



Quality-Based Payment and Delivery Reforms in Medicaid and the Children's Health Insurance Program

As Required By

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1. Executive Summary

The Texas Medicaid program has steadily evolved from a fee-for-service (FFS) model whereby the state pays medical care providers directly to a managed care model in which the state contracts with multiple managed care organizations (MCOs).

The Texas Health and Human Services Commission (HHSC) uses a wide array of categories of measures to assess quality. These measures are used to support quality-based payment systems or incentive and disincentive programs in Texas Medicaid and the Children's Health Insurance Program (CHIP). The categories of measures include: process, outcome, composite, utilization, and patient perception of care.

There is a national movement in health care toward paying for value – frequently referred to as value-based purchasing or value-based contracting. While both terms are often used interchangeably with quality-based payments, the general concept is to link a greater share of the health care payment to **value** (health care payments that tend to incentivize quality and efficiency); instead of **volume** (health care payments that tend to incentivize *more care*, rather than *more effective care*).

Value-based payment structures have the potential to accelerate health care quality and efficiency improvements. To this end, HHSC is pursuing a number of quality-based payment strategies at the MCO and provider levels, and in different service delivery models.

Clear evidence is emerging from the numerous quality and value-based payment initiatives underway that progress is occurring in several key measures of health care efficacy, coordination, access, and efficiency. These key measures include potentially preventable emergency department visits, hospital admissions, and readmissions. Between the years 2012-2014, there were reductions in the rates for these measures in different Medicaid and CHIP programs.

Through a new Quality web page, HHSC is also making performance data more readily available. The MCOs can also readily view and assess their performance data through this web page.

Due to the numerous initiatives underway at the state, national, and commercial levels that are focused on similar areas of health care quality and efficiency improvement, it will be challenging to attribute improvement to any single initiative. The HHSC continues to evaluate and refine the different quality initiatives underway to ensure they are well coordinated and administrative burdens are minimized.

2. Introduction

House Bill (H.B.) 1, 84th Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Rider 46)¹ directs the Health and Human Services Commission (HHSC) to implement the following quality-based payment and delivery reforms in the Medicaid and Children's Health Insurance Programs (CHIP):

- Develop quality-based outcome and process measures that promote the provision of efficient, quality health care and that can be used to implement quality-based payments for acute and long-term care services across delivery models and payment systems.
- Implement quality-based payment systems for compensating a health care provider or facility participating in Medicaid and CHIP.
- Implement quality-based payment initiatives to reduce potentially preventable readmissions and complications.
- Implement a bundled payment initiative in the Medicaid program, including a shared savings component for providers that meet quality-based outcomes. High-cost and/or high-volume services may be selected for bundling, and HHSC may consider the experiences of other payers and other state of Texas programs that purchase health care services in making the selection.

Additionally, HHSC may implement a Special Reimbursement Class for long-term care commonly referred to as a "small house facilities." Such a class may include a rate reimbursement model that is cost neutral and adequately addresses the cost differences that exist in a nursing facility constructed and operated as a small house facility. The payment increment may be based upon a provider incentive payment rate.

Rider 46 requires HHSC to provide annual reports on the following: (1) the quality-based outcome and process measures developed; (2) the progress of the implementation of quality-based payment systems and other related initiatives; (3) outcome and process measures by health service region; and (4) cost-effectiveness of quality-based payment systems and other related initiatives.

Additionally, Senate Bill (S.B.) 7, 82nd Legislature, First Called Session, 2011,² added a requirement that HHSC annually report outcome and process measures by health care service region and service delivery model. Senate Bill 7, 83rd Legislature, Regular

¹ House Bill 1, 84th Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Rider 46), accessed at:

http://www.lbb.state.tx.us/Documents/Budget/Session_Code_84/HB1-Conference_Committee_Report_84.pdf on page II-95

² Senate Bill 7, 82nd Legislature, First Called Session, 2011, accessed at:

<http://www.capitol.state.tx.us/tlodocs/821/billtext/doc/SB00007F.doc>

Session, 2013,³ expanded the annual reporting on outcome and process measures to include, as appropriate:

- Geographic location, which may require reporting by county, health care service region or other appropriately-defined geographic area.
- Recipient population or eligibility group served.
- Type of health care provider, such as acute care or long-term care provider.
- Number of recipients who relocated to a community-based setting from a less integrated setting.
- Quality-based payment system.
- Service delivery model.

Accordingly, this annual report fulfills S.B. 7 and Rider 46 reporting requirements.

3. Background

The Texas Legislature created a framework for HHSC to advance quality and efficiency and value-based purchasing in Medicaid and CHIP. Senate Bill 7, 82nd Legislature, First Called Session, 2011,⁴ directed HHSC to report annually on its progress regarding use of quality metrics; initiatives focused on quality and efficiency improvement; quality-based payment models; and included recommendations by the Quality-Based Payment Advisory Committee. Several key pieces of legislation on quality and efficiency are:

- Senate Bill 7, 82nd Legislature, First Called Session, 2011,⁵ required HHSC to implement a reporting process and reimbursement reductions for hospitals based on performance related to potentially preventable readmissions and complications.
- House Bill 1983, 82nd Legislature, Regular Session, 2011,⁶ required HHSC to implement a policy prohibiting payment for elective inductions prior to 39 weeks for both Medicaid fee-for-service (FFS) and managed care.
- Senate Bill 7, 83rd Legislature, Regular Session, 2013,⁷ focused on the use of outcome and process measures in quality-based payment systems that target potentially preventable events; rewarding use of evidence based practices; and promoting health care coordination, collaboration and efficiency.
- Senate Bill 200, 84th Legislature, Regular Session, 2015,⁸ directed HHSC to create and implement a pilot program to further encourage the use and effectiveness of value-based provider payments by managed care organizations (MCOs).

³ Senate Bill 7, 83rd Legislature, Regular Session, 2013, accessed at: <http://www.capitol.state.tx.us/tlodocs/83R/billtext/doc/SB00007F.doc>

⁴ *Supra*, note 2

⁵ *Supra*, note 3

⁶ House Bill 1983, 82nd Legislature, Regular Session, 2011, accessed at: <http://www.capitol.state.tx.us/tlodocs/82R/billtext/doc/HB01983F.doc>

⁷ *Supra* note 3

⁸ Senate Bill 200, 84th Legislature, Regular Session, 2015, accessed at: <http://www.capitol.state.tx.us/tlodocs/84R/billtext/doc/SB00200F.doc>

The expansion of managed care and risk-based contracting with competing health plans, has enabled greater service delivery and payment innovation. Under the Texas Healthcare Transformation and Quality Improvement Program 1115 Waiver, health care projects identified by local communities and targeting specific local needs, have been initiated by the Regional Healthcare Partnerships (RHPs) through the Delivery System Reform Incentive Payment (DSRIP) program. These projects have been incubators for service delivery reform and value-based purchasing. Medicare and commercial insurers are also advancing programs focused on quality and value-based purchasing. The health care environment is rapidly changing, and while this presents numerous challenges, it also presents many opportunities.

4. Quality-Based Outcome and Process Measures

4.1 Categories of Quality Assessment Measures

The HHSC uses a wide array of measures to assess quality. Appendices A and B list the quality measures. These measures can be used to monitor quality, to support quality-based payment systems or to provide incentive and disincentive programs in Texas Medicaid and CHIP and include, by category:

Process measures are used to assess the activities carried out by health care professionals to deliver services. These are largely measured by analyzing administrative data (i.e., data from health care claims). In some cases, this data may be augmented by information from provider medical records. The main measure set used across the insurance industry (including Medicaid and CHIP) is the Healthcare Effectiveness Data Information Set (HEDIS) developed by the National Committee for Quality Assurance. The HEDIS set currently consists of 83 measures across five domains of care: Effectiveness; Access and Availability; Experience; Utilization and Relative Resource Use; and Health Plan Descriptive Information.

An example of a HEDIS process measure is in the assessment of diabetes care through medical record and claims review that appropriate testing of a patient's average blood sugar levels (Hemoglobin A1c testing sub-measure of the Comprehensive Diabetes Care [CDC] measure) was conducted over the prescribed three months period.

Utilization measures are based on administrative claims data to quantify the amount of health care services, events, etc., that occur in a member population. Utilization measures provide useful comparisons between MCOs and in different regions of the state. Utilization data can also provide useful insights when considered alongside related process or outcome measures. An example of a utilization measure is the rate of emergency department visits within an MCO relative to the MCO's membership.

Outcome measures capture the results of health care activities. The data used for these measures may consist of data obtained from electronic health records (EHRs) or medical records, or from health care claims and encounter data. For example, an outcome measure is the diabetic patient's average blood sugar levels, for a three month

period, is within certain acceptable ranges as recorded in the medical record or EHR. Other outcome measures are emergency department or inpatient admissions related to diabetes.

Composite measures combine factors of quality and cost to measure efficiency of health care. An example is combining measures of diabetes care (quality) with the amount Medicaid has paid for diabetes care and/or hospital admissions (costs). The quality and cost data used for these measures may be from health care claims, medical records, or both.

Patient perception of care includes a variety of measures of a consumer's experience with the health care system. Data used for this measure are from patient surveys such as the Consumer Assessment of Healthcare Providers and Systems (CAHPS). The CAHPS data is used in a number of [quality reports](#)⁹ relating to medical, dental and behavioral health services for Medicaid health care delivery models and CHIP. These reports are prepared by the Institute for Child Health Policy (IHP), HHSC's external quality review organization (EQRO). Federal mandate requires states with Medicaid and CHIP managed care to utilize an EQRO to ensure that certain access and quality standards are met. More information on the purpose and function of an EQRO can be found on the Medicaid.gov website¹⁰.

The [Medicaid and CHIP Quality and Efficiency Improvement](#)¹¹ web page provides an overview of the HHSC Medicaid – CHIP quality projects discussed in this report utilizing these quality-based outcome and process measures. Other ongoing projects described on the website include:

- Health Plan Performance Improvement Projects designed to achieve significant and sustainable improvements in both clinical and non-clinical care areas.
- Health Plan Quality Report Cards for each program and managed care service area allowing Medicaid clients to easily compare health plans on specific quality of care and patient satisfaction measures.
- Other initiatives targeting Substance Use Disorder services, birth outcomes, service provision for individuals with complex health care needs and high service utilization, behavioral healthcare, and HHSC's ongoing quality improvement processes with managed care organizations.

⁹ Texas Medicaid and CHIP External Quality Review Organization Reports accessed at: <http://www.hhsc.state.tx.us/medicaid/managed-care/star/reports.asp>

¹⁰ Medicaid.gov, Quality of Care External Quality Review accessed at: <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/quality-of-care-external-quality-review.html>

¹¹HHSC Quality web page accessed at: http://www.hhsc.state.tx.us/hhsc_projects/ECI/

4.2 Potentially Preventable Events as Outcome Measures

Data on potentially preventable events can be used as utilization and outcome measures to improve quality and efficiency. Health plans and hospitals are financially responsible for potentially preventable events flagged by HHSC which include:

- **Potentially preventable emergency room visit:** Emergency treatment for a condition that could have been treated or prevented by a physician or other health care provider in a nonemergency setting.
- **Potentially preventable readmission:** A return hospitalization within a set time period that might have resulted from problems in the care during a previous hospital stay or from deficiencies in a post-hospital discharge follow-up.
- **Potentially preventable admission:** A hospital admission or a long-term care facility stay that might have been reasonably prevented with adequate access to ambulatory care or health care coordination.
- **Potentially preventable complication:** A harmful event or negative outcome, such as an infection or surgical complication that occurs after a hospital admission or a long-term care facility stay and might have resulted from the care, lack of care, or treatment provided during the admission or stay.
- **Potentially preventable ancillary services:** Ancillary services provided or ordered by primary care physicians or specialists to supplement or to support the evaluation or treatment of the patient. They include diagnostic tests, laboratory tests, therapy services, radiology services and pharmaceuticals that may be redundant or are not reasonably necessary for providing care or treatment.¹²

More information on potentially preventable events including additional reports and HHSC webinars can be found at the [Potentially Preventable Events Quality web page](#).¹³

5. Progress on the Implementation of Quality-Based Payment Systems

An effective implementation of a quality-based payment strategy should move forward along multiple initiatives in a unified manner. The HHSC has undertaken a number of interlocking efforts that seek to transform Medicaid and CHIP from programs built around paying for volume to ones that reward value and outcomes. These various initiatives and their progress are described below.

¹² *Supra*, note 2

¹³ Potentially Preventable Events Quality web page accessed at:
http://www.hhsc.state.tx.us/hhsc_projects/ECI/Potentially-Preventable-Events.shtml

5.1 Managed Care Organization Pay for Quality

The HHSC implemented a [Medicaid and CHIP Pay for Quality \(P4Q\) Program](#)¹⁴ in 2014 that includes a focus on potentially preventable events and other process measures. The P4Q program uses an incremental improvement approach, providing financial incentives and disincentives to MCOs based on year-to-year incremental improvement on pre-specified quality goals. The quality of care measures used in this initiative are a combination of process and outcome measures including select potentially preventable events and other measures specific to the program's populations.

Health plans that excel in meeting the measures are eligible for a bonus of up to four percent of their capitation payments. Health plans that do not meet their measures can lose up to four percent of their capitation rate. Scores are assigned to each MCO based on incremental performance on each quality measure. The P4Q program also sets minimum baseline performance levels for the measures so low-performing MCOs are not rewarded for marginal gains if their performance remains substandard. Rewards and penalties are based on rates of improvement or decline from the baseline level of performance. All funds recouped from lower performing MCOs (up to four percent) are used to create a reward pool, which are redistributed to higher performing MCOs. No funds are returned to the state. With the exception of the STARHealth program,¹⁵ participation in this program is required for all Texas Medicaid and CHIP MCOs.

The 2014 P4Q measures are built on the populations enrolled in each program. The Medicaid State of Texas Access Reform (STAR) program provides acute care services and serves a largely pediatric population and pregnant women. It features measures that cover preventive care, healthy pregnancies, and avoidance of potentially preventable health care events. Long-term care services are included in the STAR+PLUS Medicaid program that provides coverage for a much more medically complex and generally older population. The P4Q measures in STAR+PLUS also focus on avoidance of potentially preventable health care events as well as management of chronic diseases. Serving a pediatric population, CHIP uses the same measures as the STAR program except for the measures relating to pregnant women.

Table 1 shows the specific measures used in the P4Q program in the Medicaid health care delivery models STAR, STAR+PLUS, and CHIP.

¹⁴ Information on HHSC's Pay for Quality Program accessed at:
http://www.hhsc.state.tx.us/hhsc_projects/ECI/P4Q.shtml

¹⁵ Information on STARHealth accessed at:
http://www.dfps.state.tx.us/Child_Protection/Medical_Services/guide-star.asp

Table 1. Pay for Quality Measures by Program

Measure	STAR	STAR+PLUS	CHIP
Well-Child Visits in Years 3, 4, 5, and 6 of Life	X		X
Adolescent Well-Care Visits	X		X
Prenatal Care and Postpartum	X		
Potentially Preventable Admissions	X	X	X
Potential Preventable Readmissions	X	X	
Potential Preventable Emergency Department Visits	X	X	X
Potentially Preventable Complications	X	X	
Antidepressant Medication Management - Effective Acute Phase Treatment and Effective Continuation Phase Treatment		X	
Diabetes Under Control Based on CDC Hemoglobin A1c Sub-measure		X	

Note: In Fall 2016, HHSC is launching a new STAR Kids program for children with complex health care who are currently receiving services under STAR+PLUS or in legacy FFS. Quality measures for this program are under development.

Progress Update for MCO P4Q

The results for 2014 P4Q are not final. Since the program's inception, HHSC and the EQRO have implemented processes to assist MCOs in improving their performance. These include provision of monthly potentially preventable events performance data to MCOs to enable them to track progress more effectively. These data include the counts and cost of events by potentially preventable event type, the MCO performance relative to the statewide averages, and details on all the clinical conditions which resulted in a potentially preventable event. Additionally, MCOs receive monthly patient registries of their members who had a potentially preventable event. The registries consist of patient level data, enabling MCOs to identify members with potentially preventable events. The MCOs can target quality and care coordination interventions with providers involved in the care of patients on the registries. The MCO interventions could also include implementation of value-based contracts and payment models with providers.

Early analysis of the P4Q data indicates progress resulting from extensive data sharing with MCOs, MCO and provider interventions, and public reporting of MCO performance data. Other contributing factors to these indications of progress are the numerous quality initiatives at the federal, state, and local levels that are occurring simultaneously. Later on in the report, Tables 8 and 9 show the progress on key measures in the 2014 P4Q program. Although there are many factors to consider and the trends are uneven, these data show reductions in the frequency of potential preventable emergency

department visits, potentially preventable admissions, and potentially preventable re-admissions for the programs with required P4Q programs. The most notable reductions are in hospital admissions in STAR and STAR+PLUS, and hospital readmissions in STAR and STAR+PLUS. It is also notable that STARHealth trends are increasing. The calendar year 2015 data is currently being evaluated.

Results of earlier versions of P4Q for 2012 and 2013 (at that time named *At-Risk and Quality Challenge [ARQC]*) are available on HHSC's [Pay-for-Quality web page](#).¹⁶ The measures used in these programs were different between years and different than those used in 2014. Because of the major expansion of managed care and new MCOs, the 2012 measures were a combination of measures of MCO administrative performance and health care quality. The measures for 2013 were health care quality measures. Table 2 provides a summary of the financial impacts to MCOs for 2012 and 2013. Additional details on 2012 and 2013 performance can be found on the [Pay-for-Quality web page](#).¹⁷ The data shows that although there was five percent of the MCO capitation "at -risk" only a small percentage of the dollars at risk were recouped from low performing MCOs and redistributed to high performing MCOs. However, the amount of "at-risk" funds that were recouped and redistributed increased from 2012 to 2013 for STAR and STAR+PLUS.

¹⁶ *Supra*, note 14

¹⁷ *Supra*, note 14

**Table 2: 2012 and 2013 "At-Risk and Quality Challenge"
High Level Impacts to MCOs**

Financial Impact	2012 ARQC			2013 ARQC		
	CHIP	STAR	STAR+PLUS	CHIP	STAR	STAR+PLUS
Total Capitation Payments	\$746,523,919	\$4,925,595,404	\$3,021,531,825	\$1,027,900,670	\$7,157,339,880	\$2,894,827,473
Capitation At-risk	5%	5%	5%	5%	5%	5%
Capitation Amount At-risk	\$37,326,196	\$246,279,770	\$151,076,591	\$51,395,034	\$357,866,994	\$144,741,374
Amount Recouped and Redistributed	\$1,238,886	\$3,880,308	\$3,210,079	\$426,897	\$7,364,092	\$31,939,063
Capitation Recouped and Redistributed Relative to Amount At-risk	3.32%	1.58%	2.12%	0.83%	2.06%	22.07%
Capitation Recouped and Redistributed Relative to Total Capitation	0.17%	0.08%	0.11%	0.04%	0.10%	1.10%
MCOs with At-risk Recoupments	5	6	2	2	5	4
MCOs with Quality Challenge Distributions	7	5	2	7	8	3
MCO with Highest Gains (across all programs)		0.20%			0.37%	
MCO with Highest Losses (across all programs)		-1.10%			-2.35%	

5.2 Dental Managed Care Pay-for-Quality Program

The 2014 Dental P4Q program includes an at-risk pool of up to two percent of the dental managed care organization (DMO) capitation rate. Each plan is measured based on its incremental performance on each quality measure. The Dental P4Q program model sets minimum baseline performance levels so low-performing DMOs are not rewarded for substandard performance. Rewards and penalties are based on rates of improvement or decline over the baseline. Plans earn back their own at-risk premium based on performance of quality of care measures. Funding is not redistributed from one DMO to another. Plans can only earn back their own two percent premium that is at-risk.

Medicaid dental measures include preventive dental services, Texas Health Steps dental checkups (both regular checkups and first checkup within 90 days of enrollment), and sealant measures. The CHIP dental looks at annual dental visits, preventive dental measures, and dental sealants. Results for 2014 Dental P4Q are not final, but will be reported on the [Pay-For-Quality web page](#).¹⁸

5.3 Hospital Quality-based Payment Program for Potentially Preventable Readmissions and Complications

Senate Bill 7, from the 82nd First Called Session, 2011,¹⁹ and 83rd Regular Session, 2013,²⁰ require HHSC to implement a reporting process and reimbursement reductions for hospitals based on performance related to potentially preventable readmissions and complications. Hospitals can receive reductions as follows:

- Two percent of their inpatient claims for potentially preventable readmissions performance that is ten percent above the statewide risk-adjusted average, or
- Two percent reduction of their inpatient claims for potentially preventable readmissions performance that is 25 percent above the statewide, risk-adjusted average.

For potentially preventable complications, hospitals can also receive reductions as follows:

- Two percent of their inpatient claims for potentially preventable complications performance that is ten percent above the statewide risk-adjusted average, or
- 2.5 percent reduction of their inpatient claims for potentially preventable complications performance that is 25 percent above the statewide, risk-adjusted average.

¹⁸ *Supra*, note 14

¹⁹ *Supra*, note 2

²⁰ *Supra*, note 3

There is a cumulative financial risk to hospitals for potentially preventable readmissions and complications. This cumulative financial risk to a hospital is a 4.5 percent reduction in inpatient reimbursement.

In traditional FFS Medicaid, each hospital's actual rates of potentially preventable readmissions and complications are compared to their expected rates using the most recent annual hospital inpatient paid claims dataset for FFS and managed care. If performance is higher than thresholds described above, reimbursement reductions are applied to the hospitals inpatient claims paid directly by HHSC for FFS. Using the same dataset that is used to make FFS adjustments, HHSC makes adjustments to each MCO's hospital experience data when setting MCO capitation rates. The MCOs, at their discretion, may lower their reimbursement rates to the same hospitals that had reductions in FFS. Accompanying this process, each hospital receives a report on its own performance. This process is repeated annually. Throughout the year HHSC provides customer service and technical support to hospitals on various aspects related to the program. This includes statewide webinars on different aspects of the program.

Progress is measured by the decline over time of potentially preventable events. There were changes made in the methodology used to calculate potentially preventable complications rendering multi-year comparisons invalid. However, the methods used to calculate potentially preventable readmissions have been stable and tracking over time is valid. Rates of potentially preventable readmissions within 15 days of initial admission have declined in from 3.68 percent in fiscal year 2011 to 2.67 percent in fiscal year 2014. Table 3 depicts changes in rates.

**Table 3: Medicaid Hospital Quality-based Payment Program
Fiscal Years 2011-2014 Statewide Rates for
Potentially Preventable Readmissions and Complications**

FY Year	Readmissions Rate	Complications Rate
2011	3.68% (12,182)	See Note
2012	3.74% (14,740)	See Note
2013	3.72% (12,186)	3.60% (11,055)
2014	2.67% (13,537)	3.52% (11,920)

Note:

- Due to changes in potentially preventable complications measurement methodology and populations included, comparisons from fiscal years 2011 and 2012 to 2013 and 2014 are not valid.
- Potentially preventable readmissions counts represent chains, which could be multiple potentially preventable readmissions within 15 day readmission period. A potentially preventable readmission chain is defined as one or more potentially preventable readmissions within the readmission period.
- Counts may increase while rates decrease. This is due to population growth and number of initial admissions at risk of becoming a potentially preventable readmission or complication.

Hospital Safety Net Incentive Program

House Bill 1, 84th Legislature, Regular Session, 2015 (Article II, Special Provisions Relating to All Health and Human Services Agencies, Section 59[b])²¹ directed HHSC to develop and implement an incentive program for safety net hospitals which exceed existing quality metrics. The HHSC has developed an incentive-based program leveraging the existing analytics used for potentially preventable readmissions and complications. Working closely with the hospital associations to incorporate their ideas, HHSC has developed a sound methodology that rewards superior hospital performance and maintains budget certainty. The HHSC will be amending administrative rules to include the incentive program for safety-net hospitals.

5.4 Managed Care Organization Payment Reform Efforts With Providers

There are multiple initiatives at national and state levels to move away from the customary volume-based FFS reimbursement model toward models that incentivize improved health care outcomes and cost efficiencies. In January 2015, the United States Department of Health and Human Services set a goal of tying 30 percent of traditional FFS Medicare payments to quality or value through alternative payment models, such as Accountable Care Organizations (ACOs) or bundled payment arrangements by the end of 2016, and tying 50 percent of payments to these models by the end of 2018. The United States Department of Health and Human Services also set a goal of tying 85 percent of all traditional Medicare payments to quality or value by 2016 and 90 percent by 2018 through programs such as the Hospital Value-based Purchasing and the Hospital Readmissions Reduction Programs.

For Texas, Medicaid and CHIP in the managed care model, value-based approaches differ according to health plan size, population health needs, and provider capacity. Table 4 shows value-based contracting models.

Table 4: Value-based Contracting Models

Model	Value-based Approaches
Volume-based	<ul style="list-style-type: none">• FFS: Rewards volume, not quality and does not support coordination across providers
Supporting Quality Improvement	<ul style="list-style-type: none">• Pay for Reporting: Process measures and outcome measures registry participation

²¹ House Bill 1, 84th Legislature, Regular Session, 2015 (Article II, Special Provisions Relating to All Health and Human Services Agencies, Section 59[b]), accessed at: http://www.lbb.state.tx.us/Documents/Budget/Session_Code_84/HB1-Conference_Committee_Report_84.pdf on page II-133

Model	Value-based Approaches
Paying for Higher Quality	<ul style="list-style-type: none"> • Care Coordination Payments: Patient-centered and medical and health homes • Pay for Performance: Bonus payments for quality and outcomes and penalties for potentially preventable events • Shared Savings: Spending targets and up and downside risk
Paying for Value	<ul style="list-style-type: none"> • Bundled Payments: Can include one setting of care (e.g., hospital only) or cross settings of care (hospital and post-acute) and pathway to full capitation • Full or Partial Capitation: Generally used across settings of care, e.g., all physical health and behavioral health services and can have certain services carved out that still are paid as FFS • Full Risk Model: Providers at full risk

Overview of Submitted Plans by MCOs for 2014

Of the value-based contracting plans submitted by the 19 MCOs that provide Texas Medicaid and CHIP services, two had no plan for fiscal year 2014 and have not finalized a plan for fiscal year 2015. One MCO developed a plan for fiscal year 2014, but was unable to deploy it and did not develop any other plan for fiscal year 2015. The plans submitted by the two DMOs had information for fiscal years 2014 and 2015.

Geographic Diversity

In general, the alternative payment structures the MCOs implemented for their providers include all service areas and programs in which they serve. The extent of geographic coverage depends on a plan's experience with this payment reform strategy. Some plans have had several years of experience and are rolling out programs based on their successes, while other plans chose to start small with pilot programs. A smaller number chose to be inclusive of their entire provider network within a service area and program.

Provider Types

The types of providers engaged in alternative payment structures proposed by MCOs varied. Some MCOs include all provider types in the network, while others have only a limited number of providers that would serve a specified size of panel or membership ranging from 130 to 750 members. In addition to primary care providers such as family practice and general practice, specialist providers from internal medicine, obstetricians and gynecologists, pediatrics, surgery, and pharmacies were involved in the new payment arrangements. In some instances, the type of providers and services selected

in the alternative payment structures were influenced by MCO clinical and administrative priorities (e.g., preventive versus acute care).

Payment Structures

The payment strategies adopted by the MCOs are reflected in Table 5.

Table 5. Payment Strategies Adopted by Medicaid and CHIP MCOs

Strategies	MCO																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Capitation Only												X						X
FFS + Bonus			X			X			X						X			
FFS + Bundled Payment												X						
FFS + Capitation			X															
FFS + Management Fees + Pay For Performance (P4P) Bonus															X			
FFS + Shared Savings												X						
FFS Only		X										X						
FFS + P4P													X					
FFS + Bonus										X			X					X
Global Payment (some)										X		X						
Non-financial												X						
Other														X				
P4P + Shared Savings															X			
P4P Only	X				X	X	X	X			X				X	X	X	
Supplemental Payments									X									

Note: Only 18 MCO payment strategy plans are reflected in Table 5. The remaining MCO is currently reviewing its plan.

As described by the MCOs, the types of alternative payment structures varied, but generally they were representing the following combinations:

- Fee-for-Service with bonus payments for achievement of a specific measure or measures, either for administrative or quality measures, or access (such as well child visits or other timely visits, or expanded after-hours access).
- Partial capitation with or without bonuses for quality.
- Shared savings approaches based on reductions and avoidance in emergency department admissions and readmissions or pharmaceutical spending.
- Pay for Performance with FFS claims or capitation.

Pool of Providers

The number of providers participating in MCO incentive programs varied depending on whether the providers were engaged individually or in group practices. This ranged from one provider group to more than 700 providers. One plan reported their incentives covered providers for more than 70 percent of all members.

Members Impacted and Provider Payments Relative to MCO Capitation

There was an effort to estimate the number of potential members who may be impacted by these types of payment structures (relative to the MCO membership) and the amount of money involved (relative to the MCO capitation amount). Such information can be calculated only when the overall membership and capitation amount of each MCO is known. Generally, these estimates suggest that the money and the number of members impacted are low relative to overall capitation payments and membership (except for subsets of members such as pregnant women).

Metrics Used

The MCOs generally use recognized quality indicators for determining triggers for incentives:

- The HEDIS measures (well child; asthma care; diabetes under control based on CDC Hemoglobin A1c sub-measure; prenatal and postpartum care; breast cancer screening; and dental).
- Potentially preventable hospital admissions, readmissions, and emergency department visits
- Others: administrative and accessibility measures.

The HHSC has summarized this progress and the summary documents are on the website.²² The HHSC is currently compiling the data received from the MCOs for 2015, and will make that available in 2016.

²² MCO Value-based Contracting information accessed at:
http://www.hhsc.state.tx.us/hhsc_projects/ECI/Value-Based-Payments.shtml

Finally, the HHSC continues to refine its approach to MCO payment reform and is considering several improvements. One option is strengthening contract language to include a performance target (such as a percentage of members receiving services through quality-based payments or payment models as a percentage of each MCO's total capitation payments).

5.5 Physician Payment Policy Related to Elective Inductions

As required by H.B. 1983, 82nd Legislature, Regular Session, 2011,²³ HHSC implemented a policy prohibiting payment for elective inductions prior to 39 weeks in the Medicaid program. This policy began on October 1, 2011, and has been tracked through reviews of coding on physician health care claims data, coupled with intermittent audits of claims data with corresponding physician medical records. Audits of physician claims by the HHSC Office of Inspector General compared with corresponding medical records largely indicate concordance between the coding on the claims data and medical records documentation.

The HHSC submitted a report on the early impacts of this initiative in December 2012. According to pre- and post-policy implementation data, Newborn Intensive Care Unit (NICU) admissions relative to Medicaid covered births did not substantively change from pre- to post-policy implementation. There was a slight decrease in the average length of stay in the NICU pre- and post-implementation, but it was not statistically significant.

An additional review of impacts on NICU utilization with more recent data show similar results.

An evaluation of fiscal year 2013 Medicaid data coding for delivery claims indicates there were approximately one-third or 55,000 deliveries that were pre-39 weeks gestational age and coded as medically necessary. The total Medicaid deliveries, excluding non-citizens who receive emergency Medicaid, were 157,085 for this period.

The HHSC analyzed the Medicaid claims and encounter data linked to the Department of State Health Services (DSHS) birth certification data. These data show a significant decline from fiscal years 2010 to 2014 in the number and percentage of non-medically indicated deliveries for Medicaid-covered, first time single births between 37 and 38 weeks gestational age. Table 6 presents this data.

²³ *Supra*, note 6

Table 6: Medicaid-covered, First Time Singleton Births Between 37 and 38 Weeks Gestational Age, By Medical Necessity

Fiscal Year	Medically Indicated Deliveries	Non-Medically Indicated Deliveries	Percentage of Non-Medically Indicated Deliveries
2010	21,332	2,534	10.6%
2011	20,322	2,095	9.3%
2012	18,923	1,167	5.8%
2013	18,670	1,145	5.8%

Note: Medical indications for delivery were based on paid claims using the following codes from the Joint Commission's measure on elective deliveries (Measure 14: Perinatal Care 01).

These data above may indicate that the downward trend and practice change may have been occurring prior to the formal policy implementation date of October 1, 2011.

House Bill 1, 84th Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Special Provisions Sec 45)²⁴ directs HHSC and DSHS to take steps to improve data and oversight to reduce the rate of early elective deliveries in Texas. Pursuant to this special provision, HHSC is working closely with DSHS on different strategies utilizing various methods and data sets. A report on this effort is due in December 2016.

5.6 Delivery System Reform Incentive Payments

The Texas Healthcare Transformation and Quality Improvement Program [1115 Waiver](#)²⁵, known as the 1115 Transformation Waiver, is a five-year demonstration waiver through September 2016. The 1115 Transformation Waiver enabled Texas to implement Medicaid managed care statewide achieving program savings, while still preserving locally-funded supplemental payments to hospitals. The supplemental funds are distributed through two pools: Uncompensated Care and the Delivery System Reform Incentive Payment program (DSRIP).

Uncompensated Care Pool payments help offset the costs for care provided to individuals who have no third party coverage for hospital and other services and Medicaid shortfall.

²⁴ House Bill 1, 84th Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Special Provisions Relating to All Health and Human Services Agencies, Section 45), accessed at: http://www.lbb.state.tx.us/Documents/Budget/Session_Code_84/HB1-Conference_Committee_Report_84.pdf on page II-130

²⁵ Information on Texas Healthcare Transformation and Quality Improvement Program accessed at: <http://www.hhsc.state.tx.us/1115-waiver.shtml>

The DSRIP pool provides financial incentives to hospitals and other providers to focus on achieving quality health outcomes. Participating providers develop and implement programs, strategies, and investments to enhance:

- Access to health care services.
- Quality of health care and health systems.
- Cost-effectiveness of services and health systems.
- Health of the patients and families served.

The DSRIP program is based in 20 RHPs that are directly responsive to the needs and characteristics of the populations and communities comprising the RHP. The HHSC is working to facilitate the development of collaborative partnerships between MCOs and the DSRIP providers. This increase in collaboration is intended to improve the sustainability and broaden the impact of successful DSRIP projects that focus on Medicaid patients. These collaborations are opportunities for value-based purchasing arrangements between the MCOs and the providers.

DSRIP Progress Update

Currently, there are more than 1,450 active DSRIP projects, involving almost 300 providers. These providers include hospitals (public and private), physician groups mostly affiliated with academic health science centers, community mental health centers, and local health departments. The major project focus areas are shown in Table 7.

Table 7: Major Categories of Projects in DSRIP

Focus Area	Percentage of all Projects
Behavioral Health Care	>25%
Access to Primary Care	20%
Chronic Care Management and Helping Patients with Complex Needs Navigate the Health Care System	18%
Access to Specialty Care	9%
Health Promotion and Disease Prevention	8%

Note: Totals do not add up to 100 percent, as there are miscellaneous categories of projects not included in this table.

As of July 2015, more than \$5.2 billion has been earned by participating providers during the first four years of the demonstration waiver. The RHP structure, created through DSRIP, has enabled new collaborations and is foundational to strengthen local and regional systems of care. From October 1, 2013, to September 30, 2014, DSRIP

projects collectively provided more than 2 million additional encounters and served more than 950,000 additional individuals compared to the service levels they had provided prior to implementing the projects.

All projects have chosen quality outcome measures they have established baselines for, and beginning in demonstration year 4, some projects have reported achieving their outcome goals. These include:

- Reducing hospital readmissions and emergency department visits for ambulatory care sensitive conditions.
- Controlling diabetes based on CDC Hemoglobin A1c sub-measure.
- Controlling high blood pressure.
- Influenza immunizations.

Most DSRIP projects require additional time to demonstrate outcomes and develop sustainability plans. Texas proposes to strengthen the DSRIP program in the Centers for Medicare and Medicaid Services (CMS) waiver extension period to support systems of care for Medicaid enrollees and low income uninsured individuals. Future actions include:

- Better evaluate DSRIP activities to identify lessons learned and best practices to sustain and replicate.
- Use DSRIP results to inform Medicaid benefits and value-based purchasing in managed care.
- Develop a quality roadmap for Medicaid managed care and DSRIP.
- Promote increased data sharing across providers.
- Publish state-level data to show whether Texas, the RHPs, and managed care service areas are making progress on key quality indicators.

Additionally, to ensure that different initiatives under HHSC's purview are coordinated, HHSC employs a comprehensive [1115 Quality Improvement Strategy](#)²⁶ with the goals of transitioning from volume-based purchasing models to a pay-for-performance model; improving Medicaid client satisfaction with care; and reducing payment for low quality care.

5.7 Excellence in Mental Health Act

House Bill 1, 84th Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Rider 79)²⁷ directed HHSC to develop and submit an application

²⁶ HHSC 1115 Quality Improvement Strategy accessed at:
<http://www.hhsc.state.tx.us/medicaid/about/QIS-1115.pdf>

²⁷ House Bill 1, 84th Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Rider 79), accessed at:
http://www.lbb.state.tx.us/Documents/Budget/Session_Code_84/HB1-Conference_Committee_Report_84.pdf on page II-104

to the Substance Abuse and Mental Health Services Administration (SAMHSA) and CMS for an Excellence in Mental Health planning grant as authorized in the Protecting Access to Medicare Act of 2014.

The SAMHSA's Certified Community Behavioral Health Clinic (CCBHC) planning grant will provide Texas with a unique opportunity to partner with MCOs, providers, and stakeholders to certify clinics; develop an integrated service delivery framework; and craft a prospective payment model supporting a robust "integrated behavioral health home" approach for populations for which care is often fragmented and uncoordinated. Through the project, Texas will target four key populations who will benefit from the CCBHC model:

- Children and youth with mental health issues.
- Children and youth with substance use disorders.
- Adults with mental health issues.
- Adults with substance use disorders.

The Texas strategy for success will focus on building the capacity of targeted clinics in select MCO service areas to provide effective, evidence-based, integrated health care. Texas was awarded \$982,373 for the planning grant in mid-October 2015.

A demonstration grant funding announcement is expected early in 2016.

5.8 Small House Facilities

Through S.B. 7, 83rd Legislature, Regular Session, 2013,²⁸ the Texas Legislature directed the inclusion of nursing facilities into Medicaid managed care. Senate Bill 7 further directed HHSC to encourage transformative efforts in the delivery of nursing facility services, including efforts to promote a resident-centered care culture through facility design and services provided. In the following Legislative Session, H.B. 1, 84th Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Rider 97)²⁹ directed HHSC to create a program that will allow payment incentives to establish culture change, small house models, staffing enhancements, and outcome measures to improve the quality of care and life for nursing facility residents.

Implementation of Rider 97 is occurring through the use of the Quality Incentive Payment Program (QIPP), which is designed to incentivize nursing facilities to improve quality and innovation in their services. These services include incentives to establish more person-centered care; small house models; staffing enhancements; and outcome measures to improve quality for residents. Current and new small house operators who meet the qualifying criteria may receive QIPP payments tied to Medicaid days of service

²⁸ *Supra*, note 3

²⁹ House Bill 1, 84th Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Rider 97), accessed at: http://www.lbb.state.tx.us/Documents/Budget/Session_Code_84/HB1-Conference_Committee_Report_84.pdf on page II-107

provided in the small house model. The HHSC estimates that the QIPP payments will be equal to a \$157 per day add-on to the base nursing facility reimbursement rate³⁰ for each day of service provided to a Medicaid client receiving services in a small house facility. For facilities with no liability insurance this ranges from \$82.56 to \$230.93, depending upon the resident's assigned Resource Utilization Group (RUG). A nursing facility may earn additional QIPP funds based on achievement of outcomes impacted by implementation of the small house model and selected by the nursing facility, and approved by the MCO and HHSC.

5.9 Other Ongoing Quality Improvement Initiatives

The HHSC continues to engage stakeholder efforts around quality-based payments and overall quality improvement. These efforts include:

- Facilitated a conference call between five Medicaid MCOs operating in the Bexar service area and a key local behavioral health services provider to discuss options for value-based payments. This was the first call of what is planned to be a series around the state. One MCO in Bexar has since developed a value-based payment model with the behavioral health services provider.
- Facilitating webinars for MCOs and other stakeholders to learn about emerging best practices in targeted areas of quality and value-based payments. By doing so, HHSC is creating an active, ongoing "*learning collaborative*" to help with dissemination of best practices. An example of this and the ongoing HHSC-led or HHSC -facilitated webinars is related to Substance Use Disorder Treatment. These webinars clarify HHSC goals, share data on performance and generate dialogue, and target best practices such as treatment for Neonatal Abstinence Syndrome, which is a significant contributor to NICU cost. Another topic was focused on the national movement in health care toward value-based contracting. The webinars identify HHSC priorities, and disseminate important information.
- Developing a webinar-based "Grand Rounds" for MCOs and other stakeholders to showcase innovation in quality. The first MCO event showcased a successful home health model for individuals with serious behavioral health conditions and high service utilization. This model reduced the extraordinary amount of health care these individuals consumed while improving health status and quality of life. Other MCOs have since informed HHSC of similar efforts to better leverage home health for complex populations.

6. Outcome and Process Measures by Health Service Region

The HHSC is increasing the amount, timeliness, and transparency of quality-related data for the public. To this end, HHSC created a dedicated quality web page in 2014 to

³⁰ Information on nursing facility reimbursement rates accessed at:
<http://www.hhsc.state.tx.us/rad/long-term-svcs/downloads/2015-nf-rates.pdf>

consolidate information related to different quality and efficiency initiatives and promote better dissemination of information. The [Medicaid and CHIP Quality and Efficiency Improvement](#)³¹ web page serves as a tool for communication about initiatives to improve quality and efficiency with both external stakeholders and internal health and human services divisions. An example of the detailed quality data found on the website include the full Quality of Care reports assembled for Medicaid managed care for calendar years 2013 and 2014. The reports allow viewers to identify high and low performing regions, MCOs, or measures and to access data for further analysis.

Another example of the information available to HHSC, MCOs, and the public is a downloadable interactive [online data report on potentially preventable events](#)³² from the HHSC Quality website. This report is now updated monthly. The data contained in this website link show the statewide, MCO, and regional performance for different potentially preventable events over multiple years. A recognized foundational step of quality improvement is public reporting.

6.1 Trends in Three Key Performance Measures

Potentially preventable emergency department visits, hospital admissions and readmissions are very expensive, and are key indicators of healthcare efficacy, coordination, access, and efficiency. Data extracted from the HHSC public website and illustrated in Tables 8 and 9 show a three-year trend at the program level. The data in Table 8 shows the rates of potentially preventable events per 1,000 member months. Table 9 shows the declines or increases from 2012 in events per 1,000 member months. While it is important to note there have been many changes to the Medicaid program over these measurement years (see footnotes to tables), for some programs there are indications of progress for these three key measures, as demonstrated by the numerical and percentage declines. The declines may reflect the collective impacts of many quality initiatives that are occurring simultaneously. The HHSC is studying the trends in STARHealth, as they are increasing. Although these data are shown at the program level, HHSC has a [public link](#)³³ available, which allows the data to be viewed at the MCO and service area level.

³¹ *Supra*, note 11

³² Online data on potentially preventable events accessed at:
http://www.hhsc.state.tx.us/hhsc_projects/ECI/docs/mco-report.zip

³³ Online data on MCO and service area level key performance measures accessed at:
http://www.hhsc.state.tx.us/hhsc_projects/ECI/Data-Reports.shtml

**Table 8. MCO Potentially Preventable Events Trends:
Potentially Preventable Events per 1,000 Member-months
Based on MCO Membership for Calendar Years 2012-2014**

Program	Emergency Department Visits			Hospital Admissions			Hospital Readmissions		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
CHIP	17.30	15.91	16.20	0.46	0.38	0.40	0.07	0.06	0.06
STAR	40.18	39.38	39.46	0.86	0.80	0.72	0.20	0.20	0.19
STAR+PLUS	91.94	90.25	90.02	7.83	7.54	6.92	3.12	3.04	2.66
STAR Health	40.96	42.86	43.36	3.84	5.09	5.93	1.78	1.75	1.81

Note: When reviewing the data above, the issues below should be considered:

- There may be a possible increase in Medicaid recipients due to Affordable Care Act implementation over this period. This may have resulted in new enrolled population for Medicaid programs over time. This may impact interpretation of these data.
- From March 1, 2012, forward: STAR expansion to certain service areas of the state may impact interpretation of these data due to movement of individuals with disabilities from FFS to STAR, and then from STAR to STAR+PLUS.
- From January 1, 2014, forward: There was a significant shift of CHIP populations to Medicaid due to Affordable Care Act implementation. This may have resulted in new, healthier populations being enrolled in STAR. This could result in fewer potentially preventable events for this program over time.
- From September 1, 2014, forward: STAR+PLUS expansion to certain service areas may impact interpretation these data due to movement individuals with disabilities from FFS and STAR to STAR+PLUS.
- From September 1, 2014, forward: Mental health rehabilitation and case management service were carved into managed care.
- Potentially preventable readmissions are also used in the Hospital Pay for quality program within this period (FFS and MCO models). Numerous DSRIP projects also reported on potentially preventable readmissions, admissions, and emergency room visits within this period. The above data may reflect the cumulative effect of DSRIP, managed care, and other quality initiatives.
- The impact of extended observation stays on the above data is being researched. This may skew the potentially preventable emergency room visits and admissions trends.
- Potentially preventable events data began to be tracked and shared with MCOs in 2012.
- Potentially preventable events included in P4Q in 2014 (MCOs notified of their inclusion in in calendar year 2012-13).
- Medicaid and CHIP MCOs have increasingly expanded value-based contracting with providers over this data period. This may be impacting these data.
- Medicare value-based purchasing initiatives with hospitals and ACOs have increased over this period. This may be impacting these data.
- Commercial value-based purchasing initiatives have increased over this period. This may be impacting these data.

**Table 9. MCO Potentially Preventable Events Trends:
Percentage Change in Potentially Preventable Events per 1,000 Member-months
Based on MCO Membership, Change from Calendar Year 2012**

Program	Percentage Change								
	Emergency Department Visits			Hospital Admissions			Hospital Readmissions		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
CHIP	N/A	-8.0	-6.4	N/A	-17.4	-13.0	N/A	-14.3	-14.3
STAR	N/A	-2.0	-1.8	N/A	-7.0	-16.3	N/A	0.0	-5.0
STAR+PLUS	N/A	-1.8	-2.1	N/A	-3.7	-11.6	N/A	-2.6	-14.7
STAR Health	N/A	4.6	5.9	N/A	32.6	54.4	N/A	-1.7	1.7

See notes for Table 8 above.

6.2 Health Service Region Data Breakout for Key Performance Measure Trends

Tables 10-14 are regional data for the three key performance measures for the five regional service areas with the largest Medicaid population. This data is available at the same source for all 13 regional service areas. These data are presented to and discussed with the MCOs individually in HHSC-led Quarterly Quality Improvement Meetings.

Table 10. Bexar Service Area

Program	Percentage Change								
	Emergency Department Visits			Hospital Admissions			Hospital Readmissions		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
CHIP	N/A	-6.93	-8.75	N/A	-22.00	-6.00	N/A	0.00	0.00
STAR	N/A	-4.74	-2.47	N/A	-16.05	-14.81	N/A	-5.00	0.00
STAR+PLUS	N/A	-7.87	-10.29	N/A	-14.66	-18.40	N/A	-13.58	-18.50

Table 11: Dallas Service Area

Program	Percentage Change								
	Emergency Department Visits			Hospital Admissions			Hospital Readmissions		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
CHIP	N/A	-11.56	-4.24	N/A	-25.71	-17.14	N/A	25.00	0.00
STAR	N/A	-8.30	-5.22	N/A	-17.02	-21.28	N/A	10.00	-10.00
STAR+PLUS	N/A	-1.59	-4.98	N/A	-3.38	-12.94	N/A	0.45	17.86

Table 12: Harris Service Area

Program	Percentage Change								
	Emergency Department Visits			Hospital Admissions			Hospital Readmissions		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
CHIP	N/A	-10.65	-5.14	N/A	-2.63	-10.53	N/A	-16.67	-16.67
STAR	N/A	-3.60	-4.04	N/A	0.00	-8.33	N/A	-5.88	-5.88
STAR+PLUS	N/A	0.98	3.53	N/A	1.57	-3.62	N/A	-4.42	-13.27

Table 13: Hidalgo Service Area

Program	Percentage Change								
	Emergency Department Visits			Hospital Admissions			Hospital Readmissions		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
STAR	N/A	4.08	13.22	N/A	-14.14	-25.25	N/A	-7.14	0.00
STAR+PLUS	N/A	12.19	15.88	N/A	1.46	-5.62	N/A	3.50	-12.00

Table 14: Tarrant Service Area

Program	Percentage Change								
	Emergency Department Visits			Hospital Admissions			Hospital Readmissions		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
CHIP	N/A	-12.37	-11.10	N/A	-17.95	-12.82	N/A	0.00	22.22
STAR	N/A	-3.96	-2.14	N/A	6.38	10.64	N/A	5.88	17.65
STAR+PLUS	N/A	-4.68	-8.70	N/A	-10.74	-13.48	N/A	-8.97	-17.94

Another website built around access to data on quality and outcomes is the [Texas Healthcare Learning Collaborative \(THLC\)](#).³⁴ The THLC is a secure website designed and operated by ICHP originally developed for use by HHSC staff and MCOs. The website features a portal with a graphical user interface to allow users to visualize performance on health care metrics. Staff from the MCOs, HHSC, and Texas Legislature may log in and generate graphical reports of health plan and Medicaid program specific performance. The general public, since 2014, has access to the data. The HHSC and ICHP share monthly updates with MCOs about potentially preventable events. The reports are interactive and MCOs can query the data to create customized summaries of quality results. The public can also access the MCO quality of care results (e.g., HEDIS) through the THLC portal. An accompanying online [User Guide](#)³⁵ is available to assist with navigation and interpretation.

The THLC specifically provides HHSC and the MCOs with access to an interactive database (Figure 1) on potentially preventable events. This is a valuable tool for enabling HHSC and MCOs to target quality improvement efforts for these measures.

Figure 1 below shows a screen shot of the data for potentially preventable admissions for Bexar service area for STAR+PLUS for 2015 period. The graphic visualizations provide for views of different groupings of the data. This searchable system enables identification of program, MCO, geographic, demographic, or provider outliers by time periods and by different types of potentially preventable events. For example, using the different search features, the viewer can look at different potentially preventable events data at high level (all MCOs across all service areas), or drill down into performance at a very specific level such as a specific population demographic (age, gender, race) or clinical risk group. The search features also include the ability to search by admitting provider or by diagnosis related grouping. This ability to view the data in different ways enables both HHSC and MCOs to understand where there are high frequencies of potentially preventable events, and to formulate interventions base on these high frequencies. An accompanying mapping feature enables geographic visualizations.

³⁴ Texas Healthcare Learning Collaborative portal accessed at: <https://thlcportal.com/index.php/login>

³⁵ Texas Healthcare Learning Collaborative portal User Guide accessed at: http://www.hhsc.state.tx.us/hhsc_projects/ECI/docs/User-guide.pdf

The THLC also provides HHSC, MCOs, and the public with access to an interactive database on HEDIS data allowing effective targeting of quality improvement efforts for these specific measures.

Figure 1: Texas Healthcare Learning Collaborative Web Page Potentially Preventable Events Screenshot



Note: Providers are not listed in this screenshot.

Figure 2 below is a screen shot of some of the available HEDIS data for Bexar STAR+PLUS service area for the 2014 period. The graphic visualizations allow for views of different groupings of the data. This searchable system enables identification of program, MCO, or geographic outliers by time periods and HEDIS measures. Using the first measure as an example, Avoidance of Antibiotic Treatment (AAB), the viewer sees the service area rate across all MCOs for STAR+PLUS. By clicking on rate (23.65), the viewer can see Bexar service area rate compared to the overall state rate. By clicking on the rank, the viewer can see the ranking of Bexar service compared to all service areas. By clicking on the Health Plan section, the viewer can see the relative ranking of the STAR+PLUS MCOs in Bexar service area.

As with the potentially preventable events data, combining comprehensive data and visual graphics enables better identification of high and low performing MCOs, regions, or measures.

Figure 2: Texas Healthcare Learning Collaborative Web Page HEDIS Screenshot



The HHSC will continually evaluate the public data it makes available to seek opportunities for further enhancements to make it easier to discover and visualize key findings and target opportunities for improvement.

7. Cost-Effectiveness of Quality-Based Payment Systems

The numerous state, national, and commercial initiatives focused on quality and efficiency improvement has the potential to confound analysis aimed at identifying impacts of any one specific action in a crowded field of initiatives. However, the use of an MCO model in Texas Medicaid and CHIP leverages market forces when it comes to employing cost-effective, quality-based payment activities. If MCO efforts in this policy area are not cost-effective, they face market disadvantage against their more efficient peers. This is further enhanced by P4Q incentives and disincentives that place high value on reducing potentially preventable events and providing effective preventive care. Tables 8 and 9 above demonstrate progress by MCOs in care coordination, and emphasis on quality programs and value-based purchasing. However, some of this progress may be partially attributable to efforts of DSRIP projects and other national and commercial initiatives. Data on quality and cost effectiveness, both at the individual initiative level and at the aggregate level will continue to be studied by HHSC.

8. Conclusion

The United States health care system is moving toward a quality-based model and Medicaid and CHIP are part of this trend. The shift from a FFS Medicaid and CHIP model to an MCO model took Texas more than a decade to implement. The transition to a value-based model and away from a volume-based model is a paradigm shift.

This report offers a brief overview of progress regarding HHSC efforts related to quality-based payment and delivery reforms as of the close of 2015. However, as demonstrated throughout the report, it remains a work in progress for both HHSC and the larger health care ecosystem. There will be continual refinements of existing value-based initiatives and the development of new ones in response to an evolving health care marketplace.

The report highlighted aspects of three general strategies leveraged by HHSC in this quality-based effort:

- Leveraging contracts and other agreements to promote value-based efforts. Examples include:
 - Provisions in the Uniform Managed Care Contract requiring Medicaid and CHIP MCOs to detail their current quality-based efforts and their work to expand them.
 - Extensive work with the HHSC Medicaid and CHIP external quality review organization to collect and analyze data related to quality-based improvements.
 - 1115 waiver DSRIP projects, which are by definition value-based payment models.
- Use of incentives and disincentives to MCOs and providers, such as:
 - Incentives and disincentives to MCOs and hospitals related to potentially preventable events.
 - Incentives and disincentives specific to MCOs related to key health care quality improvement goals.
 - Under the guidance of HHSC, MCO expansion of value-based payments with their providers.
- Increasing availability of performance data to stakeholders related to quality improvement and value-based payments. This includes:
 - The development of a centralized, comprehensive website that houses information for stakeholders on all major HHSC quality improvement initiatives.
 - The development of a portal containing detailed Medicaid and CHIP quality information by the external quality review organization for use by both MCOs and the public.
 - The development of detailed reports on potentially preventable events for use by HHSC and MCOs to facilitate shared quality-improvement analysis.

While all of these efforts are still relatively new, early results appear positive. All Medicaid and CHIP MCOs are increasing their value-based payment models with providers. There appears to be a general trend in Medicaid toward lowered rates of potentially preventable admissions and readmissions. The comprehensive website and other readily available quality improvement information are receiving positive feedback from MCOs and stakeholders.

The ultimate goal of these endeavors is a Medicaid and CHIP system that provides quality care to its members in a manner that ensures good stewardship of taxpayer dollars.

List of Acronyms

Acronym	Full Name
1115 Waiver	Texas Healthcare Transformation and Quality Improvement Program
AAB	Avoidance of Antibiotic Treatment
ABC	Aberrant Behavior Checklist
ACE	Angiotensin Converting Enzyme
ACO	Accountable Care Organization
ACSC	Ambulatory Care Sensitive Conditions
ADD	Attention Deficit Disorder
ADHD	Attention Deficit Hyperactivity Disorder
AHRQ	Agency for Healthcare Research and Quality
AMH	Adult Mental Health
AMI	Acute Myocardial Infarction
AMPAC	Activity Measure for Post-Acute Care
AMR	Asthma Medication Ratio
ANSA	Adult Needs and Strength Assessment
AQoL	Assessment Quality of Life
ARB	Angiotensin Receptor Blockers
ARQC	At-Risk and Quality Challenge
AWC	Adolescent Well-Care
BD	Bipolar Disorder
BDI-2	Battelle Development Inventory-2
BH/SA	Behavioral Health/Substance Abuse
BMI	Body Mass Index
BP	Blood Pressure
CAD	Coronary Artery Disease
CAHPS	Consumer Assessment for Healthcare Provider Systems
CANS-MH	Children and Adolescent Needs and Strengths Assessment
CAP	Primary Care Practitioners

Acronym	Full Name
CAUTI	Catheter-associated Urinary Tract Infections
CCBHC	Community Behavioral Health Clinic
CDC	Comprehensive Diabetes Care
CG-CAHPS	Clinician and Group Consumer Assessment of Healthcare Providers and Systems Survey
CHF	Congestive Heart Failure
CHIP	Children's Health Insurance Program
CHQ-PF	Child Health Questionnaire Parent
CLABSI	Central Line-associated Bloodstream Infections
CMS	Centers for Medicare and Medicaid Services
COPD	Chronic Obstructive Pulmonary Disease
CSQ-8	Client Satisfaction Questionnaire 8
CVA	Stroke
DLA-20	Daily Living Activities
DMO	Dental Managed Care Organization
DP-3	Development Profile 3
DSHS	Texas Department of State Health Services
DSRIP	Delivery System Reform Incentive Payment
ECHO	Experience of Care and Health Outcomes
EHR	Electronic Health Record
EQRO	External Quality Review Organization
ESRD	End-Stage Renal Disease
FACT-G	Functional Assessment of Cancer Therapy
FEIS	Family Experiences Interview Schedule
FFS	Fee-For-Service
GAD-7	Generalized Anxiety Disorder
H.B.	House Bill
HCAHPS	CAPHS Hospital Survey
HEDIS	Healthcare Effectiveness Data Information Set

Acronym	Full Name
HHSC	Health and Human Services Commission
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HPSA	Health Professional Shortage Areas
HPV	Human Papillomavirus Vaccine
HRQoL	Centers for Disease Control Health-Related Quality of Life Measures
HTN	Hypertension
IADLs	Lawton Instrumental Activities of Daily Living
ICHP	Institute for Child Health Policy, the Medicaid External Quality Review Organization
ICU	Intensive Care Unit
IDD/ICF	Individuals with Intellectual Disabilities/ Intermediate Care Facilities
IDD/SPMI	Individuals with Intellectual Disabilities/Serious and Persistent Mental Illness
INR	International Normalized Ratio
LTBI	Latent Tuberculosis Infection
MCO	Managed Care Organization
MCV	Meningococcal Conjugate Vaccine
MD	Major Depression
MMA	Medication Management for People with Asthma
MOS	Medical Outcomes Study
MQOL	McGill Quality of Life Index
MUA	Medically Underserved Area
MVQOLI	Missoula-VITAS Quality of Life Index
NICU	Newborn Intensive Care Unit
NQF 0500	Sepsis Bundle
NQMC	National Quality Measure Clearinghouse

Acronym	Full Name
P4P	Pay for Performance
P4Q	Pay for Quality
PAID	Problem Areas in Diabetes Scale
PCHM	Patient-Centered Medical Home
PedsQL	Pediatric Quality of Life
PHQ	Patient Health Questionnaire
PMPM	Per Member Per Month
POS	Palliative Care Outcome Scale
PQI	Prevention Quality Indicator
PSQ-III	Long-Form Patient Satisfaction Questionnaire
PSQ-18	Short-Form Patient Satisfaction Questionnaire
PSRS	Positive Symptom Rating Scale
Q-LES-Q	Quality of Life Enjoyment and Satisfaction Questionnaire
QIDS	Quick Inventory of Depressive Symptomatology
QIPP	Quality Incentive Payment Program
RHP	Regional Healthcare Partnership
RUG	Resource Utilization Group
SAMHSA	Substance Abuse and Mental Health Services Administration
S.B.	Senate Bill
SF	RAND Short Form Health Survey
SIS	Supports Intensity Scale
SSI	Surgical Site Infections
STAR	State of Texas Access Reform, the statewide managed care program providing preventive, primary, and acute care covered services to non-disabled children, low-income families, and pregnant women
STAR Health	Statewide managed care program providing coordinated health services to children and youth in foster care and kinship care

Acronym	Full Name
STAR Kids	Statewide managed care program beginning in Fall 2016 which will serve children and youth age 20 or younger who either receive Supplemental Security Income or are enrolled in the Medically Dependent Children Program
STAR+PLUS	Statewide managed care program providing integrated acute and long-term services and supports to people with disabilities and people age 65 and older
STI	Sexually Transmitted Infection
TB	Tuberculosis
Tdap/TD	Tetanus-Diphtheria-Pertussis or Tetanus-Diphtheria
THLC	Texas Healthcare Learning Collaborative
VABS II	Vineland Adaptive Behavior Scales, 2 nd Edition
VSQ-9	Visit-Specific Satisfaction Instrument
VTE	Venous Thromboembolism

Appendix A: List of Measures Used in Managed Care and Fee-for-Service Models

Measures Currently Captured	Managed Care	Fee-for-Service
<u>Adult Inpatient Admission Rates</u> (per 100,000)		
• Diabetes with short term complications	X	
• Diabetes with long term complications	X	
• Chronic Obstructive Pulmonary Disease	X	
• Hypertension	X	
• Congestive Heart Failure	X	
• Low Birth Weight (per 100)	X	
• Dehydration	X	
• Angina without Procedure	X	
• Bacterial Pneumonia	X	
• Urinary Tract Infection	X	
• Uncontrolled Diabetes	X	
• Adult Asthma	X	
• Lower Extremity Amputation in Diabetes Patients	X	
<u>Pediatric Inpatient Admission Rates</u> (per 100,000)		
• Asthma	X	
• Diabetes Short Term Complications	X	
• Gastroenteritis	X	
• Urinary Tract Infection	X	
• Perforated Appendix (per 100)	X	
<u>Inpatient Utilization</u> (average length of stay, days per 1,000 member months, discharges per 1,000 member month)		
• By age groups and reason	X	
<u>Adult Emergency Room Utilization</u> (per 1,000 member months)		
• By age groups	X	
<u>Pediatric Emergency Room Utilization</u> (per 1,000 member months)		

Measures Currently Captured	Managed Care	Fee-for-Service
• By age groups	X	
<u>Potentially Preventable Event Rates</u>		
• Potentially Preventable Emergency Room Visits	X	
• Potentially Preventable Hospital Admissions	X	
• Potentially Preventable Re- Admissions	X	X
• Potentially Preventable Complications	X	X
• Potentially Preventable Ancillary Services	X	
<u>Outpatient Utilization</u> (per 1,000 member months)		
• By age groups	X	
<u>Other Measures</u>		
• Avoidance of Antibiotic Treatment for acute bronchitis (18-64)	X	
• Use of Appropriate Medications for persons with asthma (by age groups)	X	
• Comprehensive Diabetes Care-HbA1c testing and control	X	
• Comprehensive Diabetes Care-Eye Exams	X	
• Comprehensive Diabetes Care-LDL-C screening	X	
• Comprehensive Diabetes Care-diabetic nephropathy	X	
• Appropriate Testing for Pharyngitis	X	
• Appropriate Treatment for Children with Upper Respiratory Infection	X	
• Well Child Visits within 15 months	X	
• Well Child Visits in Years 3, 4, 5, and 6 of Life	X	
• Adolescent Well Child Visits	X	
• Prenatal Care	X	
• Frequency of Prenatal Care (percentage of enrollees who had >80 percent of expected visits)	X	
• Postpartum Care	X	
• Access to Preventative and Ambulatory Services by age groups	X	
• Access to Primary Care Physician by age groups	X	
• Cervical Cancer Screening	X	

Measures Currently Captured	Managed Care	Fee-for-Service
• Chlamydia Screening- by age group	X	
• Breast Cancer Screening	X	
• Childhood Immunization Status	X	
• Adult Body Mass Index Assessment	X	
• High blood pressure controlled	X	
• Follow up Care for Children Prescribed Attention Deficit Hyperactivity Disorder (ADHD) medication-Initiation phase	X	
• Follow up Care for Children Prescribed ADHD medication -Continuation and Maintenance phase	X	
• Antidepressant medication management-Effective Acute Phase	X	
• Antidepressant medication management -Effective Continuation Phase	X	
• 7 day follow up after hospitalization for mental illness	X	
• 30 day follow up after hospitalization for mental illness	X	
• Mental Health Services Utilization by age group and service level	X	
• Substance Use Disorder Services Utilization by age group and service level	X	
• Enrollee Complaints per 1,000 member months	X	
• Enrollee Appeals of Adverse Determinations per 1,000 member months	X	
• MCO customer service and hotline hold time and abandonment rates	X	
• CAHPS Survey	X	
• Provider Network Access	X	
<u>Dental Quality Measures</u>		
• Dental Check-ups	X	
• Annual Dental Visits	X	
• Dental Preventative Services	X	

Measures Currently Captured	Managed Care	Fee-for-Service
• Dental Home Services	X	
• Dental Diagnostic Services	X	
• Dental Sealants	X	
<u>Long Term Services and Supports Measures</u>		
• Under development	X	

Appendix B: List of Measures Used by the Delivery System Reform Incentive Payment Program

The Delivery System Reform Incentive Payment program (DSRIP) measures are organized in 15 clinically meaningful outcome domains. This organization is a grouping of like outcomes to facilitate measure selection:

- OD-1: Primary Care and Chronic Disease Management
- OD-2: Potentially Preventable Admissions
- OD-3: Potentially Preventable Readmissions – 30-day Readmission Rates
- OD-4: Potentially Preventable Complications, Healthcare Acquired Conditions, and Patient Safety
- OD-5: Cost of Care
- OD-6: Patient Satisfaction
- OD-7: Oral Health
- OD-8: Perinatal Outcomes and Maternal Child Health
- OD-9: Right Care, Right Setting
- OD-10: Quality of Life/Functional Status
- OD-11: Behavioral Health/Substance Abuse Care
- OD-12: Primary Prevention
- OD-13: Palliative Care
- OD-14: Healthcare Workforce
- OD-15: Infectious Disease Management

Outcome Domain	DSRIP Measure
Primary Care and Chronic Disease Management	<ul style="list-style-type: none"> • Third next available appointment • Annual monitoring for patients on persistent medications - Angiotensin Converting Enzyme (ACE) inhibitors or Angiotensin Receptor Blockers (ARBs) • Annual monitoring for patients on persistent medications - Digoxin • Annual monitoring for patients on persistent medications- Diuretic • Annual monitoring for patients on persistent medications - Anticonvulsant • Cholesterol management for patients with cardiovascular conditions • Controlling high blood pressure • Depression management: Screening and Treatment Plan for Clinical Depression • Depression management: Depression Remission at Twelve Months • Diabetes care: HbA1c poor control (>9.0%) • Diabetes care: Blood pressure (BP) control (<140/90mm Hg)

Outcome Domain	DSRIP Measure
Potentially Preventable Admissions	<ul style="list-style-type: none"> • Diabetes care: Retinal eye exam • Diabetes care: Foot exam • Diabetes care: Nephropathy • Peritoneal Dialysis Adequacy Clinical Performance Measure III • Hemodialysis Adequacy Clinical Performance Measure III • Hemodialysis Adequacy for Pediatric Hemodialysis Patients • Follow-Up After Hospitalization for Mental Illness • Antidepressant Medication Management • Comprehensive Diabetes Care LDL Screening • Adult Body Mass Index (BMI) Assessment • Asthma Percent of Opportunity Achieved • Tobacco Use: Screening & Cessation • Adolescent tobacco use • Adult tobacco use • Seizure type(s) and current seizure frequency(ies) • Pain Assessment and Follow-up • Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented • Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents • Hemoglobin A1c (HbA1c) Testing for Pediatric Patients • Medication Management for People with Asthma (MMA) • Asthma Medication Ratio (AMR) • Medical Assistance With Smoking and Tobacco Use Cessation • Appropriate Testing for Children With Pharyngitis <ul style="list-style-type: none"> • Congestive Heart Failure (CHF) Admission rate • Risk Adjusted CHF Admission rate • End-Stage Renal Disease (ESRD) Admission Rate • Risk Adjusted ESRD Admission Rate • Hypertension (HTN) Admission Rate • Risk Adjusted Hypertension (HTN) Admission Rate • Behavioral Health/Substance Abuse (BH/SA) Admission Rate • Risk Adjusted Behavioral Health/Substance Abuse (BH/SA) • Chronic Obstructive Pulmonary Disease (COPD) Admission Rate • Risk Adjusted COPD Admission Rate

Outcome Domain	DSRIP Measure
Potentially Preventable Readmissions – 30-day Readmission Rates	<ul style="list-style-type: none"> • Adult Asthma Admission Rate • Risk Adjusted Adult Asthma Admission Rate • Diabetes Short Term Complication Admission Rate • Risk Adjusted Diabetes Short Term Complication Admission Rate • Diabetes Long Term Complications Admission Rate • Risk Adjusted Diabetes Long Term Complications Admission Rate • Uncontrolled Diabetes Admissions Rate • Risk Adjusted Uncontrolled Diabetes Admissions Rate • Flu and pneumonia Admission Rate • Risk Adjusted Flu and pneumonia Admission Rate • Ambulatory Care Sensitive Conditions Admissions Rate • Prevention Quality Indicators (PQI) Overall Composite Measure Potentially Preventable Hospitalizations for Ambulatory Care Sensitive Conditions • Pediatric Asthma Admission Rate • Risk Adjusted Pediatric Asthma Admission Rate • Pain Admission Rate • Risk Adjusted Pain Admission Rate • Cancer Admission Rate • Risk Adjusted Cancer Admission Rate • Cellulitis Admission Rate • Risk Adjusted Cellulitis Admission Rate • Hospital-Wide All-Cause Unplanned Readmission Rate • Congestive Heart Failure (CHF) 30-day Readmission Rate • Risk Adjusted CHF 30-day Readmission Rate • Diabetes 30-day Readmission Rate • Risk Adjusted Diabetes 30-day Readmission Rate • Renal Disease 30-day Readmission Rate • Risk Adjusted Renal Disease 30-day Readmission Rate • Acute Myocardial Infarction (AMI) 30-day Readmission Rate • Risk Adjusted AMI 30-day Readmission Rate • Coronary Artery Disease (CAD) 30-day Readmission Rate • Risk Adjusted CAD 30-day Readmission Rate • Stroke (CVA) 30-day Readmission Rate • Risk Adjusted CVA 30-day Readmission Rate • BH/SA 30-day Readmission Rate • Risk Adjusted BH/SA 30-day Readmission Rate

Outcome Domain	DSRIP Measure
Potentially Preventable Complications, Healthcare Acquired Conditions, and Patient Safety	<ul style="list-style-type: none"> • COPD 30-day Readmission Rate • Risk Adjusted COPD 30-day Readmission Rate • Adult Asthma 30-day Readmission Rate • Risk Adjusted Adult Asthma 30-day Readmission Rate • Pediatric Asthma 30-day Readmission Rate • Risk Adjusted Pediatric Asthma 30-day Readmission Rate • Risk Adjusted All-Cause Readmission • Ventricular Assist Device 30-day Readmission Rate • Risk Adjusted Ventricular Assist Device 30-day Readmission Rate • Post-Surgical 30-day Readmission Rate • Risk Adjusted Post-Surgical 30-day Readmission Rate • Cancer Related 30-day Readmission Rate • Medication Complication 30-day Readmission Rate • Risk Adjusted Medication Complication 30-day Readmission Rate • Improvement in risk adjusted Potentially Preventable Complications rate(s) • Central line-associated bloodstream infections (CLABSI) rates • Catheter-associated Urinary Tract Infections (CAUTI) rates • Surgical site infections (SSI) rates • Patient Fall Rate • Incidence of Hospital-acquired Venous Thromboembolism (VTE) • Pressure Ulcer Rate • Sepsis mortality • Average length of stay: Sepsis • Sepsis bundle (NQF 0500) • "Risk-Adjusted Average Length of Inpatient Hospital Stay" • "Average Length of Stay for Patients of Medication Errors" • "Patients receiving language services supported by qualified language services providers" • Intensive Care: In-hospital mortality rate • Venous Thromboembolism Prophylaxis Bundle • Reduce Unplanned Re-operations • Adverse drug events • Stroke - Thrombolytic Therapy

Outcome Domain	DSRIP Measure
Cost of Care	<ul style="list-style-type: none"> • Warfarin management: percentage of patients on warfarin with an international normalized ratio (INR) result of 4 or above whose dosage has been adjusted or reviewed prior to the next warfarin dose, during the 6 month time period • Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls • Improved Cost Savings: Demonstrate cost savings in care delivery - Cost of Illness Analysis • Improved Cost Savings: Demonstrate cost savings in care delivery - Cost Minimization Analysis • Improved Cost Savings: Demonstrate cost savings in care delivery - Cost Effectiveness Analysis • Improved Cost Savings: Demonstrate cost savings in care delivery - Cost Utility Analysis • Improved Cost Savings: Demonstrate cost savings in care delivery - Cost Benefit Analysis • Per Episode Cost of Care • Total Cost of Care
Patient Satisfaction	<ul style="list-style-type: none"> • HCAHPS Communication with Doctors • HCAHPS Communication with Nurses • HCAHPS Responsiveness of Hospital Staff • HCAHPS Pain Control • HCAHPS Communication about Medicine • HCAHPS Cleanliness of Hospital Environment • HCAHPS Quietness of Hospital Environment • HCAHPS Discharging Information • HCAHPS Overall Hospital Rating • HCAHPS Likelihood to Recommend • CG-CAHPS 12-month: Timeliness of Appointments, Care, & Information • CG-CAHPS 12-month: Provider Communication • CG-CAHPS 12-month: Office Staff • CG-CAHPS 12-month: Overall Provider Rating • CG-CAHPS 12-month: Provider's Attention to Child's Growth and Development(Pediatric) • CG-CAHPS 12-month: Provider's Advice on Keeping Child Safe and Healthy(Pediatric) • CG-CAHPS 12-month: Cultural Competence Survey Supplement • CG-CAHPS 12-month: Health Information Technology Supplement

Outcome Domain	DSRIP Measure
Oral Health	<ul style="list-style-type: none"> • CG-CAHPS 12-month: Health Literacy Supplement • CG-CAHPS 12-month: PCMH Supplement (includes Shared Decision Making) • CG-CAHPS Visit Survey 2.0: Timeliness of Appointments, Care, & Information • CG-CAHPS Visit Survey 2.0: Provider Communication • CG-CAHPS Visit Survey 2.0: Office Staff • CG-CAHPS Visit Survey 2.0: Overall Provider Rating • CG-CAHPS Visit Survey 2.0: Provider's Attention to Child's Growth and Development (Pediatric) • CG-CAHPS Visit Survey 2.0: Providers Advice on Keeping Child Safe and healthy (Pediatric) • Client Satisfaction Questionnaire 8 (CSQ-8) • Visit-Specific Satisfaction Instrument (VSQ-9) • Health Center Patient Satisfaction Survey • PSQ-III General Satisfaction • PSQ-III Technical Quality • PSQ-III Interpersonal Aspects • PSQ-III Communication • PSQ-III Financial Aspects • PSQ-III Time Spent w/ Doctors • PSQ-III Access, Availability, & Convenience • PSQ-18 General Satisfaction • PSQ-18 Technical Quality • PSQ-18 Interpersonal Aspects • PSQ-18 Communication • PSQ-18 Financial Aspects • PSQ-18 Time Spent w/ Doctors • PSQ-18 Access, Availability, & Convenience • Experience of Care and Health Outcomes (ECHO) 3.0 <ul style="list-style-type: none"> • Dental Sealant: Children • Cavities: Children • Early Childhood Caries – Fluoride Applications • Topical Fluoride application • Proportion of older adults aged 65 to 74 years who have lost all their natural teeth • Urgent Dental Care Needs in Children: Percentage of children with urgent dental care needs • Urgent Dental Care Need in Older Adults • Chronic Disease Patients Accessing Dental Services • Dental Treatment Needs Among Chronic Disease Patients

Outcome Domain	DSRIP Measure
Perinatal Outcomes and Maternal Child Health	<ul style="list-style-type: none"> • Cavities: Adults • Utilization of Services: Children • Oral Evaluation: Children • Prevention: Sealants for 6 – 9 year-old ,Children at Elevated Risk • Prevention: Sealants for 10 – 14 year-old , Children at Elevated Risk • Prevention: Topical Fluoride Intensity for Children at Elevated Caries Risk • Preventive Services for Children at Elevated Caries Risk • Treatment Services: Children • Usual Source of Services • Care Continuity: Children • Per Member Per Month Cost of Clinical Services (PMPM Cost): Children • Annual Dental Visit • Diabetes mellitus: percent of patients who obtained a dental exam in the last 12 months (NQMC:1600) <ul style="list-style-type: none"> • Timeliness of Prenatal/Postnatal Care • Percentage of Low Birth- weight births • Early Elective Delivery • Antenatal Steroids • Frequency of ongoing prenatal care • Cesarean Rate for Nulliparous Singleton Vertex • Birth Trauma Rates • Neonatal Mortality • Youth Pregnancy Rate • Pregnancy Rate • Healthy term newborn • Pre-term birth rate • NICU days/delivery • Exclusive Breastfeeding at 3 Months • Exclusive Breastfeeding at 6 Months • Any Breastfeeding at 6 Months • Any Breastfeeding at 12 Months • Rate of Exclusive Breastfeeding • Post-Partum Follow-Up and Care Coordination • Developmental Screening in the First Three Years of Life • Well-Child Visits in the First 15 Months of Life (6 or more visits) • Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life

Outcome Domain	DSRIP Measure
Right Care, Right Setting	<ul style="list-style-type: none"> • Children and Adolescents' Access to Primary Care Practitioners (CAP) • Adolescent Well-Care Visits (AWC) • Sudden Infant Death Syndrome Counseling • Routine prenatal care: percentage of pregnant patients who receive counseling about aneuploidy screening in the first trimester (NQMC:8031) • Behavioral health risk assessment (for pregnant women)
	<ul style="list-style-type: none"> • Decrease in mental health admissions and readmissions to criminal justice settings such as jails or prisons • "Reduce Emergency Department visits for Ambulatory Care Sensitive Conditions (ACSC) per 100,000" • "Reduce Pediatric Emergency Department visits for ACSC per 100,000" • "Emergency Department visits per 100,000" • Pediatric Emergency Department visits per 100,000 • Reduce Emergency Department visits for Congestive Heart Failure • Reduce Emergency Department visits for Diabetes • Reduce Emergency Department visits for End Stage Renal Disease • Reduce Emergency Department visits for Angina and Hypertension • Reduce Emergency Department visits for Behavioral Health/Substance Abuse • Reduce Emergency Department visits for Chronic Obstructive Pulmonary Disease • Reduce Emergency Department visits for Asthma • Reduce Emergency Department visits for Dental Conditions • Pediatric/Young Adult Asthma Emergency Department Visits • Reduce low acuity Emergency Department visits • Emergency Department visits where patients left without being seen • Emergency Department visits where patients with a mental health complaint without being seen • Care Transition: Transition Record with Specified Elements Received by Discharged Patients (Emergency Department Discharges to Ambulatory Care [Home/Self Care] or Home Health Care)

Outcome Domain	DSRIP Measure
Quality of Life and Functional Status	<ul style="list-style-type: none"> • Transition Record with Specified Elements Received by Discharged Patients (Inpatient Discharges to Home/Self Care or Any Other Site of Care) • Emergency Department throughput Measure bundle • Median Time from Emergency Department Arrival to Emergency Department for Discharged Emergency Department Patients • Median time from admit decision time to time of departure from the Emergency Department for Emergency Department patients admitted to inpatient status • Median time from Emergency Department arrival to time of departure from the emergency room for patients admitted to the facility from the Emergency Department <ul style="list-style-type: none"> • Assessment of Quality of Life (AQoL-4D) • Assessment of Quality of Life (AQoL-6D) • Assessment of Quality of Life (AQoL-7D) • Assessment of Quality of Life (AQoL-8D) • Pediatric Quality of Life Inventory (PedsQL) • RAND Medical Outcomes Study: Measures of Quality of Life Survey Core Survey (MOS) • RAND Short Form 12 (SF-12v2) Health Survey • RAND Short Form 36[1] (SF-36) Health Survey • Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q) • McGill Quality of Life (MQOL) Index • Palliative Care Outcome Scale (POsv1) • Palliative Care Outcome Scale (POsv2) • Functional Assessment of Cancer Therapy (FACT-G) • Missoula-VITAS Quality of Life Index (MVQOLI) • Centers for Disease Control Health-Related Quality of Life (HRQoL) Measures • Child Health Questionnaire Parent CHQ-PF50 • Child Health Questionnaire Parent CHQ-PF28 • Child Health Questionnaire Child Form (CHQ-CF87) • Family Experiences Interview Schedule (FEIS) • Supports Intensity Scale (SIS) • Lawton Instrumental Activities of Daily Living (IADLs) Scale • Activity Measure for Post-Acute Care (AMPAC) • The Duke Health Profile (Duke) • Battelle Development Inventory-2 (BDI-2)

Outcome Domain	DSRIP Measure
Behavioral Health and Substance Abuse Care	<ul style="list-style-type: none"> • Problem Areas in Diabetes (PAID) Scale • Developmental Profile 3 (DP-3) • Vineland Adaptive Behavior Scales, 2nd Edition (VABS II) • Bayley Scales of Infant and Toddler Development-Third Edition (Bayley-III) • Adult Mental Health Facility Admission Rate • Youth Mental Health Facility Admission Rate • IDD/ICF Admissions to a Care Facility • IDD/SPMI Admissions and Readmissions to State Institutions • Adherence to Antipsychotic Medications for Individuals with Schizophrenia • Follow-up Care for Children Prescribed ADHD Medication (ADD) • Initiation of Depression Treatment • Initiation and Engagement of Alcohol and Other Drug Dependence Treatment • Care Planning for Dual Diagnosis • Diabetes Screening for People with Schizophrenia or Bipolar Disorder Prescribed Antipsychotic Medications (SSD) • Diabetes Monitoring for People With Diabetes and Schizophrenia • Cardiovascular monitoring for people with cardiovascular disease and schizophrenia (SMC) • Assignment of Primary Care Physician to Individuals with Schizophrenia • Annual Physical Exam for Persons with Mental Illness • Depression Screening by 18 years of age • Assessment for Substance Abuse Problems of Psychiatric Patients • Assessment of Risk to Self/Others • Bipolar Disorder (BD) and Major Depression (MD): Appraisal for alcohol or substance use • Assessment for Psychosocial Issues of Psychiatric Patients • Bipolar Disorder and Major Depression: Assessment for Manic or hypomanic behaviors • Assessment of Major Depressive Symptoms • Child and Adolescent Major Depressive Disorder: Suicide Risk Assessment

Outcome Domain	DSRIP Measure
Primary Prevention	<ul style="list-style-type: none"> • Vocational Rehabilitation for Schizophrenia • Housing Assessment for Individuals with Schizophrenia • Independent Living Skills Assessment for Individuals with Schizophrenia • Texas Adult Mental Health (AMH) Consumer Survey • Quick Inventory of Depressive Symptomatology (QIDS) • Generalized Anxiety Disorder (GAD-7) • Daily Living Activities (DLA-20) • Positive Symptom Rating Scale (PSRS) • Aberrant Behavior Checklist (ABC) • Adult Needs and Strength Assessment (ANSA) • "Children and Adolescent Needs and Strengths Assessment (CANS-MH)" • Patient Health Questionnaire 9 (PHQ-9) • Patient Health Questionnaire 15 (PHQ-15) • Patient Health Questionnaire: Somatic, Anxiety, and Depressive Symptoms (PHQ-SADS) • Patient Health Questionnaire 4 (PHQ-4) • Edinburg Postpartum Depression Scale <ul style="list-style-type: none"> • Breast Cancer Screening • Cervical Cancer Screening • Colorectal Cancer Screening • Pneumonia vaccination status for older adults • Pneumococcal Immunization- Inpatient • Influenza Immunization -- Ambulatory • Influenza Immunization- Inpatient • Immunization for Adolescents- Tdap/TD and MCV • Childhood immunization status • Adults (18+ years) Immunization status • HPV vaccine for adolescents • Immunization and Recommended Immunization Schedule Education • Mammography follow-up rate • Prostate Cancer: Avoidance of Overuse Measure – Bone Scan for Staging Low-Risk Patients • Abnormal Pap test follow-up rate • High-risk Colorectal Cancer Follow-up rate within one year • Intensive behavioral dietary counseling for adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease • ABI Screening for Peripheral Arterial Disease

Outcome Domain	DSRIP Measure
Palliative Care	<ul style="list-style-type: none"> • Osteoporosis: Screening or Therapy for Women Aged 65 Years and Older • Hospice and Palliative Care – Pain assessment • Hospice and Palliative Care – Treatment Preferences • Hospice and Palliative Care – Proportion with more than one emergency room visit in the last days of life • Hospice and Palliative Care – Proportion admitted to the ICU in the last 30 days of life • Hospice and Palliative Care – Percentage of patients receiving hospice or palliative care services with documentation in the clinical record of a discussion of spiritual/religions concerns or documentation that the patient/caregiver did not want to discuss • Palliative Care: Percent of patients who have documentation in the medical record that an interdisciplinary family meeting was conducted on or before day five of ICU admission • Oncology: Pain Intensity Quantified – Medical Oncology and Radiation Oncology • Oncology: Plan of Care for Pain – Medical Oncology and Radiation Oncology
Healthcare Workforce	<ul style="list-style-type: none"> • Number of practicing primary care practitioners per 1000 individual in HPSAs or MUAs • Number of practicing nurse practitioners and physician assistants per 1000 individuals in HPSAs or MUAs • Number of practicing psychiatrists per 1000 individuals in HPSAs or MUAs • Percent of graduates who practice in a HPSA or MUA • Percent of graduates who work in a practice that has a high Medicaid share that reflects the distribution of Medicaid in the population • Percent of trainees who have spent at least 5 years living in a health- professional shortage area (HPSA) or medically underserved area • Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey • Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey • Number of practicing specialty care practitioners per 1000 individuals in HPSA or MUA

Outcome Domain	DSRIP Measure
Infectious Disease Management	<ul style="list-style-type: none"> • HIV medical visit frequency • Prescription of Antiretroviral Medications • HIV Screening: Patients at High Risk of HIV • HIV/AIDS: Tuberculosis (TB) Screening • HIV/AIDS: Sexually Transmitted Diseases - Screening for Chlamydia, Gonorrhea, and Syphilis • Chlamydia screening in women • Chlamydia Screening and Follow up in adolescents • Follow-up testing for C. trachomatis among recently infected men and women • Syphilis screening • Syphilis positive screening rates • Follow-up after Treatment for Primary or Secondary Syphilis • Gonorrhea screening rates • Gonorrhea Positive Screening Rates • Follow-up testing for N. gonorrhoeae among recently infected men and women • High Intensity Behavioral Counseling to prevent STIs for all sexually active adolescents and for adults at increased risk for STIs • Curative Tuberculosis (TB) treatment rate • Latent Tuberculosis Infection (LTBI) treatment rate • Hepatitis C Cure Rate