State Efforts to Address Maternal Mortality and Morbidity in Texas

As Required by

Senate Bill 17, 85th Legislature,

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Executive Summary

Section 34.0155 of Senate Bill (S.B.) 17, 85th Legislature, First Called Session, 2017, requires the Health and Human Services Commission (HHSC), to evaluate options for reducing pregnancy-related deaths and for treating postpartum depression in economically disadvantaged women. HHSC, in coordination with the Department of State Health Services (DSHS) and the Maternal Mortality and Morbidity Task Force (Task Force), is required to identify strategies to lower costs of providing medical assistance in the state's Medicaid program related to severe maternal morbidity and chronic illness, and to improve quality outcomes related to the underlying causes of severe maternal morbidity and chronic illness.

S.B. 17 also directs HHSC to study and determine the feasibility of adding to its quality measures and quality-based payment programs a provider's use of procedures included in the maternal health and safety initiative. The determination from the feasibility study is required to be included in this report.

In Texas, as in the nation overall, maternal mortality has increased during the past decade. Reducing maternal mortality and morbidity is a top priority for Texas and the HHS system. HHS is committed to implementing initiatives and developing partnerships focused on promoting healthy mothers and reducing maternal deaths in the state so that every pregnant woman can have a healthy pregnancy and baby and no family ever has to experience the devastating loss of a mother.

The 2018 Joint Biennial Report by DSHS and the Task Force reviewed the 2012 cohort of maternal deaths and analyzed maternal death trends for the years 2012-2015. [1] The HHS system is working to address many of the findings from the 2018 Joint Biennial Report through efforts already in place and by exploring new and innovative ideas within HHS programs.

Available programs and services in Texas that help prevent pregnancy-related deaths include the Healthy Texas Women program; the Special Supplemental Nutrition Program for Women, Infants and Children (WIC); and substance use prevention and treatment services available for pregnant and postpartum women

[1] https://www.dshs.texas.gov/Legislative/Reports-2018.aspx

and their dependent children. Given the substantial ethnic disparity in maternal mortality rates in Texas, HHS is committed to increasing health equity in Texas through providing culturally responsive care. Several provider education courses are available through the Texas Health Steps training module to support advancing health equity in Texas.

Postpartum depression (PPD) is a common and potentially serious condition that typically is diagnosed after pregnancy, and the impact can be extensive. HHS has sought to increase awareness of PPD through client and provider outreach and educational materials. HHS has also successfully implemented PPD screening as a reimbursable service for the mothers of current CHIP and Medicaid enrollees as required by House Bill 2466, 85th Legislature, Regular Session, 2017.

To lower costs in state health programs and to improve birth outcomes, HHS is focusing on initiatives aimed at getting women into care earlier and on reducing the incidence of premature births. The state's Medicaid program also has specific initiatives in place aimed at improving maternal and infant health outcomes in the Delivery System Reform Incentive Payment (DSRIP) program, the Medical Pay-for-Quality program, Performance Improvement Projects, and Value-Based Purchasing initiatives.

This report includes a summary of the maternal safety bundles initiative, Texas AIM, launched by DSHS in December 2017, and a determination from the feasibility study conducted by HHSC of adding a provider's use of procedures included in the maternal safety bundles to the HHSC quality measures and quality-based payment programs. Based on results from the study, HHSC will continue exploring the AIM maternal morbidity measures for use in evaluating managed care organizations, and potentially phasing the AIM maternal morbidity measures into quality initiatives in the future.

1. Introduction

Section 34.0155 of S.B. 17 requires HHSC, to evaluate options for reducing pregnancy-related deaths, as identified in the joint biennial report of the Task Force and DSHS, and for treating postpartum depression in economically disadvantaged women. HHSC, in coordination with DSHS and the Task Force, is also required to identify strategies to lower costs of providing medical assistance in the state's Medicaid program related to severe maternal morbidity and chronic illness, and to improve quality outcomes related to the underlying causes of severe maternal morbidity and chronic illness.

Section 34.0156 of the bill requires DSHS, in collaboration with the Task Force, to promote and facilitate the use of maternal health and safety informational materials among health care providers in this state, including tools and procedures related to best practices in maternal health and safety.

Per S.B. 17, HHSC must provide a summary of efforts to reduce pregnancy-related deaths, severe maternal morbidity, and postpartum depression, and a summary of the DSHS maternal health and safety initiative report as described by Section 34.0156 of the bill.[2] The report is due biennially to the governor, the lieutenant governor, the speaker of the House of Representatives, the Legislative Budget Board, and the appropriate standing committees of the legislature.

S.B. 17 also directs HHSC to study and determine the feasibility of adding a provider's use of procedures in the maternal health and safety initiative to the HHSC quality measures and quality-based payment programs. The determination from the feasibility study is required to be included in this report.

[2] S.B. 17, Section 34.0156, requires DSHS, in collaboration with the Task Force, to promote and facilitate the use among health care providers in the state of maternal health and safety informational materials, including tools and procedures related to best practices in maternal health and safety. DSHS must submit a report to the HHS Executive Commissioner no later than December 1 of each even-numbered year that includes a summary of the maternal health and safety initiative's implementation and outcomes and recommendations for improving the effectiveness of the initiative.

The combined report on pregnancy-related deaths, severe maternal morbidity, and postpartum depression and the feasibility study determination related to the maternal health and safety initiative is due no later than December 1, 2018.

2. Background

In Texas, maternal mortality has increased during the past decade. The increase is partly associated with the rise in comorbid conditions that complicate pregnancy, such as obesity, Type II diabetes, and hypertension, with tobacco smoking further increasing the risk for maternal death.

Pre-pregnancy obesity can be associated with risks for both a pregnant woman and baby, including gestational diabetes, hypertension, and preeclampsia.[3] The rates of pre-pregnancy obesity are rising throughout the state and nation; the proportion of Texas mothers with a pre-pregnancy body mass index in the obese range has increased 25 percent since 2007.[4]

Rates of mothers with both hypertension and diabetes in Texas are also rising.[5] Texas birth certificate data for 2016 showed 7.5 percent of live births were to mothers with hypertension, and 5.7 percent of live births were to mothers with diabetes.[6] Rates of obesity, hypertension, and diabetes in mothers differ based on race and ethnicity, with pre-pregnancy obesity rates higher in Black and Hispanic mothers, maternal hypertension rates higher in Black and White women, and maternal diabetes rates higher in Hispanic women and women in the 'Other' race/ethnicity category.[7]

The 2018 Joint Biennial Report by DSHS and the Task Force reviewed the 2012 cohort of maternal deaths and analyzed maternal death trends for the years 2012-2015. [8] The report found the four leading underlying causes of pregnancy-related

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[3] Nagl, M., Lehnig, F., Stepan, H., Wagner, B., & Kersting, A. (2017). Associations of childhood maltreatment with pre-pregnancy obesity and maternal postpartum mental health: a cross-sectional study. *BMC Pregnancy and Childbirth*, *17*, 391. http://doi.org/10.1186/s12884-017-1565-4

[4] Kormondy, M. and Archer, N. 2017 Healthy Texas Babies Data Book. Austin, TX: Division for Community Health Improvement, Texas Department of State Health Services, 2017.

[5] Ibid.

[6] Ibid.

[7] Ibid.

[8] https://www.dshs.texas.gov/Legislative/Reports-2018.aspx

death identified in 2012 were cardiovascular and coronary conditions, obstetric hemorrhage, infection/sepsis, and cardiomyopathy.[9] The report also found that for 2012-2015, hemorrhage and cardiac events were the two most common causes of death while pregnant or within seven days postpartum, and drug overdose was the leading cause of maternal death from delivery to 365 days postpartum. Opioids, either alone or in combination with other drugs, were found in 58 percent of the maternal deaths reviewed due to drug overdose.

In addition to the need for addressing chronic disease risk factors that can complicate pregnancy, findings reveal a need to focus on behavioral health services to better prevent maternal mortality. According to results of the 2016 National Survey on Drug Use and Health:

> *In 2016, approximately 20.1 million people aged 12 or older had a substance use disorder (SUD) related to their use of alcohol or illicit drugs in the past year, including 15.1 million people who had an alcohol use disorder and 7.4 million people who had an illicit drug use disorder.*[10]

Table 1 shows the estimated need for substance use disorder services in Texas adults, revealing a need for increased access to services in the state.

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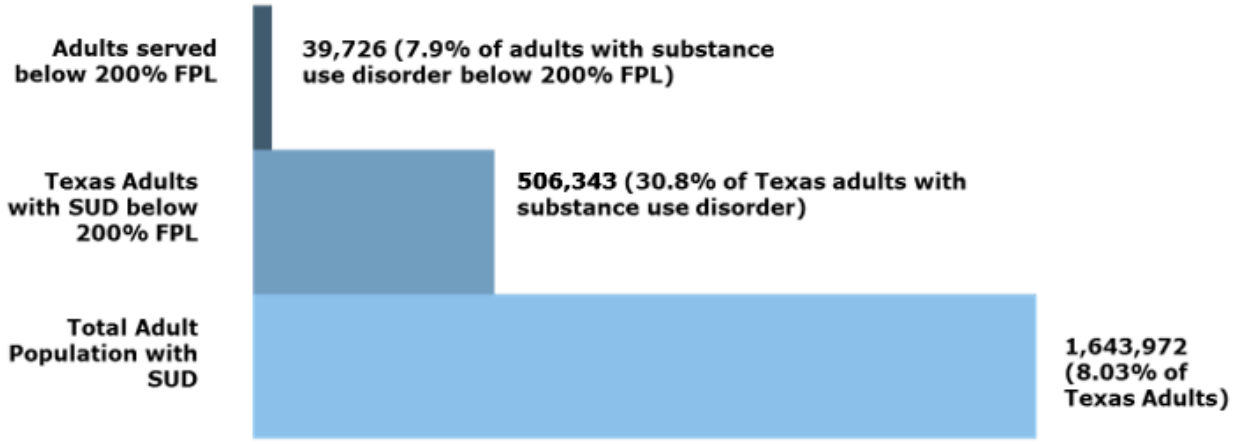
[9] Cardiovascular and coronary conditions are diseases that affect the heart or blood vessels. Obstetric hemorrhage is heavy bleeding during pregnancy, labor, or postpartum. Cardiomyopathy is a disease of the heart muscle.

[10] 2016 National Survey on Drug Use and Health: https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf

Table 1. Estimated Need for Substance Use Disorder Services, Texas Adults, Fiscal Year 2017



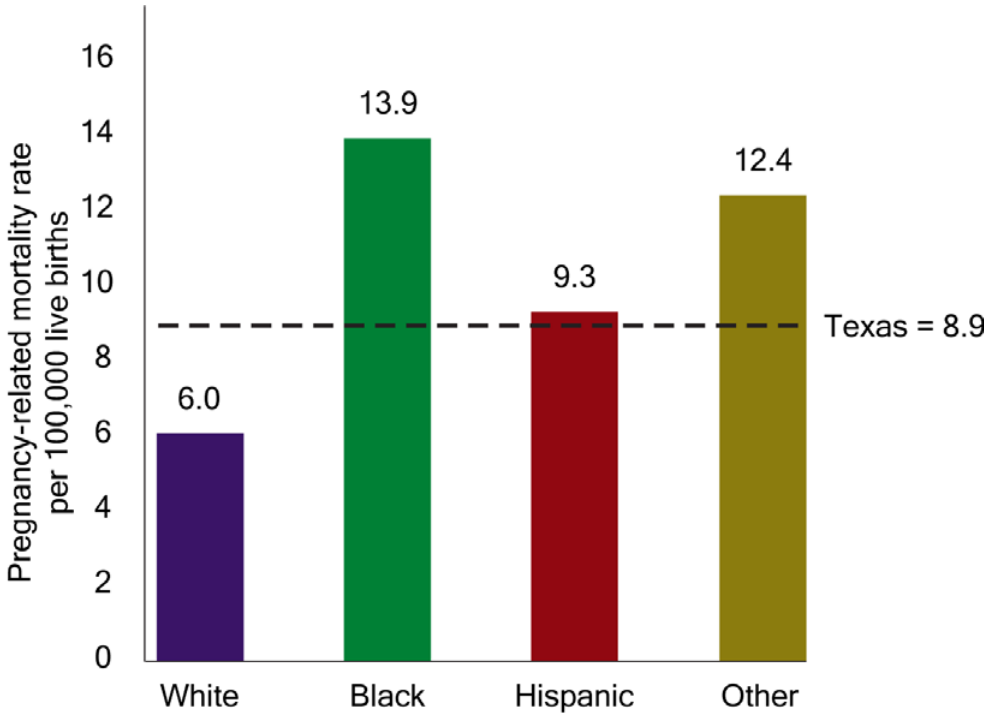
Sources: Texas State Data Center, CMHS, SAMSHA, HHS, Census Bureau, HHSC.

The 2018 DSHS and Task Force Joint Biennial Report found the majority of maternal deaths occur more than 60 days postpartum, highlighting the importance of ensuring continuity of care for women after delivery. Based on 2015 data from the Texas Pregnancy Risk Assessment Monitoring System, an estimated 14.7 percent of women who recently gave birth reported symptoms of postpartum depression.[11]

The Joint Biennial Report also found Black women bear the greatest risk for maternal death. In the 2012 case reviews conducted by the Task Force, the pregnancy-related mortality rate for Non-Hispanic Black women was 2.3 times higher than the rate for Non-Hispanic White women (see Table 2 below).

[11] Texas Department of State Health Services. (2018). Pregnancy Risk Assessment Monitoring System (PRAMS) 2015 Data.

Table 2. Pregnancy-related mortality rate by race/ethnicity, Texas 2012



Prepared by: Maternal & Child Health Epidemiology, Division for Community Healthy Improvement, DSHS.

Data Source: 2012 Death Files, 2011-2012 Live Birth and Fetal Death Files. Center for Health Statistics, DSHS.

Notes: Maternal deaths were confirmed by matching each woman's death record with a birth or fetal death within 365 days. Deaths due to cancer or motor vehicle crashes were excluded from these analyses. The Task Force classified deaths as pregnancy-related through review of medical records, autopsy reports, and other records.
Results in this figure are based upon 34 pregnancy-related maternal deaths. Separating pregnancy-related deaths into categories by race/ethnicity resulted in small numbers of deaths, especially for women of other race/ethnicity, which may make estimates unreliable.

The HHS System is committed to improving maternal health and preventing maternal mortality and morbidity in Texas. DSHS has developed a maternal mortality and morbidity internet-landing page to share background on understanding maternal mortality and severe maternal morbidity in Texas and links to topical publications and presentations.[12] Additionally, HHS has several

[12] http://dshs.texas.gov/mch/Maternal-Mortality-and-Morbidity-in-Texas/.aspx

established venues dedicated to improving maternal health and maternal mortality rates.

The Task Force, created by S.B. 495, 83rd Legislature, Regular Session, 2013, is tasked with studying and reviewing cases of pregnancy-related deaths and trends in severe maternal morbidity, determining the feasibility of studying cases of severe maternal morbidity, and making recommendations to help reduce the incidence of pregnancy-related deaths and severe maternal morbidity in Texas. DSHS leads a Maternal Mortality and Morbidity workgroup that includes leadership from DSHS and HHSC. This workgroup meets on a regular basis to discuss agency efforts and to ensure continued collaboration and partnership on the issue.

The Task Force provided a set of recommendations in its 2018 report, such as enhancing screening and appropriate referral for maternal risk conditions; promoting a culture of safety and high reliability through implementation of best practices in birthing facilities; identifying or developing and implementing programs to reduce maternal mortality from cardiovascular and coronary conditions, cardiomyopathy, and infection or sepsis; increasing maternal health programming to target high risk populations, especially Black women; initiating public awareness campaigns to promote health enhancing behaviors; and championing integrated care models combining physical and behavioral health services for women and families.

HHS is working to address many of the issues and Task Force recommendations included in the 2018 Joint Biennial report through current efforts and by exploring new and innovative ideas within HHS programs.

3. Efforts to Reduce Pregnancy-Related Deaths

Healthy Texas Women and WIC Coverage

On July 1, 2016, HHSC launched the Healthy Texas Women (HTW) program. The HTW program provides women's health and family planning services at no cost to eligible, women who are low income. The HTW program contains elements that address many of the findings and recommendations of the 2018 DSHS and Task Force Joint Biennial Report: a benefit package focused on key drivers of maternal mortality, auto-enrollment of postpartum women from Medicaid to HTW, and client and provider outreach and education.

HTW offers a benefit package focused on maternal and reproductive health care, including treatment for health conditions linked to maternal mortality. Preventive services in the current program include screening and treatment for hypertension, diabetes, and high cholesterol. The HTW program also provides screenings and pharmaceutical treatment for postpartum depression.

To prevent gaps in coverage and improve interconception health, eligible women enrolled in Medicaid for Pregnant Women whose coverage period is ending are automatically enrolled into the HTW program. This continuity of care is especially important when considering the DSHS and Task Force Joint Biennial Report's finding that a majority of maternal deaths occur more than 60 days after delivery. Coverage under Medicaid for Pregnant Women ends the last day of the month in which the 60-day postpartum period ends. Automatic enrollment into the HTW program allows women to continue to receive screening and treatment services for hypertension, diabetes, high cholesterol, and postpartum depression.

Beginning in 2016, HHSC launched a statewide HTW outreach campaign, with specific efforts focused on educating providers, clients, and external stakeholders on the benefits offered in HTW in addition to family planning services. HHSC has developed client fact sheets on available women's health programs and certain health topics, including cervical cancer, hypertension, and diabetes. Materials are available for free on www.HealthyTexasWomen.org. Short videos have also been

developed to educate women on these health topics; the videos have been used in social media advertisements and made available to health care providers.[13]

As interest in the program has grown, HHSC has been invited to participate in various professional- or community-related events, either as a presenter or an exhibitor. In fiscal year 2017, staff participated in 36 different events. Some of the event hosts included: Alamo Breast Cancer Foundation, American Congress of Obstetricians and Gynecologists, Association of Women's Health, Obstetric and Neonatal Nurses, March of Dimes, Texas Association of Community Health Centers, Texas Campaign to Prevent Teen Pregnancy, Texas Indigent Healthcare Association, Texas Women's Healthcare Coalition, and various community colleges and health fairs across the state. All of these opportunities provided an important platform to increase awareness about the services provided in the program.

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is a nutrition program that helps low-income pregnant women, postpartum and breastfeeding women, infants, and young children up to the age of five receive supplemental nutritious foods, learn about nutrition, and stay healthy. Nutrition education and counseling, breastfeeding support, nutritious foods, and health care referrals are provided to improve health outcomes for eligible participants. WIC creates significant savings in the Texas Medicaid program by promoting better nutrition and health among pregnant women who are low-income and infants.[14]

WIC provides clients with a variety of print and digital resources on women's health and pregnancy. Educational publications such as "Your Guide to Women's Health" and "Your Guide to Pregnancy" cover healthy habits during and after pregnancy. In May 2018, Texas WIC successfully re-launched its client-facing website www.TexasWIC.org with additional online content and a mobile-friendly interface. The website contains online lessons for clients such as "Healthy Eating, Healthy Pregnancy" and "Thinking of You and a Healthy Pregnancy Too." WIC print and digital materials cover a range of topics that support physical and mental health during and after pregnancy, such as the importance of good nutrition, staying

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[13] These videos can be found at https://www.youtube.com/playlist?list=PLJE6pz0haTBpuKN9CCXl0vXoGLmVgDakv.

[14] Devaney, Barbara, Linda T. Bilheimer, and Jennifer Schore. The Savings in Medicaid Costs for Newborns and Their Mothers from Prenatal Participation in the WIC Program. Alexandria, Virginia: U.S. Department of Agriculture, October 1980

active, prenatal care and waiting 39 weeks to deliver, avoiding smoking and alcohol, baby blues and mental health, and accessing resources and support.

Substance Use Prevention and Treatment Services

Based on the 2018 DSHS and Task Force Joint Biennial Report indicating drug overdose was a leading cause of maternal death between 2012 and 2015, there is a clear need for substance use prevention and treatment services.

Pregnant women diagnosed with SUD have been the number one priority population in the Substance Abuse and Mental Health Services Administration (SAMHSA) Substance Abuse Prevention and Treatment block grant (Title XIX, Part B, Subpart II, Sec.1922 (c)). Specifically, SAMHSA has established "set-aside" funds which can only be spent on female-specific services. These "set-aside" funds ensure the availability of comprehensive, substance use disorder treatment, and prevention and recovery support services for pregnant and postpartum women and their dependent children. The "set-aside" underscores the importance of prenatal care and substance use disorder treatment for pregnant women with SUD and the critical periods of early development in children. Priority populations have been established for entering substance use disorder services:

- Based on federal and state guidelines, pregnant injecting individuals must be admitted immediately.
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- Based on federal and state guidelines, injecting drug users must be admitted within 14 days.
- Based on state guidelines, Department of Family and Protective Services (DFPS)-referred individuals must be admitted within 72 hours.
- Based on state guidelines, individuals identified as being at high risk for overdose must be admitted within 72 hours[15, 16]

[15] This priority designation in in the process of being added to all Behavioral Health-Substance Use Disorder contracts through Texas Targeted Opioid Response (TTOR) implementation.

[16] To find a provider, go to https://hhs.texas.gov/services/mental-health-substance-use/adult-substance-use.

Availability of services funded by block grant treatment funds is based on individual clinical and financial eligibility. Services for those who qualify include acute withdrawal management (detoxification), residential treatment, outpatient, and medication-assisted treatment (MAT). To provide further gender-specific treatment, Women and Children's Intensive Residential and Supportive Residential Services were established to provide effective treatment and offer parenting education, reproductive health education, and gender-specific groups. Women and Children programs allow women to enter or remain in treatment with their children, which helps reduce interference in critical bonding and attachment.

Pregnant Postpartum Intervention (PPI) programs provide community-based, gender-specific outreach and intervention services for pregnant women and parenting individuals with SUD or who are at risk of developing SUD. Services include intensive case management, motivational interviewing, home visitation, and education. Program goals include improving birth outcomes, reducing risk of parental substance misuse, promoting parent/child bonding, improving parenting skills, improving safety of relationships and home environment, increasing access to community resources, and promoting engagement in reproductive health and well-child visits. There are currently 18 PPI providers throughout the state.

Neonatal Abstinence Syndrome

Substance use during pregnancy is associated with significant adverse pregnancy outcomes such as prematurity, low birth weight, and Neonatal Abstinence Syndrome (NAS). The 2016-17 and 2018-19 General Appropriations Acts each appropriated $11.2 million in general revenue funds over the biennium to reduce the incidence and severity of NAS in Texas. The funds created and expanded new and existing services aimed at reducing the incidence and severity of, and the costs associated with, NAS. A return on investment analysis was completed for the NAS opioid treatment services (NAS-OTS) for services rendered in 2016 to 95 women, and found an average savings of $15,981 per birth. Women entered 4.1 months prior to delivery and remained for 10.1 months after delivery. For these women, the NAS-OTS birth costs were $13,108 per individual compared to $29,089 per individual for Medicaid NAS non-OTS birth costs.

The NAS funds helped fund the Statewide Pregnancy Center and Recovery Residence, Recovery Support Services, the 15 NAS-OTS providers, expanded capacity to current 18 PPI providers, facilitated NAS training initiatives, and established NAS research projects.

Expansion of Substance Use Disorder Treatment

Substance use disorder treatment services within the state expanded treatment slots designated for pregnant and postpartum women who exhausted their pregnancy-related Medicaid to provide a seamless transition and to avoid any disruption in their NAS-OTS. There are currently 15 NAS-OTS providers for fiscal year 2019. In fiscal year 2018, 75 percent, or 222 slots, have been filled for MAT in the NAS-OTS project.

In August 2016, the Statewide Pregnancy Stabilization Center (Restoration Center) in San Antonio became operational. The Restoration Center allows pregnant women to enter a single SUD treatment and recovery program that can address all their needs by providing a full continuum of care for themselves and their children. This program serves families residing in areas of the state that may not be able to provide the care opioid-dependent pregnant women require. In fiscal year 2018, 92 patients (treatment) and 57 participants (recovery) have entered into the Restoration Center.

Mommies Program and Pregnancy and Postpartum Intervention Services Expansion

The Mommies program is an integrated and collaborative model of care shown to reduce expensive newborn hospital stays and support family preservation. The program is designed to eliminate as many potential barriers as possible to maximize a woman's chances for successful recovery, and care is delivered in a collaborative, non-punitive, therapeutic manner that aims to support women who seek treatment. The program provides education, collaboration and coordination to integrate SUD treatment, screening, and education into obstetric care for pregnant and postpartum women and their infants. The Mommies program has also made available NAS response teams in the local community designed to increase education, understanding, and awareness and to address the problem of opioid use in pregnant and postpartum women. For fiscal year 2018, the program has educated 373 women, including 214 pregnant women.

Since 2016, the PPI programs were funded to expand services to provide Opioid Treatment Services (OTS) support by conducting targeted outreach efforts through enhancing education and services to women at risk for having a child with NAS with the goal of earlier entrance into prenatal care, SUD treatment, and increased access to health care information. Outreach strategies include reaching people who would not traditionally engage with the health care system to involve high-risk

women earlier in OB/GYN care and SUD treatment. In fiscal year 2018, PPI programs screened 8,902 women and targeted outreach reached 5,978 individuals across Texas.

NAS Training and Research Initiatives

Training on NAS is supported by continued online training modules, Mommies Regional Training to hospital personnel and community partners, DFPS regional trainings, a statewide annual symposium, and intensive technical assistance. Additionally, overdose prevention trainings are offered in areas identified as having high rates of maternal opioid use.

NAS research supports key initiatives for better understanding health care for women with opioid use disorders (OUD). The University of Texas Health Science Center (UTHSC) has begun exploring the contextual factors surrounding maternal relapse and overdose for persons using and in recovery from OUD through the Maternal Opioid Morbidity Study. Preliminary and pending study results show that participants throughout Texas experienced significant exposure to multiple stressful and traumatic life events beginning early in life and extending into adulthood. The most common of these events were loss of a loved one to an accident, homicide, or suicide and having experienced sexual, physical, or emotional abuse. The circumstances surrounding return to opioid use or overdose involved removal of an infant/children by Child Protective Services, isolation, unaddressed trauma, mental health symptoms, and stress. These social determinants of health are all addressable with new and innovative models of care and access to needed services.

UTHSC is also conducting the Kangaroo Mother study to build further evidence for non-pharmacological management strategies for infants. Study results show that participants indicated that an alteration in their parental role (separation from their infant, not being the primary caregiver, not having alone time) was the most stressful aspect of their infants' hospitalization for NAS. During kangaroo mother care (KMC),[17] researchers found a significant reduction in both maternal and infant heart rate, fewer infant withdrawal symptoms, and greater maternal engagement in infant care. Further, because of KMC, mothers felt that: (a) they and their infants

[17] Kangaroo Mother Care (KMC) is a method of caring for premature babies in which the infants are held skin-to-skin with a parent, usually the mother, for as many hours as possible every day. The KMC Study attempts to determine is KMC is effective for infant experiencing Neonatal Abstinence Syndrome (NAS) symptoms.

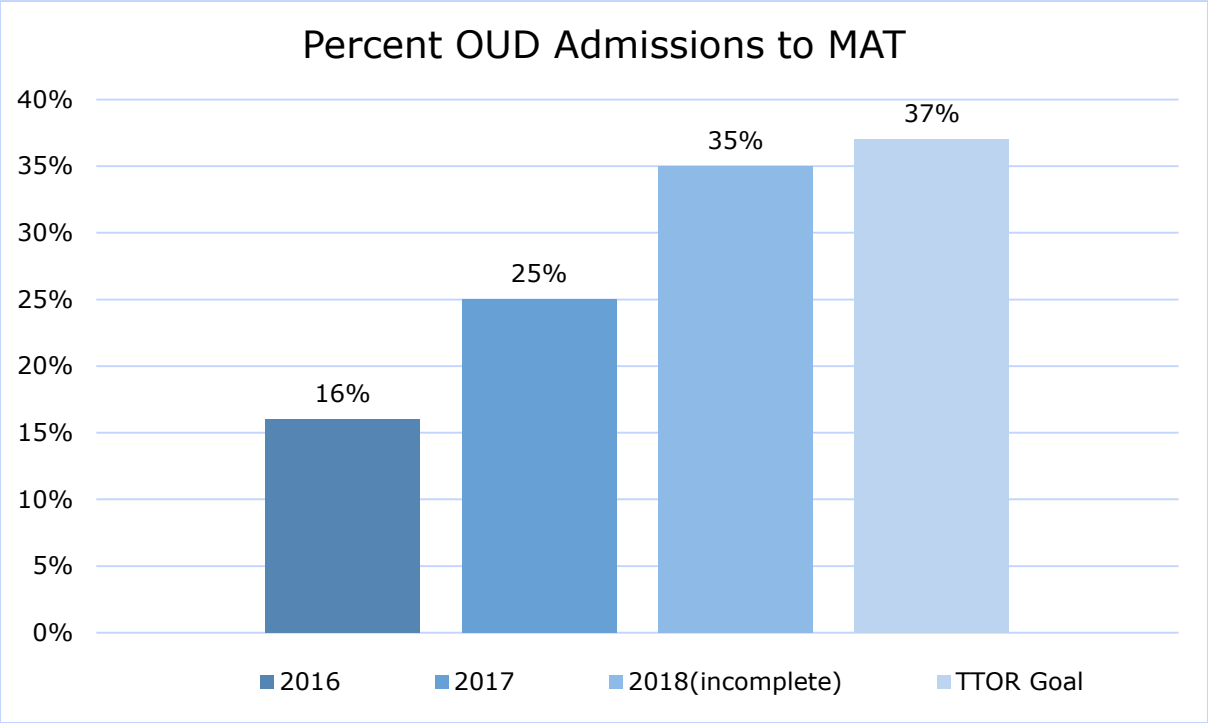
could relax, (b) they had "alone" time with their infants; and (c) their infants had "forgiven" them for their drug use. Due to findings, two large neonatal intensive care units in San Antonio have redesigned their care model to include KMC and mother-infant rooming-in, which has resulted in a decreased length and cost of hospital stay.

Additionally, The University of Texas "Operation Naloxone" provides a professional resource for Texas-specific data and information about opioid use, overdose, reversals, and trends.

Texas Targeted Opioid Response

On May 1, 2017, Texas received $27.4 million in federal funding to address the opioid crisis by increasing access to MAT, reducing unmet treatment need, and reducing opioid overdose death through the provision of prevention, treatment, and recovery activities for OUD. Through the Texas Targeted Opioid Response (TTOR), Texas received the second highest award in the nation based on unmet treatment need and overdose death rates. Outcomes of this initiative include increased access to evidence-based treatment for OUD (see Table 3 below) as well as an increase in the number of people receiving overdose prevention education and overdose reversal medications. A total of 1,702 people were trained in overdose prevention and 5,910 doses of medication were distributed to both traditional and non-traditional first responders resulting in 82 confirmed lives saved.

Table 3. Percent Opioid Use Disorder Admissions to Medication Assisted Treatment



In August 2018, HHSC submitted an application for the SAMHSA funding opportunity announcement for State Opioid Response (SOR) Grants to extend and expand the State Targeted Response funding. Texas received its notice of grant award on September 19, 2018, for $46.2 million per year for a two-year grant period with annual continuation. SOR will allow HHSC to continue to fund existing strategies established through TTOR as well as to expand services.

Medicaid Services

SUD benefits are designed to treat substance use problems and to help improve the quality of life for people suffering from such disorders.[18] The 81st Legislature directed HHSC to use existing funds to implement a SUD benefit for adults in Medicaid, with the goal of reducing program spending related to SUD among

[18] Robert Wood Johnson Foundation, Policy Brief: Substance Abuse Treatment Benefits and Costs: http://www.saprp.org/knowledgeassets/knowledge_brief.cfm?KAID=1

adults.[19] HHSC fully implemented a comprehensive SUD benefit for adults and children January 1, 2011. The benefit includes assessment, outpatient treatment, MAT, residential treatment, residential detoxification, and ambulatory detoxification. A recent HHSC report found that Medicaid claims and encounter data demonstrated growth in the number of people diagnosed with SUD and treated between 2013 and 2015. In 2013, 5,008 people (8.57 percent treatment rate) were identified as having SUD and receiving SUD treatment (medical or pharmacy), and by 2015, the number of people identified and treated for SUD increased to 5,967 (9.08 percent treatment rate).[20] HHSC is committed to working with its partners to continue to improve client initiation of treatment and follow-up visit rates.

HHSC also expanded the Medicaid substance use screening benefit in July 2016 to include screening, brief intervention, and referral to treatment (SBIRT). The SBIRT benefit is now available to adults in Medicaid and is no longer restricted to the emergency department.

Public Health Efforts

DSHS is involved in multiple public health initiatives aimed at reducing pregnancy-related deaths. These initiatives are organized within a framework called Healthy Texas Mothers and Babies (HTMB). One goal of the HTMB framework is to promote a culture of maternal safety through efforts that 1) increase public awareness of maternal health issues, 2) provide professional education to improve maternal care, and 3) establish an ongoing Perinatal Quality Improvement Network[21]. HTMB activities aimed at reducing pregnancy-related deaths include:

- Facilitating and supporting the Maternal Mortality and Morbidity Task Force
- Implementing maternal health and safety initiatives
- Analyzing trends, rates, and disparities in pregnancy-related deaths

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[19] 2010-11 General Appropriations Act, S.B. 1, 81st Legislature, Regular Session (Article IX, Contingency and Other Provisions, Section 17.15): http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2010-11.pdf

[20] Health and Human Services (2017). *Evaluation of Medicaid Spending and Outcomes for Substance Use Disorder Treatment* as required by Senate Bill 1, 85th Legislature, Regular Session, 2017 (Article II, HHSC, Rider 29).

[21] A perinatal quality improvement network is a state or multi-state network of teams working to improve the quality of care for mothers and babies

- Promoting online provider education modules that provide health care professionals with knowledge and resources to improve the health of women before and during pregnancy
- Providing preconception health and life planning tools through activities such as Someday Starts Now, the Preconception Peer Education program, and HTMB local coalitions
- Establishing collaboration between experts through 1) hosting the Maternal Mortality and Morbidity Forum and 2) facilitating the Texas Collaborative for Healthy Mothers and Babies (TCHMB)[22]

On September 30, 2017, DSHS, in coordination with HHSC and the Texas Medical Association, facilitated a Maternal Mortality and Morbidity Forum to bring together multi-disciplinary professionals who share an interest in helping to reduce the impact of maternal mortality in Texas. The forum informed partners in maternal health and health care on the issue of maternal mortality and developed technical planning workgroups to create action plans for implementation of evidence-based and evidence-informed initiatives throughout Texas.

DSHS funds and supports the TCHMB. The goal of the collaborative is to reduce preterm birth and infant mortality through such means as reducing disparities in the health outcomes of mothers and babies, reducing maternal mortality and severe maternal morbidity, and improving the health outcomes of mothers and babies. The executive committee includes a multidisciplinary network comprised of health professionals throughout the state and representatives of the March of Dimes, DSHS, HHSC, and the Department of Family and Protective Services.

Additional public health initiatives focus on reducing tobacco use and chronic health conditions that increase the risk of pregnancy complications, specifically diabetes, hypertension, and obesity.

DSHS is also leading several efforts to improve the accuracy of death certificate data. Death certificate data continue to serve as the main source of information for maternal mortality reporting and trend analysis. DSHS conducts provider education on how to complete a death certificate. The agency is also implementing the Texas Electronic Vital Events Registrar system, which should streamline death certificate completion.

[22] https://www.tchmb.org/

Outreach, Education and Trainings

Given the substantial ethnic disparity in maternal mortality rates in Texas, HHS is committed to increasing health equity in Texas through providing culturally responsive care. HHS currently has two provider education courses available through the Texas Heath Steps training module focused on culturally responsive health care:

- *Advancing Health Equity in Texas through Culturally Response Care* provides physicians and other health care professionals with practical guidance about how to advance health equity by adopting and implementing the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care.
- *Culturally Effective Health Care* equips Texas Health Steps providers and others to meet legal requirements and employ best practices and medical ethics to serve the health care needs of culturally diverse children, adolescents and their families.

In the future, HHS aims to increase utilization of these trainings through increased outreach to providers and clinical staff.

Additionally, HHS recently launched two training modules available through Texas Health Steps Online Provider Education on preconception and prenatal health. The training on preconception health focuses on promoting good health for all women, interpreting health risks and conditions that can adversely affect maternal and infant health, and the integration of preconception health care and counseling into routine clinical encounters. The training on prenatal health focuses on the leading causes of maternal mortality and morbidity in Texas and the integration of prenatal screening, treatment, and counseling protocols that promote maternal health and safety.

As directed by S.B. 17, Section 34.0055, HHSC launched a new webpage on May 31, 2018, providing screening and educational materials for substance use and domestic violence.[23] The new webpage includes screening tools for providers, referral resources for Substance Use Program centers and Family Violence Program centers, and outreach materials available for professionals to use in their clinics.

[23] https://hhs.texas.gov/doing-business-hhs/provider-portals/health-services-providers/prenatal-screening-domestic-violence-substance-use

The webpage also directs those who have experienced domestic violence or who need help with substance use to the appropriate hotlines and phone numbers to contact.

4. Efforts to Treat Postpartum Depression

Postpartum depression (PPD) is a common and potentially serious condition that typically is diagnosed after pregnancy. The impact of PPD, and related conditions, can be extensive. Numerous studies demonstrate that women suffering from PPD can develop behaviors that negatively impact their parenting abilities and compromise the mother-child bond. The consequences of behavioral conditions, including PPD, may ultimately influence the health and well-being of the child and the mother.

To help increase awareness and provide additional educational resources on PPD, Texas launched the Texas Clinician's Postpartum Depression Toolkit in May 2017. This toolkit serves as a resource for Texas clinicians on screening, diagnosis, and treatment of postpartum depression.[24] Additionally, HHS has launched a PPD outreach campaign in conjunction with Mental Health Awareness Month for the past 3 years. To highlight PPD specifically, HHS created educational materials and special messaging on various social media platforms targeting women of childbearing age. Materials included information about common PPD symptoms, provided a call to action to get help, and displayed contact information for agency resources. These items have been shared with a broad, statewide audience over the years that includes WIC clinics, health care provider sites, and local mental health authorities. For the May 2018 campaign, agency leadership circulated an opinion editorial on PPD which was published by the Galveston Daily News and the Tyler Morning Telegraph. The op-ed provided information on PPD and what steps women can take to address PPD.

The American Academy of Pediatrics and the American College of Obstetricians and Gynecologists recommend maternal depression screening for the general obstetric population. To ensure women with PPD are receiving timely screening and treatment services, HHS added treatment for PPD as a covered benefit within the HTW program. Screening for PPD is not a separately billable service in the HTW program, but is performed as part of an office visit, although there is no limit to the number of follow-up visits an HTW client may receive. Because women are now

[24] Health and Human Services. *The Texas Clinician's Postpartum Depression Toolkit*. https://hhs.texas.gov/sites/default/files/documents/doing-business-with-hhs/providers/health/women/tx-clinicians-ppd-toolkit.pdf

automatically enrolled from Medicaid for Pregnant Women into HTW, women are able to continue to receive PPD screening and referral services even after their Medicaid for Pregnant Women's coverage period has ended.

The 85th Legislature directed HHSC to add PPD screening as a reimbursable service for the mothers of current CHIP and Medicaid enrollees.[25] The new Medicaid benefit launched on July 1, 2018. The Medicaid screening is performed as part of the Texas Health Steps preventive care medical checkup and is billed as part of the child's visit under the infant's ID. A tutorial available through the Texas Health Steps website covers the impact of PPD and provides guidance on how Texas Health Steps providers can receive reimbursement for the new benefit. The CHIP screening is performed as part of the well-child preventive care medical checkup and has been a benefit in CHIP prior to the passage of the legislation, as CHIP MCOs are required to follow the American Academy of Pediatrics' guidelines. This benefit provides an additional space for new mothers to receive needed PPD screening and referral services.

In compliance with the 2018-19 General Appropriations Act, Senate Bill 1, 85th Legislature, Regular Session, 2017 (Article II, HHSC, Rider 86), HHSC applied for a federal grant from the Health Resources & Services Administration to increase screening, referral, and treatment services for maternal depression and related behavioral health disorders for Texas women living in rural and medically underserved areas of the state. The project application sought to continue and expand on the work currently being done in Texas on maternal depression, including implementation of House Bill 2466.

[25] House Bill 2466, 85th Legislature, Regular Session, 2017.

5. Strategies to Lower Costs and Improve Quality Outcomes

Positive maternal and birth outcomes depend on women getting the health care they need, when they need it, where they need it. To reduce expenditures in state health programs and to improve birth outcomes, HHS focuses on initiatives aimed at getting women into earlier care and reducing the incidence of premature births. The state's Medicaid program also has specific initiatives in place aimed at improving maternal and infant health outcomes.

Access to prenatal care

In an effort to improve prenatal care and reduce adverse birth outcomes, HHS implemented a pilot program in Harris County to evaluate the effectiveness of a pregnancy medical home model for Medicaid clients in accordance with House Bill 1605, 83rd Legislature, Regular Session, 2013. HHS worked with the Texas Children's Health Plan (Texas Children's), The Center for Children and Women, on implementing the pilot program and providing data for an evaluation of the program's success in reducing poor birth outcomes. Dr. Lisa Hollier is the Medical Director of Obstetrics at The Center for Children and Women, and is also the Chair of the Maternal Mortality and Morbidity Task Force. Evaluation findings indicated that mothers receiving care at the pregnancy medical home had better outcomes than similar mothers at other local clinics on several important measures.[26] Most notably, mothers associated with the pregnancy medical home were significantly less likely to go to the emergency department while pregnant, less likely to deliver by cesarean section, and less likely to have a newborn admitted to the neonatal intensive care unit. Each of these trends is associated with an expected reduction of payments. These observed benefits may warrant continued consideration of the value of pregnancy medical homes as an alternate payment model. Table 4 represents a summary of the evaluation's primary findings.

[26] https://hhs.texas.gov/sites/default/files//documents/laws-regulations/reports-presentations/2017/pregnancy-medical-home-pilot-final-eval-sept-6-2017.pdf

Table 4. Summary of Primary Findings from the Pregnancy Medical Home Pilot Program - Findings Associated with The Center for Children and Women

Outcome Category	Intervention Group	Comparison Groups
Prenatal Care	• More time in prenatal care • Lower emergency department (ED) utilization	• Fewer prenatal visits • Greater number of prenatal diagnoses
Birth	• Lower rate of C-section deliveries • Lower rate of neonatal intensive care unit admissions	• Higher rate of post-term birth, abnormal fetal heart rate, and anemia during delivery
Postpartum Care	• More likely to attend a postpartum visit • Lower rate of postpartum anemia	• More likely to receive Long-Acting Reversible Contraception (LARC) • More likely to receive a breast pump

Note: Outcomes reported here are those that attain statistical significance in matched sample comparisons.

In September 2015, HHS began the Healthy Families project, a women's health disparities and infant mortality risk reduction project. The purpose of Healthy Families is to increase access to family planning services and decrease the risk for infant mortality among Black and Hispanic women by providing communities with flexible resources they can use to implement customized health care interventions within a health equity awareness framework. Through data analysis, Hidalgo and Smith counties were identified to pilot projects with a focus on Hispanic women of childbearing age and Black women of childbearing age, respectively. In August 2016, HHS contracted with The University of Texas Health Science Center at Tyler to implement project activities focused on strategies to best promote and address early entry into prenatal care at the community level. Through this project, HHS expects to gain valuable insight to help inform community efforts across the state to reduce infant mortality and improve maternal and infant health outcomes.

Reducing premature births

A premature birth is when a baby is born before 37 weeks of pregnancy.[27] Risk factors include social characteristics, health behaviors such as tobacco and alcohol use, pregnancy history, pregnancy complications such as preeclampsia, and medical issues such as obesity, asthma, diabetes, and high blood pressure.[28] In the past few years, HHS has focused on several strategies for reducing premature birth.

As previously described, eligible women are now automatically enrolled in the HTW program following the end of their Medicaid for Pregnant Women coverage. Providing women's health and family planning benefits during the preconception and interconception period helps promote better birth spacing and reduces unintended pregnancies.

Progesterone shots, called 17P, may help prevent premature birth. HHS has been working to provide health plans access to birth record and historical utilization data for all women entering Medicaid for Pregnant Women in order to provide timely, targeted care to mothers at risk for repeat pre-term birth.

Since early 2010, HHSC and DSHS have focused on reducing early elective deliveries through multiple initiatives. One of these initiatives included providing hospital administrators with birth outcomes data on non-medically indicated cesarean sections and other birth outcomes to help hospitals identify opportunities for improvement. Additionally, in 2011, HHSC implemented a Medicaid policy to recoup claims payment for non-medically indicated deliveries prior to 39 weeks of gestation. For a full summary of work taking place on this topic, see the *Report on Early Elective Deliveries* published in November 2017.[29]

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[27] https://www.cdc.gov/features/prematurebirth/index.html

[28] Ibid.

[29] https://hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2017/sb1-fy2017-report-early-elective-deliveries-nov-2017.pdf

Medicaid Quality Initiatives

Delivery System Reform Incentive Payment

On December 21, 2017, the Centers for Medicare & Medicaid Services approved Texas' request for the Texas Healthcare Transformation and Quality Improvement Program 1115 waiver for the next five years. One of the main components of the waiver is the Delivery System Reform Incentive Payment (DSRIP) program. DSRIP is designed to provide incentive payments to Texas hospitals, physician practices, community mental health centers, and local health departments for investments in delivery system reforms that increase access to health care, improve the quality of care, and enhance the health of patient and families they serve. The DSRIP program developed targeted measure bundles that group clinical and process measures by a common theme or objective, such as behavioral health or diabetes care. Participating providers will earn DSRIP incentive payments based on their achievement of goals on the measures in their selected bundle(s). One of the measure bundles DSRIP providers may select is a bundle related to improved maternal care. The objective of the improved maternal care measure bundle is to improve maternal and infant health outcomes by implementing evidence-based practices to provide preconception, prenatal, and postpartum care including early detection and management of comorbidities such as hypertension, diabetes and depression.

Current Quality Measures Related to Maternal Health

Texas's external quality review organization (EQRO) uses a comprehensive set of health care quality measures to evaluate performance in Texas Medicaid and CHIP.[30] These include measures from the Healthcare Effectiveness Data and Information Set (HEDIS), measures of potentially preventable events, and measures from member and caregiver surveys. Measures can be used in the medical Pay-for-Quality (P4Q) program, MCO report cards, Performance Improvement Projects (PIPs), and the Performance Indicator Dashboard. Some of these measures are related to maternal health, including prenatal and postpartum care, complications related to delivery, and low birth weight. Beginning in 2018, Texas' EQRO will run new HEDIS contraceptive care measures for all Medicaid

[30] Measures can be reported by program, Managed Care Organization and service area on the Texas Healthcare Learning Collaborative portal at https://thlcportal.com.

programs related to effective contraceptive methods during the preconception and postpartum period and access to long-acting reversible contraception during the postpartum period.

Medical Pay-for-Quality Program[31]

The P4Q program creates financial incentives and disincentives for health plans based on their performance on a set of quality measures. A percentage of a health plan's capitation is held at risk based on their performance on a number of key metrics, including prenatal and postpartum care in the STAR program.[32] A low birth weight measure is also part of the 2018 STAR P4Q program and potentially preventable complications are part of the 2018 STAR+PLUS P4Q program. These two measures are included in the bonus pool measure set and thus do not carry financial risk to health plans.

Performance Improvement Projects

PIPs are an integral part of Texas Medicaid's comprehensive quality improvement strategy. Each health plan must conduct two PIPs per program at all times. PIPs must be designed to achieve significant and sustainable improvements in both clinical and non-clinical care areas through ongoing measurements and interventions. The 2018 PIP topic for all STAR plans and three STAR+PLUS plans is improving the timeliness of prenatal care or the rate of postpartum care. These PIPs were implemented January 1, 2018 and interventions will continue through 2019 with results available at the end of 2020. MCOs were encouraged to address a subtopic or subpopulation for their 2018 PIPs. Four MCOs decided to focus on women with or at risk of depression; one plan is focusing on pregnant women with SUD; and two plans are focusing on improving care for African-American women.

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[31] Additional information on the P4Q program can be found on the HHSC website at https://hhs.texas.gov/about-hhs/process-improvement/medicaid-chip-quality-efficiency-improvement/pay-quality-p4q-program

[32] For more information on Medicaid programs, go to https://hhs.texas.gov/services/health/medicaid-chip/medicaid-chip-programs.

MCO Report Cards[33]

Senate Bill 7, 82nd Legislature, First Called Session, 2011, requires HHSC to provide information on outcome and process measures to Medicaid and CHIP members regarding MCO performance during the enrollment process. To comply with this requirement and other legislatively mandated transparency initiatives, HHSC develops report cards for each program service area to allow members to compare the MCOs on specific quality measures. These report cards are intended to assist potential enrollees in selecting an MCO based on quality metrics. The HEDIS prenatal and postpartum care measure is included in the report cards for the STAR program.

Appointment Availability

Senate Bill 760, 84th Legislature, Regular Session, 2015, directed HHSC to establish and implement a process for direct monitoring of a STAR or CHIP health plan's provider network and providers in the network, including the length of time a recipient must wait between scheduling an appointment with a provider and receiving treatment from the provider. OB/GYN appointment wait-times were evaluated in the 2015 and 2016 appointment availability studies and are part of the 2018 study schedule. MCOs that did not meet the appointment availability standards were subject to corrective action plans.

Value-Based Purchasing[34]

Texas Medicaid and CHIP have adopted the principles of value-based purchasing (VBP) in its strategy for statewide Medicaid managed care programs. Through its managed care contracting model with the MCOs, HHSC is making progress on a multiyear transformation of provider reimbursement models that have been historically volume-based (i.e. fee-for-service) toward models that are structured to reward patient access, care coordination and/or integration, and improved health care outcomes and efficiency (i.e. VBP).

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[33] More information about MCO report cards, including the current report cards, can be found at https://hhs.texas.gov/about-hhs/process-improvement/medicaid-chip-quality-efficiency-improvement/quality-report-cards-enrollees.

[34] Note that there is no specific language for maternal health for value-based purchasing initiatives.

In 2014, HHSC initiated a contract provision into the managed care contracts that required MCOs to implement VBP models with providers and to submit to HHSC annual reports on their VBP activities. To continue this forward progress on MCO VBP efforts, HHSC included in the 2018 MCO contract requirements:

- Establishment of MCO VBP targets, which grow over 4 years;[35]
- Requirements for MCOs to adequately resource this activity;
- Requirements for MCOs to establish and maintain data sharing processes with providers;
- Requirements for MCOs to have a process in place to evaluate VBP models.

Hospital Levels of Care Designations

House Bill 15, 83rd Legislature, Regular Session, 2013, and House Bill 3433, 84th Legislature, Regular Session, 2015, require HHSC, in coordination with DSHS, to assign level of care (LOC) designations to each hospital based on the neonatal and maternal services provided at the hospital. Maternal and neonatal LOC designations are anticipated to improve health outcomes by promoting care in the most appropriate setting. The neonatal LOC designation rules became effective in June 2016 and the maternal LOC designation rules became effective in March 2018. The designation for neonatal LOC is a requirement for Medicaid reimbursement beginning October 1, 2018, and the designation for maternal LOC is a requirement for Medicaid reimbursement beginning September 1, 2020.

[35] Targets are based on a percentage of MCO medical expenditures. For 2018 they are set at 25 percent, and grow to 50 percent in 2021. More information found at https://hhs.texas.gov/about-hhs/process-improvement/medicaid-chip-quality-efficiency-improvement/value-based-contracting

6. Maternal Safety Bundles

DSHS launched the TexasAIM initiative in December 2017. The TexasAIM initiative is a partnership between DSHS and the Alliance for Innovation on Maternal Health (AIM) to implement maternal safety bundles (AIM Bundles) in hospitals throughout Texas. AIM Bundles are proven, evidence-based strategies used to improve maternal safety and health care quality. Each AIM Bundle focuses on a specific maternal health and safety topic. TexasAIM is beginning with the Obstetric Hemorrhage Bundle, followed by the Obstetric Care for Women with Opioid Use Disorder Bundle and the Severe Hypertension in Pregnancy Bundle. To guarantee success, DSHS is working with experts from state agencies, professional organizations, physicians, and other key stakeholders to guide and facilitate the implementation of the bundles.

Hospitals can participate in TexasAIM at either the Basic or Plus level. TexasAIM Basic participants will have access to quality improvement webinars, networking events, and technical assistance. TexasAIM Plus participants, in addition to receiving the Basic level assistance, will belong to a comprehensive learning collaborative with other hospitals in their area to receive enhanced support and evaluation.

As of September 2018, over 185 hospitals are participating in the TexasAIM Obstetric Hemorrhage Bundle. Participating hospitals represent more than two-thirds of all the birthing hospitals in Texas, approximately 82 percent of the births in Texas, and approximately 8.1 percent of the births in the United States. Of the participating hospitals, 147 are participating at the Plus level. DSHS plans to implement the Severe Hypertension in Pregnancy Bundle in summer of 2019.

The Obstetric Care for Women with Opioid Use Disorder Bundle was finalized and launched at the national level during August 2018. Since this bundle is new, DSHS and HHSC are piloting the bundle in 10 selected hospitals across the state. The pilot hospitals have experience working on maternal OUD and NAS initiatives. DSHS plans to launch the first learning collaborative of the Obstetric Care for Women with Opioid Use Disorder Bundle for interested TexasAIM hospitals in 2020.

As of December 2018, DSHS has hosted the TexasAIM Leadership Summit and Orientation, conducted a series of quality improvement webinars, and facilitated an in-person learning collaborative meeting in each of the five TexasAIM Plus Cohorts.

7. Feasibility of Using Maternal Safety Bundles as an Indicator for Quality

As required by S.B. 17, Section 34.0157, HHSC studied the feasibility of adding the AIM maternal safety bundles as an indicator of quality for the Commission's data and medical assistance quality-based payment purposes. Several options to incorporate the AIM maternal safety bundles as an indicator of quality were considered, including adding the bundles to current MCO quality improvement activities, incorporating hospitals' use of AIM bundles as a quality measure in P4Q, requiring that AIM bundle implementation be a criterion for higher levels of maternal designation, developing preferred VBP models including AIM bundles, and incorporating the AIM bundles into the DSRIP program.

These options have considerable limitations. Hospitals and health systems enroll in the AIM program and implement the process and system improvements recommended by AIM. It is problematic to evaluate MCOs on their contracted hospitals' use of AIM bundles because there is no simple way to assign responsibility for hospital-based initiatives to an MCO for the following reasons:

- The MCOs' ability to influence hospital processes is limited, especially if their members make up only a small portion of the hospital's patients.
- Hospitals contract with multiple MCOs, limiting the influence of any one MCO and making it challenging to assign credit at the MCO level for hospital-level improvements.
- MCOs contract with multiple hospitals and the volume of members utilizing each hospital may differ. This makes it difficult to determine the impact of hospital initiatives on the MCO's member population.

An MCO quality measure focused on member health outcomes would be more aligned with other MCO quality improvement activities than a measure focused on a hospital's adoption of AIM bundles. HHSC is working with Texas's EQRO to explore applying the AIM maternal morbidity measures at the MCO level as an indicator of MCO quality. Using maternal morbidity measures in quality initiatives would encourage MCOs to implement related interventions and these interventions could support hospitals in implementing AIM bundles. A maternal morbidity measure could be incorporated into various quality initiatives (with or without financial consequences) as appropriate to improve maternal health and outcomes.

HHSC commissioned the EQRO to conduct a report to examine ways to leverage current data to assess maternal morbidity. The report indicated that the AIM maternal morbidity measures may be useful as a baseline for developing an approach to evaluate maternal health outcomes. HHSC will continue exploring the AIM maternal morbidity measures for use in evaluating the MCOs and will consider phasing the AIM maternal morbidity measures into quality initiatives in the future.

8. Conclusion

Reducing maternal mortality and morbidity is a top priority for Texas and the HHS system. HHS is committed to implementing initiatives and developing partnerships focused on promoting healthy mothers and reducing maternal deaths in the state so that every pregnant woman can have a healthy pregnancy and baby and no family ever has to experience the devastating loss of a mother.

List of Acronyms

Acronym	Definition
AIM	Alliance for Innovation on Maternal Health
DSHS	Department of State Health Services
DSRIP	Delivery System Reform Incentive Payment
EQRO	External Quality Review Organization
HEDIS	Healthcare Effectiveness Data and Information Set
HHS	Health and Human Services
HHSC	Health and Human Services Commission
HTMB	Healthy Texas Mothers and Babies
HTW	Healthy Texas Women
LARC	Long Acting Reversible Contraception
LOC	Level of Care
MCO	Managed Care Organization
NAS	Neonatal Abstinence Syndrome
OTS	Opioid Treatment Services
P4Q	Pay-for-Quality
PIPs	Performance Improvement Projects
PPD	Postpartum Depression
PPI	Pregnant Postpartum Intervention
S.B.	Senate Bill
SAMHSA	Substance Abuse and Mental Health Services Administration
SBIRT	Screening, Brief Intervention and Referral to Treatment

Acronym	Definition
SUD	Substance Use Disorder
TCHMB	Texas Collaborative for Healthy Mothers and Babies
TTOR	Texas Targeted Opioid Response
UTHSC	University of Texas Health Science Center
VBP	Value-Based Purchasing
WIC	Women, Infants and Children