Value-Based Payment for Maternity Care in Medicaid: Findings from Five States

States are using value-based payment (VBP) models as a way to improve the quality of care delivered to Medicaid beneficiaries. As maternal health outcomes continue to decline and significant racial and ethnic disparities persist for pregnant women, policymakers have raised questions about whether VBP models can be effective in addressing these concerns (Hoyert 2021).[1]

MACPAC contracted with RTI International to study how state Medicaid programs are using VBP for maternity services, focusing on three types of models (episodes of care, pay for performance, and pregnancy medical homes) across five states (Arkansas, Connecticut, Colorado, North Carolina, and Tennessee). The study examined the factors influencing model design and implementation, reviewed data on their effectiveness, and explored how state models are evolving.

MACPAC found that states designed their VBP models primarily to incentivize targeted quality improvements and, in some cases, to reduce costs.[2] They were not designed to fundamentally alter how maternity care is delivered, building instead on existing delivery and payment systems. Rather than steering patients to high-value providers or facilities, many of the models focus on ensuring that patients received what is considered the professional standard of care. For example, some models tie payment to screening of HIV or Group B streptococcus, or postpartum care visits.

Given that these changes were incremental, it is perhaps not surprising that payment incentives would have limited effects on outcomes, such as decreasing maternal mortality, morbidity, or improving racial and ethnic disparities. However, it remains unclear whether VBP models have improved quality even on these limited sets of measures. The evidence is mixed among the study states. In some cases, there were improvements in these targeted quality measures, and in other cases, performance declined or remained stable. Even so, the sharing of information through performance reports engages practices and providers in quality improvement efforts.

This brief begins with background on maternal health and VBP models. It then details the study approach and provides an overview of each study state's model. It concludes by discussing the key themes that emerged from looking across models and states. MACPAC has also published case studies for each of the five study states (MACPAC 2021a–e).

Background

In recent years, the United States has seen an increase in maternal mortality and morbidity with approximately 700 women dying each year as a result of pregnancy or related complications (CDC 2019, Petersen et al. 2019a). Black and American Indian and Alaska Native women have higher pregnancy-related death rates than their white peers (Petersen et al. 2019b). A review of data from maternal mortality review committees across 13 states found that approximately three out five pregnancy-related deaths were preventable. The leading causes of death included cardiovascular conditions, infection, and hemorrhage and varied by timing (Peterson et al. 2019a). Approximately one-third of deaths occur during pregnancy, one-third during delivery or within one week, and one-third occurring during the postpartum period (MACPAC 2020).

Insufficient prenatal and postnatal care and unnecessary medical interventions at birth can result in poor outcomes for women and infants. For instance, insufficient prenatal care has been shown to increase risk for preterm birth and neonatal mortality (Partridge et al. 2012). Additionally, cesarean deliveries can increase the risk of hemorrhage, infections, and blood clots (Curtin et al. 2015, Moulton et al. 2017).

With Medicaid financing more than 40 percent of U.S. births, many state and federal initiatives have been implemented to improve access to care and the quality of services provided to pregnant women in Medicaid (MACPAC 2020b).[3] A 2020 review of all Medicaid programs found that 41 states implemented programs focused on payment to improve maternal health. The vast majority of these payment initiatives focused on policies to encourage the use of long-acting reversible contraception (LARC) immediately postpartum, and approximately one-third of the payment initiatives used reductions in payment (such as non-payment for early elective deliveries) to discourage certain interventions (Mathematica 2020).

Value-based payment models for pregnancy and postpartum care

While considerable attention has been given to the potential of VBP models to address both quality and costs in health care generally and Medicaid specifically, few states have focused these models on improvements in maternity care. Fourteen states implemented pay-for-performance programs that provide financial incentives to providers that meet certain metrics, 10 states have implemented perinatal episode of care models, and 4 states have implemented pregnancy medical homes (PMHs) (Mathematica 2020).[4]

States vary in how they have designed VBP model for maternity care. The models range in the degree to which providers are held accountable for performance and the scope of services included. For example, pay-for-performance models and PMHs may be designed with only upside risk. This means that providers are only eligible for payment increases and will not face reduced payments if performance measures are not met. Other models, such as episodes of care, adjust payments based on quality and cost across a set of services. This can include downside risk (meaning the provider may see a reduction in payment if the metrics are not met).

Looking across five states, this study examined three VBP models: episodes of care, pay for performance, and PMHs.

Episodes of care. The episode of care model creates payment incentives to manage costs and quality across a set of services, focusing on the provider with the greatest role in delivering these services. For perinatal episodes, the health care professional delivering the infant is typically designated as the accountable provider.

The model is designed to control costs by financially penalizing providers with high costs (i.e., costs above what the state consider to be acceptable) and financially rewarding providers with low costs (i.e., costs below what the state or managed care organizations (MCOs) consider to be commendable).[5] When a provider has costs above the acceptable level, the provider must make a payment to the state or MCO to account for a share of the costs above the acceptable level. This is a risk-sharing payment. Conversely, accountable providers are eligible for additional payments when their costs are below the commendable level. This additional payment is a share of the savings and is referred to as a gainsharing payment. Gainsharing payments are only provided if certain quality metrics are met.

The model aims to reduce wide variations in costs and quality. By placing financial penalties on providers who are outliers, the model encourages those providers to reduce costs to the level that the state considers acceptable. Savings may be achieved through referrals to lower-cost facilities and providers, or through a reduction in use of unnecessary services. Some models include limits on gainsharing payments so as not to create incentives for underservice. The quality thresholds on gainsharing payments are meant to encourage improvement on specific measures, and reduce the number of providers with low performance.

An episode of care model can be applied retrospectively or prospectively, but the models examined in this project use retrospective payment. As such, the accountable provider and all other providers receive fee-for-service (FFS) Medicaid payments for services delivered throughout the perinatal episode. Any potential gainsharing and risk sharing payments are calculated retrospectively based on episode cost and performance on quality measures.

Most perinatal episode of care models only apply to low- to moderate-risk pregnancies and exclude comorbidities or conditions related to pregnancy, largely because the services needed for low-risk patients are more predictable than those for more complicated births.

Often, the terms bundled payments and episodic payments are used interchangeably. In this project, the payment model is referred to as an episode of care if the payment takes into account quality and cost thresholds. A bundled payment may also use a single, fixed payment for a group of services across multiple settings but does not consider the achievement of specific quality measures.

Pay for performance. Under pay-for-performance models, providers are given financial incentives to meet certain quality, but not cost goals. If providers perform well on a given set of measures, they receive a financial reward. Some pay-for-performance models lower payments (that is, have financial penalties) if performance thresholds are not met. Payments are calculated retrospectively based on past performance. For example, an obstetrician could receive an annual bonus payment if she completes a health risk assessment for over 90 percent of her Medicaid patients, and keeps her cesarean delivery rates at or below the state average. If the model includes downside risk, an obstetrician could have to make a payment to the state if he does not meet these thresholds.

For perinatal models, performance measures could include completion of health risk or depression screenings, rate of cesarean deliveries, or rate of early elective deliveries. Some models may provide financial incentives to simply report on quality measures, in addition to incentives for meeting specific targets. In some cases, quality measures are adjusted to account for patient risk.

Pregnancy medical homes. The PMH is a delivery model that aims to improve maternal health outcomes by addressing clinical, behavioral, and social aspects of care. Similar to the patient-centered medical home model, PMHs focus on patient engagement, community supports, and population health management. Different payment approaches may be applied to incentivize care coordination and quality outcomes. For example, providers participating in the model may receive bonus payments for providing key services such as prenatal risk screening and postpartum care or for achieving positive maternal and birth outcomes. Other payment approaches could include a shared savings model, or capitation with certain quality metrics that must be met to ensure appropriate care is provided (ACOG 2018b).

Study Approach

This study examined maternity care VBP models in five states (Arkansas, Connecticut, Colorado, North Carolina, and Tennessee). We selected these states because they are illustrative of the range of maternity VBP models being implemented, had at least two years of experience with VBP and some publicly available performance data, and represent a mix of delivery systems and geographic regions (Table 1). In addition to state document reviews, the project included a series of semi-structured interviews with state and federal officials, MCOs, providers, beneficiary advocates, and national experts.

TABLE 1: Key Characteristics of Study Models

	Arkansas	Colorado		Connecticut	North Carolina	Tennessee
		Episode Payment	Hospital			
Model type	Episode of care	Episode of care	Pay-for-performance	Pay-for-performance	Pregnancy medical home	Episode of care
Year established	2012 (sunset in 2021)	2020	2018	2013	2011	2014
Provider participation	Delivering provider/ mandatory	Principal accountable provider/ voluntary	Hospital/ voluntary	Obstetric care provider/ voluntary	Obstetric care providers/ voluntary	Delivering provider/ mandatory
Eligible Medicaid beneficiaries	Non-high-risk beneficiaries who deliver live birth	Pregnant beneficiary seeing a participating provider, including high-risk	All pregnant beneficiaries delivering at participating hospital	All pregnant beneficiaries seeing a participating provider	All pregnant beneficiaries and women 60-days postpartum seeing a participating provider	Low- to moderate- risk pregnant beneficiaries
Provider risk	Upside and downside	Upside and downside	Upside only	Upside only	Upside only	Upside and downside
Payment tied to:						
Costs	Yes	Yes	No	No	No	Yes
Clinical processes	3	1	n/a	4	1	2
Clinical outcomes	n/a	3	2	1	1	1
Structural measures	n/a	1	4	n/a	n/a	n/a
Access	n/a	n/a	n/a	4	1	n/a
Commercial insurer participation	Voluntary	Not eligible	Not eligible	Not eligible	Not eligible	Voluntary

Notes: n/a is not applicable. Upside risk is when providers are eligible for increased payment based on performance. Downside risk is when providers can face financial penalties based on performance.

Source: RTI International 2020 review of public documents related to value-based payment models. MACPAC 2020.

Arkansas

Episode of care. Arkansas established its perinatal episode of care in 2012 to reduce variation in pregnancy care and costs and required all eligible Medicaid providers to participate. The episode began 40 weeks (280 days) prior to delivery and ended 60 days after delivery. The delivering provider and all other providers involved in the patient's perinatal care were paid for individual services on a FFS basis throughout the pregnancy. Then, on a retrospective basis, the delivering provider was subject to a risk sharing payment or eligible to share in any savings based on a comparison of the provider's average episode cost to the state's target cost thresholds. That is, if the average episode cost was higher than the acceptable cost threshold set by the state, the provider was required to make a payment to the state (i.e., risk sharing). Conversely, if the provider had average costs below the commendable threshold, the provider shared in the savings and received a payment (i.e., gainsharing), if certain quality goals were also met.[6] Costs were risk adjusted. For high-risk pregnancies, the episode of care model did not apply (ACHI 2019).

Arkansas Medicaid sunset the episode of care program, with reporting ending in 2020 and final payment reconciliation in 2021 (Arkansas Medicaid). State officials noted that the program met its goals of reducing variation in cost and quality. Stakeholders noted that providers were unable to further reduce costs or improve quality. Ultimately the model saw diminishing returns as administrative costs remained high while potential savings diminished.

Colorado

Pay for performance. In 2018, Colorado Medicaid added perinatal measures to its Hospital Quality Improvement Program (HQIP), a voluntary pay-for-performance program for hospitals serving Medicaid beneficiaries. Hospitals receive bonus payments based on their reporting and performance on a set of 13 quality measures in three groups: maternal health and perinatal care, patient safety, and patient experience. The total bonus payment is adjusted for the number of Medicaid beneficiaries discharged but is not adjusted for patient risk. Hospitals do not face financial penalties if their performance scores are low.

Episode of care. In November 2020, Colorado launched an episode of care payment model covering the entire perinatal episode, including prenatal services (280 days before delivery), delivery, and postpartum care (60 days after delivery). The model is beginning on a pilot basis and provider participation is voluntary. Providers continue to be paid on a FFS basis for care provided throughout the episode, but the accountable provider payment may be adjusted retrospectively based on average cost and quality. In the first year, the accountable provider will receive credit for reporting on a set of quality measures and will only be eligible for gainsharing payments. In subsequent years, the accountable provider is eligible for both gainsharing and risk-sharing payments.

There are several key differences between this model and the other two episode of care models studied in this project (Arkansas and Tennessee). First, the Colorado model includes some high-risk patients and specifically beneficiaries with substance use disorder; second, provider participation is voluntary; and third, the cost thresholds for what is considered acceptable or commendable are established individually for each provider based on prior period costs. (In Arkansas, the cost thresholds are set statewide, and in Tennessee, the state and MCOs set the thresholds.)

Connecticut

Pay for performance. Connecticut established its pay for performance in obstetrics care model in 2013. Provider participation is voluntary. Participating providers are paid on a FFS basis but are eligible for retrospective bonus payments based on their performance on eight quality and access to care measures. The measures address care provided during the prenatal, delivery, and postpartum period, and are weighted differently based on where the state would like to see improvement; for example, full term, vaginal delivery after spontaneous labor accounts for about 30 percent of the total points, whereas completion of online notification forms account for about 6 percent.

The amount of funding for bonus payments is determined through the state budget process. Individual bonus payments are based on providers' relative performance across the measures and their relative share of Medicaid beneficiaries served compared to other providers. Providers do not face downside risk, and all Medicaid beneficiaries served by the practice are included.

North Carolina

Pregnancy medical home. North Carolina launched its PMH program in 2011 to enhance comprehensive care delivery and improve both maternal and birth outcomes. The program is run through a contract with Community Care of North Carolina (CCNC), a primary care case management entity. North Carolina Medicaid provides a per member per month (PMPM) payment to CCNC to provide PMH practice support, oversight, and delegate care management work to local health departments. PMH participation is voluntary and providers agree to provide coordinated and comprehensive care during pregnancy.

PMH providers are eligible to receive two lump sum incentive payments for completing risk assessment screenings and postpartum visits. PMH providers also receive higher payment rates than non-PMH providers for most services packages.

Instead of paying for each individual service, North Carolina Medicaid pays for all maternity services using a bundled payment regardless of whether a provider is a participating PMH. As noted above, unlike an episode of care payment, the bundled payment is not tied to quality, although PMH providers receive enhanced payment rates.

Tennessee

Episode of care. The perinatal episode of care was one of the first three statewide episode payments implemented in Tennessee in 2014. The stated goal is to reward providers who deliver cost-effective, quality care, and promote patient-centered, high-value health care for pregnant women. The model is mandatory for Medicaid health plans and their contracted providers and voluntary for the commercial market. Similar to the Arkansas and Colorado models, the delivering provider faces upside or downside risk based on costs and quality. Tennessee sets a statewide threshold for what is considered acceptable cost and each MCO sets a cost threshold for what it considers low cost, also referred to as commendable in Tennessee. Providers with average costs that are greater than that acceptable level are required to make a risk-sharing payment; providers with average cost below the commendable level share in the savings if quality thresholds are met.[7] This calculation is done on a retrospective basis and provider costs are risk adjusted. Tennessee excludes high-risk pregnancies and providers are paid a base blended rate for vaginal and cesarean deliveries, that is, they receive the same amount regardless of delivery modality.

Findings

Several key themes emerged across the study states based on a review of the model designs, reported performance data, and key informant interviews.

The models use payment to incentivize targeted quality improvements and, in some cases, aim to reduce costs.

Across all five study states, Medicaid officials shared that the goal of the VBP model is to improve the quality of maternity care provided to Medicaid beneficiaries. In three of the six models, the value-based payment is based on provider performance or reporting on specific quality improvement efforts. In these models (Connecticut, Colorado (HCIP), and North Carolina), the payment is not tied to a cost threshold and providers do not have any downside risk. The three episode of care models (Arkansas, Colorado's episode of care payment, and Tennessee) aim to reduce overall costs. In these episode-of-care payment models, the provider's payment is directly tied to costs. Performance on quality measures is then assessed if the provider is determined eligible for a gainsharing.

Some interviewees noted that Medicaid payment models for maternity care should focus on improving quality of care and health outcomes rather than on constraining costs. They argued that Medicaid payments to maternity providers are already lower than those of other payers and further efforts to constrain costs could have negative effects on access and quality.

Other interviewees commented that targeting low-risk pregnancies limits the ability to constrain costs, as costs are higher for high-risk pregnancies. Interviewees also noted that payment models tend to focus on physicians and few target hospital payments, which account for a large share of the costs. Some interviewees expressed an interest in seeing how models might evolve to address these concerns.

Episodes of care. Providers generally agreed that the model focuses primarily on cost reduction. Under the model, a portion of provider payment is held at risk if costs are above a given threshold. As a result, stakeholders in Tennessee and Arkansas noted that the model incentivizes providers to reduce excess costs. However, some providers expressed concern that statewide thresholds do not account for regional differences in available health services and costs. One rural provider noted that referral patterns and the delivery hospital are determined by availability. As such, rural providers may not have the option of referring to less expensive specialists or hospitals as a means of controlling cost.

In Arkansas and Tennessee, if a provider's costs are low enough, providers must also achieve a certain level of performance on three quality measures to be eligible for a gainsharing payment. Stakeholders noted that tying payment to performance on the quality measures was helpful in encouraging providers with outlier practices (e.g., low HIV screening rates) to improve during the early implementation years. However, providers largely agreed that their usefulness diminished over time. They also noted that the required measures reflect standard of care practices, rather than quality improvement measures designed to specifically address maternal mortality or morbidity (as discussed more below). Neither Arkansas (where the episode is ending) nor Tennessee have revisited or have stated plans to revisit these measures.

Pay for performance and pregnancy medical homes. As noted above, the pay for performance and pregnancy medical home models studied in this project do not tie payment to provider costs and do not place providers at financial risk. The models are designed to improve provider performance on selected

measures or incentivize specific activities. While pay-for-performance models could be designed to include downside risk or financial penalties if certain measures were not achieved, state officials in the study states did not express an interest in taking such an approach. In particular, one state expressed strong opposition to models that would place payments at risk for Medicaid providers. Instead, state officials viewed provider participation and engagement as a key success factor.

Payment incentives are not directly tied to reductions in maternal mortality, morbidity, or racial disparities; instead, incentive payments are often tied to standard clinical care practices.

In our interviews with national experts, federal officials, and beneficiary groups, interviewees shared concerns about the rates of maternal mortality and morbidity and persistent racial disparities in these outcomes. While some policymakers have suggested that the use of VBP models could help address troubling rates, the Medicaid models included in this study do not directly connect payment to improvements in these areas. Instead, the models tie payment incentives to standard clinical care practices and outcome measures that typically related to whether the delivery was performed vaginally, by cesarean section, and whether the delivery was elective.

Across the 6 payment models, states used 29 different quality measures (Appendix A).

Clinical process measures. Clinical process measures account for 11 of the 29 measures used for payment. In Arkansas, all three payment measures are clinical process measures. In Arkansas and Tennessee, providers must screen a minimum percentage of patients for HIV and Group B streptococcus in order to qualify for a gainsharing payment. Three states (Colorado, Connecticut, and North Carolina) tie payment to the completion of a risk assessment form.

Clinical outcomes measures. Six out of the eight outcomes measures used for payment relate to the delivery type, including whether the delivery was performed vaginally, by cesarean section, and whether the delivery was elective. Colorado also includes episiotomy and postpartum contraceptive care measures. There were no measures related to complications at birth or during the postpartum period.

Structural measures. Colorado uses four structural measures for its hospital program, giving credit for the implementation of certain activities. For example, the hospital receives points if it implements specific programs to support exclusive breastfeeding.

Access measures. Some measures are used to encourage provider visits. In Connecticut and North Carolina, the models tie payment to the completion of postpartum visits. In Connecticut, providers also receive credit for beneficiaries having their first prenatal visit within 14 days of a confirmed pregnancy.

Evidence is mixed as to whether the models are resulting in improvements on targeted measures, yet stakeholders noted that sharing information through performance reports engages practices and providers in quality improvement efforts.

There is limited evidence on the effectiveness of the study models. Three states (Arkansas, Connecticut, and Tennessee) have reported data on the measures associated with the value-based payments. The program in Arkansas has been formally evaluated by external reviewers (Table 2).

Episodes of care. The Arkansas and Tennessee models are generally viewed by stakeholders as successful in containing costs. In 2018, Tennessee reported cost savings of $632 per perinatal episode, a 9.2 percent decrease from projected perinatal episode costs (Tenncare 2019). In Arkansas, the average adjusted perinatal episode cost was $3,567.54 in 2012 and $3,616.45 in 2019, an increase of 1.4 percent. While additional information on the perinatal episode specifically is not available, external evaluators found that total spending across all episodes decreased by 3.8 percent, or $396, relative to control states (Carroll et al. 2018).

On the three quality measures tied to payment in Tennessee, there were modest improvements. The HIV screening rates increased from 90.2 percent in 2014 to 92.8 percent in 2018, Group B streptococcus screening increased from 87.8 percent in 2014 to 95.2 percent in 2018, and the cesarean delivery rate saw little change.

In Arkansas, the chlamydia screening rate increased from 76.3 percent in 2012 to 80.7 percent in 2019. However, Group B streptococcus screening decreased slightly, and the HIV screening rate decreased from 83.5 percent to 77.4 percent. While the rate of cesarean deliveries declined over time, an independent evaluator found that there was no significant difference in the rate of change between those in the Arkansas episode compared with a comparison group, with both declining similarly. During the same time, the total number of emergency department visits during the perinatal episode declined significantly more among Arkansas episode participants relative to the external comparison group (Toth et al. 2020, ACHI 2017).

Stakeholders in both states expressed concerns about diminishing returns on both cost and quality. In Arkansas, for example, interviewees noted that cost variation among providers narrowed over time, meaning that the share of providers falling into the acceptable cost range increased. However, stakeholders noted that over time the payment incentives become smaller and harder to achieve through cost reductions. As a result, providers have less incentive (i.e., smaller potential gainsharing payments) to meet the quality thresholds.

As noted above, Arkansas is in the process of sunsetting its episodes of care program. Stakeholders pointed to the large administrative burden on providers and state officials and the diminishing returns as the rationale for ending the program, although state officials view the program as meeting its goals.

Pay for performance. Connecticut reports on some of the measures used for payment in its model and the results are mixed. The percentage of full-term, vaginal delivery after spontaneous labor increased, but the first prenatal visit and risk identification within 14 days of confirmed pregnancy decreased. Because this model is voluntary and the volume of providers has increased over this period, the change cannot necessarily be attributed to the model. Colorado does not report any information on specific measures in its HCIP program.

Pregnancy medical home. North Carolina attributes a number of improved quality outcomes to its model. For example, between the program's inception in 2011 and 2014, the incidence of low-birthweight infants covered by Medicaid in the state decreased by 6.7 percent (Berrien et al. 2015). This reduction was seen across all Medicaid-covered births and was not specifically attributed to those served by the PMH program. The state does not report on the specific quality measures that are tied to payment. For example, participating providers receive an enhanced payment for a vaginal delivery that is greater than the payment for a cesarean delivery. But publicly reported information on whether the rate of vaginal births has changed or if it is greater among PMH providers in comparison to non-PMH providers is not available.

TABLE 2: Measures Tied to Payment with State Reported Outcomes

Arkansas		
Quality measure	**Baseline**	**PY7**
HIV screening (%)	83.50	77.40
Group B streptococcus screening (%)	88.70	88.60
Chlamydia screening (%)	76.30	80.70
Connecticut		
Quality measure	**2013 2014**	**2018 2019**
Completion of the prenatal notification form (%)	54.89	51.16
First prenatal visit and risk identification within 14 days of confirmed pregnancy (%)	85.09	71.36
Full-term (39 weeks gestation), vaginal delivery after spontaneous labor (%)	34.19	48.38
At least one postpartum visit within 21–56 days postpartum (%)	86.42	86.25
Tennessee		
Quality Measure	**2014**	**2018**
HIV screening rate (%)	90.20	92.80
Group B Streptococcus screening rate (%)	87.80	95.20
Delivery by cesarean section (%)	30.50	30.80

Notes: No outcomes on measures tied to payment were reported in Colorado or North Carolina. PY is performance year.
Source: RTI International 2020 review of public documents related to value-based payment models. MACPAC 2020.

Many providers and national experts noted the importance of sharing quality performance reporting with providers and said that these reports can engage practices and providers in quality improvement efforts. Some providers noted that they are equally motivated by knowing how they perform against their peers as they are by increases in payment. However, as noted above, it is not clear whether the reporting of performance has led to improvements, as performance over time is mixed among the study states. For example, in Arkansas providers received quality performance reports across 19 measures. Three of the measures were tied to payment, and the others were for reporting only. Performance improved in some cases (e.g., chlamydia and gestational diabetes screenings), and declined in others (HIV, Group B Streptococcus, and Hepatitis B screening). While Arkansas is sunsetting its episodes of care payment model, it will continue to provide quality performance information to providers.

Study models are not designed to fundamentally alter the approach for providing maternity care.

Current VBP models do not fundamentally reform the delivery of maternity care. These models are built on existing delivery systems and payment structures, and in interviews with national experts and federal officials, interviewees suggested that the current system fails to take advantage of models that are known

to promote high-value care. Specifically, they pointed to evidence from the Strong Start for Mothers and Newborns Initiative that increased use of midwives and birth centers could improve maternal health and birth outcomes, while also reducing costs (Hill et al. 2018). Some interviewees suggested that models should increase payment for midwives and birth centers since evidence suggests that greater use of these providers could improve outcomes.

In addition to not incentivizing high-value providers and facilities, national experts also noted that because payment is anchored to the delivering provider and is not shared with those delivering prenatal or postpartum care the effect on maternal health outcomes is be limited. Experts agreed that states should establish payment methodologies or other mechanisms that better address transfers of care and allocation of incentives across different entities in future maternity VBP designs.

Endnotes

[1] MACPAC uses the terms pregnant and postpartum women because these are the terms used in Medicaid statute and regulations. However, other more inclusive terms are increasingly being used in recognition that not all individuals who become pregnant and give birth identify as women.

[2] In this brief, we use the term costs to be consistent with state terminology, but the term is not referring to the per unit cost of a service, but rather aggregate costs incurred by providers or by service.

[3] All states are required to provide Medicaid coverage for pregnant women with incomes at or below 133 percent of the federal poverty level (FPL) and most states extend Medicaid coverage to pregnant women with higher incomes. However, states can limit coverage for pregnant women. For example, while pregnant women are typically entitled to the full Medicaid benefit package, certain pregnant women can be limited to services related to the pregnancy. Almost all births financed by Medicaid occurred in a hospital setting, with most states having less than 1 percent of Medicaid births occurring outside a hospital (MACPAC 2020a).

[4] Some states have more than one VBP initiative in place. Twenty states have implemented either pay-for-performance model, bundled payment or episode of care model, or pregnancy medical home.

[5] States differ in how they develop cost thresholds. For example, in Tennessee, the state and Medicaid MCOs set statewide thresholds based on spending projections to result in overall budget neutrality. In Colorado, the cost thresholds are set for each individual accountable provider based on the provider's costs over the last two years.

[6] Providers are at risk or will share in savings equal to 50 percent of the difference between the established threshold and the risk-adjusted episode costs, multiplied by the accountable providers number of valid episodes in the reporting period.

[7] Similar to the Arkansas model, providers owe a risk sharing payment or receive a gainsharing payment that is equal to 50 percent of the difference between the established threshold and their average risk-adjusted episode spend, multiplied by their number of valid episodes in the reporting period. Unlike Arkansas, Tennessee has established caps for both risk-sharing and gain-sharing payments.

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Appendix: Value-Based Payment for Maternity Care in Medicaid: Findings from Five States

TABLE A-1: Measures Tied to Payment in Study Models

Quality Measure	Arkansas	Colorado	Connecticut	North Carolina	Tennessee
Clinical process measures					
HIV screening	Performance - minimum of 80% of episodes	n/a	n/a	n/a	Performance - minimum of 90% of episodes
Group B streptococcus screening	Performance - minimum of 80% of episodes	n/a	n/a	n/a	Performance - minimum of 90% of episodes
Chlamydia screening	Performance - minimum of 80% of episodes	n/a	n/a	n/a	n/a
Low-dose aspirin prophylaxis for members at high or moderate risk of preeclampsia	n/a	n/a	Performance - points awarded if completed	n/a	n/a
Self-measured blood pressure (BP) for hypertension and perinatal care visits with provider measured BP.	n/a	n/a	Performance - points awarded if completed	n/a	n/a
Postpartum depression screening	n/a	Threshold not yet set (EOC)	n/a	n/a	n/a
Completion of the prenatal notification form	n/a	n/a	Performance - Points awarded if completed	n/a	n/a

Quality Measure	Arkansas	Colorado	Connecticut	North Carolina	Tennessee
Completion of risk identification form	n/a	Threshold not yet set (EOC)	Performance - Points awarded if completed	Performance - enhanced payment if completed	n/a
Clinical outcome measures					
Vaginal delivery	n/a	n/a	Performance - Points awarded if achieved[1]	Performance - enhanced payment if achieved	n/a
Elective delivery	n/a	Threshold not yet set (EOC)	n/a	n/a	n/a
Cesarean-section birth	n/a	Performance - relative to other hospitals (HQIP) Threshold not yet set (EOC)	n/a	n/a	Performance - Maximum of 38% of episodes
Incidence of episiotomy	n/a	Performance - relative to other hospitals (HQIP)	n/a	n/a	n/a
Postpartum contraceptive care	n/a	Threshold not yet set (EOC)	n/a	n/a	n/a
Structural measures[2]					
Exclusive breast feeding	n/a	Reporting - points awarded if hospital implements specific process or activity (HQIP)	n/a	n/a	n/a
Perinatal depression and anxiety	n/a	Reporting - points awarded if hospital implements specific process or activity (HQIP)	n/a	n/a	n/a

Quality Measure	Arkansas	Colorado	Connecticut	North Carolina	Tennessee
Maternal emergencies	n/a	Reporting - points awarded if hospital implements specific process or activity (HQIP)	n/a	n/a	n/a
Reproductive life and family planning	n/a	Reporting - points awarded if hospital implements specific process or activity (HQIP)	n/a	n/a	n/a
Access measures					
First prenatal visit within 14 days of confirmed pregnancy	n/a	n/a	Performance - Points awarded if visit is completed	n/a	n/a
Completion of the postpartum visit(s)	n/a	n/a	Performance - Points for visits occurring: - within 21 days of delivery - 21 to 56 days postpartum - comprehensive visit 22 and 84 days postpartum	Performance - enhanced payment if one visit is completed	n/a

Notes: n/a is not applicable. EOC is episode of care.
1. In Connecticut, the payment is tied to full-term vaginal delivery after spontaneous labor.
2. In Colorado, some of the structural measures could also be considered process measures. For example, in regards to breast feeding, hospitals must report on whether they have received a Baby-Friendly Designation, but must also report on the share of mothers exclusively breast feeding.
Source: RTI International 2020 review of public documents related to value-based payment models. MACPAC 2020.