asthma Admission Rate	Number of admissions for asthma in adults per 100,000 population
PQI 16	Rate of Lower Extremity Amputation Among Patients with Diabetes	Number of admissions for lower extremity amputation among patients with diabetes per 100,000 population

## Chart 6. AHRQ Pediatric Quality Indicators by MCO

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Number of Appendicitis Cases = 4  
 STAR+PLUS Universe for All Other Measures = 9,838



Reference: STAR+PLUS Table PDI08

Note: Rates are per 100,000 enrollees ages 0 -17. The denominator for perforated appendix measure is less than 30, therefore this measure is not reported for this year.

### Key Points:

1. The Agency for Healthcare Research and Quality (AHRQ) Pediatric Quality Indicators (PDIs) use hospital inpatient discharge data to calculate rates of admission for various ambulatory care sensitive conditions for children and adolescents. PDIs screen for inpatient stays that were potentially avoidable with better access to care in outpatient settings. This information is useful for monitoring trends, comparing MCO performance, and addressing access to care issues.
2. Chart 6 provides PDI rates for asthma, diabetes short-term complications, gastroenteritis, and urinary tract infection among children and adolescents in the STAR+PLUS Program, age 0 to 17 years old, distributed by MCO. Rates are per 100,000 enrollees for all conditions. **Table 2** describes each of the four AHRQ PDIs shown here.
3. STAR+PLUS Program admissions rates for all four conditions exceeded national estimates reported by the AHRQ.<sup>13</sup> These differences may be attributed to the fact that the national rates are based on a general community population, while the STAR+PLUS population is comprised of individuals with chronic conditions. It should also be noted that the AHRQ national estimates for PDIs are based on data collected in 2003

and are area-level indicators, including commercial and Medicaid populations. Compared to national estimates, admissions rates were approximately twice as high in the STAR+PLUS Program for asthma (321.24 per 100,000 compared to 180.90 per 100,000) and gastroenteritis (376.09 per 100,000 compared to 182.55 per 100,000).

4. PDI rates varied considerably across the four MCOs.
  - a. Asthma admissions rates were highest in AMERIGROUP (377.88 per 100,000) and lowest in Molina (191.39 per 100,000).
  - b. Diabetes short-term complications admissions rates were considerably higher in Molina than the program average (253.49 per 100,000 compared to 36.97 per 100,000). There were no admissions for diabetes short-term complications among children and adolescents in AMERIGROUP and Superior.
  - c. Gastroenteritis admissions rates were considerably greater than the program average (376.09 per 100,000) in both Superior (819.06 per 100,000) and Molina (562.32 per 100,000).
  - d. Urinary tract infection rates were highest in Molina (93.72 per 100,000). There were no admissions for urinary tract infection among children and adolescents in Superior.
5. High rates of potentially avoidable admissions for diabetes short-term complications in Molina are cause for concern. Specifically, these admissions include diagnoses of diabetes with ketoacidosis, hyperosmolarity, or coma.<sup>14</sup> Research has found that infection – typically urinary tract infection and pneumonia – is the most common precipitating cause of both diabetic ketoacidosis and hyperosmolarity.<sup>15,16</sup> Other precipitating causes include intercurrent illnesses, psychological stress, and non-compliance with insulin therapy. Programs for early detection of potential ketoacidosis in pediatric diabetes patients, patient education, and instruction in self-monitoring are recommended. Outpatient educational approaches should be directed toward sick-day management, incorporating consistent self-monitoring of blood glucose and ketones and timely administration of supplemental insulin and fluids.<sup>17</sup> HHSC may wish to consider these findings in efforts to reduce avoidable admissions for diabetes short-term complications.
6. High rates of potentially avoidable admissions for gastroenteritis in Superior and Molina are also cause for concern. Studies have found that gastroenteritis hospitalization rates are higher among those living in low-income than higher-income communities, suggesting that these admissions may result from poor access to outpatient care.<sup>18</sup> HHSC may wish to consider future studies to determine potential barriers to access to care among lower-income pediatric STAR+PLUS members, and strategies for improving access to outpatient care in these communities.

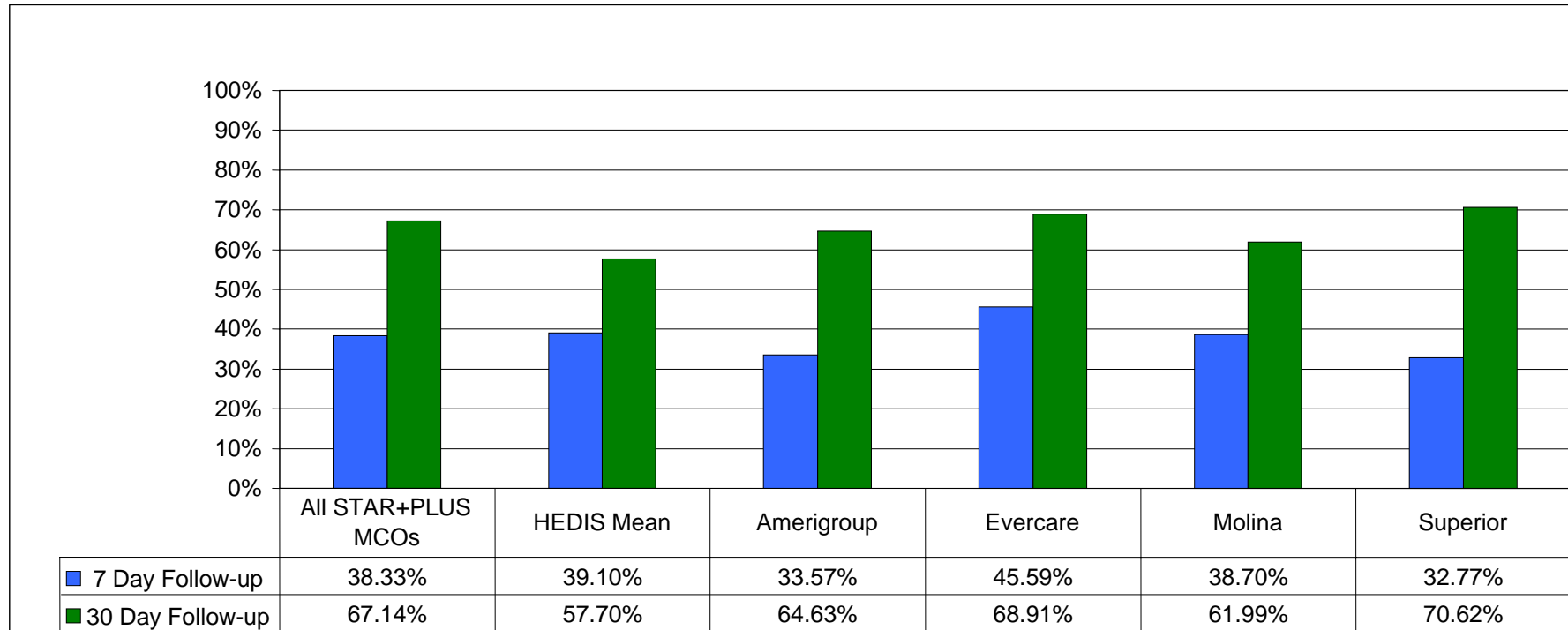
**Table 2. AHRQ Pediatric Quality Indicators**

AHRQ Indicator Number	Indicator Name	Description
PDI 14	Asthma Admission Rate	Number of admissions for long-term asthma per 100,000 population
PDI 15	Diabetes Short-term Complications Admission Rate	Number of admissions for diabetes short-term complications per 100,000 population
PDI 16	Gastroenteritis Admission Rate	Number of admissions for pediatric gastroenteritis per 100,000 population
PDI 17	Perforated Appendix Admission Rate	Number of admissions for perforated appendix as a share of all admissions for appendicitis within an area
PDI 18	Urinary Tract Infection Admission Rate	Number of admissions for urinary infection per 100,000 population

## Chart 7. HEDIS® Follow-Up after Hospitalization for Mental Illness

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Mental Health Hospitalizations = 3,835



Reference: STAR+PLUS Table FUH08

### Key Points:

1. Chart 7 provides the percentage of STAR+PLUS Program enrollees age six and older who were hospitalized for mental illness and who had an outpatient visit, an intensive outpatient encounter, or a partial hospitalization with a physician provider during the measurement period, distributed by MCO. Two percentages are shown – one for follow-up within seven days of discharge, and one for follow-up within 30 days of discharge. Rates for this measure are slightly inflated due to the lifting of provider constraints, which should be taken into consideration when comparing rates with the national HEDIS® means (which specify that follow-up occur with a mental health provider).
2. The overall STAR+PLUS Program score was lower than the national HEDIS® mean for Medicaid Managed Care Plans reporting to the NCQA on this measure at the seven-day follow-up period, and better than the national average at the 30-day follow-up period. Among STAR+PLUS enrollees hospitalized for mental illness, 38 percent received follow-up within seven days of discharge (compared with 39 percent nationally) and 67 percent received follow-up within 30 days of discharge (compared with 58 percent nationally).

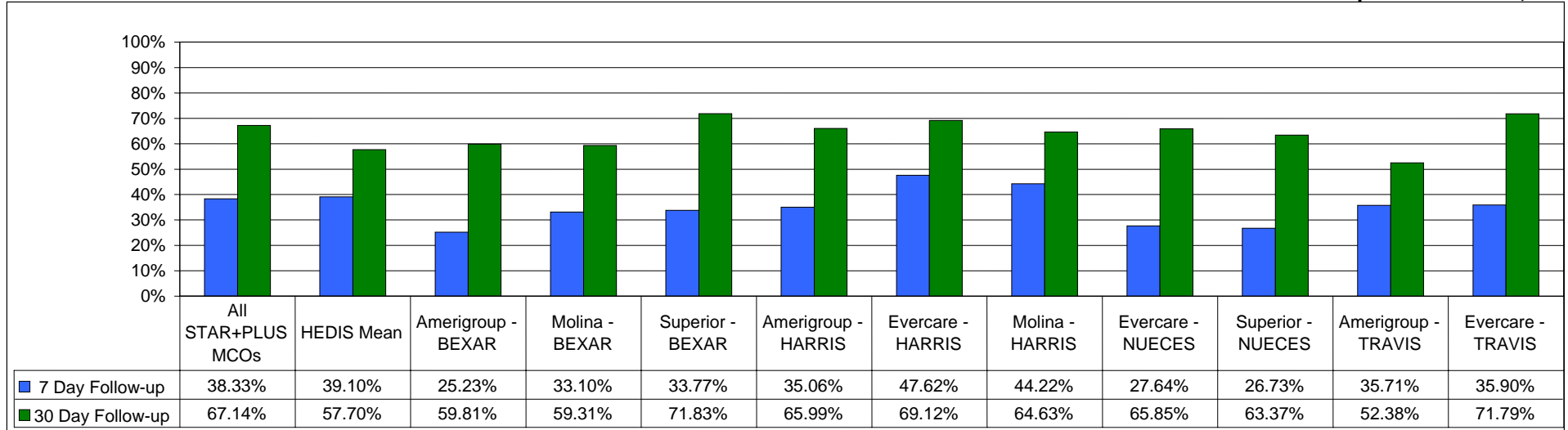


3. The STAR+PLUS Program performed better than the SFY 2008 HHSC Performance Indicator Dashboard standards for this measure at the seven-day follow-up period (32 percent) and the 30-day follow-up period (52 percent).<sup>19</sup> STAR+PLUS Program performance was considerably better at the 30-day follow-up period, and HHSC may wish to consider raising the Performance Indicator Dashboard standards for this measure.
4. Results for the seven-day follow-up period were variable across MCOs. Only Evercare was at or above the national HEDIS<sup>®</sup> mean, at 45.59 percent. The lowest-performing MCO was Superior at 32.77 percent.
5. All four health plans exceeded the national HEDIS<sup>®</sup> mean for 30-day follow-up, with Superior exceeding the national mean by almost 13 percentage points.

## Chart 8. HEDIS® Follow-Up after Hospitalization for Mental Illness—SDA Breakout

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Mental Health Hospitalizations = 3,835



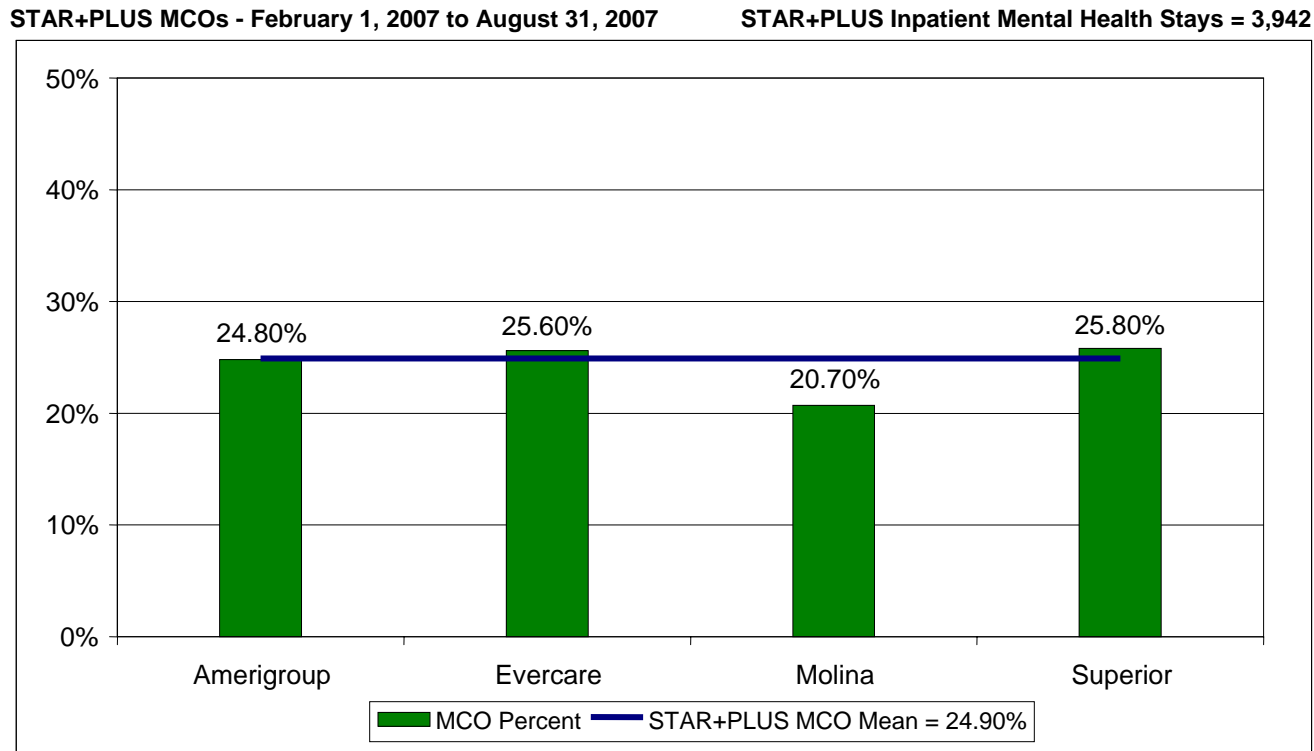
Reference: STAR+PLUS Table FUH08

SDA Mean	SDA Breakout				
		Bexar	Harris	Nueces	Travis
	7-Day	31.78%	41.85%	27.23%	35.80%
30-Day	67.29%	67.47%	64.73%	61.73%	

### Key Points:

1. Chart 8 presents results for the HEDIS® Follow-Up after Hospitalization for Mental Illness measure, distributed by MCO/SDA. Rates for this measure are slightly inflated due to the lifting of provider constraints, which should be taken into consideration when comparing rates with the national HEDIS® means (which specify that follow-up occur with a mental health provider).
2. At seven days following discharge, Molina – Harris and Evercare – Harris met or exceeded the national HEDIS® mean for this measure, at 44.22 percent and 47.62 percent, respectively. The lowest-performing MCO/SDA groups for this measure were AMERIGROUP – Bexar (25.23 percent), Superior – Nueces (26.73 percent), and Evercare – Nueces (27.64 percent). At the SDA level, only the Harris SDA was comparable to the national HEDIS® mean, at 41.85 percent.
3. At 30 days following discharge, all MCO/SDA groups except AMERIGROUP – Travis (52.38 percent) met or exceeded the national HEDIS® mean for this measure. Likewise, at the SDA level, all four SDAs exceeded the national HEDIS® mean.
4. Ensuring continuity of care and providing follow-up in the community after inpatient stays for mental illness has been found to reduce enrollees' health care costs and improve their outcomes of care.<sup>20</sup>

## Chart 9. Readmission within 30 Days after an Inpatient Stay for Mental Health



Reference: Table STAR+PLUS MHRReadmit08

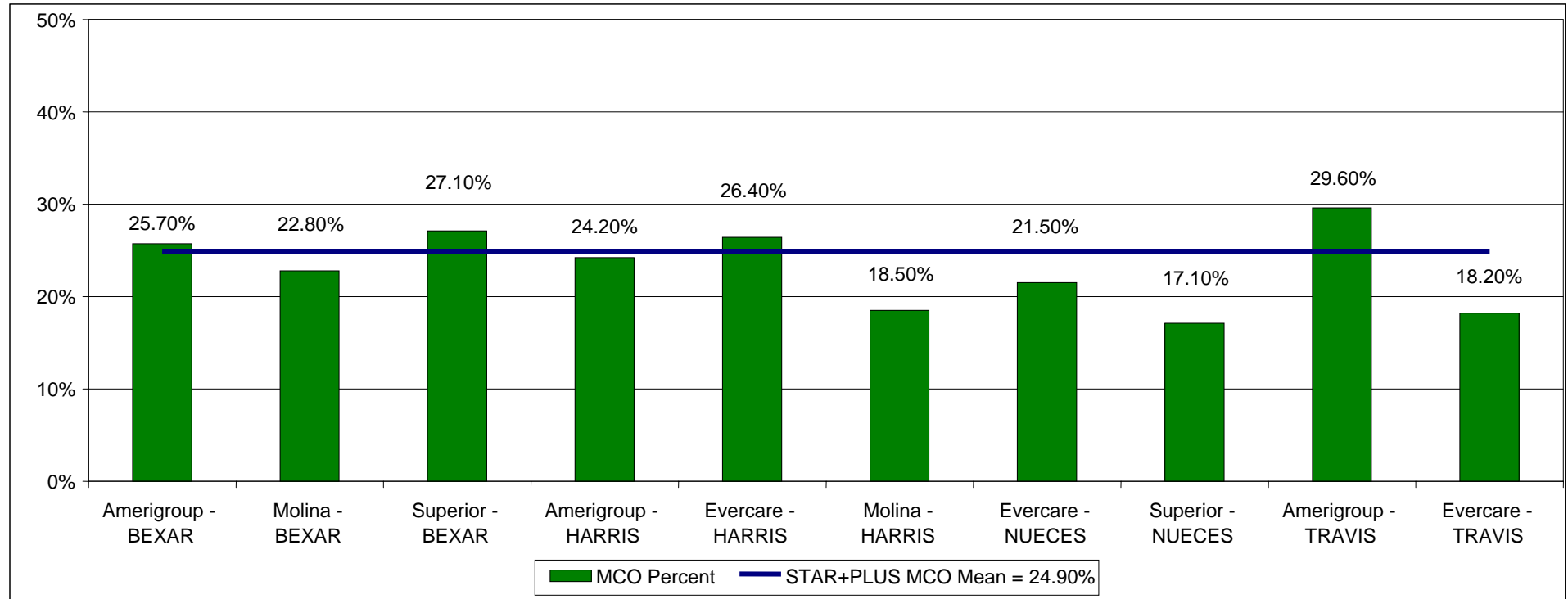
### Key Points:

1. Chart 9 provides the percentage of STAR+PLUS Program enrollees who were readmitted within 30 days following an inpatient stay for mental health problems, distributed by MCO. Mental health readmissions are frequently used as a measure of an adverse outcome, which potentially result from efforts to contain behavioral health care costs such as reducing the initial length of stay.<sup>21</sup>
2. There was little variation among health plans on this measure. Molina had the lowest percentage of readmissions, at 20.70 percent. The lowest-performing MCO (that with the highest percentage of readmissions) was Superior, at 25.80 percent.
3. Because this is not a HEDIS<sup>®</sup> measure, information for national comparisons is not available.

## Chart 10. Readmission within 30 Days after an Inpatient Stay for Mental Health—SDA Breakout

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Inpatient Mental Health Stays = 3,942



Reference: Table STAR+PLUS MHReadmit08

SDA	Bexar	Harris	Nueces	Travis
Mean	26.20%	24.80%	19.40%	24.50%

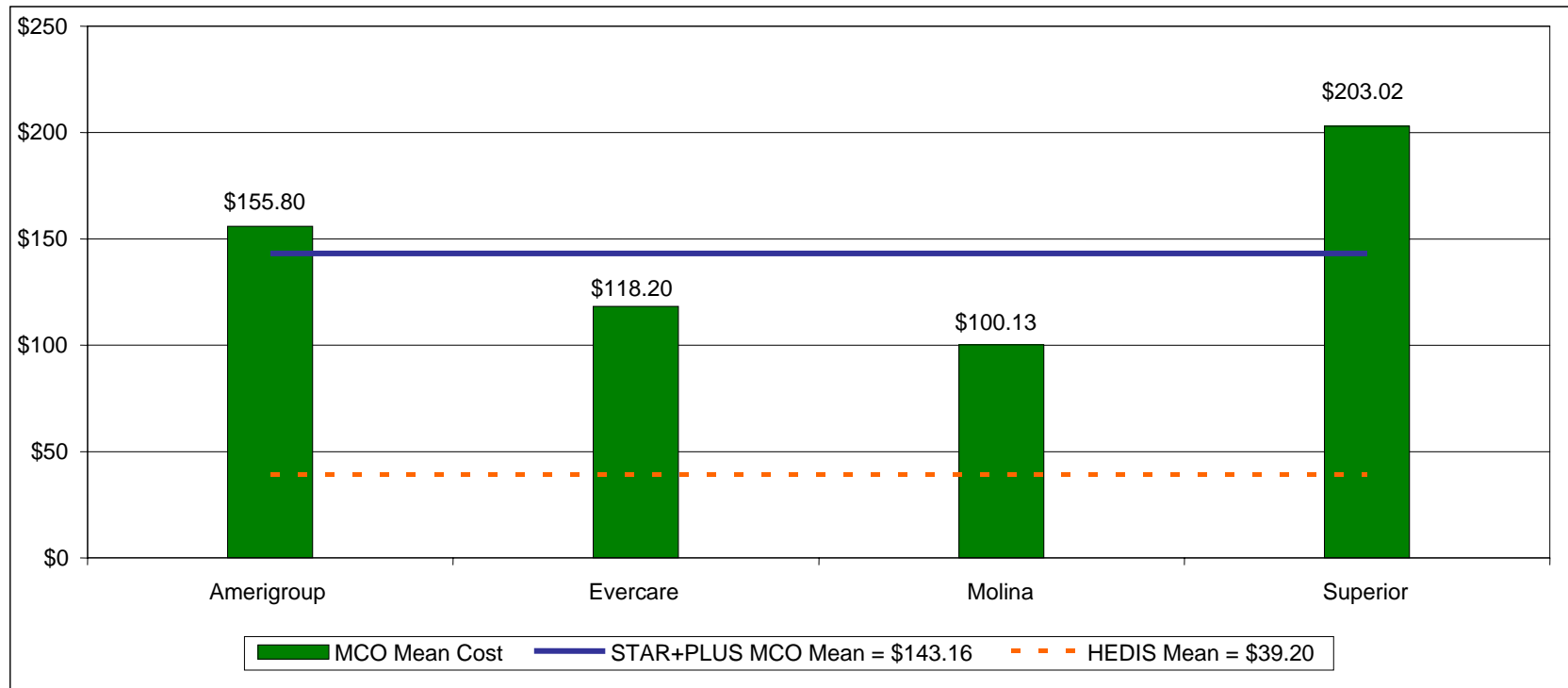
### Key Points:

1. Chart 10 provides the percentage of STAR+PLUS Program enrollees who were readmitted within 30 days following an inpatient stay for mental health problems, distributed by MCO/SDA.
2. The highest-performing MCO/SDA groups (that with the lowest rates of readmission) for this measure were Superior – Nueces (17.10 percent), Evercare – Travis (18.20 percent), and Molina – Harris (18.50 percent). The lowest-performing MCO/SDA group (that with the highest rates of readmission) was AMERIGROUP – Travis (29.60 percent).
3. At the SDA level, only the Bexar SDA had rates of readmission higher than the STAR+PLUS Program average (26.20 percent compared with 24.90 percent).

## Chart 11. HEDIS® Outpatient Drug Utilization - Average Cost of Prescriptions per Member per Month

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Number of Prescriptions = 2,467,958



Reference: STAR+PLUS Table ORX08

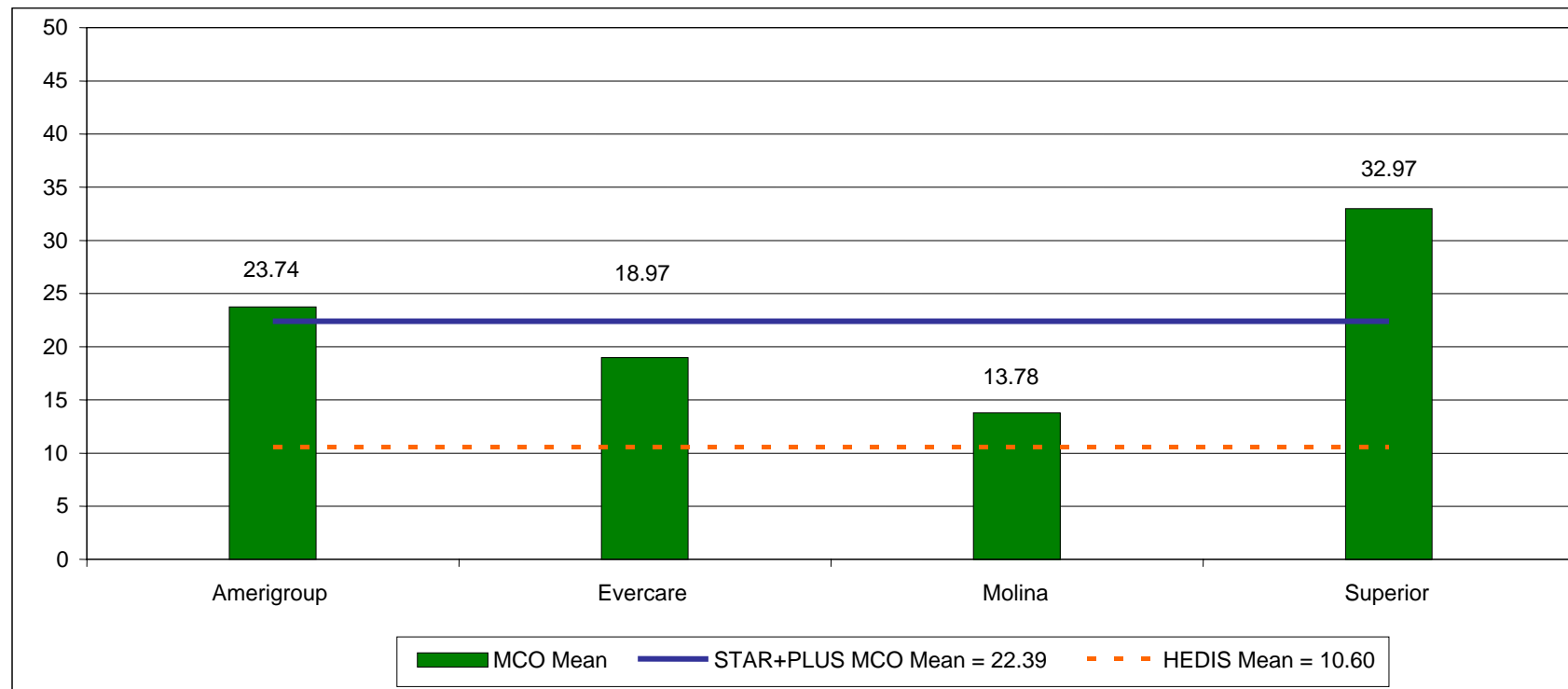
### Key Points:

1. Chart 11 provides the average cost of prescriptions per STAR+PLUS member per month during the measurement period, distributed by MCO.
2. Prescription drug costs in all four MCOs serving STAR+PLUS were considerably higher than the national HEDIS® mean (\$39.20). This difference may be attributed to the fact that the national rates developed by AHRQ are based on a general community population, while the STAR+PLUS population is comprised of individuals with chronic conditions.
3. Superior had the highest average cost of prescriptions per member per month, at \$203.02. Molina had the lowest average cost of prescriptions per member per month, at \$100.13.

## Chart 12. HEDIS® Outpatient Drug Utilization - Average Number of Prescriptions per Member per Year

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Number of Prescriptions = 2,467,958

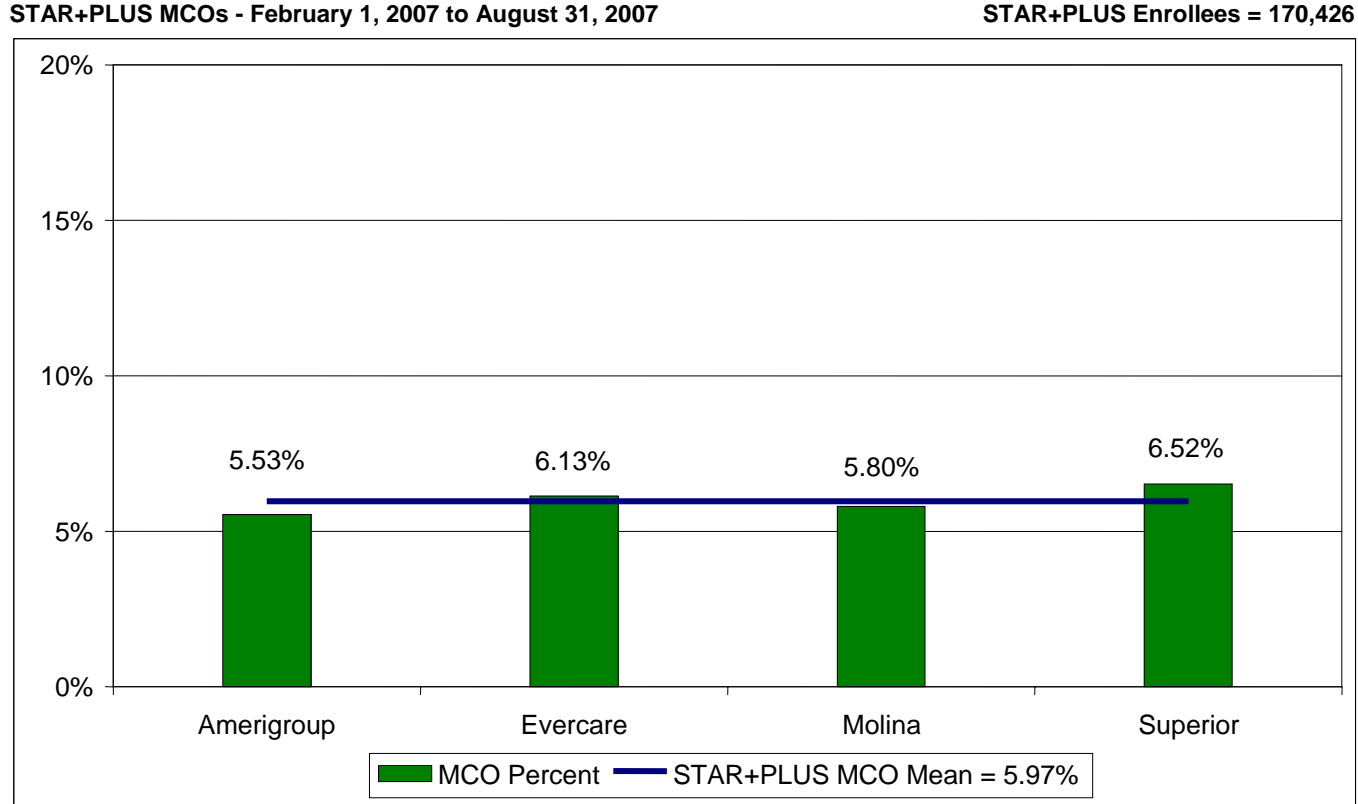


Reference: STAR+PLUS Table ORX08

### Key Points:

1. Chart 12 provides the average number of prescriptions per STAR+PLUS member per year during the measurement period, distributed by MCO.
2. The average number of prescriptions in all four MCOs exceeded the national HEDIS® mean (10.6). This difference may be attributed to the fact that the national rates developed by AHRQ are based on a general community population, while the STAR+PLUS population is comprised of individuals with chronic conditions.
3. Superior had the highest number of prescriptions per member during the measurement period, at 32.97. Molina had the lowest number of prescriptions per member during the measurement period, at 13.78.

### Chart 13. Percent of Enrollees with One or More Hospital Stays Due to an Ambulatory Care Sensitive Condition



Reference: STAR+PLUS Table ACSC08

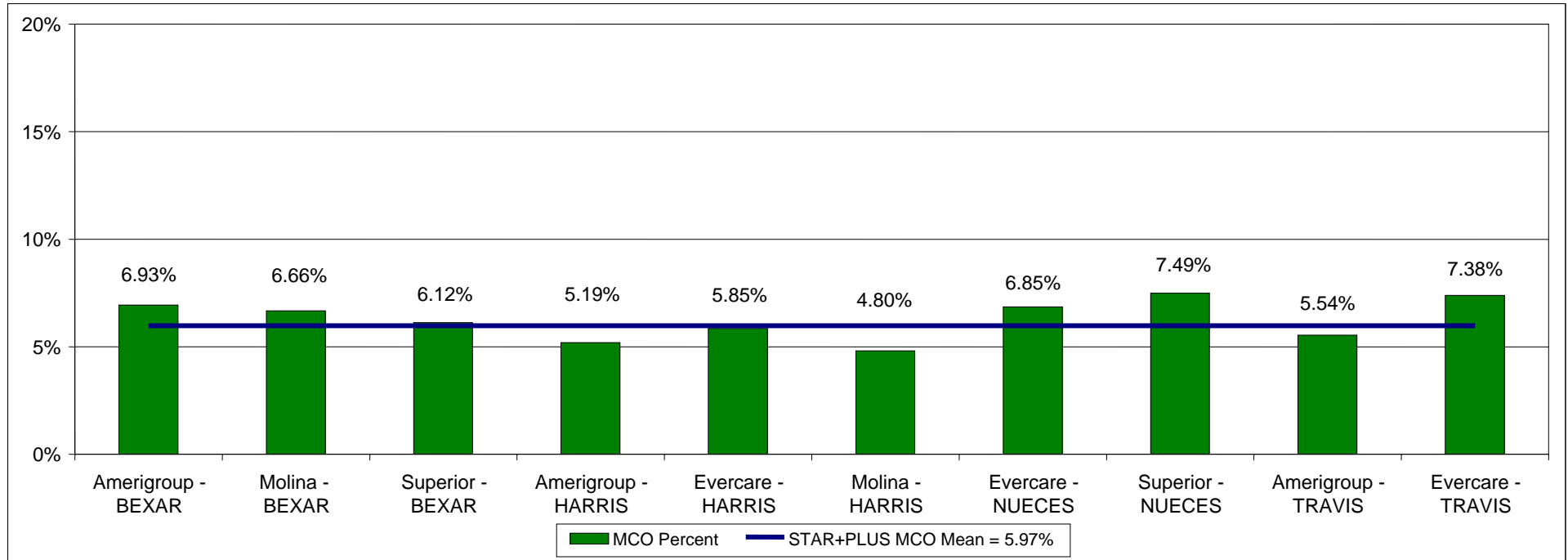
#### Key Points:

1. Chart 13 provides the percentage of STAR+PLUS enrollees who had one or more hospital stays due to an ambulatory care sensitive condition (ACSC) during the measurement period, distributed by MCO.
2. There was little variation among MCOs on this measure, with the percentage of enrollees with one or more ASCS-related hospitalization ranging from 5.53 percent in AMERIGROUP to 6.52 percent in Superior.
3. Because this is not a HEDIS® measure, information for national comparisons is not available.

## Chart 14. Percent of Enrollees with One or More Hospital Stays Due to an Ambulatory Care Sensitive Condition—SDA Breakout

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Enrollees = 170,426



Reference : STAR+PLUS Table ACSC08

SDA	Bexar	Harris	Nueces	Travis
Mean	6.42%	5.48%	7.21%	6.27%

### Key Points:

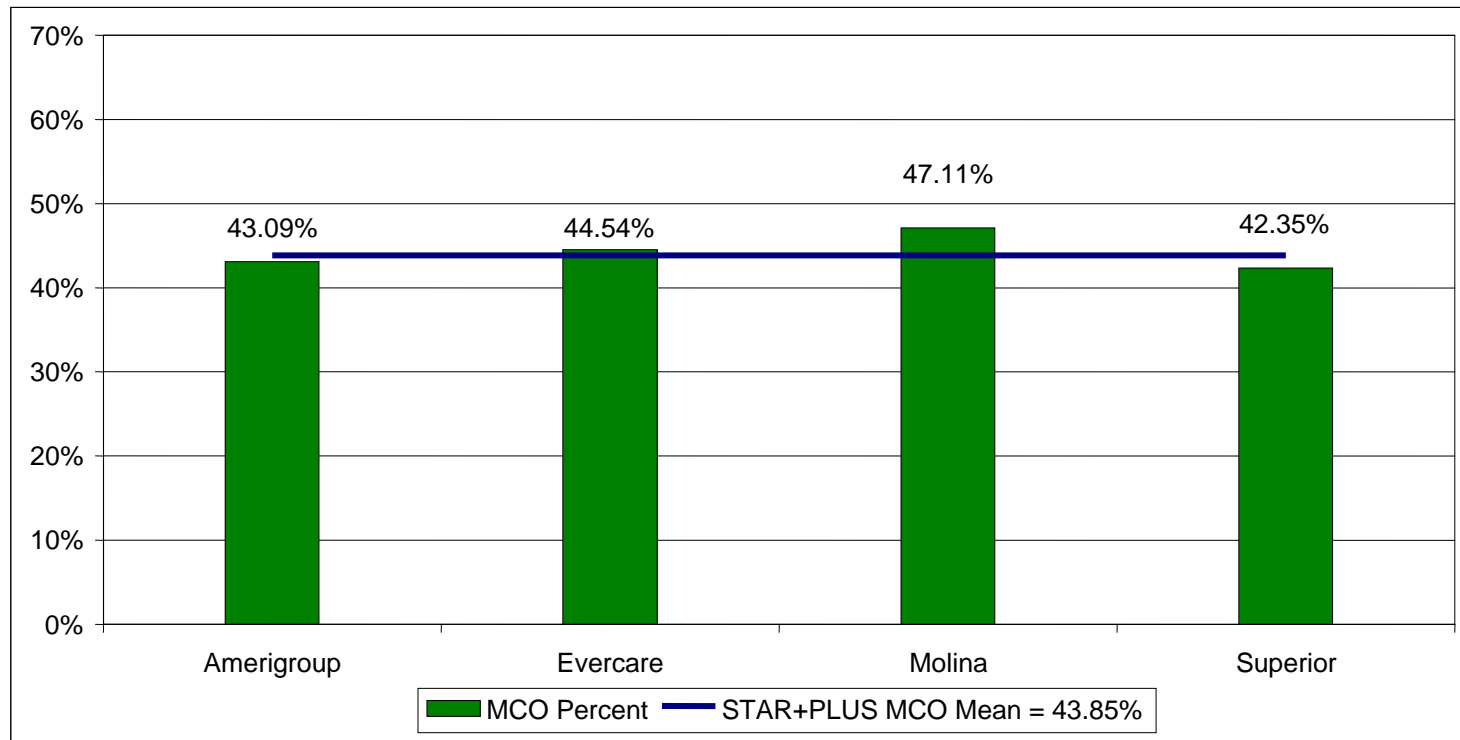
1. Chart 14 provides the percentage of STAR+PLUS enrollees who had one or more hospital stays due to an ambulatory care sensitive condition (ACSC) during the measurement period, distributed by MCO/SDA.
2. There was little variation among MCO/SDA groups on this measure, with the percentage of enrollees with one or more ASCS-related hospitalization ranging from 4.80 percent in Molina – Harris to 7.49 percent in Superior – Nueces.
3. At the SDA level, the Nueces SDA had the highest percentage of ASCS-related hospitalizations (7.21 percent).



## Chart 15. Percent of Hospitalizations with a Primary Diagnosis of an Ambulatory Care Sensitive Condition

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Inpatient Stays = 32,631



Reference: STAR+PLUS Table ACSC08

### Key Points:

1. Chart 15 provides the percentage of hospitalizations among STAR+PLUS members that were attributed to a primary diagnosis of an ambulatory care sensitive condition during the measurement period, distributed by MCO. The denominator for this measure represents inpatient stays only. Because this measure represents admissions that were potentially avoidable with good access to outpatient care, lower percentages mean higher program and health plan performance.
2. There was little variation among MCOs on this measure, ranging from 42.35 percent in Superior to 47.11 percent in Molina. For all health plans, the percentage of ACSC-related hospitalizations was considerably higher than the SFY 2008 HHSC Performance Indicator Dashboard standard of 11 percent for the STAR+PLUS program.<sup>22</sup> This finding suggests that program-level efforts must be made to reduce

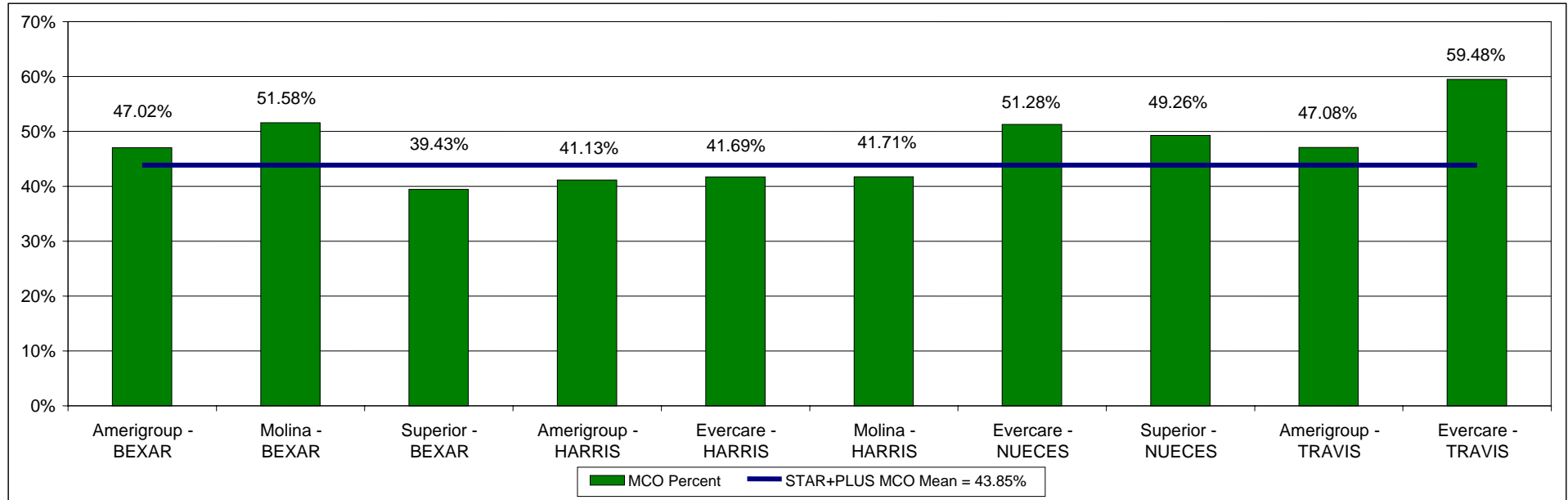
the number of ACSC-related hospitalizations among STAR+PLUS members. While the factors associated with these potentially avoidable admissions were beyond the scope of this report, potential strategies for improving access to care and reducing admissions may include implementation or improvement of transportation brokerage services, the establishment of rural health clinics for members in areas characterized by a shortage of health professionals, and the use of Federally Qualified Health Centers (FQHCs) that exclusively provide preventive and primary care for low-income and uninsured families.<sup>23,24,25</sup>

3. Because this is not a HEDIS® measure, information for national comparisons is not available.

## Chart 16. Percent of Hospitalizations with a Primary Diagnosis of an Ambulatory Care Sensitive Condition—SDA Breakout

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Inpatient Stays = 32,631



Reference : STAR+PLUS Table ACSC08

SDA	Bexar	Harris	Nueces	Travis
Mean	43.63%	41.47%	50.10%	52.25%

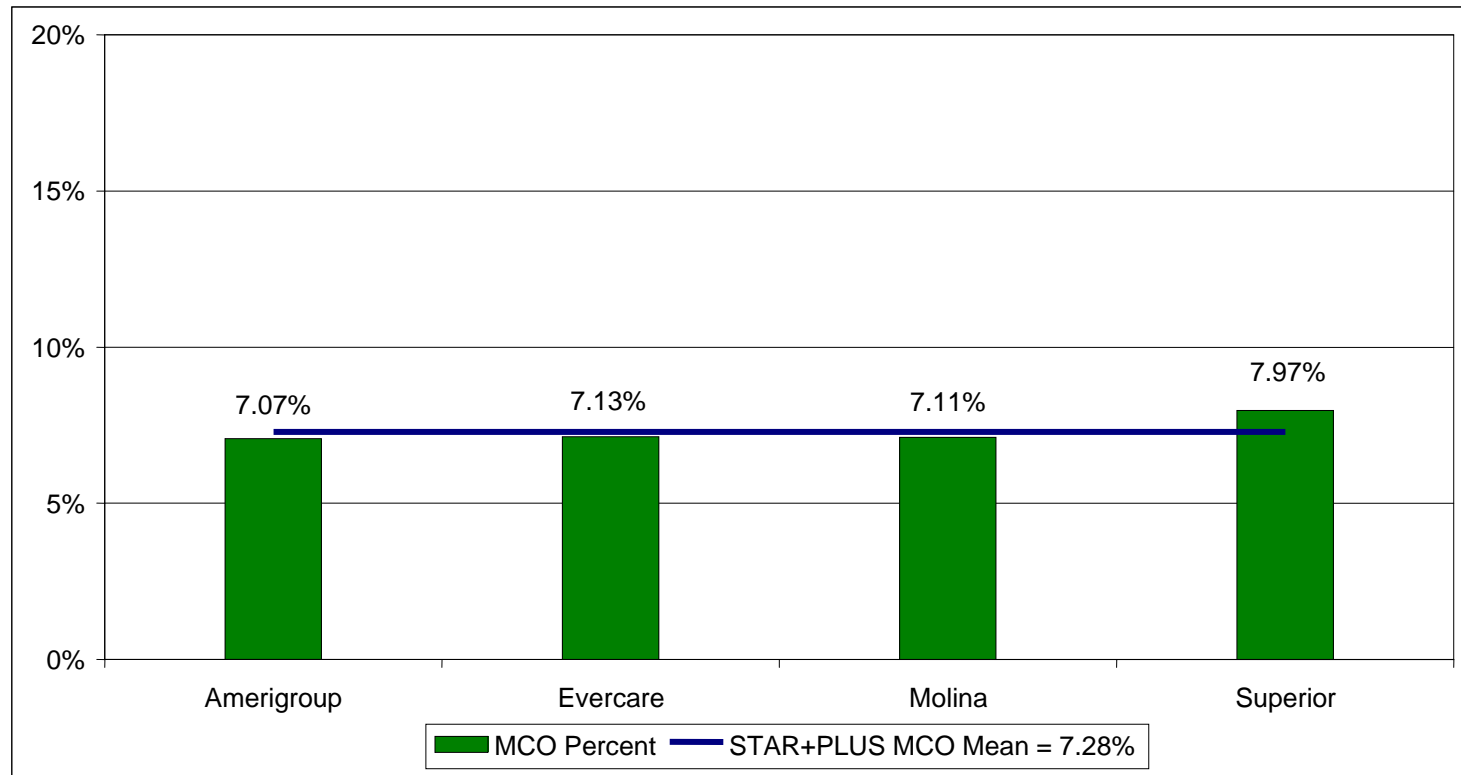
### Key Points:

1. Chart 16 provides the percentage of hospitalizations among STAR+PLUS members that were attributed to a primary diagnosis of an ambulatory care sensitive condition during the measurement period, distributed by MCO/SDA. The denominator for this measure represents inpatient stays only.
2. There was some variation among MCO/SDA groups on this measure, ranging from 39.43 percent in Superior - Bexar to 59.48 percent in Evercare – Travis. None of the MCO/SDA groups performed at or lower than the SFY 2008 HHSC Performance Indicator Dashboard standard of 11 percent for STAR+PLUS. (See **Chart 15** for recommendations on reducing rates of ACSC-related hospitalizations.)
3. At the SDA level, the percentage of hospitalizations attributed to an ACSC diagnosis was highest in the Travis SDA (52.25 percent) and lowest in the Harris SDA (41.47 percent).

## Chart 17. Percent of Enrollees with One or More Emergency Department Visits Due to an Ambulatory Care Sensitive Condition

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Enrollees = 170,426



Reference: STAR+PLUS Table ACSC08

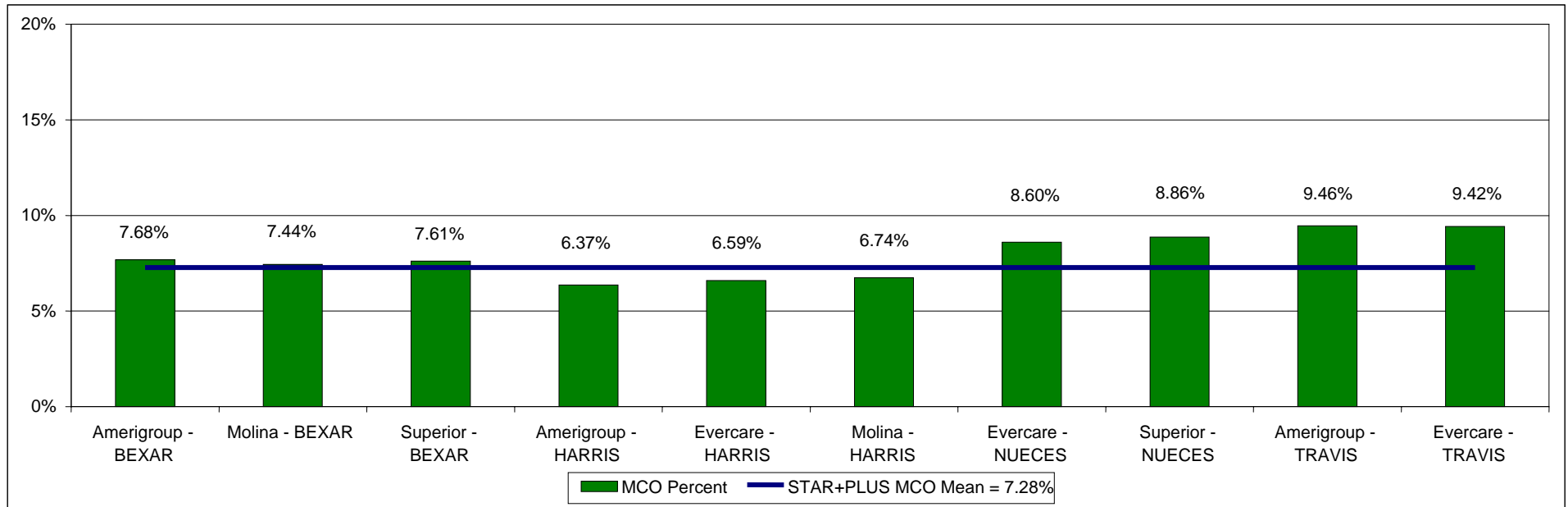
### Key Points:

1. Chart 17 provides the percentage of STAR+PLUS enrollees who had one or more emergency department visits due to an ambulatory care sensitive condition (ACSC) during the measurement period, distributed by MCO.
2. There was little variation among MCOs on this measure, ranging from 7.07 percent in AMERIGROUP to 7.97 percent in Superior.
3. Because this is not a HEDIS<sup>®</sup> measure, information for national comparisons is not available.

## Chart 18. Percent of Enrollees with One or More Emergency Department Visits Due to an Ambulatory Care Sensitive Condition—SDA Breakout

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS Enrollees = 170,426



Reference : STAR+PLUS Table ACSC08

SDA	Bexar	Harris	Nueces	Travis
Mean	7.58%	6.51%	8.75%	9.44%

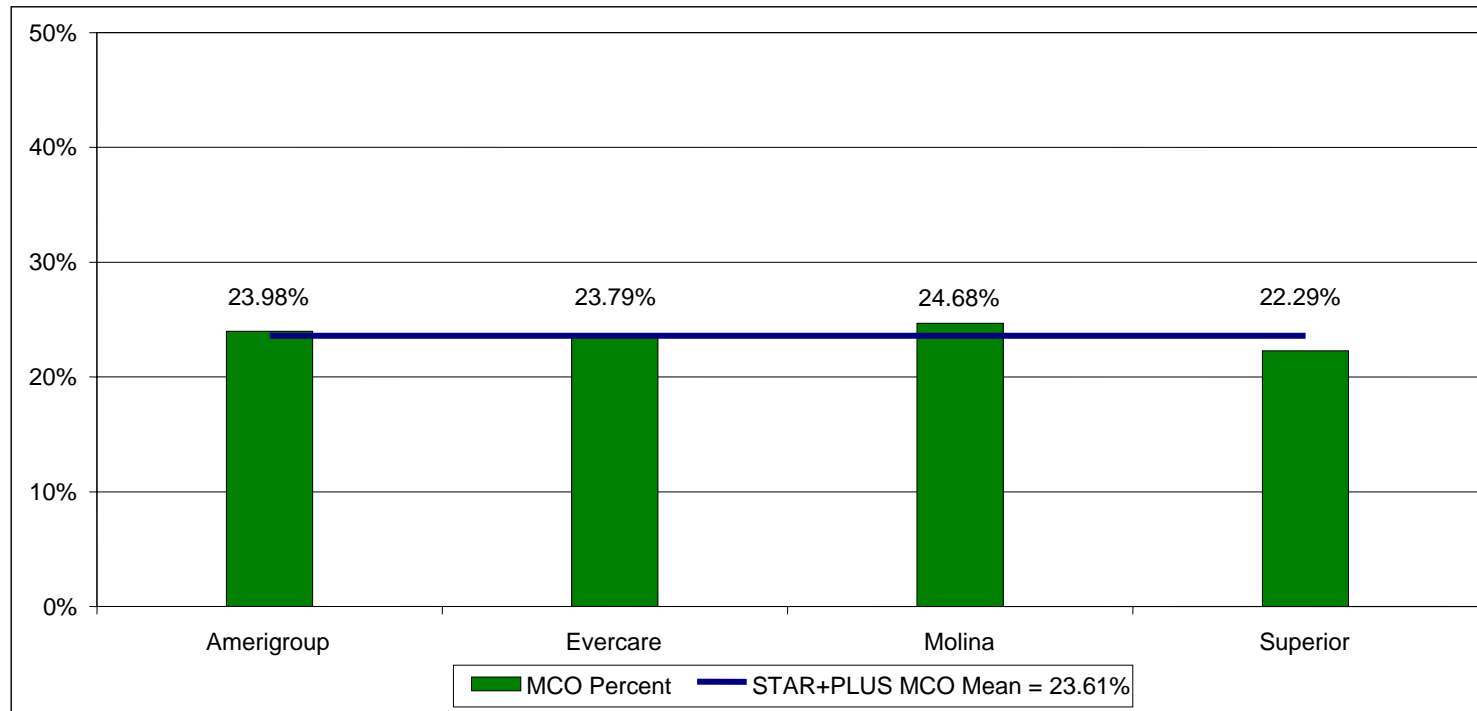
### Key Points:

1. Chart 18 provides the percentage of STAR+PLUS enrollees who had one or more emergency department visits due to an ambulatory care sensitive condition (ACSC) during the measurement period, distributed by MCO/SDA.
2. The highest performing MCO/SDA groups on this measure (those with the lowest percentages) were AMERIGROUP – Harris (6.37 percent), Evercare – Harris (6.59 percent), and Molina – Harris (6.74 percent). The Harris SDA overall had the lowest percentage of enrollees with one or more ACSC-related emergency department visits (6.51 percent), suggesting that performance on this measure could be related more to SDA than health plan.
3. The lowest performing MCO/SDA groups on this measure (those with the highest percentages) were AMERIGROUP – Travis (9.46 percent) and Evercare – Travis (9.42 percent). The Travis SDA overall also had the highest percentage of enrollees with one or more ACSC-related emergency department visits (9.44 percent).

## Chart 19. Percent of Emergency Department Visits with a Primary Diagnosis of an Ambulatory Care Sensitive Condition

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS ED Visits = 73,459



Reference: STAR+PLUS Table ACSC08

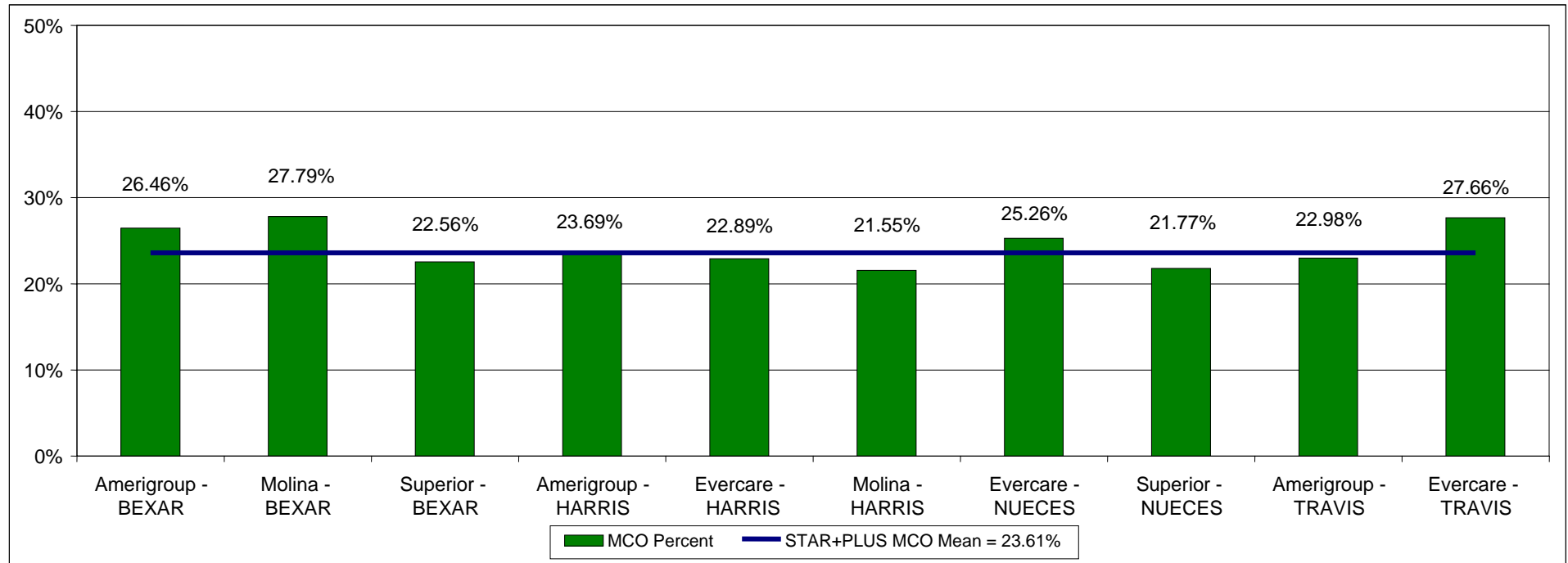
### Key Points:

1. Chart 19 provides the percentage of emergency department visits among STAR+PLUS enrollees that were attributed to a primary diagnosis of an ambulatory care sensitive condition (ACSC), distributed by MCO. The denominator for this measure represents emergency department visits only. Because this measure represents visits that were potentially avoidable with good access to outpatient care, lower percentages mean higher program and health plan performance.
2. Overall, 24 percent of emergency department visits among STAR+PLUS members were ACSC-related. This is considerably lower than the SFY 2008 HHSC Performance Indicator Dashboard standard of 32 percent for STAR+PLUS.<sup>26</sup> This finding suggests that HHSC may wish to consider lowering the Performance Indicator Dashboard standard for this measure, making it more stringent. There was little variation among MCOs on this measure, ranging from 22.29 percent in Superior to 24.68 percent in Molina.
3. Because this is not a HEDIS<sup>®</sup> measure, information for national comparisons is not available.

**Chart 20. Percent of Emergency Department Visits with a Primary Diagnosis of an Ambulatory Care Sensitive Condition -- SDA Breakout**

STAR+PLUS MCOs - February 1, 2007 to August 31, 2007

STAR+PLUS ED Visits = 73,459



Reference : STAR+PLUS Table ACSC08

SDA	Bexar	Harris	Nueces	Travis
Mean	24.45%	23.08%	23.16%	24.64%

**Key Points:**

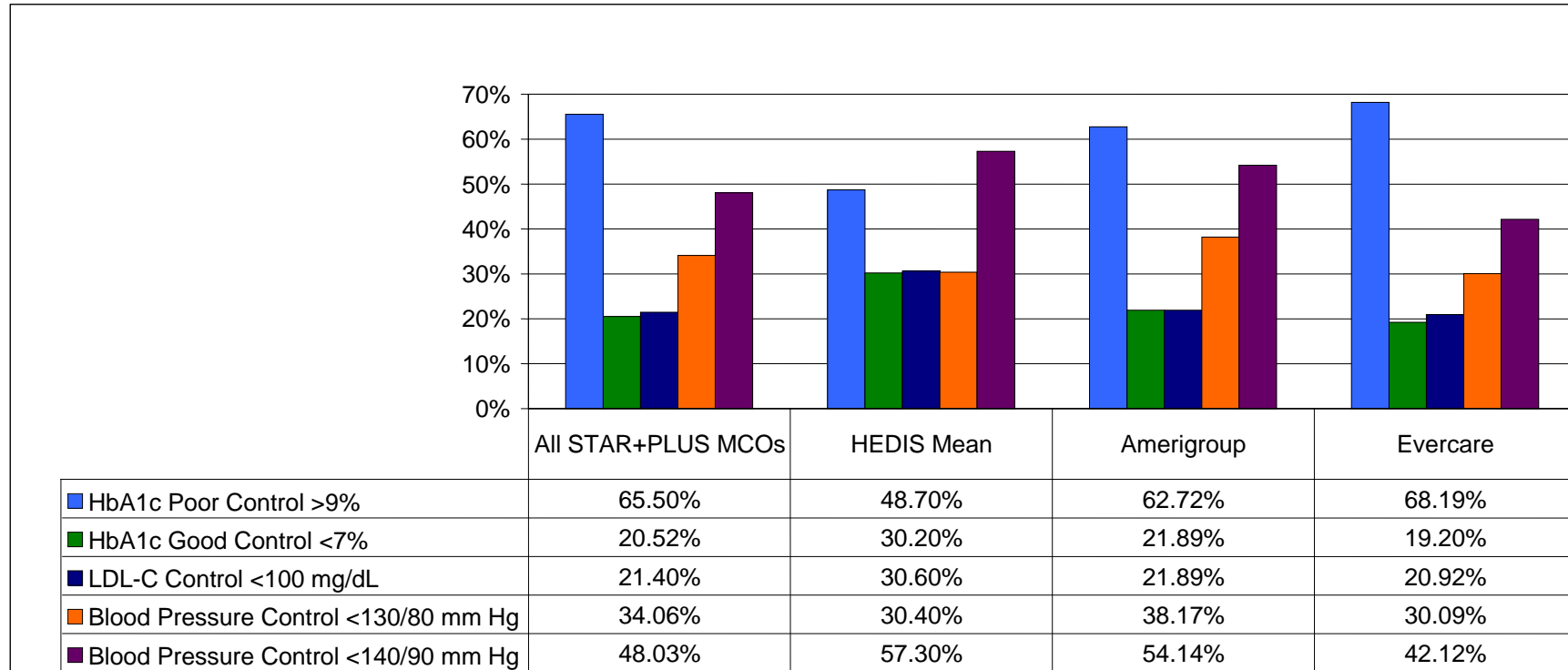
1. Chart 20 provides the percentage of emergency department visits among STAR+PLUS enrollees that were attributed to a primary diagnosis of an ambulatory care sensitive condition (ACSC), distributed by MCO/SDA. The denominator for this measure represents emergency department visits only.
2. The highest performing MCO/SDA groups on this measure (those with the lowest percentages) were Molina – Harris (21.55 percent), Superior – Nueces (21.77 percent), and Superior – Bexar (22.56 percent). The lowest performing MCO/SDA groups (those with the highest percentages) were Molina – Bexar (27.79 percent) and Evercare – Travis (27.66 percent).
3. There was little variation among SDAs on this measure, ranging from 23.08 percent in Harris SDA to 24.64 percent in Travis SDA.

## Chart 21. HEDIS® Comprehensive Diabetes Care (medical record review)

STAR+PLUS Samples Reviewed = 687

STAR+PLUS Eligible Enrollees = 4,480

STAR+PLUS MCOs - September 1, 2006 to August 31, 2007



Reference : STAR+PLUS Table CDC08

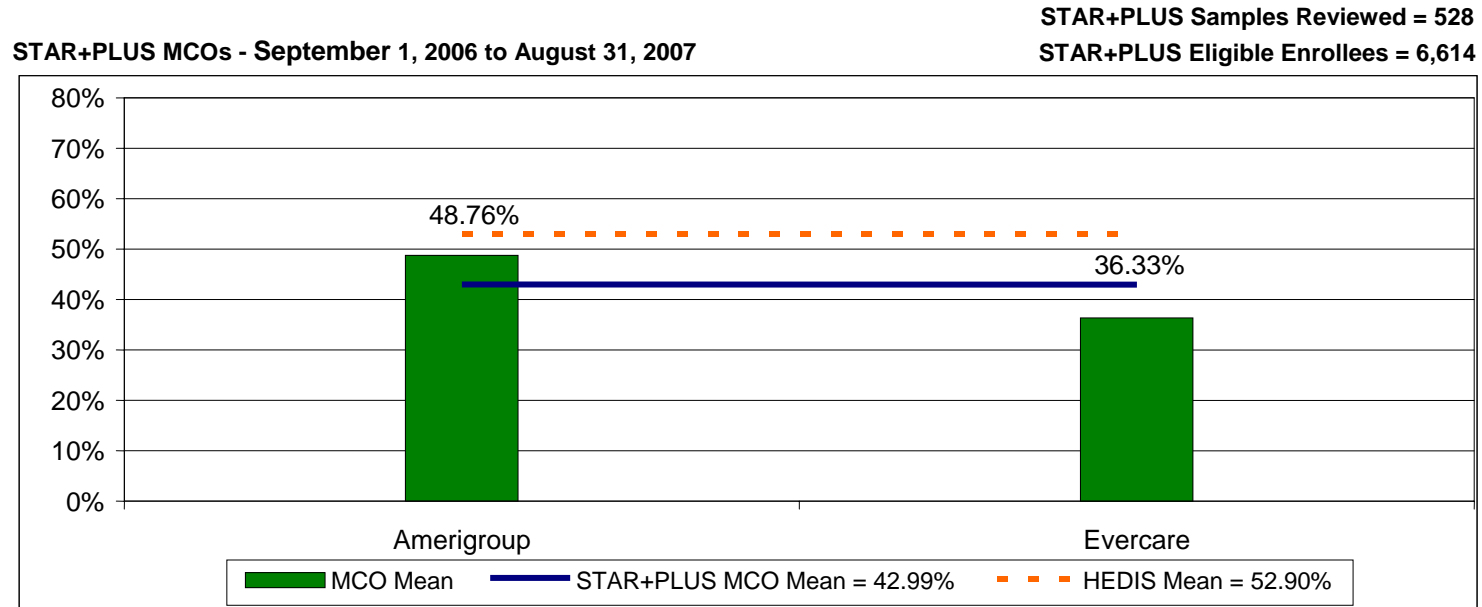
### Key Points:

- Chart 21 provides the percentage of STAR+PLUS members 18 to 75 years of age with diabetes (type 1 and type 2) who had each of the following: (1) HbA1c poor control (>9.0%), (2) HbA1c good control (<7.0%), (3) LDL-C control <100 mg/dL; (4) Blood pressure control <130/80 mm Hg; and (5) Blood pressure control <140/90 mm Hg. Note that for HbA1c poor control (>9.0%), a lower rate indicates better performance. For all other indicators of comprehensive diabetes care, a higher rate indicates better performance. Rates are shown only for AMERIGROUP and Evercare because the remaining health plans had denominators less than 30 for this measure.



2. The overall STAR+PLUS Program score was lower than the national HEDIS<sup>®</sup> mean for all indicators of comprehensive diabetes care except blood pressure control <130/80 mm Hg. In particular, greater than 65 percent of members had poor results (>9%) on the HbA1c test for blood sugar, which is nearly 17 percent greater than reported nationally.
3. At the MCO level, Evercare's score was lower than the national HEDIS<sup>®</sup> mean for all indicators of comprehensive diabetes care. AMERIGROUP had above-average performance only for blood pressure control <130/80 mm Hg (38 percent).
4. According to the most recent administrative interviews conducted with STAR+PLUS health plans by ICHP, both AMERIGROUP and Evercare have disease management programs for members with diabetes.<sup>27</sup> While these programs incorporate a patient education component, they may not translate to compliance outside the clinical setting. HHSC may wish to study the factors – whether dealing with patient demographics, location, or lifestyle – that may be contributing to low compliance with diabetes control recommendations.
5. This measure includes only members enrolled in AMERIGROUP and Evercare health plans in the Harris SDA which had a full year of data. This is reflected in the measurement period for this measure.

## Chart 22. HEDIS® Controlling High Blood Pressure (medical record review)



Reference : STAR+PLUS Table CBP08

### Key Points:

1. Chart 22 provides the percentage of STAR+PLUS members 18 to 85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90 mm Hg) during the measurement period. Rates are shown only for AMERIGROUP and Evercare because the remaining health plans had denominators less than 30 for this measure.
2. The overall STAR+PLUS Program score was lower than the national HEDIS® mean for controlling high blood pressure, with 43 percent of members having adequately controlled blood pressure, compared with 53 percent nationally. The STAR+PLUS Program also did not meet the HHSC Performance Indicator Dashboard standard of 52 percent for this measure.<sup>28</sup>
3. At the MCO level, Evercare performed below both the national HEDIS® mean and the program-level mean, with 36 percent of members with hypertension having adequately controlled blood pressure during the measurement period.
4. HHSC may wish to consider strategies for improving control of high blood pressure among STAR+PLUS members with a diagnosis of hypertension, especially among those in the Evercare health plan. Patient adherence to antihypertensive treatment plans is a key component to improving control. Of potential benefit are structured programs designed to assist managed care organizations in improving

adherence, such as those that use the HEDIS® Performance NAVIGATOR for Controlling High Blood Pressure and/or the “Health Belief” and “Transtheoretical” models as frameworks to better understand patient behavior change.<sup>29</sup> Efforts to improve compliance with an antihypertensive medication regimen are also critical, although should not be relied on exclusively. One study of antihypertensive monotherapy in managed care organizations found that high-adherence patients were 45 percent more likely to achieve blood pressure control than medium- or low-adherence patients; however, among high-adherence patients, only 43 percent had attained their target blood pressure.<sup>30</sup> There is evidence that telephone-mediated nurse management, in combination with standard office-based approaches to controlling hypertension, can also lead to improvements in blood pressure control.<sup>31</sup>

5. This measure includes only members enrolled in AMERIGROUP and Evercare health plans in the Harris SDA which had a full year of data. This is reflected in the measurement period for this measure.

## Endnotes

- <sup>1</sup> ICHP (The Institute for Child Health Policy). 2008. *Quality of Care Measures Technical Report Specifications, January 2009*. Gainesville, FL: The Institute for Child Health Policy, University of Florida.
- <sup>2</sup> The information that NCQA compiles for Medicaid Managed Care Programs can be viewed at [www.ncqa.org](http://www.ncqa.org).
- <sup>3</sup> Beaulieu, N.D., and A.M. Epstein. 2002. "National Committee on Quality Assurance Health-Plan Accreditation: Predictors, Correlates of Performance, and Market Impact." *Medical Care* 40(4): 325-337.
- <sup>4</sup> AHRQ (Agency for Healthcare Research and Quality). 2004. *AHRQ Quality Indicators—Guide to Prevention Quality Indicators: Hospital Admission for Ambulatory Care Sensitive Conditions*. Rockville, MD: AHRQ. Revision 4. (November 24, 2004). AHRQ Pub. No. 02-R0203.
- <sup>5</sup> ICHP. 2008. *Annual Chart Book, Fiscal Year 2007 – Texas Medicaid Managed Care STAR Quality of Care Measures: Technical Appendix*. Gainesville, FL: The Institute for Child Health Policy, University of Florida.
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- <sup>11</sup> Ibid.
- <sup>12</sup> Lenz T.L. and M.S. Monaghan. 2003. "Lifestyle modifications for patients with hypertension." *Journal of the American Pharmacists Association* 48(4): e92-99.
- <sup>13</sup> AHRQ. 2007. "Pediatric Quality Indicators Comparative Data for Area Indicators, Version 3.1." Available at: [http://www.qualityindicators.ahrq.gov/downloads/pdi/pdi\\_area\\_comparative\\_v31.pdf](http://www.qualityindicators.ahrq.gov/downloads/pdi/pdi_area_comparative_v31.pdf).
- <sup>14</sup> AHRQ. 2007. *Measures of Pediatric Health Care Quality Based on Hospital Administrative Data: The Pediatric Quality Indicators, Version 3.1*. Available at: [http://www.qualityindicators.ahrq.gov/downloads/pdi/pdi\\_measures\\_v31.pdf](http://www.qualityindicators.ahrq.gov/downloads/pdi/pdi_measures_v31.pdf).
- <sup>15</sup> Umpierrez, G.E. and A.E. Kitabchi. 2003. "Diabetic ketoacidosis: risk factors and management strategies." *Treatments in Endocrinology* 2(2): 95-108.
- <sup>16</sup> Stoner, G.D. 2005. "Hyperosmolar hyperglycemic state." *American Family Physician* 71(9): 1723-1730.

- <sup>17</sup> Bismuth, E. and L. Laffel. 2007. "Can we prevent diabetic ketoacidosis in children?" *Pediatric Diabetes* 8(Suppl 6): 24-33.
- <sup>18</sup> AHRQ. 2007. *Measures of Pediatric Health Care Quality Based on Hospital Administrative Data: The Pediatric Quality Indicators, Version 3.1.*
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- <sup>22</sup> HHSC. 2007.
- <sup>23</sup> Kim, J., E.C. Norton, and S.C. Stearns. 2009. "Transportation Brokerage Services and Medicaid Beneficiaries' Access to Care." *Health Services Research* 44(1): 145-161.
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- <sup>27</sup> ICHP. 2008. *MCO Administrative Interview, 2008*. Gainesville, FL: The Institute for Child Health Policy, University of Florida.
- <sup>28</sup> HHSC. 2007.
- <sup>29</sup> Turpin, R., K. Jungkind, and L. Salvucci. 2003. "The HEDIS performance NAVIGATOR for controlling high blood pressure: a resource to assist health plans improve patient adherence." *Disease Management* 6(1): 43-51.
- <sup>30</sup> Bramley, T.J., P.P. Gerbino, B.S. Nightengale, and F. Frech-Tamas. 2006. "Relationship of blood pressure control to adherence with antihypertensive monotherapy in 13 managed care organizations." *Journal of Managed Care Pharmacy* 12(3): 239-245.
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