



Assessment of Social Factors impacting Health Care Quality in Texas Medicaid

**As Required by the Centers for Medicare
and Medicaid Services**

**Delivery System Reform
Incentive Payment (DSRIP)
Transition Plan Milestone**

**Health and Human Services
Commission**

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Executive Summary

This *Assessment of Social Factors impacting Health Care Quality in Texas Medicaid* deliverable fulfills one of the eight milestones included in the Delivery System Reform Incentive Payment (DSRIP) Transition Plan, which explains how the Texas Health and Human Services Commission (HHSC) will further develop delivery system reform efforts in Texas Medicaid without DSRIP funding. The objective of this milestone is to assess which social factors may be correlated with health outcomes for beneficiaries enrolled in Texas Medicaid as well as help inform possible new program proposals, policy changes, and strategies for quality improvement related to social determinants of health (SDOH).

To accomplish the milestone's objective, the assessment was conducted by the Texas Medicaid External Quality Review Organization (EQRO).^a Using calendar year 2018 data, the assessment evaluated the association between a comprehensive set of 24 SDOH variables (county level) and key health care quality measures for the following Texas Medicaid managed care populations:

- Children and adolescents under age 19,
- Pregnant women, and
- Adults with disabilities or age 65 or older.

Across all three populations, the assessment results showed that a model including SDOH variables more accurately predicted the outcomes of the quality measures than a model including demographic variables alone (age, gender, and program). Additionally, the assessment found statistically significant associations between SDOH variables and quality measures for each respective population. The number of significant SDOH variables and the relative influence of SDOH varied by population and quality measure. The following SDOH variables were significantly associated with the largest number of quality measures across populations: Race/Ethnicity, Access to Mental Health Providers, Rate of Violent Crime, Access to Exercise Opportunities, Rate of Physical Inactivity, and Food Insecurity.

Overall, the assessment results suggested that the social context in which Medicaid managed care members live, as represented by the set of SDOH variables, is

^a The assessment titled "Social Determinants of Health and Their Impact on Health Care Quality Measures in the CHIP and STAR, STAR Kids, STAR Health, and STAR+PLUS Populations" is available as **Attachment 1 (SDOH Focus Study SFY2020)** and **Attachment 2 (SDOH Focus Study Addendum SFY2020)**.

important to better understand outcomes on key health care quality measures. Based on the assessment results, a targeted approach focused on a few SDOH variables, such as those SDOH variables significantly associated with a large number of quality measures across populations, may encourage mutual engagement and buy-in among stakeholders and help policy makers, providers, and managed care organizations (MCOs) prioritize interventions and strategies addressing SDOH for Texas Medicaid beneficiaries. This assessment provided important findings supporting the relevance of social factors, collectively and individually, on health care quality for children, adolescents, pregnant women, and adults with disabilities and age 65 or older in Texas Medicaid managed care.

To supplement the exploration of SDOH in Texas Medicaid, the Center for Health Care Strategies (CHCS), with support from the Episcopal Health Foundation, convened a panel of national and local SDOH experts to provide HHSC with input and recommendations on the following areas of interest: (1) SDOH screening; (2) value-based payment arrangements involving SDOH; (3) Medicaid managed care contracting requirements and incentives involving SDOH; and (4) SDOH-specific interventions related to non-emergency medical transportation (NEMT), housing instability, and food insecurity.

In a final report, CHCS emphasized the importance of defining a statewide SDOH approach, including state goals and priorities, such that all other SDOH activities involving MCOs, providers, and community-based partners may be strategically aligned and more likely to succeed. Additionally, the report highlighted the role of SDOH screening in understanding the individual health-related social needs of a beneficiary and disparities in health and health care among beneficiaries. The report also underscored the potential for MCOs to factor SDOH activities into their existing care management programs, partner with existing local community-based organizations in their regional networks, and link SDOH interventions into the design of VBP arrangements. Lastly, the report also summarized best practices for specific SDOH domains, including NEMT, housing instability, and food insecurity.

Based on the results of the assessment, socioeconomic, environmental, and behavioral factors are correlated with key health care quality measures in Texas Medicaid, and the impact of SDOH is relevant across Medicaid managed care populations. Taken together with the best practices summarized in the CHCS report, this milestone serves as a springboard for considering future policies and programs to better address SDOH in the unique Texas Medicaid population. As HHSC transitions into a new phase of delivery system reform, the *Assessment of Social Factors impacting Health Care Quality in Texas Medicaid* provides a data-driven foundation for supporting the development of a statewide approach for

addressing SDOH to improve the quality of health care delivered to all beneficiaries, including children, adolescents, pregnant women, and adults with disabilities and age 65 or older in Texas Medicaid.

1. Milestone Background

As required by the Medicaid 1115 Waiver Special Terms and Conditions, HHSC submitted a DSRIP Transition Plan to the Centers for Medicare & Medicaid Services (CMS), describing how Texas will further develop delivery system reform efforts in Texas Medicaid without DSRIP funding when the pool ends on September 30, 2021. The DSRIP Transition Plan approved by CMS includes five goals and eight milestones.¹ One of the goals was to develop cross-focus areas, such as social drivers of health, using the latest national data and analysis to continue to innovate in Texas.^b The corresponding milestone deliverable, *Assessment of Social Factors impacting Health Care Quality in Texas Medicaid*, assesses which social factors may be correlated with Texas Medicaid health outcomes and helps inform possible new program proposals, policy changes, and strategies for quality improvement in Texas Medicaid related to SDOH.

According to the Centers for Disease Control and Prevention, SDOH are “conditions in the places where people live, learn, work, and play that affect a wide range of health risks and outcomes”.² In the United States, although 95 percent of health care spending is directed to medical care, studies have found that medical care only influences about 10 to 15 percent of health status, while behaviors and social factors surrounding an individual influence more than 50 percent of health status.³

In a State Health Official letter issued in January 2021, CMS underscored its commitment to support state efforts to address SDOH by describing opportunities under Medicaid and Children’s Health Insurance Program (CHIP) authorities for states to better address SDOH through programs, benefits, and services.⁴ At the federal level, CMS’s support of state efforts to address SDOH has also been evident through approved policies such as the Medicaid and CHIP Managed Care Final Rule published in May 2016, which defined specific provisions for activities that improve health care quality to qualify in the numerator calculation of the medical loss ratio; approved state waivers such as North Carolina’s Medicaid 1115 Waiver, which included pilots for enhanced case management to address unmet social needs; and approved innovative programs such as the Accountable Health Communities Model, which tested whether addressing health-related social needs impacts health care outcomes and costs for Medicare and Medicaid beneficiaries.^{5,6,7,8,9} National provider organizations, including the American Medical Association, the American

^b Throughout this milestone deliverable, the term “social determinants of health (SDOH)” is used; however, the term “social drivers of health” is used when reflecting original language as referenced in the DSRIP Transition Plan.

Academy of Pediatrics, the American College of Obstetricians and Gynecologists, the American Academy of Family Physicians, and the American College of Physicians have supported addressing SDOH through evidence-based research and recommendations as well as dedicated websites and educational toolkits.^{10,11,12,13,14}

In the Texas DSRIP program, participating providers have also focused their delivery system reform efforts towards addressing SDOH. During DSRIP demonstration years (DY) 7-8 (October 1, 2017 – September 30, 2019), 37 providers reported on 41 Core Activities^c that address SDOH. In DSRIP DYs 9-10 (October 1, 2019 – September 30, 2021), providers reported on Related Strategies^d, which included nine strategies specifically describing SDOH screenings or other referral-based SDOH interventions, and 192 providers reported implementing at least one of these SDOH Related Strategies to some extent. According to an analysis of DSRIP provider performance in DYs 7-8, providers that reported quality measures with the highest performance rates for Medicaid and CHIP beneficiaries were more likely to have implemented screening for food insecurity and screening for housing needs.¹⁵

The Medicaid MCOs in Texas have also expressed support for addressing SDOH among their members. When the Episcopal Health Foundation surveyed Texas MCOs in 2019, findings from 14 out of 17 MCOs showed that MCOs were willing to invest in SDOH initiatives if the data reflected the need and if the state provided reimbursements or financial incentives for investments addressing SDOH.¹⁶

Including the *Assessment of Social Factors impacting Health Care Quality in Texas Medicaid* milestone in the DSRIP Transition Plan supports the goal of sustaining and

^c DSRIP Core Activities Titles about SDOH

- Implement interventions focusing on social determinants of health
- Provision of services that address social determinants of health
- Provision of services that address social determinants of health and/or family support services

^d DSRIP Related Strategies Descriptions about SDOH

- Screening patients for food insecurity
- Formal partnership or arrangement with food resources to support patient health status (e.g., local food banks, grocery stores, etc.)
- Screening patients for housing needs
- Formal partnership or arrangement with housing resources to support patient health status (e.g., affordable housing units, transitional housing, rental assistance, etc.)
- Screening patients for housing quality needs
- Formal partnership or arrangement with housing quality resources to support patient health status (e.g., housing inspections, pest control management, heating and other utility services, etc.)
- Screening patients for transportation needs
- Formal partnership or arrangement with transportation resources to support patient access to care (e.g., public or private transit, etc.)
- Formal partnership or arrangement with schools/school districts to collaborate on health-promoting initiatives (e.g., addressing environmental triggers, healthy lunch options, field day activities, etc.)

advancing priorities that have been identified in the DSRIP program as activities that impact health outcomes for Texas Medicaid populations served.

2. Assessment of Social Factors impacting Health Care Quality in Texas Medicaid ^e

Background

Although previous reports have been developed for HHSC on topics associated with SDOH, these reports studied only a subset of the populations served by Texas Medicaid managed care programs.^f For example, one report studied the impact of social factors on rates of asthma, type 2 diabetes, and attention deficit and hyperactive disorder (ADHD) diagnoses in children and adolescents in STAR, STAR Health, and STAR Kids, while another report studied how often providers submitted ICD-10 diagnosis codes related to SDOH (also known as “z-codes”)^g only in the STAR+PLUS population.^{17,18} Since previous SDOH analyses focused on certain managed care programs, an assessment of social factors for the full Texas Medicaid managed care population was conducted by the Texas Medicaid EQRO.¹⁹

Methods

The assessment is a cross-sectional observational study evaluating the association between a comprehensive set of socioeconomic, environmental, and behavioral factors and key health care quality measures, using calendar year 2018 data, for the following Texas Medicaid managed care populations:

- Children and adolescents under age 19,
- Pregnant women, and
- Adults with disabilities and age 65 or older.

Across all three populations, a total of 24 SDOH variables (county level) were assessed as the independent variables (see [Appendix 1](#)). For each of the three

^e The assessment titled “Social Determinants of Health and Their Impact on Health Care Quality Measures in the CHIP and STAR, STAR Kids, STAR Health, and STAR+PLUS Populations” is available as **Attachment 1 (SDOH Focus Study SFY2020) and Attachment 2 (SDOH Focus Study Addendum SFY2020)**.

^f Texas Medicaid managed care programs include State of Texas Access Reform (STAR), STAR Kids, STAR+PLUS, STAR Health, and Children’s Health Insurance Program (CHIP). STAR covers low-income children, pregnant women and families. STAR Kids covers children and adults 20 and younger who have disabilities. STAR+PLUS covers people who have disabilities or are age 65 or older. STAR Health covers children and adolescents in foster care or state conservatorship. CHIP covers children in families that earn too much money to qualify for Medicaid but cannot afford to buy private insurance. <https://hhs.texas.gov/services/health/medicaid-chip/>

^g International Classification of Diseases (ICD) diagnostic codes in categories Z55-Z56 define SDOH and other non-medical factors that may influence a patient’s health status or health behaviors, including education and literacy, employment, housing, lack of adequate food or water, or exposure to physical or community risk factors. American Medical Association (2019) ICD-10 CM 2020 edition: The complete code book

populations, key health care quality measures respective to each population were assessed as the dependent variables, e.g., 10 quality measures for the children and adolescent population, three quality measures for the pregnant women population, and 11 quality measures for the STAR+PLUS adult population (see [Appendix 2](#)).

Results

Across all three populations, the results showed that a model including SDOH variables more accurately predicted the outcomes of the quality measures than a model including demographic variables alone, and the effect was not due to random chance. For example, for the children and adolescent population, the largest percent concordance differential (degree of change in accuracy) was +31.4 percentage points for Annual Primary Care Visit, meaning that in comparison to a model with demographic variables alone, a model adding SDOH variables increased in accuracy by 31.4 percentage points for predicting receipt of annual primary care visits among children and adolescents. For the pregnant women population, the largest percent concordance differential was +22.7 percentage points for Low Birth Weight Babies, and the largest percent concordance differential for the STAR+PLUS adult population was +6.7 percentage points for Breast Cancer Screening. See Table 3 and Table 14 in Attachment 1 and Table 3 in Attachment 2 for additional details on the comparative modeling results. In other words, failing to consider the relevance of social factors results in less accurate models of understanding quality measure outcomes among Medicaid managed care populations.

Additionally, the results showed statistically significant associations existed between individual SDOH variables and quality measures for each respective population. While there was not one unique SDOH variable significantly associated with all quality measures across all three populations, the following results highlighted examples of SDOH variables significantly associated with a large number of quality measures across populations:

- For children and adolescents, Race/Ethnicity, Access to Exercise Opportunities, Rate of Physical Inactivity, and Access to Mental Health Providers were significantly associated with the largest number of quality measures (8 out of 10 quality measures for this population).
- For pregnant women, Rate of Adult Smoking, Access to Mental Health Providers, and Rate of Violent Crime were significantly associated with all three quality measures for this population.
- For STAR+PLUS adults, Rate of Violent Crime was significantly associated with the largest number of quality measures (8 out of 11 quality measures

for this population), including when the results were stratified by the Home and Community-Based Services (HCBS) Waiver subpopulation.

- Across all three populations, Food Insecurity was significantly associated with several quality measures (six quality measures for children and adolescents, one quality measure for pregnant women, and five quality measures for STAR+PLUS adults).

Furthermore, the results showed that the relative influence of individual SDOH variables on the significant associations varied by population and quality measure. For example, even though Access to Mental Health Providers was significantly associated with several quality measures for both the children and adolescent population and pregnant women population, the relative influence of mental health provider access ranged anywhere from 2.4 percent to 13.2 percent depending on the quality measure. As another example, even though Food Insecurity was significantly associated with several quality measures across all three populations, the relative influence of food insecurity ranged anywhere from 4.1 percent to 18.6 percent depending on the quality measure. See the “Results” sections of Attachment 1 and Attachment 2 for detailed results per quality measure for each population.

Limitations

When interpreting the results of the assessment, a few limitations should be considered. Since the SDOH variables were collected from a variety of data sources, the greatest common level of analysis to link the SDOH data to the quality measures data was at the member-county level, which may not necessarily reflect the social context of the individual Medicaid member and may mask differences within a county and any individual exposures. Additionally, with a cross-sectional study design, while the results indicated that there were significant associations between individual SDOH variables and the outcomes of quality measures, the results could not be interpreted as direct causal relationships.

Given the limitations of the assessment, increased member-level SDOH screening and data collection may be beneficial. Access to member-level SDOH assessment data could help HHSC identify which SDOH variables are significantly associated with quality measure performance at the member level, supplement providers’ information regarding clinical care planning, and assist MCOs with resource allocation, and further improve the accuracy of statistical modeling for future program design and evaluation purposes.

Conclusion

Overall, the assessment results suggested that the social context in which Medicaid managed care members lived, as represented by the set of SDOH variables, is important to better understand outcomes on key health care quality measures. However, not every SDOH variable contributed equally to the observed impact on quality measure outcomes across all three populations.

This finding suggests that a targeted approach, such as focusing on SDOH variables significantly associated with a large number of quality measures across populations, is recommended. A targeted approach may help policy makers, providers, and MCOs prioritize interventions and strategies for addressing SDOH for Texas Medicaid beneficiaries and may also encourage engagement and buy-in among stakeholders.

This assessment provided important findings supporting the relevance of social factors, collectively and individually, on health care quality for children, adolescents, pregnant women, and adults with disabilities and age 65 or older in Texas Medicaid managed care.

3. SDOH Expert Panel & Evidence-Based Policies

To supplement the exploration of SDOH in Texas Medicaid, the Center for Health Care Strategies (CHCS), with support from the Episcopal Health Foundation, convened a panel of nine national and local SDOH subject matter experts, representing state Medicaid agencies, academic institutions, and local non-profit community-based organizations (see [Appendix 3](#)). The SDOH Expert Panel provided HHSC with input and recommendations on the following areas of interest:

1. SDOH screening;
2. value-based payment (VBP) arrangements involving SDOH;
3. Medicaid managed care contracting requirements and incentives involving SDOH; and
4. SDOH-specific interventions related to non-emergency medical transportation (NEMT), housing instability, and food insecurity.

In a final report, CHCS summarized findings from environmental scans related to the areas of interest, distilled the discussions with the SDOH Expert Panel, and provided program and policy considerations for HHSC.²⁰ The report highlighted the importance of screening for SDOH to understand not only the individual health-related social needs of a beneficiary but also longstanding disparities in health and health care among beneficiaries. The report also encouraged a standardized approach to SDOH screening and data collection to promote strategic alignment among HHSC, MCOs, providers, and community-based partners and referenced the SIREN (Social Interventions Research & Evaluation Network) Social Needs Screening Tool Comparison Table as a resource.^h

Additionally, the report offered various managed care-based strategies to incentivize more advanced SDOH initiatives. Potential strategies for HHSC to consider include:

- incorporating SDOH-related metrics into direct and indirect financial incentives for MCOs
- rewarding MCOs with SDOH interventions in their VBP arrangements with providers, such as prospective, risk-based payment arrangements, or
- risk-adjusting MCO capitation rates by social risk factors.

^h SIREN has compiled information from several of the most widely used social health screening tools for stakeholders interested in comparing these instruments. The summary tables include information on intended population or setting, domains/topics covered, and number of questions dedicated to each domain. <https://sirennetwork.ucsf.edu/siren-resources/screening-tool-comparison-table-0>

Moreover, the report underscored the potential for MCOs to factor SDOH activities into their existing care management programs and to partner with existing, local community-based organizations.

The report also described best practices for specific SDOH domains, for example:

- Housing instability – the report focused on supportive housing models such as using medical respite as an *in lieu of* or value-added service as well as providing home modification services for targeted beneficiaries;
- Food insecurity – a variety of interventions were encouraged, including screening in health care settings and active referral models; e.g., referral into prescription food programs, home-delivered medically tailored meal programs, and application assistance for federal food and nutrition programs such as the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC);
- Transportation – to improve beneficiary satisfaction with NEMT services, the report suggested implementing quality metrics designed to improve service standards including trip completion and timeliness; and
- Strategically leveraging the potential of the *2-1-1 Texas* system, an existing private-public partnership between the state and community-based organizations.

Importantly, the report also included overarching recommendations that cut across all the areas of interest to emphasize the essential first step of defining a statewide SDOH approach. By defining state priorities and goals for advancing SDOH programming in Texas Medicaid, all other SDOH activities involving MCOs, providers, and community-based partners may be more likely to succeed.

4. Milestone Conclusion

The results of this SDOH assessment show that socioeconomic, environmental, and behavioral factors are correlated with key health care quality measures in Texas Medicaid, and the impact of SDOH is relevant across all Medicaid managed care populations.

Together with the best practices summarized in the CHCS report, this milestone serves as a springboard and will inform future policies and programs to better address SDOH in the unique Texas Medicaid population. As HHSC transitions into a new phase of delivery system reform, the *Assessment of Social Factors impacting Health Care Quality in Texas Medicaid* provides a data-driven foundation for supporting the development of a statewide approach for addressing SDOH to improve the quality of health care delivered to all beneficiaries, including children, adolescents, pregnant women, and adults with disabilities and age 65 or older in Texas Medicaid.

5. Appendices

Appendix 1: SDOH Variables by SDOH Category

Across all three study populations, a comprehensive set of 24 SDOH variables were selected as independent variables and grouped under one of five SDOH categories.¹

Table 1. SDOH Variables by SDOH Category

Demographic Attributes

Race/Ethnicity

Health Behaviors

Access to Exercise Opportunities

Rate of Sexually Transmitted Disease (STD)

Rate of Teen Births

Rate of Adult Smoking

Rate of Adult Obesity

Rate of Physical Inactivity

Availability and Access to Health Care Services

Access to Primary Care Physicians (PCP)

Transportation

Access to Mental Health Providers

Access to OB/GYN (obstetrics and gynecology) Providers

Rate of Uninsured Adults

Social and Economic Environment

Rate of High School Graduation

Rate of Unemployment

Food Insecurity

Rate of Children in Single-Parent Households

Rate of Violent Crime

Rate of Injury Deaths

Rate of Children in Poverty

Rate of Disconnected Youth

Availability of Social Associations

Physical Environment

¹ SDOH data were obtained from valid public data sets including administrative, census, survey, and public health surveillance data.

Air Pollution
 Rate of Severe Housing Problems
 Lead Exposure

Appendix 2: Quality Measures by Study Population

For the children and adolescent population, a total of 10 key health care quality measures were selected as dependent variables.^j

Table 2. Key Healthcare Quality Measures -- Population: Children and Adolescents

Quality Measure	Measure Description	Source
Children Immunization	Childhood vaccines protect children from a number of serious and potentially life-threatening diseases. Numerator criteria include children 2 years of age who had a combination of recommended immunizations. (Combination 2: diphtheria, tetanus and acellular pertussis; polio; measles, mumps and rubella; haemophilus influenza type B; hepatitis B, varicella vaccines)	HEDIS®
Adolescent Immunization	Vaccines are a safe and effective way to protect adolescents against potential deadly diseases. Numerator criteria include adolescents 13 years of age who had a combination of recommended immunizations. (Combination 1: Meningococcal and tetanus, diphtheria, acellular pertussis vaccines)	HEDIS®
Adolescent HPV Immunization	Numerator criteria include adolescents who had the complete human papillomavirus (HPV) vaccine series.	HEDIS®
Follow-up after Initiation ADHD Medication	Numerator criteria include children or adolescents with follow-up visit during 30-day initiation of prescribed attention-deficit/hyperactivity disorder (ADHD) medication.	HEDIS®
Follow-up during Continuation ADHD Medication	Numerator criteria include children or adolescents with follow-up visits (at least 2) during continuation and maintenance phase after initiation of attention-deficit/hyperactivity disorder (ADHD) medication.	HEDIS®

^j Quality measures data were available through the EQRO and derived from nationally recognized quality assessment programs including the National Council for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®) and the Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators (PQI) and Pediatric Quality Indicators (PDI).

Quality Measure	Measure Description	Source
Asthma Admission Rate (Pediatric Quality Indicator 14)	Asthma related admissions are potentially preventable inpatient stays. Numerator criteria include asthma related acute inpatient stays among children aged 2-17 years.	AHRQ
Annual Primary Care Visit	Access to primary care is important for the health and well-being of children and adolescents. Numerator criteria include children and young adults 12 months-19 years of age who had a visit with a primary care practitioner (PCP).	HEDIS®
15-Month Old Well Child Visits	Assessing physical, emotional and social development is important at every stage of life, particularly with children and adolescents. Numerator criteria include children with 6 or more well child visits in the first 15 months of life	HEDIS®
Ages 3, 4, 5, 6-Year Old Well Child Visits	Numerator criteria include children 3-6 years of age who received one or more well-child visits with a primary care practitioner during the measurement year.	HEDIS®
Adolescent Well Care Visits	Numerator criteria include adolescents and young adults 12-19 years of age who had at least one comprehensive well-care visit with a primary care practitioner or an OB/GYN practitioner during the measurement year.	HEDIS®

For the pregnant women population, a total of three key health care quality measures were selected as dependent variables.

Table 3. Key Healthcare Quality Measures -- Population: Pregnant Women

Quality Measure	Measure Description	Source
Timeliness of Prenatal Care	Timely and adequate prenatal care can prevent poor birth outcomes. Numerator criteria include pregnant women who received a prenatal care visit in the first trimester.	HEDIS®
Postpartum Care	Numerator criteria include women with deliveries who had a postpartum visit on or between 21 and 56 days after delivery.	HEDIS®

Quality Measure	Measure Description	Source
Low Birth Weight (LBW) Babies	Babies born early or with low birth weight (LBW) can experience serious health problems. Certain maternal behaviors or exposures can contribute to low birth weight babies. Numerator indicates LBW babies. Custom measure was created based on LBW diagnosis codes identified by AHRQ for Pediatric Quality Indicators Low Birth Weight Categories. Specifications are available in Appendix II.	AHRQ

For the STAR+PLUS adult population, a total of 11 key health care quality measures were selected as dependent variables, of which eight quality measures were also used to stratify results for the Home and Community-Based Services (HCBS) Waiver subpopulation (as indicated by an asterisk).

Table 4. Key Healthcare Quality Measures -- Population: STAR+PLUS Adults

Quality Measure	Measure Description	Source
Emergency Department (ED) Utilization *	This measure summarizes utilization of ambulatory care, specifically for ED visits. Numerator criteria include members with ED utilization during measurement year.	HEDIS®
Acute Inpatient Utilization *	This measure summarizes utilization of acute inpatient care services in the following category: total inpatient discharges (sum of maternity, surgery, and medicine). Numerator criteria include members with an acute inpatient admission during measurement year.	HEDIS®
All-Cause 30-Day Readmissions *	This measure summarizes acute inpatient stays that were followed by an unplanned acute readmission for any diagnosis within 30 days. Numerator criteria include members with an unplanned re-admission within 30 days of initial inpatient stay.	HEDIS®
Overall Composite Admissions Rate (Prevention Quality Indicator 90) *	This measure summarizes admissions for diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower-extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, heart failure, bacterial pneumonia, or urinary tract infection, all of which are often considered preventable admissions. Numerator criteria include members with at least one of the listed preventable admissions within the measurement year.	AHRQ

Quality Measure	Measure Description	Source
Identification of Alcohol and Other Drug (AOD) Services *	Numerator criteria includes members with an alcohol and other drug (AOD) related claim who received the following chemical dependency services during the measurement year: inpatient, intensive outpatient or partial hospitalization, outpatient or an ambulatory Medication Assisted Treatment (MAT) dispensing event, ED, telehealth, or any service.	HEDIS®
Adults' Access to Preventive/Ambulatory Health Services	This measure summarizes adults 20 years and older who had an ambulatory or preventive care visit during the measurement year. For this addendum, numerator criteria include members 21 years and older with an ambulatory or preventive care visit during the measurement year.	HEDIS®
Annual Monitoring for Patients on Persistent Medication	This measure summarizes adults 18 years and older who received appropriate treatment for medication therapy during the measurement year. For this addendum, numerator criteria include members 21 years and older who received at least 180 treatment days of ambulatory medication therapy for a therapeutic agent during the measurement year and at least one therapeutic monitoring event for the therapeutic agent in the measurement year.	HEDIS®
Comprehensive Diabetes Care: Eye Care *	This measure summarizes adults 18-75 years of age with diabetes (type 1 and type 2) who had an eye exam (retinal) performed. For this addendum, numerator criteria include members 21-75 years of age with Type 1 or Type 2 diabetes with a retinal eye exam performed.	HEDIS®
Breast Cancer Screening *	This measure summarizes age-appropriate breast cancer screening for women 50-74 years of age. Numerator criteria include women 50-74 years of age with a mammogram screening in the last 2 years.	HEDIS®
Follow-Up after Hospitalization for Mental Illness	This measure summarizes adults 21 years of age and older with a follow-up visit within 30 days of hospital discharge for mental illness. Numerator criteria include members 21 years of age and older who were hospitalized for treatment of selected mental illness diagnoses and had a follow-up visit with a mental health practitioner within 30 days of discharge.	HEDIS®

Quality Measure	Measure Description	Source
Use of Opioids from Multiple Providers *	Numerator criteria includes members 21 years of age and older, receiving prescription opioids for 15 days during the measurement year from multiple providers.	HEDIS®

Appendix 3: SDOH Expert Panel Members

1. **Laura Gottlieb:** Director, [Social Interventions Research and Evaluation Network \(SIREN\)](#); Professor, Family and Community Medicine, University of California San Francisco
2. **Len Nichols:** Director, [Center for Health Policy Research and Ethics \(CHPRE\)](#); Professor of Health Policy at George Mason University
3. **David Labby:** Health Strategy Adviser, [Health Share of Oregon](#)
4. **Eliot Fishman:** Senior Director of Health Policy, [Families USA](#); Past DSRIP Program Director at CMS
5. **Amanda Van Vleet:** Associate Director of Innovation, North Carolina Medicaid Strategy Office; DSRIP Project Lead
6. **JD Fisher:** Manager, [Value-based Purchasing, Washington State Health Care Authority](#)
7. **Scott Leitz:** Senior Fellow, NORC at the University of Chicago; Project Director, [MCO Learning HUB](#)
8. **Adrianna Rojas:** President and CEO, [United Way of Texas](#)
9. **Celia Cole:** Chief Executive Officer, [Feeding Texas](#)

6. References

- ¹ hhs.texas.gov/sites/default/files/documents/laws-regulations/policies-rules/Waivers/medicaid-1115-waiver/dsrip-transition-plan.pdf
- ² cdc.gov/socialdeterminants/about.html
- ³ McGinnis JM, et al. *The Case for More Active Policy Attention to Health Promotion*. Health Affairs. April 2002.
- ⁴ Centers for Medicare & Medicaid Services (CMS). State Health Official (SHO) Letter. *Opportunities in Medicaid and CHIP to Address Social Determinants of Health (SDOH)*. January 2021.
- ⁵ govinfo.gov/content/pkg/CFR-2018-title45-vol1/xml/CFR-2018-title45-vol1-sec158-150.xml
- ⁶ federalregister.gov/d/2016-09581/p-440
- ⁷ commonwealthfund.org/publications/issue-briefs/2017/nov/addressing-social-determinants-health-through-medicaid-managed
- ⁸ medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nc/nc-medicaid-reform-ca.pdf
- ⁹ innovation.cms.gov/initiatives/ahcm
- ¹⁰ edhub.ama-assn.org/steps-forward/module/2702762
- ¹¹ aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Screening/Pages/Social-Determinants-of-Health.aspx
- ¹² <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/01/importance-of-social-determinants-of-health-and-cultural-awareness-in-the-delivery-of-reproductive-health-care>
- ¹³ aafp.org/family-physician/patient-care/the-everyone-project.html
- ¹⁴ Daniel, H, et al. *Addressing Social Determinants to Improve Patient Care and Promote Health Equity: An American College of Physicians Position Paper*. Annals of Internal Medicine. April 17, 2018.
- ¹⁵ Texas Health & Human Services Commission. *Provider Performance in the Delivery System Reform Incentive Payment Program, Demonstration Years 7 and 8*. December 2020.
- ¹⁶ Sim, Shao-Chee. *Moving Upstream: How Health Plans in Texas Address the Social Determinants of Health*. August 2019. Episcopal Health Foundation.
- ¹⁷ Texas Medicaid External Quality Review Organization. SFY2019 Quarterly Topic Report: *Social Determinants of Health: Asthma, Type 2 Diabetes, and ADHD Among Children in Texas Medicaid*
- ¹⁸ Texas Health & Human Services Commission. *ICD-10 Z Codes Analysis of STAR+PLUS Encounters from October 2015 to December 2018*. Center for Analytics and Decision Support Program Evaluation.
- ¹⁹ Texas Medicaid External Quality Review Organization. SFY2020 Focus Study: *Social Determinants of Health and Their Impact on Health Care Quality Measures in the CHIP, STAR, STAR Kids, STAR Health, and STAR+PLUS Populations*. August 2020.
- ²⁰ A Spencer, D. Crumley, G. Howe, and M. Ralls. *Social Determinants of Health Expert Panel and Evidence-Based Policies for Texas Medicaid Managed Care*. Center for Health Care Strategies. December 2020.