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Commonwealth of Virginia
Department of Medical Assistance Services

2023–24 Medicaid and CHIP Maternal and Child Health Focus Study Report

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1. Executive Summary

As an optional external quality review (EQR) task under the Centers for Medicare & Medicaid Services (CMS) Medicaid guidelines,[1] the Commonwealth of Virginia Department of Medical Assistance Services (DMAS) contracted with Health Services Advisory Group, Inc. (HSAG) to conduct a focus study during contract year 2023–24, providing quantitative information about prenatal care and associated maternal and birth outcomes among women with births paid by Title XIX or Title XXI, which include the Medicaid, Medicaid Expansion, and Family Access to Medical Insurance Security (FAMIS) MOMS programs. The Contract Year 2023–24 Medicaid and Children's Health Insurance Program (CHIP) Maternal and Child Health Focus Study addressed the following questions:

- To what extent do women with births paid by Virginia Medicaid receive early and adequate prenatal care during pregnancy?
- What clinical outcomes (e.g., preterm births, low birth weight) are associated with births paid by Virginia Medicaid?
- What maternal health outcomes (e.g., prenatal and postpartum depression, emergency department [ED] utilization) are associated with births paid by Virginia Medicaid?
- What health disparities exist in birth and maternal health outcomes for births paid by Virginia Medicaid?

Methodology and Study Indicators

The study used deterministic and probabilistic data linking to match eligible members with birth registry records to identify births paid by Virginia Medicaid during calendar year (CY) 2023. Medicaid member, claims, and encounter data files were used with birth registry data fields to match members from each data linkage process. All probabilistically or deterministically linked birth registry records were included in the eligible focus study population.

The eligible population consisted of all live births during CY 2023 among members eligible for and enrolled in Virginia Medicaid regardless of whether the births occurred in Virginia. Births paid by Virginia Medicaid were assigned to one of four program categories based on the mother's program at the time of delivery:[2]

- The Medicaid for Pregnant Women program uses Title XIX (Medicaid) funding to serve pregnant women with incomes up to 148 percent of the federal poverty level (FPL).
- The Medicaid Expansion program uses Title XIX funding to serve adults 19 to 64 years of age with incomes up to 138 percent of the FPL. Members who become pregnant while already enrolled in the Medicaid Expansion group may remain in that eligibility category during the pregnancy, while individuals with incomes at or below 138 percent FPL who report that they are pregnant at initial application must be enrolled into Medicaid for Pregnant Women.

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1 Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Protocol 9. Conducting Focus Studies of Health Care Quality: An Optional EQR-Related Activity*, February 2023. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2023-eqr-protocols.pdf. Accessed on: Jan 24, 2025.

2 These income eligibility figures include a standard disregard of 5 percent FPL.

- The FAMIS MOMS program uses Title XXI (CHIP) funding under Section 1115 Demonstration authority to serve pregnant women with incomes up to 205 percent of the FPL. It provides benefits similar to Medicaid through the duration of pregnancy and for the postpartum period.
- The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, or FAMIS MOMS. The Other Aid Categories include Low Income Families with Children (LIFC) (parents and caretaker adults), individuals covered under the Aged, Blind, or Disabled Medicaid groups, Medicaid Children, Youth in Foster Care and Adoption Assistance, Former Foster Care Members, FAMIS Children, and others. The Other Aid Categories exclude births to women in Plan First and Department of Corrections (DOC) (i.e., incarcerated individuals).[3]

To examine outcomes among all Virginia Medicaid-paid births, births were grouped into a study population and a comparison group based upon the timing and length of the mother's Medicaid enrollment prior to the delivery:

- Study Population: women enrolled in Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, or Other Aid Categories on the date of delivery, with continuous enrollment in any Medicaid program or combination of programs for 120 or more days (counting the date of delivery).
- Comparison Group: women enrolled in any of the four Medicaid programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, or Other Aid Categories) on the date of delivery with continuous enrollment in any Medicaid program or combination of programs for fewer than 120 days (counting the date of delivery).

HSAG calculated the following birth outcomes study indicators to assess the study questions for all singleton, live births paid by Virginia Medicaid during CY 2023:

- *Births With Early and Adequate Prenatal Care*—The percentage of births with an Adequacy of Prenatal Care Utilization (APNCU) Index (i.e., the Kotelchuck Index) score greater than or equal to 80 percent (i.e., women who received at least 80 percent of expected prenatal visits).
  - *Births With Inadequate Prenatal Care*—The percentage of births with an APNCU Index score of less than 50 percent (i.e., women who received less than 50 percent of expected prenatal care visits).
  - *Births With No Prenatal Care*—The percentage of births with no prenatal care.
- *Preterm Births (<37 Weeks Gestation)*—The percentage of births before 37 completed weeks of gestation.
- *Newborns With Low Birth Weight (<2,500 grams)*—The percentage of newborns with birth weights less than 2,500 grams. This includes birth weights in the very low birth weight category (i.e., birth weights less than 1,500 grams) and the low birth weight category (i.e., birth weights between 1,500 and 2,499 grams).

Additionally, HSAG calculated the following maternal health outcomes study indicators to assess the study questions for all singleton, live births paid by Virginia Medicaid during CY 2023:

[3] Prior to this year's report, births to women in the FAMIS Prenatal Coverage program were included in the overall rates. Therefore, HSAG recalculated historical (i.e., CY 2021 and CY 2022) overall rates to exclude births for women in the FAMIS Prenatal Care Coverage program.

- *Postpartum ED Utilization*—The percentage of postpartum women who utilized ED services within 90 days of delivery.
- *Postpartum Ambulatory Care Utilization*—The percentage of postpartum women who utilized ambulatory care services within 90 days of delivery.
- *Prenatal Maternal Depression Screening*—The percentage of women who received a screening for depression during pregnancy.
- *Postpartum Maternal Depression Screening*—The percentage of postpartum women who received a screening for depression on or between seven and 84 days after delivery.

Within Section 3 of this report, HSAG presents the overall birth characteristics for key maternal demographic characteristics (i.e., maternal age at delivery, race/ethnicity, and managed care region of maternal residence) and by enrollment and program characteristics (i.e., Medicaid program, managed care population, delivery system, trimester of prenatal care initiation, length of continuous enrollment, and managed care organizations [MCOs]). The following MCOs were included in this report: Aetna Better Health of Virginia (Aetna), Anthem HealthKeepers, Inc. (HealthKeepers), Molina Complete Care of Virginia, LLC (Molina), Sentara Health Plans (Sentara), and UnitedHealthcare of the Mid-Atlantic, Inc. (United).

HSAG presents the birth outcomes study indicators stratified by key demographic, enrollment, and program characteristics, with comparisons to CY 2021 and CY 2022 results. Additionally, HSAG presents the health disparity analysis results for the race/ethnicity stratifications. For national benchmark comparisons, HSAG used the Healthy People 2030 goals, which use data derived from the Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), and National Vital Statistics System (NVSS), for the *Births With Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks Gestation)* study indicators.[4] HSAG used the Federal Fiscal Year (FFY) 2023 CMS Core Set benchmarks for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator.[5] Additionally, HSAG compared the *Preterm Births (<37 Weeks Gestation)* study indicator to CMS' 2024 Medicaid and CHIP benchmark.[6]

Further, HSAG presents the CY 2023 maternal health study indicators stratified by select demographic characteristics (i.e., maternal race/ethnicity and managed care region of maternal residence), enrollment and program characteristics (i.e., Medicaid program, managed care population at delivery, delivery system, trimester of prenatal care initiation, and length of continuous enrollment), with comparisons to CY 2021 and CY 2022 results. Additionally, HSAG presents the health disparity analysis results for the race/ethnicity stratifications. Please note that HSAG developed the maternal health indicators for this study; therefore, national benchmarks are not available. Additional stratifications of the study indicators are presented in Appendix A.

[4] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2030: Pregnancy and Childbirth. Available at: https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth. Accessed on: Jan 24, 2025.

[5] Centers for Medicare & Medicaid Services. 2023 Child and Adult Health Care Quality Measures Quality. Available at: 2023 Child and Adult Health Care Quality Measures Quality. Accessed on: Jan 24, 2025.

[6] Centers for Medicare & Medicaid Services. 2024 Medicaid & CHIP Beneficiaries at a Glance: Maternal Health. May 2024. Available at: https://www.medicaid.gov/medicaid/benefits/downloads/2024-maternal-health-at-a-glance.pdf. Accessed on: Jan 24, 2025.

Findings

Table 1-1 presents the overall number of births paid by Virginia Medicaid (i.e., Title XIX or Title XXI) during each measurement period, as well as the number and percentage of multiple gestation and singleton births.

Table 1-1—Overall Births Paid by Virginia Medicaid, CY 2021–CY 2023

Overall Births	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Overall Births*						
Total Births	36,480	100.0%	37,259	100.0%	36,323	100.0%
Multiple Gestation Births	1,184	3.2%	1,153	3.1%	1,055	2.9%
Singleton Births	35,296	96.8%	36,106	96.9%	35,268	97.1%
Medicaid Births**						
Total Births	32,102	100.0%	32,081	100.0%	31,027	100.0%
Multiple Gestation Births	1,077	3.4%	1,072	3.3%	989	3.2%
Singleton Births	31,025	96.6%	31,009	96.7%	30,038	96.8%

** Overall Births includes all births paid by Virginia Medicaid, except those in limited benefit programs (i.e., Plan First and DOC).*
*** Medicaid Births exclude members enrolled in limited benefit programs (e.g., Plan First) and members who are only eligible for emergency only benefits.*

Overall, the number of births identified in the matched vital statistics data decreased in CY 2023, returning to CY 2021 levels. Virginia Medicaid births in CY 2023 declined from prior years; however, this is in alignment with national trends.[7]

Births in each measurement period were stratified into four Medicaid programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and Other Aid Categories) and two delivery systems (i.e., Fee-for-Service [FFS] and managed care). Table 1-2 presents the overall number and percentage of singleton births for each of these Medicaid programs and delivery systems.

Table 1-2—Singleton Births by Medicaid Program and Delivery System, CY 2021–CY 2023

Overall Births	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births	31,025	100.0%	31,009	100.0%	30,038	100.0%
Medicaid Program						
Medicaid for Pregnant Women	15,682	50.5%	13,144	42.4%	12,685	42.2%
Medicaid Expansion	6,548	21.1%	7,947	25.6%	7,813	26.0%
FAMIS MOMS	1,785	5.8%	1,817	5.9%	1,871	6.2%
Other Aid Categories†	7,010	22.6%	8,101	26.1%	7,669	25.5%

[7] March of Dimes. Births. Available at: https://www.marchofdimes.org/peristats/data. Accessed on: Jan 24, 2025.

Overall Births	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Delivery System						
FFS	2,699	8.7%	2,265	7.3%	2,298	7.7%
Managed Care	28,326	91.3%	28,744	92.7%	27,740	92.3%

† The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, or FAMIS MOMS. The Other Aid Categories include LIFC (parents and caretaker adults), individuals covered under the Aged, Blind, or Disabled Medicaid groups, Medicaid Children, Youth in Foster Care and Adoption Assistance, Former Foster Care Members, FAMIS Children, and others. The Other Aid Categories exclude births to women in Plan First and DOC (i.e., incarcerated individuals).
Note: Due to rounding, the percentages in each column may not sum to 100 percent.

While the largest proportion of Medicaid program births across all three measurement periods were to women in the Medicaid for Pregnant Women program, births to women in this program have been steadily declining since CY 2021. This decrease is expected due to the implementation of the Medicaid Expansion program on January 1, 2019, which provided coverage to women who were previously only eligible for Medicaid if they became pregnant. Furthermore, the number of births to women in the Medicaid Expansion program have stabilized in CY 2023.

Table 1-3 presents the overall birth outcomes study indicator results for each measurement period.

Table 1-3—Overall Birth Outcomes Study Indicator Findings Among Singleton Births, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Births With Early and Adequate Prenatal Care	76.4%	22,803	74.2%	22,737	74.3%	22,103	74.7%
*Births With Inadequate Prenatal Care**	*NA*	4,370	14.2%	4,211	13.8%	4,125	13.9%
*Births With No Prenatal Care**	*NA*	616	2.0%	796	2.6%	941	3.2%
Preterm Births (<37 Weeks Gestation)*	9.4%^	3,164	10.2%	3,076	9.9%	3,030	10.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	2,951	9.5%	2,970	9.6%	2,816	9.4%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

All CY 2023 study indicators demonstrated consistent performance with prior measurement periods. While both the *Births With Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks Gestation)* indicators underperformed relative to national benchmarks for all three measurement

periods, the *Preterm Births (<37 Weeks Gestation)* indicator outperformed CMS' 2024 Medicaid and CHIP benchmark. Additionally, the rates for the *Newborns With Low Birth Weight (<2,500 grams)* indicator outperformed the national benchmark for all three measurement periods, demonstrating strength for Virginia Medicaid.

To facilitate DMAS' program evaluation efforts, Table 1-4 presents the CY 2023 study indicator results for the four Medicaid programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and Other Aid Categories) stratified into a study population and comparison group based on the length of continuous enrollment prior to a woman's delivery. The table also identifies for each study indicator whether there was a statistically significant difference between results for the study population (i.e., continuously enrolled for ≥ 120 days prior to delivery) and the comparison group (i.e., continuously enrolled for < 120 days prior to delivery).

Table 1-4—Overall Medicaid Program Birth Outcomes Study Indicator Findings Among Singleton Births by Comparison Group and Study Population, CY 2023

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
Medicaid for Pregnant Women							
Births With Early and Adequate Prenatal Care	76.4%	1,599	972	60.8%	10,907	8,178	75.0%+
*Births With Inadequate Prenatal Care**	*NA*	1,599	399	25.0%	10,907	1,561	14.3%+
*Births With No Prenatal Care**	*NA*	1,599	89	5.6%	10,907	274	2.5%+
Preterm Births (<37 Weeks Gestation)*	9.4%^	1,627	200	12.3%	11,057	988	8.9%+
Newborns With Low Birth Weight (<2,500g)*	10.4%	1,626	178	10.9%	11,055	898	8.1%+
Medicaid Expansion							
Births With Early and Adequate Prenatal Care	76.4%	153	103	67.3%	7,555	5,964	78.9%+
*Births With Inadequate Prenatal Care**	*NA*	153	27	17.6%	7,555	799	10.6%+
*Births With No Prenatal Care**	*NA*	153	*S*	*S*	7,555	202	2.7%
Preterm Births (<37 Weeks Gestation)*	9.4%^	158	16	10.1%	7,655	788	10.3%
Newborns With Low Birth Weight (<2,500g)*	10.4%	158	*S*	*S*	7,654	748	9.8%+
FAMIS MOMS							
Births With Early and Adequate Prenatal Care	76.4%	359	267	74.4%	1,494	1,206	80.7%+

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	359	54	15.0%	1,494	161	10.8%+
*Births With No Prenatal Care**	*NA*	359	13	3.6%	1,494	38	2.5%
Preterm Births (<37 Weeks Gestation)*	9.4%^	368	36	9.8%	1,503	104	6.9%
Newborns With Low Birth Weight (<2,500g)*	10.4%	368	43	11.7%	1,503	92	6.1%+
Other Aid Categories†							
Births With Early and Adequate Prenatal Care	76.4%	198	123	62.1%	7,340	5,290	72.1%+
*Births With Inadequate Prenatal Care**	*NA*	198	43	21.7%	7,340	1,081	14.7%+
*Births With No Prenatal Care**	*NA*	198	16	8.1%	7,340	302	4.1%+
Preterm Births (<37 Weeks Gestation)*	9.4%^	200	28	14.0%	7,469	870	11.6%
Newborns With Low Birth Weight (<2,500g)*	10.4%	200	29	14.5%	7,468	820	11.0%

^ indicates a statistically significant difference between the study population rate and the comparison group rate.
** A lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.
† The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, or FAMIS MOMS. The Other Aid Categories include LIFC (parents and caretaker adults), individuals covered under the Aged, Blind, or Disabled Medicaid groups, Medicaid Children, Youth in Foster Care and Adoption Assistance, Former Foster Care Members, FAMIS Children, and others. The Other Aid Categories exclude births to women in Plan First and DOC (i.e., incarcerated individuals).
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Overall, the FAMIS MOMS program demonstrated strength as it was the only program with rates for the *Births With Early and Adequate Prenatal Care*, *Preterm Births (<37 Weeks Gestation)*, and *Newborns With Low Birth Weight (<2,500 grams)* study indicators outperforming the applicable national benchmarks. The Medicaid for Pregnant Women program also had rates for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators that outperformed the national benchmarks, despite having a rate for the *Births With Early and Adequate Prenatal Care* study indicator that did not meet the national benchmark. Of note, the Other Aid Categories rates for all three study indicators underperformed in comparison to the national benchmarks.

Table 1-5 presents the overall maternal health outcomes study indicator results for each measurement period.

Table 1-5—Overall Maternal Health Outcomes Study Indicator Findings Among Singleton Births, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Postpartum ED Utilization*	4,469	14.4%	5,395	17.4%	5,438	18.1%
Postpartum Ambulatory Care Utilization	16,136	52.0%	18,261	58.9%	17,881	59.5%
Prenatal Maternal Depression Screenings	1,633	5.3%	1,848	6.0%	1,824	6.1%
Postpartum Maternal Depression Screenings	2,198	7.1%	2,592	8.4%	2,838	9.4%

** A lower rate indicates better performance for this indicator.*

Approximately 18 percent and 60 percent of postpartum women utilized ED and ambulatory care services, respectively, in CY 2023, which is consistent with CY 2022 utilization. Please note that these study indicators are not specific to postpartum care services and instead represent overall utilization of ED and ambulatory services within 90 days postpartum therefore, exercise caution when interpreting results. In CY 2023, women who received intermediate prenatal care had the highest rates of *Postpartum ED Utilization* (18.9 percent), while women who were continuously enrolled for more than 180 days had higher rates of *Postpartum Ambulatory Care Utilization* (61.2 percent). While the rates for *Prenatal Maternal Depression Screenings* were stable between CY 2022 and CY 2023, the rates for *Postpartum Maternal Depression Screenings* (i.e., between seven and 84 days postpartum) have steadily increased since CY 2021.

Study Limitations

Study findings and conclusions may be affected by limitations related to the study design and source data. As such, caveats include, but are not limited to, the following:

- Study indicator and stratification results may be influenced by the accuracy and timeliness of the birth registry data and administrative Medicaid eligibility, enrollment, and demographic data used for calculations.
  - Additionally, study indicators rely on gestational estimate data from the birth registry. Reliability of these data, especially due to data collection practice variations in individual healthcare facilities, may have a disproportionate influence on regional study indicator results.[8]
- Healthy People 2030 goals are presented for comparison to Virginia Medicaid results for the *Births With Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks Gestation)* study indicators. Caution should be used when comparing study results to national benchmarks, as the benchmarks were derived from birth records covered by all payer types and may not mirror birth outcomes among women with births paid by Title XIX or Title XXI.

[8] Dietz PM, Bombard JM, Hutchings YL, et. al. Validation of obstetric estimate of gestational age on US birth certificates. *American Journal of Obstetrics and Gynecology*. Apr 2014; 2010(4): 335.e1-335.e5. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4560346/. Accessed on: Jan 24, 2025.

- The probabilistic data linkage process allows for manual data reviews to confirm or negate a potential match. The degree of manual review for each measurement period may result in annual differences in the number of birth certificates matched to enrollment data. Affected birth records tend to include women without Social Security Numbers (SSNs) and with differences in the names listed in the Medicaid and birth registry systems (e.g., names that are hyphenated and/or difficult to spell).
- The Commonwealth of Virginia allows hospital presumptive eligibility for pregnant women to receive outpatient services, including prenatal care. However, DMAS does not cover inpatient care under the assumption that a woman will qualify for Title XIX or Title XXI benefits. Virginia allows 7 days to process a Medicaid/FAMIS application from a pregnant woman. If additional documentation is needed to verify eligibility, up to 45 days is allowed for processing. As such, a pregnant woman new to Medicaid may have up to a 45-day waiting period before being eligible to have inpatient services covered by Title XIX or Title XXI benefits. Women's understanding of Medicaid benefits and the timing of coverage may result in delayed initiation or continuation of prenatal care.
- As many pregnant women new to Medicaid may not be enrolled in Title XIX or Title XXI benefits until their second or third trimester, use caution when interpreting study findings. Additionally, members are enrolled in FFS prior to enrollment in managed care and do not receive care coordination or care management while enrolled in FFS. Due to the multifactorial nature of birth outcomes and the need for pre-pregnancy interventions, a single delivery system or Medicaid program may not have had adequate time to contact new Medicaid members which can potentially impact birth outcomes.
- Due to differing methodologies and data sources, study findings are not comparable to the Healthcare Effectiveness Data and Information Set (HEDIS®)[9] *Timeliness of Prenatal Care* indicator results. Specifically, the HEDIS *Timeliness of Prenatal Care* indicator does not follow a calendar year measurement period, requires the woman to be continuously enrolled with the health plan for 43 days prior to delivery through 60 days after delivery, and only requires one prenatal care visit for numerator compliance.

Conclusions and Recommendations

The 2023–24 Medicaid and CHIP Maternal and Child Health Focus Study highlights identified priorities for the Medicaid program that focus on maternal health outcomes, behavioral health enhancement, and access to high quality healthcare services. DMAS continues to work with HSAG and the MCOs to address areas of opportunity to provide high quality care to Virginians. This section includes the conclusions from this year's study and recommendations for DMAS' consideration. As context for the conclusions and recommendations, DMAS has implemented recent policy changes related to maternal and child health, and developed a series of strategies to improve maternal and child health outcomes among its members, including the following:

- In June 2024, Virginia Governor Glenn Youngkin issued Executive Order #32, re-establishing the Task Force on Maternal Health Data and Quality Measures. This Task Force had been previously established by legislation in 2021, and the DMAS Director will continue to serve on it. Per the Order, the Task Force shall:

[9] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

  - (i) Monitor progress and evaluate all data from state-level stakeholders, including third-party payers, and all available electronic claims data to examine quality of care with regard to race, ethnicity, and other demographic and clinical outcomes data;
  - (ii) Monitor progress and evaluate data from existing state-level sources mandated for maternal care, including the HEDIS measure updates to *Prenatal and Postpartum Care* and *Postpartum Depression Screening and Follow-Up*.
  - (iii) Examine the barriers preventing the collection and reporting of timely maternal health data from all stakeholders, including payers;
  - (iv) Examine current maternal health benefit requirements and determine the need for additional benefits to protect women's health;
  - (v) Evaluate the impact of Social Determinants of Health screening on pregnant women and its impact on outcomes data;
  - (vi) Analyze available data one year after delivery, including local-health district level data that will assist in better understanding the scope of the issue; and
  - (vii) Develop recommendations, based upon best practices, for standard quality metrics on maternal care.
- Virginia continued outreach and messaging to ensure that pregnant and postpartum members are aware they are covered for 12 months postpartum. DMAS' Strategic Communications Team and Community Outreach and Member Engagement Team (COMET) coordinated messaging, outreach, and materials to inform applicants and members about important benefits they could access, and ensure stakeholders understood eligibility rules, as Virginia completed initial post-continuous coverage redeterminations throughout the "unwinding."
- Virginia was selected for the National Governors Association's Improving Maternal and Child Health in Rural America Learning Collaborative. The office of Health and Human Resources, Virginia Department of Health (VDH) and DMAS are collaborating to develop a strategic plan focused on improving maternal and child health in Southwest Virginia, where substance use is particularly high.
- On February 29, 2024, the Office of the Secretary of Health and Human Resources gathered representatives from across Virginia, including legislators, state agencies, and medical community members to discuss strategies for improving Maternal Health at an inaugural Maternal Health Roundtable. The Governor delivered opening remarks and challenged attendees to establish measurable next steps that address struggling maternal health numbers in the Commonwealth. Presenters spoke to the landscape of maternal health in Virginia, Medicaid Maternity and Postpartum Care, Private Sector Care, and a community perspective reflecting best practices. A second Maternal Health Roundtable was held on May 29, 2024, which emphasized perinatal mental health and available resources (including Postpartum Support Virginia, which delivers direct services to perinatal families and provides training to providers; and the Virginia Mental Health Access Program, which connects primary care providers to mental health specialty hubs for consultation).
- In 2023, as part of the Governor's initiatives related to the Partnership for Petersburg and his maternal health focus, Secretary of Health and Human Services (SHHR), DMAS, VAHP met with leadership from Bon Secours Southside Regional Hospital to discuss potential ideas to increase both prenatal and postpartum care in Petersburg. During that discussion, the idea of extended hours (either Saturday or after hours on weekdays) was brought up and Dr. Daphne Bazile wholeheartedly agreed to champion the initiative.

- Dr. Bazile's office, DMAS, and the MCOs began a pilot in November 2023 offering extended clinic hours. A total of 4 clinics have been completed. The number of members attending appointments has increased with each visit. Another clinic is scheduled for April 26, 2025.
- As a result of Dr. Bazile's dedication to the members of Petersburg, DMAS began spreading the word and Inova Health System has followed suit and now offers extended hours.
- DMAS' Baby Steps VA cross-agency workgroup provides targeted information and outreach regarding DMAS' maternal and infant healthcare initiatives. Baby Steps developed a Provider FAQ about the 12-months postpartum coverage. Ongoing Baby Steps communications and outreach efforts include a bi-monthly newsletter highlighting changes in DMAS policies, programs, and services affecting the target populations. Key metrics for assessing progress, as well as community and partner agency maternal health initiatives are shared through Baby Steps VA.
- Baby Steps VA also facilitates bi-monthly meetings to ensure key interested groups (providers, health care organizations, fellow state agencies, and other stakeholders) remain abreast of program and policy changes. Meetings typically include more than 70 participants, and during the reporting period, included presentations from DMAS about its new Cardinal Model of Care; Medicaid MCOs about their behavioral health initiatives targeting pregnant women and infants; fellow state agencies, including the VDH and Department of Behavioral Health and Developmental Services; the March of Dimes, and Virginia's Health Information Exchange about its Emergency Department Care Coordination initiative.
- In August 2023, DMAS hosted a provider summit in the Southwest region (Abingdon, VA) with a focus on maternal health, pharmacy, and behavioral health. Facilitated by DMAS Chief Medical Officer Dr. Lisa Price Stevens, the provider summit was an opportunity to hear from the Southwest provider community about their interests and concerns and to share information about Virginia Medicaid initiatives. More than 80 participants attended, including physicians and allied clinical healthcare providers, substance use treatment professionals, pharmacists, doulas, midwives, lactation consultants, and health department clinical and administrative staff. Representatives from other state agencies and the Medicaid MCOs also participated in the event. Activities included a panel discussion with local Southwest region health department professionals, area hospital systems' providers of maternal and behavioral health care, doulas, and representatives from the VDH and DMAS.
- DMAS also engaged in outreach activities to providers and members to promote the Medicaid community doula benefit (implemented beginning Spring 2022). Three Medicaid doula provider information videos were developed and launched. The videos are used for doula recruitment and engagement, general education, outreach to the licensed provider community and to educate Medicaid members on the role and benefits of doulas and doula care. The videos are available on the Community Doula Program page of the DMAS website. DMAS held three Community Doula Meetings in 2023 (February, July, and November) and two in the first half of 2024 (March and May). The Virginia Doula Taskforce held two meetings in 2023 (January and November).
- To continue and build upon local availability of community doulas, DMAS and its Baby Steps partners were instrumental in the launch of a May 2024 partnership with Germanna Community College to train and certify doulas. Doula training requires 60 hours of education on core competencies, and certification is handled through the Virginia Certification Board. Upon completion, DMAS assists interested doulas with becoming credentialed through Medicaid.
- In collaboration with Medicaid MCO, Conexus mobile vision clinics, DentaQuest (i.e., the Virginia Medicaid/FAMIS dental benefit administrator), and community partners, DMAS promoted awareness of prenatal care as part of this initiative by reaching out to pregnant members who had not yet received prenatal services. DMAS and the Medicaid managed care plans:

  - Identified Petersburg members in the prenatal and postpartum phases of pregnancy at three points in time in July, September and November of 2023.
  - Targeted members who, based on claims data, had not had a clinical care visit.
  - Provided direct outreach to those members in the form of hand-addressed mailers to inform them of benefits and services available and provided care coordination, including assistance with appointment scheduling and transportation.
- DMAS held a series of meetings that included Petersburg-area maternity providers, local Federally Qualified Health Centers (FQHC), the regional medical center, MCOs, and other stakeholders to learn about community needs, barriers, and opportunities to better serve Petersburg women and children. DMAS closely tracked doula work in Petersburg, too: 35 state-certified, Medicaid-approved doulas cover the Petersburg/Hopewell area, 5 of whom themselves reside in Petersburg or Hopewell. Since the Medicaid doula benefit began, there have been 51 doula-assisted births in Petersburg.
- From October 2021 through December 2023, DMAS collaborated with four Virginia MCOs (Aetna, Anthem, Molina, and United) to participate in a MAC Quality Improvement Infant Well Child Affinity Group to increase well-child visits. Virginia initiated interventions with different providers in the target regions of Roanoke/Alleghany, Northern & Winchester, Tidewater, Petersburg, and Southwest. Based on the findings, the MCOs and DMAS devised and launched a campaign of education for both pregnant members and hospital providers covering newborn eligibility and enrollment.
- Additionally, in August 2023, DMAS implemented a new automated enrollment process for newborns, thus decreasing the number of manual steps that must be taken to facilitate newborn enrollment.
- DMAS partnered with Dr. Bazile and Bon Secours for a pilot in November 2023 to offer extended hours to Medicaid women.
  - On Saturday, November 11, 2023, Bon Secours Southside OBGYN Office held clinic hours from 9:30am-12pm. Dr. Daphne Bazile and her team allocated slots of time to see members. DMAS and the health plans contacted members in many different ways, such as flyers, phone calls, text messages and emails to ensure our members were aware and could take advantage of the opportunity to see Dr. Bazile on a Saturday.
  - DMAS filled all of the appointment slots. The health plans provided giveaways, and DMAS provided doughnuts and members were greeted. The appointments ranged from annual check-ups, prenatal and postpartum follow-up visits. Several key leadership staff was also present and greeted the members as they came in for the appointments. The team included: Deputy Secretary of Health and Human Resources, Leah Mills; DMAS Chief Medical Officer, Dr. Lisa Stevens; DMAS Director, Cheryl Roberts; and other DMAS staff. Once the appointments were completed, DMAS (Leah Mills, Cheryl Roberts and Dr. Lisa Price Stevens) met with Dr. Bazile and her team to hear about their experiences and future opportunities.
- In October 2023, Virginia combined its two existing managed care programs – Commonwealth Coordinated Care Plus (CCC Plus; serving members with complex healthcare needs often requiring long-term services and supports) and Medallion 4.0 (serving all other members) – into one unified managed care program known as Cardinal Care Managed Care (CCMC). Cardinal Care promotes a population-based, rather than a program-based approach to identifying and managing health care needs for all members to improve the experience of care for members, add value for providers, and reduce system inefficiencies. This ensures that pregnant women with pregnancy-related risk factors

receive more intensive care management from the MCO; including, if applicable, care management (previously available only under the CCC Plus contract).

- In Spring 2024, DMAS finalized implementation of the Cardinal Model of Care, in which, under the new, unified contract, all pregnant women are assessed for pregnancy risk, and those assessed as at-risk receive clinical care management services at one of three levels of support (depending on level of risk and need). The model of care strengthens requirements around identifying women of higher risk and insuring more intensive care management for those women. Importantly, social determinants of health must be factored into the that identification.
- Under the Cardinal Model of Care, all MCOs use member health assessments and data (e.g., claims data, population health data) to identify whether a member is pregnant, and pregnant women and infants with higher risks for poor outcomes and planning receive additional outreach and related initiatives based on data. Upon completion of a risk assessment, a pregnant member's MCO can then assign them to an appropriate level of care management based on risk status. MCOs must include the following in their risk stratification policies and procedures:
  - The presence of co-morbid or chronic conditions, sexually transmitted infections, etc.;
  - Previous pregnancy complications and adverse birth outcomes;
  - History of or current substance use (e.g., alcohol, tobacco, prescription or recreational drug use);
  - History of, or a current positive screen for, depression, anxiety and/or other behavioral health concerns; and
  - The Member's personal safety (e.g., housing situation, violence).
- DMAS is also in the process of re-procuring its Medicaid managed care contracts. The procurement underway reflects DMAS' goals to improve MCO accountability in service delivery and member access with particular focus on maternal and child health. The new contract will strengthen DMAS' ability to conduct oversight of the MCOs with updated, robust data deliverable requirements based on guidelines established by the American Academy of Pediatrics and American College of Obstetricians and Gynecologists.

Conclusions

Birth Outcomes

This study considered five quantitative indicators related to prenatal care and associated birth outcomes among births paid by Virginia Medicaid. Between the CY 2021 and CY 2023 measurement periods, study indicators related to prenatal care and preterm births showed opportunities for improvement for Virginia Medicaid members. Specifically, overall results for the *Births With Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks Gestation)* indicators continued to underperform relative to national benchmarks for all three measurement periods. Conversely, rates for the *Newborns With Low Birth Weight (<2,500 grams)* indicator outperformed the national benchmark for all three measurement periods, demonstrating strength for Virginia Medicaid.

The CY 2023 study indicator results also show regional differences in care, with women residing in the Central and Tidewater regions having the highest rates of preterm births and newborns with low birth weight and women in the Southwest region having the lowest rates. Within all regions, racial/ethnic disparities exist, with Black, Non-Hispanic women having the highest rates of preterm births and

newborns with low birth weight, and Hispanic women of any race having the lowest rates of early and adequate prenatal care for CY 2023.

DMAS' implementation of the Medicaid Expansion program on January 1, 2019, provided an opportunity for DMAS and the MCOs to provide healthcare coverage to women who were not previously eligible for Medicaid before pregnancy and between pregnancies. Research has shown that Medicaid Expansion programs have helped women obtain better health coverage before, during, and after pregnancy, which leads to improved prenatal and postpartum care. Further, Medicaid Expansion programs also decrease the likelihood of women experiencing gaps in healthcare coverage, and continuous coverage is important for improving health outcomes for mothers and babies.[10] In CY 2023, the number of births to women in Medicaid Expansion stabilized. All study indicator results for the Medicaid Expansion program for CY 2023 demonstrated continued improvement from CY 2021, with the CY 2023 rates for *Births With Early and Adequate Prenatal Care* and *Newborns With Low Birth Weight (<2,500 grams*) surpassing the national benchmark. Additionally, the Medicaid Expansion rate for the *Births With Early and Adequate Prenatal Care* study indictor was 5.5 percentage points higher than the Medicaid for Pregnant Women rate in CY 2023, which supports the importance of Medicaid Expansion women having health coverage prior to becoming pregnant (i.e., women enrolled in Medicaid for Pregnant Women only became eligible for Medicaid because they were pregnant and may not have had the opportunity to receive timely prenatal care). However, while the rate for the *Preterm Births (<37 Weeks)* study indicator is improving, it continues to underperform relative to national benchmarks. The population of women who enroll in the Medicaid Expansion program may have different characteristics and healthcare needs than women in other programs.; therefore, DMAS should continue to monitor this population by assessing the risk factors that could be contributing to higher rates of *Preterm Births (<37 Weeks Gestation)*.

The FAMIS MOMS program continued to outperform national benchmarks for all three study indicators in CY 2023, and all study indicator rates improved from CY 2021, though it is important to note that women enrolled in FAMIS MOMS have higher incomes compared to pregnant women in other Medicaid programs (i.e., FAMIS MOMS covers women with incomes up to 205 percent of the FPL[11]). However, it is beyond the scope of the current study to assess the degree to which study indicator results for women in FAMIS MOMS differ from study indicator results for women in other Medicaid programs based on household income. Though limited in number, births to women enrolled in FAMIS MOMS, especially those with continuous enrollment more than 120 days prior to delivery, had the highest rate of *Births With Early and Adequate Prenatal Care* and the lowest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)*. While these rates remained stable over time, the promising results from this program suggest that it could offer a valuable starting point for assessing members' satisfaction with care and underlying SDOH that may distinguish these women from other Medicaid members.

Maternal Health Outcomes

This study assessed four maternal health outcomes related to utilization in the postpartum period and important screenings during the prenatal and postpartum periods. Overall, approximately 18 percent and 60 percent of women utilized ED and ambulatory care services, respectively, within 90 days postpartum. In CY 2023, women who received intermediate prenatal care had the highest rates of

[10] Searing A, Ross DC. Medicaid Expansion Fills Gaps in Maternal Health Coverage Leading to Healthier Mothers and Babies. Georgetown University Health Policy Institute, Center for Children and Families. May 2019. Available at: https://ccf.georgetown.edu/wp-content/uploads/2019/05/Maternal-Health_FINAL-1.pdf. Accessed on: Jan 24, 2025.

[11] This figure includes a standard disregard of 5 percent FPL.

Postpartum ED Utilization, while women who were continuously enrolled for more than 180 days had higher rates of *Postpartum Ambulatory Care Utilization*. Approximately 73 percent of women who had an ED visit during the postpartum period had one ED visit, and the most common primary diagnosis codes for an ED visit after delivery were for complications specified during the puerperium; abdominal pain and other digestive/abdomen signs and symptoms; hypertension and hypertensive-related conditions complicating; urinary tract infections; and other specified upper respiratory infections. Additionally, approximately 25 percent of women who had an ED visit after delivery had the visit in the first seven days after delivery, and another 24 percent of women had the ED visit between 31 and 60 days of delivery. According to national literature, approximately 25 percent of women seek ED care in the first six months postpartum, with 50 percent of visits occurring within the first 10 days.[12] This indicates that Medicaid members have lower rates of ED visits within the first 10 days following delivery than are seen nationally.

Approximately 14 percent of women received a maternal depression screening during the prenatal or postpartum period. While the rates for *Prenatal Maternal Depression Screenings* were stable between CY 2022 and CY 2023, the rates for *Postpartum Maternal Depression Screenings* (i.e., between seven and 84 days postpartum) have steadily increased since CY 2021. These low rates suggest that data may be incomplete and/or providers may not be billing for these services separately. For the maternal depression screenings, it may be possible that these screenings are happening; however, providers may not be using a standardized screening tool.

Racial/ethnic disparities exist for the maternal health outcomes, with White, Non-Hispanic women, Asian, Non-Hispanic women, and Hispanic women of any race having significantly more favorable rates of ED visits (lower is better) in CY 2022 and CY 2023 after delivery than all other races/ethnicities, while Black, Non-Hispanic women had significantly less favorable rates. This finding suggests Black, Non-Hispanic women are seeking care in an ED setting at a higher rate than all other races/ethnicities. Higher rates of ED visits can be indicative of a lack of knowledge about the postpartum period for Medicaid members, as well as a lack of appropriate care management in ambulatory care settings. Increased timely ambulatory care during the postpartum period could result in early screening and identification of comorbid conditions, as well as an opportunity to provide education to Medicaid members on what to expect physiologically during the postpartum period. While rates of depression screening are low for all races/ethnicities despite some slight improvement in postpartum depression screenings, Black, Non-Hispanic women were significantly more likely to receive a depression screening in the perinatal period.

Recommendations

HSAG collaborated with DMAS to ensure that this study contributes to existing quality improvement (QI) data needs while informing current and future maternal and child health initiatives. As such, HSAG offers the following recommendations based on the findings detailed in this report:

- Overall, approximately 75 percent of births in CY 2023 received early and adequate prenatal care, and approximately 17 percent of births in CY 2023 received inadequate or no prenatal care.

[12] Brousseau EC, Danilack V, Cai F, Matteson KA. Emergency Department Visits for Postpartum Complications. *J Womens Health*. 2018. 27(3):253-257. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5865248/#B2. Accessed on: Jan 24, 2025.

  - To improve prenatal care among Virginia Medicaid members, HSAG and DMAS work on several initiatives, including the performance improvement project (PIP) and the Performance Withhold Program (PWP). In 2024, the MCOs submitted remeasurement data for the *Ensuring Timeliness of Prenatal Visits* PIP, which assessed whether targeted interventions increased the percentage of deliveries that had a prenatal care visit in the first trimester or within 42 days of a member's enrollment with the MCO. Three of the five MCOs (HealthKeepers, Molina, and United) had improvements in CY 2023 over baseline, while the other two MCOs (Aetna and Sentara) had declines in CY 2023 over baseline. Additionally, as part of the SFY 2024 PWP, the MCOs were eligible to earn back a portion of their quality withhold for performance on the *Prenatal and Postpartum Care—Timeliness of Prenatal Care* indicator based on how the MCO rate compared to national Medicaid benchmarks and/or if the MCO rate improved from prior years. While only one MCO (United) performed above the national Medicaid 50th percentile for the *Prenatal and Postpartum Care—Timeliness of Prenatal Care* indicator, all MCOs improved from CY 2022 and CY 2023 and earned an improvement bonus. DMAS should monitor how the PIP and PWP impact MCO efforts toward ensuring women receive timely prenatal care. Further, for future PWPs and as MCO performance improves, DMAS should consider reassessing the performance threshold for MCOs to earn back a portion of their quality withhold for the *Prenatal and Postpartum Care—Timeliness of Prenatal Care* indicator to continue to incentivize MCO performance for this indicator.

- Approximately 18 percent and 60 percent of women utilized ED and ambulatory care services, respectively, within 90 days postpartum. Additionally, approximately 25 percent of women who had an ED visit after delivery had the visit within seven days of delivery. HSAG recognizes that DMAS is investigating the utilization of ED services in the postpartum period to understand the characteristics and drivers of ED visits. In future studies, HSAG will share the results of DMAS' investigation, if available, and will provide actionable recommendations to DMAS and/or the MCOs.
- Approximately 50 percent of women who had a delivery in CY 2023 did not have a postpartum visit within 90 days of delivery, which is an improvement of 3 percentage points from CY 2022. In CY 2023, the rate of no postpartum visits was approximately 8 percentage points lower for women who had an ED visit in the postpartum period compared to those women who did not have an ED visit. Approximately 27 percent of women had a postpartum visit between 31 and 60 days of delivery regardless of if a woman had an ED visit or not.
  - Please note, all postpartum visits were assessed with administrative data; therefore, the postpartum visit rates may be underestimating the actual number of postpartum visits. For example, postpartum visits may be billed under bundled pregnancy services and may not be distinguishable from other pregnancy-related services. As a result, exercise caution when interpreting these study findings.
  - The American College of Obstetricians and Gynecologists recommends women have a postpartum visit within three weeks of delivery.[13] Given that most women who had a delivery in CY 2023 either did not have a postpartum visit or it was more than three weeks after delivery, and these women also did not seek care in an ED, DMAS and the MCOs should investigate the reasons why women are not having a postpartum visit (e.g., transportation issues, appointment availability). Additionally, given the contract requirements of the Cardinal Care MCOs to assess all pregnant women for risk and determine the appropriate level of care management, it will be

[13] American College of Obstructions and Gynecologists. Committee Opinion: Optimizing Postpartum Care. 2018: 736. Available at: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care. Accessed on: Jan 24, 2025.

important to monitor how these requirements impact birth and maternal outcomes in future studies.

- In July 2022, DMAS implemented 12-month continuous postpartum coverage extension for members through a Section 1115 demonstration waiver. While there was some improvement in postpartum visits between seven and 30 days of delivery regardless of whether a woman had an ED visit or not, it is important to monitor how the 12-month postpartum coverage improves these rates in the future. Additionally, given DMAS' and Baby Steps Virginia's outreach campaigns to both members and providers about the 12-months postpartum coverage extension, as well as the increasing availability and use of doulas, it will be important to assess how these efforts impact postpartum visits in future years.
  - Virginia's evaluation plan for its 12-Month Postpartum Extension 1115 waiver includes a survey instrument to measure postpartum members' experiences accessing care after delivery. Respondents will indicate whether or not they had a visit in the first 12 weeks postpartum. If not, they are asked their primary reason for not having a visit. If so, they are asked about the content of the visit using questions derived from the CDC's Pregnancy Risk Assessment Monitoring System (PRAMS) questionnaire and the Mothers on Respect Index (MORI). Further, DMAS will oversample postpartum members who had a high-risk event at any time during the perinatal period (e.g., gestational diabetes, preeclampsia/eclampsia, maternal substance use diagnosis, postpartum depression or psychosis diagnosis, infection, hemorrhage, thrombotic emboli, cardiovascular conditions related to pregnancy, incarceration, or prenatal tobacco use). Members whose infants had a health-related event (e.g., preterm birth, low-birth weight, or neonatal abstinence syndrome) will also be oversampled. Once the survey results are available, DMAS should leverage this information to understand the relationship between risk factors and mothers seeking postpartum care.
- As part of the SFY 2024 PWP, the MCOs were eligible to earn back a portion of their quality withhold for performance on the *Prenatal and Postpartum Care—Postpartum Care* indicator based on how the MCO rate compared to national Medicaid benchmarks and/or if the MCO rate improved from prior years. While only one MCO (United) performed above the national Medicaid 50th percentile for the *Prenatal and Postpartum Care—Postpartum Care* indicator, all MCOs, except United, improved from CY 2022 to CY 2023 and earned an improvement bonus. To continue incentivizing performance on this indicator in future PWPs, DMAS should consider reassessing the performance threshold for MCOs to earn back a portion of their quality withhold for the *Prenatal and Postpartum Care—Postpartum Care* indicator.

- Approximately 14 percent of women had evidence of a maternal depression screening in administrative data sources, either during the prenatal or postpartum periods. However, this is likely due to provider billing practices (i.e., these screenings were performed during standard prenatal/postpartum visits and were not billed separately) or the use of nonstandardized screening methods that were not captured by the measures that HSAG developed to calculate these indicators.
  - DMAS is currently tracking the incidence of maternal mental health assessment by MCO in order to secure a baseline rate and collect information on instruments used. With this information, DMAS should consider working with the MCOs and providers to promote the use of, and provide trainings related to, standardized maternal depression screening tools during the perinatal period. For example, DMAS may leverage existing collaboratives (e.g., MCO maternal and child health collaborative) to encourage MCOs to share and learn best practices for ensuring providers use standardized maternal depression screening tools and bill for them appropriately. Further, DMAS could consider requiring the MCOs to report the HEDIS *Prenatal Depression Screening and Follow-Up* and *Postpartum Depression Screening and Follow-Up*

measures to DMAS annually in order to improve these rates. Currently, the MCO reporting of the *Postpartum Depression Screening and Follow-Up* measure is optional.

- Doulas began providing services to Virginia Medicaid members in August 2022, and while there was an increase in doula utilization for CY 2023 births (i.e., from seven in CY 2022 to 101 in CY 2023), the number is too small to stratify results for inclusion in this year's report. Therefore, HSAG recommends including an assessment of whether the use of doula services increases in CY 2024 and impacts birth and maternal health outcomes for deliveries as part of next year's Medicaid and CHIP Maternal and Child Health Focus Study (e.g., assess if members with doula services have lower postpartum ED utilization).
- For future focus studies, DMAS should consider leveraging additional data fields in the vital statistics data or other data sources (e.g., claims/encounter data, survey data) to better understand the factors contributing to poor birth outcomes in Virginia. These data sources could be used to assess risk factors (pre-pregnancy and gestational diabetes and hypertension, and previous preterm births and poor pregnancy outcomes); a mother's substance use before and during pregnancy (smoking, alcohol, and drug use); and a mother's body mass index (BMI) before pregnancy and at delivery. Although data may be incomplete, HSAG could still leverage the available data to help understand and provide additional context to the study indicator results.

2. Overview and Methodology

Overview

As an optional activity under the *CMS EQR Protocols, February* 2023,[14] DMAS contracted with HSAG to conduct a focus study in contract year 2023–24 to provide quantitative information about prenatal care and associated birth and maternal health outcomes among women with births paid by Title XIX or Title XXI, which include the Medicaid, Medicaid Expansion, and FAMIS MOMS programs. The Contract Year 2023–24 Medicaid and CHIP Maternal and Child Health Focus Study addressed the following questions:

- To what extent do women with births paid by Virginia Medicaid receive early and adequate prenatal care during pregnancy?
- What clinical outcomes (e.g., preterm births, low birth weight) are associated with births paid by Virginia Medicaid?
- What maternal health outcomes (e.g., prenatal and postpartum depression, ED utilization) are associated with births paid by Virginia Medicaid?
- What health disparities exist in birth and maternal health outcomes for births paid by Virginia Medicaid?

Methodology

The study included all singleton births paid by Virginia Medicaid during CY 2023. A birth was considered paid by Virginia Medicaid if the member was enrolled in Virginia Medicaid on the date of delivery. From Medicaid member demographic and eligibility data provided by DMAS, HSAG assembled a list of female members between the ages of 10 and 55 years with any Medicaid eligibility during CY 2023 who were eligible for the focus study. This list was submitted to DMAS for linkage to the VDH birth registry. Members eligible for the data linkage included Virginia Medicaid members with a live birth paid by Title XIX or Title XXI during the measurement period, regardless of whether the birth occurred in Virginia.[15] DMAS used deterministic and probabilistic data linkage methods to match HSAG's list of potential study members to birth registry records.[16] DMAS returned a data file to HSAG containing the information from HSAG's original member list and selected birth registry data fields for matched members from both data linkage processes.

All probabilistically or deterministically linked birth registry records were included in the overall eligible population for this focus study. Variations in demographic indicators over time may be attributed to

[14] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *External Quality Review (EQR) Protocols, February 2023*. Available at: https://www.medicaid.gov/sites/default/files/2023-03/2023-eqr-protocols.pdf. Accessed on: Dec 12, 2024.

[15] The Virginia birth registry contains records of live births; other pregnancy outcomes are not included in this study.

[16] The deterministic data linkage sought to match potential study members with birth registry records using only the maternal SSN. The probabilistic data linkage used the Link Plus software program to probabilistically match study members with birth registry records using the following maternal information: last name, first name, SSN, residential street address, city of residence, and five-digit residential ZIP Code.

probabilistic data linkage considerations in each measurement period, in addition to changes in the demographics of women with births paid by Virginia Medicaid.[17]

The eligible population was further classified by Medicaid program and service delivery system as follows:[18]

- The Medicaid for Pregnant Women program uses Title XIX funding to serve pregnant women with incomes up to 148 percent of the FPL.
- The Medicaid Expansion program uses Title XIX funding to serve adults 19 to 64 years of age with incomes up to 138 percent of the FPL. Members who become pregnant while already enrolled in the Medicaid Expansion group may remain in that eligibility category during the pregnancy, while individuals with incomes at or below 138 percent FPL who report that they are pregnant at initial application must be enrolled into a pregnancy category such as Medicaid for Pregnant Women or FAMIS MOMS.
- The FAMIS MOMS program uses Title XXI funding under Section 1115 Demonstration authority to serve pregnant women with incomes up to 205 percent of the FPL and provides benefits similar to Medicaid through the duration of pregnancy and for the postpartum period.
- The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, or FAMIS MOMS programs. The Other Aid Categories include LIFC (parents and caretaker adults), individuals covered under the ABD Medicaid groups, Medicaid Children, Youth in Foster Care and Adoption Assistance, Former Foster Care Members, FAMIS Children, and others. The Other Aid Categories exclude births to women in Plan First, incarcerated individuals, and women who are only eligible for emergency benefits.

While HSAG refers to specific programs (e.g., FAMIS MOMS) when applicable, the term "Medicaid" is used throughout the report to refer to all programs included in the Medicaid and CHIP Maternal and Child Health Focus Study regardless of funding source (i.e., Title XIX or Title XXI).

Births to women enrolled in any Medicaid program (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and Other Aid Categories) at delivery were further categorized into a study population and a comparison group depending on the timing and length of enrollment. The study population included women with continuous enrollment in any Medicaid program or combination of programs for 120 or more days (counting the date of delivery). The comparison group consisted of women with continuous enrollment in any Medicaid program or combination of programs for fewer than 120 days (counting the date of delivery).

Where applicable, HSAG compared the birth outcomes study indicators to national benchmarks. HSAG used the Healthy People 2030 goals,[19] which use data derived from the CDC, NCHS, and NVSS, for the *Births With Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks Gestation)* study indicators and used the FFY 2023 CMS Core Set benchmarks for the *Newborns With Low Birth Weight*

[17] HSAG provided standard instructions for probabilistically linking data during each study period. However, different individuals from DMAS and VDH may have conducted the probabilistic linkages for the 2021–22 and 2022–23 studies, resulting in a variable percentage of probable birth record linkages that were manually reviewed for each measurement period.

[18] These income eligibility figures include a standard disregard of 5 percent FPL.

[19] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2030: Pregnancy and Childbirth. Available at: https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth. Accessed on: Jan 24, 2025.

(<2,500 grams) study indicator. Additionally, HSAG compared the *Preterm Births (<37 Weeks Gestation)* study indicator to CMS' 2024 Medicaid and CHIP benchmark.[20] Please note that national benchmarks were not available for the maternal health study indicators since these are custom measures developed by HSAG for the purposes of this study.

HSAG also compared the CY 2023 study indicator results to historical results, when applicable.[21]

Study Indicators

Birth Outcomes Study Indicators

HSAG calculated the following five birth outcomes study indicators for singleton, live births paid by Virginia Medicaid during CY 2023:

- Percentage of births with early and adequate prenatal care
  - Percentage of births with inadequate prenatal care
  - Percentage of births with no prenatal care
- Percentage of preterm births (i.e., births prior to 37 weeks gestation)
- Percentage of births with low birth weight (i.e., birth weights less than 2,500 grams)

The following subsections define the five indicators used to assess the study questions among singleton, live births paid by Virginia Medicaid during the measurement period, as well as provide brief background information in support of each indicator as a birth outcome.

Births With Early and Adequate Prenatal Care

The percentage of births with an APNCU Index (i.e., the Kotelchuck Index) score in the "Adequate" or "Adequate Plus" categories.

The adequacy of prenatal care received during pregnancy has been associated with a lower incidence of poor birth outcomes, such as preterm delivery and low-birth-weight births.[22] The APNCU Index (i.e., the Kotelchuck Index) uses birth certificate information to assess prenatal care in relation to two separate and distinct components. The first component measures initiation of care using the month that

[20] Centers for Medicare & Medicaid Services. 2024 Medicaid & CHIP Beneficiaries at a Glance: Maternal Health. May 2024. Available at: https://www.medicaid.gov/medicaid/benefits/downloads/2024-maternal-health-at-a-glance.pdf. Accessed on: Jan 24, 2025.

[21] Please note that prior to this year's report, births to women in the FAMIS Prenatal Coverage program were included in the overall rates. Therefore, HSAG recalculated historical (i.e., CY 2021 and CY 2022) overall rates to exclude births for women in the FAMIS Prenatal Care Coverage program. Due to these changes, the CY 2021 and CY 2022 results presented in this report do not match results presented in the 2022–23 Medicaid and CHIP Maternal and Child Health Focus Study report.

[22] Krueger PM, Scholl TO. Adequacy of prenatal care and pregnancy outcome. The Journal of the American Osteopathic Association. 2000; 100(8):485–492.

prenatal care began.[23] The second component measures adequacy of received services measured by the number of prenatal visits. The two components are combined into a single prenatal care utilization composite score. Higher composite scores on the APNCU Index are assigned to women who initiate prenatal care early in pregnancy and complete at least 80 percent of the visits expected based on the time frame adjusted for gestational age at prenatal care initiation and the infant's gestational age at delivery.[24] Table 2-1 shows the composite score categories and criteria defining each category.

Table 2-1—APNCU Index Criteria for Adequacy of Prenatal Care Visits

APNCU Index Category	Number of Prenatal Care Visits
Missing Information	Information on the number of prenatal care visits is unavailable
No Prenatal Care	0% of expected visits
Inadequate Prenatal Care	Less than 50% of expected visits
Intermediate Prenatal Care	50–79% of expected visits
Adequate Prenatal Care	80–109% of expected visits
Adequate Plus Prenatal Care	110% or more of expected visits

In 2003, a revised version of the nationally standard birth certificate was released, capturing prenatal care information, including the month the member initiated prenatal care and the number of visits up to delivery. Virginia implemented the 2003 Revised Standard Certificate of Live Birth in 2012, and national benchmarks for assessing the adequacy of prenatal care were established for those states that initiated consistent reporting of this information.[25] Healthy People 2030 published a national baseline in which 76.4 percent of women received early and adequate prenatal care during 2018, with an initial goal of 80.5 percent and a 1 percentage point improvement for each year.[26] DMAS opted to compare study indicator findings to the Healthy People 2030 baseline goal of 76.4 percent and will assess the benchmark value on an annual basis. Note that this goal is assessed nationally using NVSS data that do not consistently report birth statistics by payer.

[23] The variable used to determine when prenatal care was initiated changed in the CY 2023 linked birth registry data provided by VDH. Instead of receiving the number of months after conception prenatal care was first received, HSAG received the month in which prenatal care was first received. Given this change, HSAG worked with DMAS to develop an alternative methodology to determine when a woman initiated prenatal care, which HSAG then used to calculate the *Births With Early and Adequate Prenatal Care* study indicator.

[24] Kotelchuck M. An evaluation of the Kessner Adequacy of Prenatal Care Index and a proposed Adequacy of Prenatal Care Utilization Index. *American Journal of Public Health*. 1994; 84(9):1414–1420.

[25] March of Dimes Perinatal Data Center. State Summary for Virginia: Prenatal Care. Available at: https://www.marchofdimes.org/peristats/state-summaries/virginia?top=5&lev=1&reg=99&sreg=51&slev=4. Accessed on: Jan 24, 2025.

[26] Healthy People 2030. Increase the proportion of pregnant women who receive early and adequate prenatal care—MICH-08. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Available at: https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/increase-proportion-pregnant-women-who-receive-early-and-adequate-prenatal-care-mich-08. Accessed on: Jan 24, 2025.

Preterm Births

The percentage of births occurring before 37 completed weeks of gestation.

In 2023, preterm delivery affected approximately one in 10 infants born in the United States.[27] Preterm births and low birth weight accounted for approximately 14.0 percent of infant deaths in 2022.[28] Additionally, between 2020 and 2022, preterm birth rates in the United States were 1.5 times higher among African American women than all other women (i.e., Asian, White, Hispanic, American Indian/Alaska Native, and Pacific Islander).[29] Infants born prematurely are also at higher risk for persistent and life-long health issues, such as developmental disabilities, cerebral palsy, respiratory problems, hearing and vision problems, and feeding issues. Furthermore, preterm births can result in emotional and financial burdens for families.[30]

Although this topic has been studied extensively, the underlying causes of preterm births are not completely understood. The causes of preterm birth are multifactorial and include genetic, social, and environmental circumstances, as well as multiple gestations (twins, triplets, etc.), which have increased due to the increasing prevalence of assisted reproductive technology.[31] Some studies have found that among multiparous women, regardless of demographic factors and excluding multiple gestation births, a previous preterm birth has been found as the most influential risk factor for a woman to have a subsequent preterm birth.[32]

Although clinical intervention cannot completely mitigate demographic and genetic factors associated with preterm deliveries, preconception care (i.e., care prior to the start of a pregnancy) and prenatal care may provide clinicians opportunities to monitor and address potential causes of preterm deliveries.[33]

Healthy People 2030 published a national baseline in which 10.0 percent of live births were preterm in 2018, with an initial goal of 9.4 percent of live births being preterm.[34] CMS' 2024 Medicaid and CHIP benchmark for *Preterm Births (<37 Weeks Gestation)* was 11.9 percent. DMAS opted to compare study indicator findings to the Healthy People 2030 goal of 9.4 percent, with a footnote referencing CMS'

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27 Martin JA, Hamilton BE, and Osterman MJK. Births in the United States, 2023. National Center for Health Statistics (NCHS) Data Brief. 507, August 2024. Available at: https://www.cdc.gov/nchs/data/databriefs/db507.pdf. Accessed on: Jan 24, 2025.

28 Centers for Disease Control and Prevention. Preterm birth rates. Available at: Preterm Birth | Maternal Infant Health | CDC. Accessed on: Jan 24, 2025.

29 March of Dimes. 2023 March of Dimes Report Card: United States. Available at: https://www.marchofdimes.org/sites/default/files/2023-11/MOD_23_Report_Card_and_Policy_Actions_Booklet_v03-r01.pdf. Accessed on: Jan 24, 2025.

30 Centers for Disease Control and Prevention. Preterm birth rates. Available at: Preterm Birth | Maternal Infant Health | CDC. Accessed on: Jan 24, 2025.

31 Dunietz GL, Holzman C, McKane P, et al. Assisted reproductive technology and the risk of preterm birth among primiparas. *Fertility and Sterility*. 2015; 103(4):974-979.e1. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4515958. Accessed on: Jan 24, 2025.

32 Stubblefield PG, Coonrod DV, Reddy UM, et al. The clinical content of preconception care: Reproductive history. *American Journal of Obstetrics and Gynecology*. 2008; 10.048(suppl):S373–S383.

33 Dean SV, Mason E, Howson CP, et al. Born too soon: care before and between pregnancy to prevent preterm births: from evidence to action. *Reproductive Health*. 2013; 10 Suppl 1 (Supple 1):S3.

34 U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2030. Reduce preterm births—MICH-07. Available at: https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/reduce-preterm-births-mich-07. Accessed on: Jan 24, 2025.

2024 Medicaid and CHIP benchmark. DMAS will assess the benchmark value on an annual basis. Note that the Healthy People 2030 goal is assessed nationally using NVSS data that do not consistently report birth statistics by payer.

Low Birth Weight

The percentage of births with low birth weight (i.e., less than 2,500 grams).

Infants born weighing less than 2,500 grams (5 pounds, 8 ounces) are considered low birth weight infants and, compared to normal weight infants, may be at a higher risk for health problems. Common health complications that low birth weight infants may experience include underdeveloped lungs and respiratory problems, an inability to maintain body temperature, difficulty feeding and gaining weight, and infection. Additionally, these low birth weight infants may experience long-term issues, such as delayed motor and social development and learning disabilities. They may have a higher risk of health conditions, such as diabetes and high blood pressure, later in life.[35] Low birth weight affects approximately one in 12 babies born in the United States.[36]

Infants weighing less than 1,500 grams (3 pounds, 5 ounces) are considered to be very low birth weight infants and have a greater risk for multiple health problems, including cerebral palsy, developmental delay, intellectual disability, visual and hearing impairments, chronic lung disease, neurological problems, and sudden infant death syndrome (SIDS).[37] Nearly all infants born with very low birth weight will need specialized care in a neonatal intensive care unit (NICU) until they are healthy enough to be released. NICU care is associated with a financial burden; although very low birth weight births account for approximately 1.5 percent of all live births in the United States, these births represent 30 percent of newborn healthcare costs and are among the most expensive of all patients.[38]

The CMS Core Set benchmark for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator is released annually and includes data for all 50 states and Washington, DC for a Medicaid/CHIP population.[39] DMAS opted to use the FFY 2023 benchmark of 10.4 percent for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator.[40]

Maternal Health Outcomes Study Indicators

HSAG calculated the following four maternal health outcomes study indicators for singleton, live births during CY 2023 paid by Virginia Medicaid:

- Percentage of postpartum women who utilized ED services within 90 days of delivery

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35 March of Dimes. Low birthweight. Available at: https://www.marchofdimes.org/find-support/topics/birth/low-birthweight. Accessed on: Jan 24, 2025.

36 Ibid.

37 McCallie KR, Lee HC, Mayer O, et al. Improved outcomes with a standardized feeding protocol for very low birth weight infants. *Journal of Perinatology*. 2011; 31:S61–S67.

38 Johnson TJ, Patel AL, Jegier B, et al. The cost of morbidities in very low birth weight infants. *The Journal of Pediatrics*. 2013; 162(2):243–49.

39 Centers for Medicare & Medicaid Services. 2023 Child and Adult Health Care Quality Measures Quality. Available at: 2023 Child and Adult Health Care Quality Measures Quality. Accessed on: Jan 24, 2025.

40 Ibid.

- Percentage of postpartum women who utilized ambulatory care services within 90 days of delivery
- Percentage of women who received a screening for depression during pregnancy
- Percentage of postpartum women who received a screening for depression on or between seven and 84 days after delivery

The following subsections define the four maternal health indicators used to assess the study questions among singleton, live births paid by Virginia Medicaid during the measurement period, as well as provide brief background information in support of each indicator as a maternal health outcome. Please note that since the maternal health outcomes indicators were developed by HSAG for the purposes of this study, national benchmarks are not available.

Postpartum ED Utilization

Postpartum ED utilization may indicate that women are not receiving outpatient obstetrics and primary care for necessary postpartum visits. Approximately 25 percent of postpartum women nationally had at least one ED visit within six months postpartum.[41] Further, approximately 5 percent of postpartum women nationally had at least one ED visit within 42 days after delivery. Of the postpartum women who utilized ED services within 42 days of delivery nationally, approximately 28 percent were admitted or transferred to an inpatient setting. However, approximately 68 percent of women who utilized ED services within 42 days of delivery nationally received a diagnosis of "normal postpartum examination," which suggests that visits could have been prevented by improved patient knowledge about the physiology of the postpartum period and/or by ensuring women see their PCP or OB/GYN during the postpartum period.[42]

Postpartum Ambulatory Care Utilization

The American College of Obstetricians and Gynecologists recommends that all postpartum women have contact with their OB/GYN or other obstetric care provider within the first three weeks after delivery.[43] Postpartum visits provide an opportunity for mothers to receive physical examinations; health concerns during and after pregnancy, and their mental status with their provider, and ask any questions they might still have about postpartum activities (e.g., breastfeeding). The underutilization of postpartum care impedes management of chronic health conditions, which increases the risk of short-interval pregnancy and preterm birth. Postpartum follow-up may also facilitate the early screening and treatment of cardiovascular disease, among other conditions, in later life.

41 Harris A, Chang HY, Wang L, et al. Emergency Room Utilization After Medically Complicated Pregnancies: A Medicaid Claims Analysis. Journal of Women's Health. 2015; 24(9):745–754. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4589304/. Accessed on: Jan 24, 2025.

42 Brousseau EC, Danilack V, Cai F, Matteson KA. Emergency department visits for postpartum complications. Journal of Women's Health. 2018; 27(3):253–257. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5865248/. Accessed on: Jan 24, 2025.

43 The American College of Obstetricians and Gynecologists. *Optimizing Postpartum Care*. Available at: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care. Accessed on: Jan 24, 2025.

Prenatal Maternal Depression Screening

Perinatal depression is one of the most common medical complications during pregnancy and the postpartum period, affecting about one in seven to 10 pregnant women.[44] Since half of all postpartum depression cases begin during pregnancy, and women with a personal or family history of depression are at increased risk, the prenatal period is an ideal time for screening and treatment. Further, while approximately 63 percent of women were assessed for depression during their initial visit with a provider, only approximately 7 percent of screening records indicate that a standardized screening tool was used.[45] Since the earlier a woman is identified with maternal depression, the earlier she can receive treatment, it is important to analyze the percentage of women who received a prenatal maternal depression screening.

Postpartum Maternal Depression Screening

Maternal depression is one of the most common medical complications during pregnancy and the postpartum period, with approximately 10 percent of postpartum women meeting the criteria for major depressive disorders. Due to this, it is recommended that all OB/GYNs and other obstetric care providers complete a full assessment of mood and emotional well-being during the comprehensive postpartum visit for each patient. Further, if a patient is screened for depression and anxiety during pregnancy, additional screenings should then occur during the comprehensive postpartum visit.[46] It is important that mothers are screened and treated for maternal depression since left untreated, maternal depression may cause negative physical health effects for mothers and may cause sleeping, eating, and behavioral problems for their children.[47]

Study Indicator Results

Study indicator results were limited to singleton births, defined using the Plurality field in the birth registry data. Since multiple gestation births are subject to different clinical guidelines, results for multiple births are limited to introductory findings and the analytic dataset supplied to DMAS.

Results for each study indicator were calculated among demographic categories for the CY 2023 measurement period. HSAG used Pearson's chi-square tests to assess statistically significant differences between the CY 2023 study population and comparison group for each birth outcomes indicator.

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44 Van Niel Sayres, M and Payne, JL. Perinatal depression: A review. *Cleveland Clinic Journal of Medicine*. 2020; 87(5). Available at: Perinatal depression: A review. Accessed on: Jan 24, 2025.

45 New York State Department of Health. *Screening for Maternal Depression*. Available at: https://www.health.ny.gov/community/pregnancy/health_care/perinatal/maternal_depression/providers/screening.htm. Accessed on: Jan 24, 2025.

46 Medline Plus. *Postpartum Depression Screening.* Available at: https://medlineplus.gov/lab-tests/postpartum-depression-screening/. Accessed on: Dec 17, 2024.

47 Van Niel Sayres, M and Payne, JL. Perinatal depression: A review. *Cleveland Clinic Journal of Medicine*. 2020; 87(5). Available at: Perinatal depression: A review. Accessed on: Jan 24, 2025.

Health Disparities Analysis

For each race/ethnicity, HSAG identified positive and negative health disparities for the birth and maternal health outcome study indicators. For each stratified rate, the reference group was the aggregated rate for all other stratifications within the stratification group (i.e., the rate for the White, Non-Hispanic group was compared to the aggregate of all other race/ethnicity stratifications). The *p*-value of the coefficient from the logistic regression was used to identify statistically significant differences when comparing the stratified rates to the reference groups.

For this report, a health disparity is defined as a stratified rate with a *p*-value of the coefficient of the logistic regression that is less than 0.05.[48] When analyzing a given stratification, HSAG classified the rate in one of the following three categories based on the preceding analyses:

- Better Rate
  - The *p*-value of the coefficient of the logistic regression is less than 0.05 and the stratified rate is higher or more favorable than the rate for the reference group. In other words, the reference group shows a health disparity compared to the stratification being evaluated.
- Worse Rate
  - The *p*-value of the coefficient of the logistic regression is less than 0.05 and the stratified rate is lower or less favorable than the rate for the reference group. In other words, the stratification being evaluated shows a health disparity compared to the reference group.
- Similar Rate
  - The *p*-value of the coefficient of the logistic regression is greater than or equal to 0.05. This means no health disparities were identified when the stratification was compared to the reference group.

[48] A p-value of the coefficient of the logistic regression less than 0.05 was chosen due to the anticipated large eligible populations for the measures.

3. Findings

Overall Birth Characteristics

Table 3-1 through Table 3-3 present the overall number of births paid by Virginia Medicaid (i.e., Title XIX or Title XXI) for CY 2021, CY 2022, and CY 2023 stratified by key characteristics.

Overall Births Paid by Virginia Medicaid

Table 3-1 presents the overall number of births paid by Virginia Medicaid during each measurement period stratified by Medicaid births, as well as the number and percentage of multiple gestation and singleton births.

Table 3-1—Overall Births Paid by Virginia Medicaid, CY 2021–CY 2023

Overall Births	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Overall Births*						
Total Births	36,480	100.0%	37,259	100.0%	36,323	100.0%
Multiple Gestation Births	1,184	3.2%	1,153	3.1%	1,055	2.9%
Singleton Births	35,296	96.8%	36,106	96.9%	35,268	97.1%
Medicaid Births**						
Total Births	32,102	100.0%	32,081	100.0%	31,027	100.0%
Multiple Gestation Births	1,077	3.4%	1,072	3.3%	989	3.2%
Singleton Births	31,025	96.6%	31,009	96.7%	30,038	96.8%

** Overall Births includes all births paid by Virginia Medicaid, except those in limited benefit programs (i.e., Plan First and DOC).*
*** Medicaid Births exclude members enrolled in limited benefit programs (e.g., Plan First) and members who are only eligible for emergency only benefits.*

Overall, the number of births identified in the matched vital statistics data decreased in CY 2023, returning to CY 2021 levels. Virginia Medicaid births in CY 2023 declined from prior years; however, this is in alignment with national trends.[49]

Overall Singleton Births Paid by Virginia Medicaid

Table 3-2 presents the overall number of singleton births paid by Virginia Medicaid during each measurement period, as well as the number and percentage of births by Medicaid program (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and Other Aid Categories),

[49] March of Dimes. Births. Available at: https://www.marchofdimes.org/peristats/data. Accessed on: Jan 24, 2025.

managed care population (i.e., Acute or Managed Long Terms Services and Supports [MLTSS]), and delivery system (i.e., FFS and managed care).

Table 3-2—Singleton Births by Medicaid Program, Managed Care Program, and Delivery System, CY 2021–CY 2023

Overall Births	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births	31,025	100.0%	31,009	100.0%	30,038	100.0%
Medicaid Program						
Medicaid for Pregnant Women	15,682	50.5%	13,144	42.4%	12,685	42.2%
Medicaid Expansion	6,548	21.1%	7,947	25.6%	7,813	26.0%
FAMIS MOMS	1,785	5.8%	1,817	5.9%	1,871	6.2%
Other Aid Categories†	7,010	22.6%	8,101	26.1%	7,669	25.5%
Medicaid Managed Care Population*						
MLTSS	928	3.0%	998	3.2%	995	3.3%
Acute	27,398	88.3%	27,746	89.5%	26,745	89.0%
Medicaid Delivery System						
FFS	2,699	8.7%	2,265	7.3%	2,298	7.7%
Managed Care	28,326	91.3%	28,744	92.7%	27,740	92.3%

** Because not all births were to women in Medicaid managed care programs, the percentage of births for the MLTSS and Acute managed care programs do not sum to 100 percent.*
† The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, or FAMIS MOMS. The Other Aid Categories include LIFC (parents and caretaker adults), individuals covered under the Aged, Blind, or Disabled Medicaid groups, Medicaid Children, Youth in Foster Care and Adoption Assistance, Former Foster Care Members, FAMIS Children, and others. The Other Aid Categories exclude births to women in Plan First and DOC (i.e., incarcerated individuals).
Note: Due to rounding, the percentages in each column may not sum to 100 percent.

While the largest proportion of Medicaid program births across all three measurement periods were to women in the Medicaid for Pregnant Women program, births to women in this program have been steadily declining since CY 2021. This decrease is expected due to the implementation of the Medicaid Expansion program on January 1, 2019, which provided coverage to women who were previously only eligible for Medicaid if they became pregnant. Furthermore, the number of births to women in the Medicaid Expansion program have stabilized in CY 2023.

Table 3-3 presents the overall number of singleton births paid by Virginia Medicaid during each measurement period stratified by maternal age, race/ethnicity, and regional residence.

Table 3-3—Singleton Births by Maternal Age at Delivery, Maternal Race/Ethnicity, and Managed Care Region of Residence, CY 2021–CY 2023

Overall Births	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births	31,025	100.0%	31,009	100.0%	30,038	100.0%

Overall Births	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Maternal Age at Delivery						
≤15 Years	90	0.3%	93	0.3%	77	0.3%
16–17 Years	420	1.4%	367	1.2%	386	1.3%
18–20 Years	3,234	10.4%	2,935	9.5%	2,865	9.5%
21–24 Years	7,175	23.1%	6,928	22.3%	6,564	21.9%
25–29 Years	9,377	30.2%	9,313	30.0%	8,769	29.2%
30–34 Years	6,783	21.9%	7,193	23.2%	7,164	23.8%
35–39 Years	3,155	10.2%	3,332	10.7%	3,340	11.1%
40–44 Years	728	2.3%	778	2.5%	812	2.7%
≥45 Years	35	0.1%	47	0.2%	45	0.1%
Unknown	28	0.1%	23	0.1%	16	0.1%
Maternal Race/Ethnicity						
White, Non-Hispanic	12,437	40.1%	12,585	40.6%	12,046	40.1%
Black, Non-Hispanic	11,700	37.7%	11,365	36.7%	10,867	36.2%
Asian, Non-Hispanic	1,293	4.2%	1,177	3.8%	1,383	4.6%
Hispanic, Any Race	4,402	14.2%	4,419	14.3%	4,392	14.6%
Other/Unknown	1,193	3.8%	1,463	4.7%	1,350	4.5%
Managed Care Region of Residence						
Central	8,332	26.9%	8,303	26.8%	8,139	27.1%
Charlottesville/Western	4,056	13.1%	4,060	13.1%	4,033	13.4%
Northern & Winchester	6,892	22.2%	6,969	22.5%	6,689	22.3%
Roanoke/Alleghany	2,967	9.6%	3,052	9.8%	2,973	9.9%
Southwest	1,067	3.4%	970	3.1%	945	3.1%
Tidewater	7,706	24.8%	7,564	24.4%	7,253	24.1%

Note: Due to rounding, the percentages in each column may not sum to 100 percent.

† Members with unknown managed care regions of residence are included in the singleton births total.

Approximately 75 percent of CY 2023 births paid by Virginia Medicaid were to women 21 to 34 years of age and were White, Non-Hispanic (40.1 percent) or Black, Non-Hispanic (36.2 percent). Similar to prior years, most (73.5 percent) CY 2023 births were to women who resided in the Central, Northern & Winchester, or Tidewater regions.

Birth Outcomes Study Indicator Results and Trending

Table 3-4 presents the overall study indicator results for each measurement period.

Table 3-4—Overall Birth Outcomes Study Indicator Findings Among Singleton Births, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Births With Early and Adequate Prenatal Care	76.4%	22,803	74.2%	22,737	74.3%	22,103	74.7%
*Births With Inadequate Prenatal Care**	*NA*	4,370	14.2%	4,211	13.8%	4,125	13.9%
*Births With No Prenatal Care**	*NA*	616	2.0%	796	2.6%	941	3.2%
Preterm Births (<37 Weeks Gestation)*	9.4%^	3,164	10.2%	3,076	9.9%	3,030	10.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	2,951	9.5%	2,970	9.6%	2,816	9.4%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

All CY 2023 study indicators demonstrated consistent performance with prior measurement periods. While both the *Births With Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks Gestation)* indicators underperformed relative to national benchmarks for all three measurement periods, the *Preterm Births (<37 Weeks Gestation)* indicator outperformed CMS' 2024 Medicaid and CHIP benchmark. Additionally, the rates for the *Newborns With Low Birth Weight (<2,500 grams)* indicator outperformed the national benchmark for all three measurement periods, demonstrating strength for Virginia Medicaid.

Study Indicators Stratified by Select Demographics

Table 3-5 presents the study indicator results stratified by race/ethnicity for each measurement period and includes shading to represent identified disparities for the birth outcomes study indicators for CY 2021 through CY 2023.

Table 3-5—Birth Outcomes Study Indicator Findings Among Singleton Births by Race/Ethnicity, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	9,338	75.8%	9,515	76.5%	9,177	77.0%
*Births With Inadequate Prenatal Care**	*NA*	1,637	13.3%	1,630	13.1%	1,493	12.5%
*Births With No Prenatal Care**	*NA*	236	1.9%	242	1.9%	328	2.8%
Preterm Births (<37 Weeks Gestation)*	9.4%^	1,108	8.9%	1,069	8.5%	1,087	9.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	930	7.5%	917	7.3%	870	7.2%
Black, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	8,641	74.5%	8,222	73.5%	7,970	74.6%
*Births With Inadequate Prenatal Care**	*NA*	1,572	13.6%	1,541	13.8%	1,479	13.8%
*Births With No Prenatal Care**	*NA*	253	2.2%	309	2.8%	306	2.9%
Preterm Births (<37 Weeks Gestation)*	9.4%^	1,442	12.3%	1,385	12.2%	1,331	12.2%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	1,510	12.9%	1,525	13.4%	1,441	13.3%
Asian, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	943	73.8%	861	74.2%	973	72.2%
*Births With Inadequate Prenatal Care**	*NA*	177	13.8%	162	14.0%	215	15.9%
*Births With No Prenatal Care**	*NA*	19	1.5%	26	2.2%	45	3.3%
Preterm Births (<37 Weeks Gestation)*	9.4%^	95	7.3%	77	6.5%	106	7.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	83	6.4%	90	7.6%	96	6.9%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Hispanic, Any Race							
Births With Early and Adequate Prenatal Care	76.4%	3,032	69.6%	3,094	70.8%	3,014	69.6%
*Births With Inadequate Prenatal Care**	*NA*	807	18.5%	678	15.5%	730	16.9%
*Births With No Prenatal Care**	*NA*	84	1.9%	179	4.1%	228	5.3%
Preterm Births (<37 Weeks Gestation)*	9.4%^	411	9.3%	420	9.5%	396	9.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	332	7.5%	325	7.4%	289	6.6%
Other/Unknown							
Births With Early and Adequate Prenatal Care	76.4%	849	71.9%	1,045	72.7%	969	73.1%
*Births With Inadequate Prenatal Care**	*NA*	177	15.0%	200	13.9%	208	15.7%
*Births With No Prenatal Care**	*NA*	24	2.0%	40	2.8%	34	2.6%
Preterm Births (<37 Weeks Gestation)*	9.4%^	108	9.1%	125	8.5%	110	8.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	96	8.1%	113	7.7%	120	8.9%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.
Blue shading indicates that a disparity was identified (i.e., had a p-value less than or equal to 0.05) and the stratified rate was higher or more favorable than the reference group rate.
Orange shading indicates that a disparity was identified (i.e., had a p-value less than or equal to 0.05) and the stratified rate was lower or less favorable than the reference group rate.

Consistent with the national birth data,[50,51] study indicator results showed poor outcomes for Black, Non-Hispanic women, who had the highest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* compared to women of other races/ethnicities. White, Non-Hispanic women had the highest rate of *Births With Early and Adequate Prenatal Care* compared to women of other races/ethnicities, and this study indicator outperformed the national benchmarks in CY 2022 and CY 2023. For Asian, Non-Hispanic women and Hispanic women of any race, rates for both the *Preterm Births (<37 Weeks)* and *Newborns With Low Birth Weight (<2,500 grams)* study

[50] March of Dimes. Birthweight. Available at: Birthweight Overview | PeriStats | March of Dimes. Accessed on: Jan 24, 2025.
[51] Mach of Dimes. Preterm Birth. Available at: https://www.marchofdimes.org/peristats/data. Accessed on Jan 24, 2025.

indicators outperformed national benchmarks, despite not exceeding the national benchmark for the *Births With Early and Adequate Prenatal Care* study indicator.

The above findings are further supported by the CY 2023 disparities analysis, which identified that White, Non-Hispanic women had significantly more *Births With Early and Adequate Prenatal Care* than all other races/ethnicities, while Asian, Non-Hispanic women and Hispanic women of any race had significantly fewer *Births With Early and Adequate Prenatal Care* than all other races/ethnicities. Further, Black, Non-Hispanic women had significantly more *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* than all other races/ethnicities. Additionally, White, Non-Hispanic women, Asian, Non-Hispanic women, and Hispanic women of any race had significantly fewer *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* than all other races/ethnicities.

Table 3-6 presents the study indicator results stratified by geographic managed care region.

Table 3-6—Birth Outcomes Study Indicator Findings Among Singleton Births by Managed Care Region of Maternal Residence, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Central							
Births With Early and Adequate Prenatal Care	76.4%	6,446	77.8%	6,431	78.5%	6,409	79.6%
*Births With Inadequate Prenatal Care**	*NA*	851	10.3%	823	10.0%	920	11.4%
*Births With No Prenatal Care**	*NA*	215	2.6%	239	2.9%	176	2.2%
Preterm Births (<37 Weeks Gestation)*	9.4%^	943	11.3%	889	10.7%	918	11.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	894	10.7%	855	10.3%	863	10.6%
Charlottesville/Western							
Births With Early and Adequate Prenatal Care	76.4%	3,163	78.7%	3,052	76.1%	2,854	71.7%
*Births With Inadequate Prenatal Care**	*NA*	556	13.8%	629	15.7%	699	17.6%
*Births With No Prenatal Care**	*NA*	62	1.5%	58	1.4%	115	2.9%
Preterm Births (<37 Weeks Gestation)*	9.4%^	354	8.7%	355	8.7%	392	9.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	347	8.6%	368	9.1%	372	9.2%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Northern & Winchester							
Births With Early and Adequate Prenatal Care	76.4%	4,462	65.9%	4,729	69.0%	4,407	67.3%
*Births With Inadequate Prenatal Care**	*NA*	1,381	20.4%	1,178	17.2%	1,167	17.8%
*Births With No Prenatal Care**	*NA*	142	2.1%	249	3.6%	361	5.5%
Preterm Births (<37 Weeks Gestation)*	9.4%^	589	8.5%	590	8.5%	550	8.2%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	490	7.1%	512	7.3%	464	6.9%
Roanoke/Alleghany							
Births With Early and Adequate Prenatal Care	76.4%	2,172	73.5%	2,235	73.6%	2,219	74.9%
*Births With Inadequate Prenatal Care**	*NA*	387	13.1%	405	13.3%	395	13.3%
*Births With No Prenatal Care**	*NA*	39	1.3%	33	1.1%	54	1.8%
Preterm Births (<37 Weeks Gestation)*	9.4%^	306	10.3%	288	9.4%	280	9.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	296	10.0%	294	9.6%	272	9.2%
Southwest							
Births With Early and Adequate Prenatal Care	76.4%	827	77.6%	765	79.3%	738	78.3%
*Births With Inadequate Prenatal Care**	*NA*	140	13.1%	127	13.2%	104	11.0%
*Births With No Prenatal Care**	*NA*	20	1.9%	12	1.2%	22	2.3%
Preterm Births (<37 Weeks Gestation)*	9.4%^	77	7.2%	77	7.9%	60	6.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	70	6.6%	62	6.4%	60	6.3%
Tidewater							
Births With Early and Adequate Prenatal Care	76.4%	5,729	75.0%	5,456	73.4%	5,471	76.9%
*Births With Inadequate Prenatal Care**	*NA*	1,054	13.8%	1,040	14.0%	839	11.8%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	138	1.8%	202	2.7%	213	3.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	893	11.6%	866	11.5%	830	11.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	854	11.1%	870	11.5%	785	10.8%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

The Southwest region was the only region with rates that outperformed the national benchmarks for all study indicators for which benchmarks were available for CY 2023. This may be attributed to the fact that approximately 94 percent of births in the Southwest region were to White, Non-Hispanic women, who typically have more favorable birth outcomes compared to all other races/ethnicities, as shown in Table 3-5. Despite continuing to have the lowest rates of *Births With Early and Adequate Prenatal Care*, women in the Northern & Winchester region had the second lowest rates of *Preterm Births (<37 Weeks)* and *Newborns With Low Birth Weight (<2,500 grams)*, outperforming the national benchmarks for both indicators for all three measurement periods. This may be due to a large number of Hispanic, Any Race women and White, Non-Hispanic women who live in this region (approximately 31 percent and 28 percent, respectively) having some of the lowest rates of *Preterm Births (<37 Weeks)* and *Newborns With Low Birth Weight (<2,500 grams)*, as shown in Table 3-5.

The Tidewater region had the highest rates of *Preterm Births (<37 Weeks)* and *Newborns With Low Birth Weight (<2,500 grams)*, and had the highest percentage of women who were Black, Non-Hispanic (approximately 56 percent). As shown in Table 3-5, women of Black, Non-Hispanic race had the highest rates of *Preterm Births (<37 Weeks)* and *Newborns With Low Birth Weight (<2,500 grams)* at 12.2 percent and 13.3 percent, respectively. The rate for the *Births With Early and Adequate Prenatal Care* study indicator in the Charlottesville/Western region declined by approximately 4 percentage points from CY 2022 to CY 2023, which appears to be attributable to a decline in the number of women initiating prenatal care in the first trimester. Further, the rates for *Births With Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks)* in the Charlottesville/Western region underperformed relative to national benchmarks in CY 2023.

Study Indicator Findings by Medicaid Characteristics

Table 3-7 presents the study indicator results stratified by Medicaid program for each measurement period.

Table 3-7—Birth Outcomes Study Indicator Findings Among Singleton Births by Medicaid Program, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Medicaid for Pregnant Women							
Births With Early and Adequate Prenatal Care	76.4%	11,493	73.9%	9,639	74.3%	9,150	73.2%
*Births With Inadequate Prenatal Care**	*NA*	2,337	15.0%	1,899	14.6%	1,960	15.7%
*Births With No Prenatal Care**	*NA*	239	1.5%	283	2.2%	363	2.9%
Preterm Births (<37 Weeks Gestation)*	9.4%^	1,460	9.3%	1,139	8.7%	1,188	9.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	1,333	8.5%	1,153	8.8%	1,076	8.5%
Medicaid Expansion							
Births With Early and Adequate Prenatal Care	76.4%	5,031	77.5%	6,094	77.7%	6,067	78.7%
*Births With Inadequate Prenatal Care**	*NA*	722	11.1%	854	10.9%	826	10.7%
*Births With No Prenatal Care**	*NA*	154	2.4%	183	2.3%	209	2.7%
Preterm Births (<37 Weeks Gestation)*	9.4%^	733	11.2%	842	10.6%	804	10.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	707	10.8%	798	10.0%	756	9.7%
FAMIS MOMS							
Births With Early and Adequate Prenatal Care	76.4%	1,382	78.1%	1,391	77.4%	1,473	79.5%
*Births With Inadequate Prenatal Care**	*NA*	219	12.4%	230	12.8%	215	11.6%
*Births With No Prenatal Care**	*NA*	12	0.7%	27	1.5%	51	2.8%
Preterm Births (<37 Weeks Gestation)*	9.4%^	161	9.0%	150	8.3%	140	7.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	145	8.1%	137	7.5%	135	7.2%
Other Aid Categories†							
Births With Early and Adequate Prenatal Care	76.4%	4,897	70.6%	5,613	70.4%	5,413	71.8%
*Births With Inadequate Prenatal Care**	*NA*	1,092	15.7%	1,228	15.4%	1,124	14.9%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	211	3.0%	303	3.8%	318	4.2%
Preterm Births (<37 Weeks Gestation)*	9.4%^	810	11.6%	945	11.7%	898	11.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	766	10.9%	882	10.9%	849	11.1%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.
† The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, or FAMIS MOMS. The Other Aid Categories include LIFC (parents and caretaker adults), individuals covered under the Aged, Blind, or Disabled Medicaid groups, Medicaid Children, Youth in Foster Care and Adoption Assistance, Former Foster Care Members, FAMIS Children, and others. The Other Aid Categories exclude births to women in Plan First and DOC (i.e., incarcerated individuals).

Overall, the FAMIS MOMS program demonstrated strength, with rates for the *Births With Early and Adequate Prenatal Care*, *Preterm Births (<37 Weeks Gestation)*, and *Newborns With Low Birth Weight (<2,500 grams)* study indicators outperforming the applicable national benchmarks for all three measurement periods. Additionally, the FAMIS MOMS rates for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators have steadily improved since CY 2021. The Medicaid for Pregnant Women program also had rates for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators that outperformed the national benchmarks for all three measurement periods, despite having rates for the *Births With Early and Adequate Prenatal Care* study indicator that did not meet the national benchmark in any measurement period. Of note, the Medicaid Expansion rates for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators have steadily improved since CY 2021, with the CY 2022 and CY 2023 *Newborns With Low Birth Weight (<2,500 grams)* study indicator rate outperforming the national benchmarks. Other Aid Categories rates for all three study indicators underperformed in comparison to the national benchmarks for all three measurement periods.

Table 3-8 presents the study indicator results stratified by managed care population for each measurement period.

Table 3-8—Birth Outcomes Study Indicator Findings Among Singleton Births by Managed Care Population at Delivery, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
MLTSS							
Births With Early and Adequate Prenatal Care	76.4%	660	71.9%	680	68.9%	691	70.6%
*Births With Inadequate Prenatal Care**	*NA*	137	14.9%	164	16.6%	162	16.5%
*Births With No Prenatal Care**	*NA*	36	3.9%	46	4.7%	41	4.2%
Preterm Births (<37 Weeks Gestation)*	9.4%^	154	16.6%	159	15.9%	176	17.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	146	15.8%	157	15.7%	175	17.6%
Acute							
Births With Early and Adequate Prenatal Care	76.4%	20,396	75.1%	20,558	75.1%	19,849	75.3%
*Births With Inadequate Prenatal Care**	*NA*	3,710	13.7%	3,651	13.3%	3,609	13.7%
*Births With No Prenatal Care**	*NA*	458	1.7%	636	2.3%	772	2.9%
Preterm Births (<37 Weeks Gestation)*	9.4%^	2,703	9.9%	2,671	9.6%	2,596	9.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	2,539	9.3%	2,589	9.3%	2,415	9.0%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

Births to women in the Acute managed care population had the highest rates of *Births With Early and Adequate Prenatal Care* and the lowest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)*, with the rates for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator outperforming the national benchmark for all three measurement periods. For births to women in the MLTSS managed care population, none of the study indicators met the national benchmarks in any measurement period, which may be due to the complex healthcare needs of this population. Opportunities exist to ensure that MLTSS women receive timely and necessary prenatal care and experience improved birth outcomes.

Table 3-9 presents the study indicator results stratified by delivery system for each measurement period.

Table 3-9—Birth Outcomes Study Indicator Findings Among Singleton Births by Delivery System, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
FFS							
Births With Early and Adequate Prenatal Care	76.4%	1,747	65.8%	1,499	67.2%	1,563	69.1%
*Births With Inadequate Prenatal Care**	*NA*	523	19.7%	396	17.8%	354	15.6%
*Births With No Prenatal Care**	*NA*	122	4.6%	114	5.1%	128	5.7%
Preterm Births (<37 Weeks Gestation)*	9.4%^	307	11.4%	246	10.9%	258	11.2%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	266	9.9%	224	9.9%	226	9.8%
Managed Care							
Births With Early and Adequate Prenatal Care	76.4%	21,056	75.0%	21,238	74.9%	20,540	75.1%
*Births With Inadequate Prenatal Care**	*NA*	3,847	13.7%	3,815	13.5%	3,771	13.8%
*Births With No Prenatal Care**	*NA*	494	1.8%	682	2.4%	813	3.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	2,857	10.1%	2,830	9.8%	2,772	10.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	2,685	9.5%	2,746	9.6%	2,590	9.3%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

Overall, women enrolled in managed care had better outcomes than women in the FFS population in for all study indicators across all three measurement periods. The FFS and managed care rates for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator outperformed the national benchmark for all three measurement periods.

Table 3-10 presents the study indicator results among singleton births by trimester of prenatal care initiation.

Table 3-10—Birth Outcomes Study Indicator Findings Among Singleton Births by Trimester of Prenatal Care Initiation, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
First Trimester							
Births With Early and Adequate Prenatal Care	76.4%	20,721	86.9%	20,723	87.3%	19,772	88.9%
*Births With Inadequate Prenatal Care**	*NA*	574	2.4%	579	2.4%	415	1.9%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	2,329	9.8%	2,265	9.5%	2,169	9.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	2,216	9.3%	2,164	9.1%	1,991	8.9%
Second Trimester							
Births With Early and Adequate Prenatal Care	76.4%	2,082	41.2%	2,014	42.3%	2,331	45.6%
*Births With Inadequate Prenatal Care**	*NA*	2,566	50.8%	2,341	49.2%	2,404	47.0%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	492	9.7%	426	8.9%	458	8.9%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	460	9.1%	488	10.2%	511	10.0%
Third Trimester							
Births With Early and Adequate Prenatal Care	76.4%	0	0.0%	0	0.0%	0	0.0%
*Births With Inadequate Prenatal Care**	*NA*	1,230	100.0%	1,291	100.0%	1,306	100.0%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	127	10.3%	117	9.0%	113	8.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	113	9.1%	110	8.4%	106	8.1%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
No Prenatal Care							
Births With Early and Adequate Prenatal Care	76.4%	0	0.0%	0	0.0%	0	0.0%
*Births With Inadequate Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
*Births With No Prenatal Care**	*NA*	616	100.0%	796	100.0%	941	100.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	174	28.3%	210	26.4%	223	23.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	131	21.3%	158	19.9%	153	16.3%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

The rates for women who initiated prenatal care in their first, second, or third trimesters surpassed the national benchmark for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator for all three measurement periods. Initiating prenatal care in the first trimester did not guarantee better outcomes, as demonstrated by the rates for women who initiated prenatal care in the second or third trimesters outperforming the national benchmark for *Preterm Births (<37 Weeks Gestation)* in CY 2022 and CY 2023. Of note, approximately 73 percent of the preterm births to women who initiated prenatal care in the first trimester received Adequate Plus prenatal care (with 92 percent of preterm births receiving Adequate or Adequate Plus prenatal care), suggesting that these women may have had high-risk pregnancies where, regardless of receiving timely prenatal care, they were still more likely to have a preterm birth.

Table 3-11 presents the study indicator results among singleton births by length of continuous enrollment.

Table 3-11—Birth Outcomes Study Indicator Findings Among Singleton Births by Length of Continuous Enrollment, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
≤30 Days							
Births With Early and Adequate Prenatal Care	76.4%	588	64.8%	497	69.9%	471	71.3%
*Births With Inadequate Prenatal Care**	*NA*	180	19.8%	107	15.0%	97	14.7%
*Births With No Prenatal Care**	*NA*	50	5.5%	34	4.8%	39	5.9%
Preterm Births (<37 Weeks Gestation)*	9.4%^	91	9.9%	84	11.6%	72	10.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	90	9.8%	75	10.3%	72	10.7%
31–90 Days							
Births With Early and Adequate Prenatal Care	76.4%	862	64.3%	734	64.0%	637	62.2%
*Births With Inadequate Prenatal Care**	*NA*	309	23.1%	269	23.5%	255	24.9%
*Births With No Prenatal Care**	*NA*	42	3.1%	48	4.2%	44	4.3%
Preterm Births (<37 Weeks Gestation)*	9.4%^	164	12.1%	129	11.1%	133	12.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	124	9.1%	108	9.3%	124	11.9%
91–180 Days							
Births With Early and Adequate Prenatal Care	76.4%	1,658	62.8%	1,424	62.9%	1,149	60.1%
*Births With Inadequate Prenatal Care**	*NA*	664	25.2%	581	25.7%	545	28.5%
*Births With No Prenatal Care**	*NA*	64	2.4%	75	3.3%	85	4.4%
Preterm Births (<37 Weeks Gestation)*	9.4%^	306	11.4%	256	11.1%	223	11.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	293	10.9%	242	10.5%	192	9.9%
>180 Days							
Births With Early and Adequate Prenatal Care	76.4%	19,668	76.2%	20,064	75.9%	19,829	76.3%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	3,209	12.4%	3,250	12.3%	3,226	12.4%
*Births With No Prenatal Care**	*NA*	459	1.8%	639	2.4%	772	3.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	2,593	10.0%	2,606	9.7%	2,600	9.9%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	2,438	9.4%	2,545	9.5%	2,423	9.2%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

Women who were continuously enrolled for more than 180 days prior to delivery had rates that outperformed the national benchmark for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator for all three measurement periods. While women who were continuously enrolled for more than 180 days prior to delivery had rates that underperformed relative to national benchmark on the *Births With Early and Adequate Prenatal Care* study indicator, these women did have the highest rates of *Births With Early and Adequate Prenatal Care* compared to women enrolled less than 180 days. Of note, the rate for women who were continuously enrolled between 91 and 180 days outperformed the national benchmark for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator in CY 2023.

MCO Study Indicator Results

Table 3-12 presents the overall birth outcomes study indicators stratified by MCO for each measurement period.

Table 3-12—Birth Outcomes Study Indicator Findings Among Singleton Births by MCO, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Aetna							
Births With Early and Adequate Prenatal Care	76.4%	2,962	77.1%	3,009	76.9%	3,109	76.9%
*Births With Inadequate Prenatal Care**	*NA*	500	13.0%	523	13.4%	528	13.1%
*Births With No Prenatal Care**	*NA*	53	1.4%	59	1.5%	95	2.4%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%^	392	10.2%	356	9.0%	391	9.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	374	9.7%	346	8.7%	379	9.3%
HealthKeepers							
Births With Early and Adequate Prenatal Care	76.4%	6,496	74.8%	6,638	74.8%	6,260	75.5%
*Births With Inadequate Prenatal Care**	*NA*	1,201	13.8%	1,155	13.0%	1,087	13.1%
*Births With No Prenatal Care**	*NA*	142	1.6%	248	2.8%	295	3.6%
Preterm Births (<37 Weeks Gestation)*	9.4%^	852	9.7%	886	9.9%	821	9.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	759	8.6%	856	9.5%	775	9.2%
Molina							
Births With Early and Adequate Prenatal Care	76.4%	1,508	74.3%	1,497	72.9%	1,440	72.3%
*Births With Inadequate Prenatal Care**	*NA*	263	13.0%	288	14.0%	309	15.5%
*Births With No Prenatal Care**	*NA*	54	2.7%	54	2.6%	61	3.1%
Preterm Births (<37 Weeks Gestation)*	9.4%^	215	10.5%	228	11.0%	203	10.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	221	10.8%	215	10.4%	195	9.7%
Sentara**							
Births With Early and Adequate Prenatal Care	76.4%	8,226	75.4%	7,964	75.1%	7,607	75.4%
*Births With Inadequate Prenatal Care**	*NA*	1,448	13.3%	1,439	13.6%	1,402	13.9%
*Births With No Prenatal Care**	*NA*	200	1.8%	232	2.2%	250	2.5%
Preterm Births (<37 Weeks Gestation)*	9.4%^	1,167	10.6%	1,105	10.2%	1,061	10.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	1,112	10.1%	1,067	9.9%	986	9.6%
United							

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Births With Early and Adequate Prenatal Care	76.4%	1,864	71.2%	2,130	73.2%	2,124	72.6%
*Births With Inadequate Prenatal Care**	*NA*	435	16.6%	410	14.1%	445	15.2%
*Births With No Prenatal Care**	*NA*	45	1.7%	89	3.1%	112	3.8%
Preterm Births (<37 Weeks Gestation)*	9.4%^	231	8.8%	255	8.7%	296	10.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	219	8.3%	262	8.9%	255	8.6%

** A lower rate indicates better performance for this indicator.*
*** HSAG combined Optima and VA Premier for CY 2021 and CY 2022 in this year's report and displays the rates as Sentara. Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

Aetna was the only MCO to outperform national benchmarks for the *Births With Early and Adequate Prenatal Care* and *Newborns With Low Birth Weight (<2,5000 grams)* study indicators for all three measurement periods. While Aetna outperformed the national benchmark for *Preterm Births (<37 Weeks Gestation)* in CY 2022, performance worsened from CY 2022 to CY 2023, and no longer outperformed the national benchmark in CY 2023. Of note, 32 percent of women enrolled in Aetna were White, Non-Hispanic women of any race, who, as Table 3-5 shows, had worsened performance from CY 2022 to CY 2023 on the *Preterm Births (<37 Weeks Gestation*) study indicator. Molina and United had the lowest rates of *Births With Early and Adequate Prenatal Care* and underperformed relative to national benchmarks across all three measurement periods. While Molina underperformed compared to national benchmarks on the *Preterm Births (<37 Weeks Gestation)* study indicator across all three measurement periods, United only underperformed in CY 2023. Of note, 25 percent and 22 percent of women enrolled in Molina and United, respectively, were Black, Non-Hispanic, who, as Table 3-5 shows, have the least favorable rates of preterm births.

Comparative Analysis

Table 3-13 presents the CY 2023 birth outcomes study indicator results for the four Medicaid programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and Other Aid Categories) stratified into a study population and comparison group based on the length of continuous enrollment prior to a woman's delivery. The table also indicates whether each indicator's results were statistically significantly different between the study population (i.e., continuously enrolled for ≥ 120 days prior to delivery) and the comparison group (i.e., continuously enrolled for < 120 days prior to delivery).

Table 3-13—Birth Outcomes Study Indicator Findings Among Singleton Births by Comparison Group and Study Population, CY 2023

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
Medicaid for Pregnant Women							
Births With Early and Adequate Prenatal Care	76.4%	1,599	972	60.8%	10,907	8,178	75.0%+
*Births With Inadequate Prenatal Care**	*NA*	1,599	399	25.0%	10,907	1,561	14.3%+
*Births With No Prenatal Care**	*NA*	1,599	89	5.6%	10,907	274	2.5%+
Preterm Births (<37 Weeks Gestation)*	9.4%^	1,627	200	12.3%	11,057	988	8.9%+
Newborns With Low Birth Weight (<2,500g)*	10.4%	1,626	178	10.9%	11,055	898	8.1%+
Medicaid Expansion							
Births With Early and Adequate Prenatal Care	76.4%	153	103	67.3%	7,555	5,964	78.9%+
*Births With Inadequate Prenatal Care**	*NA*	153	27	17.6%	7,555	799	10.6%+
*Births With No Prenatal Care**	*NA*	153	*S*	*S*	7,555	202	2.7%
Preterm Births (<37 Weeks Gestation)*	9.4%^	158	16	10.1%	7,655	788	10.3%
Newborns With Low Birth Weight (<2,500g)*	10.4%	158	*S*	*S*	7,654	748	9.8%+
FAMIS MOMS							
Births With Early and Adequate Prenatal Care	76.4%	359	267	74.4%	1,494	1,206	80.7%+
*Births With Inadequate Prenatal Care**	*NA*	359	54	15.0%	1,494	161	10.8%+
*Births With No Prenatal Care**	*NA*	359	13	3.6%	1,494	38	2.5%
Preterm Births (<37 Weeks Gestation)*	9.4%^	368	36	9.8%	1,503	104	6.9%
Newborns With Low Birth Weight (<2,500g)*	10.4%	368	43	11.7%	1,503	92	6.1%+
Other Aid Categories†							
Births With Early and Adequate Prenatal Care	76.4%	198	123	62.1%	7,340	5,290	72.1%+

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	198	43	21.7%	7,340	1,081	14.7%+
*Births With No Prenatal Care**	*NA*	198	16	8.1%	7,340	302	4.1%+
Preterm Births (<37 Weeks Gestation)*	9.4%^	200	28	14.0%	7,469	870	11.6%
Newborns With Low Birth Weight (<2,500g)*	10.4%	200	29	14.5%	7,468	820	11.0%

+ indicates a statistically significant difference between the study population rate and the comparison group rate.
** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.
† The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, or FAMIS MOMS. The Other Aid Categories include LIFC (parents and caretaker adults), individuals covered under the Aged, Blind, or Disabled Medicaid groups, Medicaid Children, Youth in Foster Care and Adoption Assistance, Former Foster Care Members, FAMIS Children, and others. The Other Aid Categories exclude births to women in Plan First and DOC (i.e., incarcerated individuals).
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Overall, the FAMIS MOMS program demonstrated strength as it was the only program with rates for the *Births With Early and Adequate Prenatal Care*, *Preterm Births (<37 Weeks Gestation)*, and *Newborns With Low Birth Weight (<2,500 grams)* study indicators outperforming the applicable national benchmarks. The Medicaid for Pregnant Women program also had rates for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators that outperformed the national benchmarks, despite having a rate for the *Births With Early and Adequate Prenatal Care* study indicator that did not meet the national benchmark. Of note, the Other Aid Categories rates for all three study indicators underperformed in comparison to the national benchmarks.

For all four Medicaid programs, women who were continuously enrolled for 120 days or more prior to delivery had better rates than women continuously enrolled for less than 120 days for the *Births With Early and Adequate Prenatal Care* study indicator. Additionally, for all Medicaid programs, except Medicaid Expansion, these women also had better rates for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators. Of note, the comparison population had a higher proportion of Hispanic women of any race who resided in the Northern & Winchester region, while the study population had a higher proportion of Black, Non-Hispanic women who resided in the Central and Tidewater regions. For both the comparison and study populations, Black, Non-Hispanic women residing in the Central and Tidewater regions had some of the highest rates of births with early and adequate prenatal care, yet some of the least favorable rates for preterm births and newborns with low birth weight.

Additional Population-Specific Stratifications

FAMIS MOMS

Table 3-14 provides the FAMIS MOMS singleton births characteristics, stratified by delivery system, maternal age at delivery, maternal race/ethnicity, and managed care region of residence.

Table 3-14—FAMIS MOMS Singleton Births Characteristics, CY 2021–CY 2023

Overall Births	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births†	1,785	100.0%	1,817	100.0%	1,871	100.0%
Medicaid Delivery System						
FFS	259	14.5%	267	14.7%	249	13.3%
Managed Care	1,526	85.5%	1,550	85.3%	1,622	86.7%
Maternal Age at Delivery						
≤15 Years	0	0.0%	*S*	*S*	0	0.0%
16–17 Years	*S*	*S*	*S*	*S*	*S*	*S*
18–20 Years	74	4.1%	76	4.2%	97	5.2%
21–24 Years	363	20.3%	367	20.2%	380	20.3%
25–29 Years	620	34.7%	603	33.2%	578	30.9%
30–34 Years	455	25.5%	470	25.9%	513	27.4%
35–39 Years	217	12.2%	231	12.7%	236	12.6%
40–44 Years	45	2.5%	50	2.8%	52	2.8%
≥45 Years	*S*	*S*	*S*	*S*	*S*	*S*
Unknown	*S*	*S*	*S*	*S*	*S*	*S*
Maternal Race/Ethnicity						
White, Non-Hispanic	709	39.7%	698	38.4%	733	39.2%
Black, Non-Hispanic	529	29.6%	470	25.9%	505	27.0%
Asian, Non-Hispanic	131	7.3%	144	7.9%	134	7.2%
Hispanic, Any Race	344	19.3%	421	23.2%	408	21.8%
Other/Unknown	72	4.0%	84	4.6%	91	4.9%
Managed Care Region of Residence						
Central	408	22.9%	464	25.5%	456	24.4%
Charlottesville/Western	213	11.9%	216	11.9%	228	12.2%
Northern & Winchester	625	35.0%	646	35.6%	661	35.3%
Roanoke/Alleghany	140	7.8%	134	7.4%	138	7.4%
Southwest	34	1.9%	37	2.0%	32	1.7%

Overall Births	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Tidewater	364	20.4%	314	17.3%	355	19.0%

Note: Due to rounding, the percentages in each column may not sum to 100 percent.
† Members with unknown managed care regions of residence are included in the singleton births total.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Approximately 79 percent of births to women in the FAMIS MOMS program were to women 21 to 34 years of age who were White, Non-Hispanic (39.2 percent) or Black, Non-Hispanic (27.0 percent). Similar to prior years, most (78.7 percent) FAMIS MOMS births were to women who resided in the Central, Northern & Winchester, or Tidewater regions.

Table 3-15 presents the FAMIS MOMS birth outcomes study indicator results stratified by delivery system for each measurement period.

Table 3-15—Birth Outcomes Study Indicator Findings Among FAMIS MOMS Singleton Births by Delivery System, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
FFS							
Births With Early and Adequate Prenatal Care	76.4%	195	76.5%	211	79.3%	193	80.1%
*Births With Inadequate Prenatal Care**	*NA*	35	13.7%	25	9.4%	24	10.0%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	25	9.7%	30	11.3%	21	8.4%
Newborns With Low Birth Weight (<2,500g)*	10.4%	22	8.5%	28	10.5%	21	8.4%
Managed Care							
Births With Early and Adequate Prenatal Care	76.4%	1,187	78.4%	1,180	77.1%	1,280	79.4%
*Births With Inadequate Prenatal Care**	*NA*	184	12.2%	205	13.4%	191	11.8%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	136	8.9%	120	7.7%	119	7.3%
Newborns With Low Birth Weight (<2,500g)*	10.4%	123	8.1%	109	7.0%	114	7.0%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.

NA indicates there is not an applicable national benchmark for this indicator.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

While FAMIS MOMS women enrolled in FFS had higher rates of *Births With Early and Adequate Prenatal Care* than FAMIS MOMS women enrolled in managed care in CY 2022 and CY 2023, the rates for FAMIS MOMS women enrolled in managed care outperformed the national benchmarks for all study indicators across all measurement periods.

Table 3-16 presents the FAMIS MOMS birth outcomes study indicator results stratified by race/ethnicity for each measurement period.

Table 3-16—Birth Outcomes Study Indicator Findings Among FAMIS MOMS Singleton Births by Race/Ethnicity, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	570	81.3%	554	80.3%	613	84.2%
*Births With Inadequate Prenatal Care**	*NA*	76	10.8%	80	11.6%	64	8.8%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	13	1.8%
Preterm Births (<37 Weeks Gestation)*	9.4%^	53	7.5%	49	7.0%	45	6.1%
Newborns With Low Birth Weight (<2,500g)*	10.4%	46	6.5%	40	5.7%	36	4.9%
Black, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	409	77.9%	367	78.8%	404	80.5%
*Births With Inadequate Prenatal Care**	*NA*	62	11.8%	56	12.0%	59	11.8%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	11	2.2%
Preterm Births (<37 Weeks Gestation)*	9.4%^	58	11.0%	46	9.8%	51	10.1%
Newborns With Low Birth Weight (<2,500g)*	10.4%	56	10.6%	45	9.6%	61	12.1%
Asian, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	107	82.9%	102	71.3%	98	76.0%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	12	9.3%	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	16	12.2%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500g)*	10.4%	11	8.4%	*S*	*S*	*S*	*S*
Hispanic, Any Race							
Births With Early and Adequate Prenatal Care	76.4%	248	72.5%	304	73.3%	288	70.9%
*Births With Inadequate Prenatal Care**	*NA*	55	16.1%	60	14.5%	67	16.5%
*Births With No Prenatal Care**	*NA*	*S*	*S*	14	3.4%	23	5.7%
Preterm Births (<37 Weeks Gestation)*	9.4%^	30	8.7%	36	8.6%	30	7.4%
Newborns With Low Birth Weight (<2,500g)*	10.4%	25	7.3%	33	7.8%	22	5.4%
Other/Unknown							
Births With Early and Adequate Prenatal Care	76.4%	48	66.7%	64	78.0%	70	79.5%
*Births With Inadequate Prenatal Care**	*NA*	14	19.4%	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	*S*	*S*	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500g)*	10.4%	*S*	*S*	*S*	*S*	*S*	*S*

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Although the CY 2023 *Births With Early and Adequate Prenatal Care* rates for Black, Non-Hispanic women enrolled in FAMIS MOMS outperformed the national benchmark, Black, Non-Hispanic women had the highest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight*

(<2,500 grams) compared to other races/ethnicities. Despite Hispanic women of any race enrolled in FAMIS MOMS having the lowest rate of *Births With Early and Adequate Prenatal Care*, study indicator rates for *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* outperformed national benchmarks.

Table 3-17 presents the FAMIS MOMS birth outcomes study indicator results stratified by geographic managed care region for each measurement period.

Table 3-17—Birth Outcomes Study Indicator Findings Among FAMIS MOMS Singleton Births by Managed Care Region of Maternal Residence, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Central							
Births With Early and Adequate Prenatal Care	76.4%	351	86.0%	382	83.0%	385	84.6%
*Births With Inadequate Prenatal Care**	*NA*	32	7.8%	43	9.3%	45	9.9%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	42	10.3%	37	8.0%	44	9.6%
Newborns With Low Birth Weight (<2,500g)*	10.4%	40	9.8%	32	6.9%	39	8.6%
Charlottesville/Western							
Births With Early and Adequate Prenatal Care	76.4%	171	83.0%	180	83.7%	174	76.7%
*Births With Inadequate Prenatal Care**	*NA*	24	11.7%	23	10.7%	29	12.8%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	16	7.5%	13	6.0%	13	5.7%
Newborns With Low Birth Weight (<2,500g)*	10.4%	16	7.5%	*S*	*S*	15	6.6%
Northern & Winchester							
Births With Early and Adequate Prenatal Care	76.4%	427	69.1%	436	68.6%	461	71.1%
*Births With Inadequate Prenatal Care**	*NA*	111	18.0%	116	18.2%	105	16.2%
*Births With No Prenatal Care**	*NA*	*S*	*S*	18	2.8%	30	4.6%
Preterm Births (<37 Weeks Gestation)*	9.4%^	52	8.3%	55	8.5%	46	7.0%
Newborns With Low Birth Weight (<2,500g)*	10.4%	40	6.4%	58	9.0%	40	6.1%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Roanoke/Alleghany							
Births With Early and Adequate Prenatal Care	76.4%	121	86.4%	110	82.1%	119	86.9%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	*S*	*S*	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500g)*	10.4%	*S*	*S*	11	8.2%	*S*	*S*
Southwest							
Births With Early and Adequate Prenatal Care	76.4%	31	91.2%	35	94.6%	29	90.6%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	*S*	*S*	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500g)*	10.4%	*S*	*S*	*S*	*S*	*S*	*S*
Tidewater							
Births With Early and Adequate Prenatal Care	76.4%	280	77.3%	243	78.9%	304	86.1%
*Births With Inadequate Prenatal Care**	*NA*	47	13.0%	35	11.4%	26	7.4%
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	34	9.3%	31	9.9%	24	6.8%
Newborns With Low Birth Weight (<2,500g)*	10.4%	32	8.8%	23	7.3%	32	9.0%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

The rates for FAMIS MOMS women residing in the Northern & Winchester region underperformed relative to national benchmarks for *Births With Early and Adequate Prenatal Care* across all three measurement periods; however, the rates for *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* outperformed the national benchmarks for all three measurement periods. Women residing in the Charlottesville/Western, Roanoke/Alleghany, Southwest, and Tidewater regions had rates for all three study indicators that outperformed national benchmarks in CY 2023.

Table 3-18 presents the FAMIS MOMS birth outcomes study indicator results stratified by length of continuous enrollment for each measurement period.

Table 3-18—Birth Outcomes Study Indicator Findings Among FAMIS MOMS Singleton Births by Length of Continuous Enrollment, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
≤30 Days							
Births With Early and Adequate Prenatal Care	76.4%	90	72.6%	103	78.6%	107	81.7%
*Births With Inadequate Prenatal Care**	*NA*	23	18.5%	14	10.7%	14	10.7%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	11	8.8%	19	14.4%	11	8.1%
Newborns With Low Birth Weight (<2,500g)*	10.4%	11	8.8%	13	9.8%	14	10.3%
31–90 Days							
Births With Early and Adequate Prenatal Care	76.4%	128	74.4%	134	74.9%	107	70.9%
*Births With Inadequate Prenatal Care**	*NA*	25	14.5%	29	16.2%	28	18.5%
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	19	10.9%	21	11.5%	16	10.4%
Newborns With Low Birth Weight (<2,500g)*	10.4%	16	9.2%	20	10.9%	22	14.3%
91–180 Days							
Births With Early and Adequate Prenatal Care	76.4%	262	75.5%	257	71.6%	213	71.0%
*Births With Inadequate Prenatal Care**	*NA*	55	15.9%	66	18.4%	51	17.0%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	15	5.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	44	12.5%	48	13.2%	35	11.6%
Newborns With Low Birth Weight (<2,500g)*	10.4%	34	9.6%	46	12.6%	30	9.9%
>180 Days							
Births With Early and Adequate Prenatal Care	76.4%	900	80.1%	892	79.5%	1,042	82.2%
*Births With Inadequate Prenatal Care**	*NA*	116	10.3%	121	10.8%	122	9.6%
*Births With No Prenatal Care**	*NA*	*S*	*S*	14	1.2%	28	2.2%
Preterm Births (<37 Weeks Gestation)*	9.4%^	87	7.7%	62	5.5%	78	6.1%
Newborns With Low Birth Weight (<2,500g)*	10.4%	84	7.4%	58	5.1%	69	5.4%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Women continuously enrolled in FAMIS MOMS for more than 180 days during CY 2023 had the highest rates of *Births With Early and Adequate Prenatal Care* and the lowest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)*, and the rates outperformed national benchmarks on all three study indicators in CY 2023.

Table 3-19 presents the FAMIS MOMS birth outcomes study indicator results stratified by trimester of prenatal care initiation for each measurement period.

Table 3-19—Birth Outcomes Study Indicator Findings Among FAMIS MOMS Singleton Births by Trimester of Prenatal Care Initiation, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
First Trimester							
Births With Early and Adequate Prenatal Care	76.4%	1,231	89.2%	1,246	89.5%	1,318	92.4%
*Births With Inadequate Prenatal Care**	*NA*	18	1.3%	15	1.1%	13	0.9%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	122	8.8%	119	8.6%	96	6.7%
Newborns With Low Birth Weight (<2,500g)*	10.4%	115	8.3%	106	7.6%	97	6.8%
Second Trimester							
Births With Early and Adequate Prenatal Care	76.4%	151	47.0%	145	46.6%	155	49.2%
*Births With Inadequate Prenatal Care**	*NA*	145	45.2%	149	47.9%	142	45.1%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	29	9.0%	18	5.8%	28	8.9%
Newborns With Low Birth Weight (<2,500g)*	10.4%	19	5.9%	20	6.4%	20	6.3%
Third Trimester							
Births With Early and Adequate Prenatal Care	76.4%	0	0.0%	0	0.0%	0	0.0%
*Births With Inadequate Prenatal Care**	*NA*	56	100.0%	66	100.0%	60	100.0%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	*S*	*S*	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500g)*	10.4%	*S*	*S*	*S*	*S*	*S*	*S*
No Prenatal Care							
Births With Early and Adequate Prenatal Care	76.4%	0	0.0%	0	0.0%	0	0.0%
*Births With Inadequate Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
*Births With No Prenatal Care**	*NA*	12	100.0%	27	100.0%	51	100.0%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%^	*S*	*S*	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500g)*	10.4%	*S*	*S*	*S*	*S*	*S*	*S*

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Most women enrolled in FAMIS MOMS (approximately 75 percent in CY 2023) initiated prenatal care in the first trimester, and the rates outperformed the national benchmarks for all three study indicators across all three measurement periods. Women who enrolled in FAMIS MOMS during the second trimester had *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* rates that outperformed national benchmarks across all three measurement periods.

Maternal Health Outcomes and Study Indicator Results and Trending

Table 3-20 presents the maternal health study indicator results for CY 2021 through CY 2023. Please refer to Appendix A for additional stratifications for maternal health study indicator results not presented in this section.

Table 3-20—Maternal Health Outcomes Study Indicator Findings Among Singleton Births, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Postpartum ED Utilization*	4,469	14.4%	5,395	17.4%	5,438	18.1%
Postpartum Ambulatory Care Utilization	16,136	52.0%	18,261	58.9%	17,881	59.5%
Prenatal Maternal Depression Screenings	1,633	5.3%	1,848	6.0%	1,824	6.1%
Postpartum Maternal Depression Screenings	2,198	7.1%	2,592	8.4%	2,838	9.4%

** A lower rate indicates better performance for this indicator.*

Approximately 18 percent and 60 percent of women utilized ED and ambulatory care services, respectively, within 90 days postpartum in CY 2023, which is consistent with CY 2022 utilization. Please note that these study indicators are not specific to postpartum care services and instead represent the utilization of ED and ambulatory services within the postpartum period; therefore, exercise caution when interpreting results. In CY 2023, women who received intermediate prenatal care had the highest rates of *Postpartum ED Utilization* (18.9 percent), while women who were continuously enrolled for more than 180 days had higher rates of *Postpartum Ambulatory Care Utilization* (61.2 percent). While the rates for *Prenatal Maternal Depression Screenings* were stable between CY 2022 and CY 2023, the rates for *Postpartum Maternal Depression Screenings* (i.e., between seven and 84 days postpartum) have steadily increased since CY 2021.

Study Indicators Stratified by Select Demographics

Table 3-21 presents CY 2021 through CY 2023 study indicator results stratified by race/ethnicity for each measurement period and includes shading to represent identified disparities for the maternal health outcomes study indicators for CY 2022 and CY 2023.

Table 3-21—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Race/Ethnicity, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic						
Postpartum ED Utilization*	1,725	13.9%	2,103	16.7%	2,067	17.2%

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Postpartum Ambulatory Care Utilization	6,531	52.5%	7,404	58.8%	7,074	58.7%
Prenatal Maternal Depression Screenings	783	6.3%	890	7.1%	788	6.5%
Postpartum Maternal Depression Screenings	1,050	8.4%	1,057	8.4%	1,067	8.9%
Black, Non-Hispanic						
Postpartum ED Utilization*	1,916	16.4%	2,300	20.2%	2,287	21.0%
Postpartum Ambulatory Care Utilization	6,002	51.3%	6,571	57.8%	6,460	59.4%
Prenatal Maternal Depression Screenings	628	5.4%	671	5.9%	725	6.7%
Postpartum Maternal Depression Screenings	755	6.5%	1,007	8.9%	1,077	9.9%
Asian, Non-Hispanic						
Postpartum ED Utilization*	101	7.8%	113	9.6%	160	11.6%
Postpartum Ambulatory Care Utilization	693	53.6%	722	61.3%	848	61.3%
Prenatal Maternal Depression Screenings	22	1.7%	23	2.0%	36	2.6%
Postpartum Maternal Depression Screenings	61	4.7%	86	7.3%	132	9.5%
Hispanic, Any Race						
Postpartum ED Utilization*	540	12.3%	665	15.0%	669	15.2%
Postpartum Ambulatory Care Utilization	2,270	51.6%	2,671	60.4%	2,651	60.4%
Prenatal Maternal Depression Screenings	157	3.6%	178	4.0%	206	4.7%
Postpartum Maternal Depression Screenings	253	5.7%	328	7.4%	432	9.8%
Other/Unknown						
Postpartum ED Utilization*	187	15.7%	214	14.6%	255	18.9%
Postpartum Ambulatory Care Utilization	640	53.6%	893	61.0%	848	62.8%

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Prenatal Maternal Depression Screenings	43	3.6%	86	5.9%	69	5.1%
Postpartum Maternal Depression Screenings	79	6.6%	114	7.8%	130	9.6%

** A lower rate indicates better performance for this indicator.*

Blue shading indicates that a disparity was identified (i.e., had a p-value less than or equal to 0.05) and the stratified rate was higher or more favorable than the reference group rate.

Orange shading indicates that a disparity was identified (i.e., had a p-value less than or equal to 0.05) and the stratified rate was lower or less favorable than the reference group rate.

White, Non-Hispanic, Asian, Non-Hispanic women, and Hispanic women of any race had significantly more favorable rates of ED visits after delivery than all other races/ethnicities, while Black, Non-Hispanic women had significantly less favorable rates. This finding suggests Black, Non-Hispanic women sought care in an ED setting at a higher rate that all other races/ethnicities. The Black, Non-Hispanic rate of ambulatory postpartum utilization improved from CY 2022 to CY 2023 and was no longer considered a disparity in CY 2023. While rates of depression screening are low for all races/ethnicities, Black, Non-Hispanic women were significantly more likely to receive a depression screening in the perinatal period.

Table 3-22 presents study indicator results stratified by geographic managed care region.

Table 3-22—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Managed Care Region of Maternal Residence, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Central						
Postpartum ED Utilization*	1,348	16.2%	1,558	18.8%	1,656	20.3%
Postpartum Ambulatory Care Utilization	4,910	58.9%	5,266	63.4%	5,249	64.5%
Prenatal Maternal Depression Screenings	394	4.7%	496	6.0%	526	6.5%
Postpartum Maternal Depression Screenings	369	4.4%	579	7.0%	605	7.4%
Charlottesville/Western						
Postpartum ED Utilization*	540	13.3%	636	15.7%	633	15.7%
Postpartum Ambulatory Care Utilization	2,065	50.9%	2,352	57.9%	2,396	59.4%
Prenatal Maternal Depression Screenings	592	14.6%	551	13.6%	396	9.8%
Postpartum Maternal Depression Screenings	591	14.6%	403	9.9%	296	7.3%

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Northern & Winchester						
Postpartum ED Utilization*	818	11.9%	965	13.8%	925	13.8%
Postpartum Ambulatory Care Utilization	3,724	54.0%	4,299	61.7%	4,039	60.4%
Prenatal Maternal Depression Screenings	87	1.3%	155	2.2%	150	2.2%
Postpartum Maternal Depression Screenings	214	3.1%	358	5.1%	478	7.1%
Roanoke/Alleghany						
Postpartum ED Utilization*	449	15.1%	563	18.4%	600	20.2%
Postpartum Ambulatory Care Utilization	1,520	51.2%	1,746	57.2%	1,749	58.8%
Prenatal Maternal Depression Screenings	148	5.0%	162	5.3%	163	5.5%
Postpartum Maternal Depression Screenings	*S*	*S*	99	3.2%	187	6.3%
Southwest						
Postpartum ED Utilization*	212	19.9%	233	24.0%	197	20.8%
Postpartum Ambulatory Care Utilization	606	56.8%	637	65.7%	538	56.9%
Prenatal Maternal Depression Screenings	32	3.0%	46	4.7%	80	8.5%
Postpartum Maternal Depression Screenings	*S*	*S*	16	1.6%	25	2.6%
Tidewater						
Postpartum ED Utilization*	1,101	14.3%	1,424	18.8%	1,426	19.7%
Postpartum Ambulatory Care Utilization	3,309	42.9%	3,916	51.8%	3,907	53.9%
Prenatal Maternal Depression Screenings	380	4.9%	435	5.8%	508	7.0%
Postpartum Maternal Depression Screenings	927	12.0%	1,133	15.0%	1,247	17.2%

** A lower rate indicates better performance for this indicator.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

The Southwest region had the least favorable rates of *Postpartum ED Utilization* and the second lowest rates of *Postpartum Ambulatory Care Utilization.* While the *Postpartum Ambulatory Care Utilization* rate

in the Southwest region declined by approximately 9 percentage points from CY 2022 to CY 2023, the rate is now similar to the CY 2021 rate. Of note, approximately 94 percent of deliveries to women in the Southwest region were to White, Non-Hispanic women, who, as shown in Table 3-21, had the lowest rate of *Postpartum Ambulatory Care Utilization* compared to all other races/ethnicities. The Northern & Winchester region had the most favorable rates of *Postpartum ED Utilization*. Of note, approximately 31 percent of women residing in the Northern & Winchester region are Hispanic of any race and had significantly better rates of *Postpartum ED Utilization* compared to all other races/ethnicities, as shown in Table 3-21.

The Charlottesville/Western region had the highest rates of *Prenatal Maternal Depression Screening* and the Tidewater region had the highest rates of *Postpartum Maternal Depression Screening*. Of note, approximately 58 percent and 28 percent of women who had deliveries in the Charlottesville/Western region were White, Non-Hispanic and Black, Non-Hispanic, respectively. For the Tidewater region, approximately 56 percent and 28 percent of women who had deliveries were Black, Non-Hispanic and White, Non-Hispanic, respectively. The high rates of depression screenings in the Charlottesville/Western and Tidewater regions were likely due to both White, Non-Hispanic and Black, Non-Hispanic women having significantly better rates of depression screening, as shown in Table 3-21.

Study Indicator Findings by Medicaid Characteristics

Table 3-23 presents the study indicator results stratified by Medicaid program.

Table 3-23—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Medicaid Program, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Medicaid for Pregnant Women						
Postpartum ED Utilization*	2,175	13.9%	2,184	16.6%	2,208	17.4%
Postpartum Ambulatory Care Utilization	8,301	52.9%	7,821	59.5%	7,610	60.0%
Prenatal Maternal Depression Screenings	709	4.5%	650	4.9%	661	5.2%
Postpartum Maternal Depression Screenings	1,147	7.3%	1,106	8.4%	1,207	9.5%
Medicaid Expansion						
Postpartum ED Utilization*	905	13.8%	1,400	17.6%	1,357	17.4%
Postpartum Ambulatory Care Utilization	3,265	49.9%	4,655	58.6%	4,546	58.2%
Prenatal Maternal Depression Screenings	387	5.9%	512	6.4%	497	6.4%
Postpartum Maternal Depression Screenings	485	7.4%	691	8.7%	732	9.4%

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
FAMIS MOMS						
Postpartum ED Utilization*	191	10.7%	218	12.0%	236	12.6%
Postpartum Ambulatory Care Utilization	855	47.9%	994	54.7%	1,051	56.2%
Prenatal Maternal Depression Screenings	48	2.7%	52	2.9%	62	3.3%
Postpartum Maternal Depression Screenings	109	6.1%	142	7.8%	177	9.5%
Other Aid Categories†						
Postpartum ED Utilization*	1,198	17.1%	1,593	19.7%	1,637	21.3%
Postpartum Ambulatory Care Utilization	3,715	53.0%	4,791	59.1%	4,674	60.9%
Prenatal Maternal Depression Screenings	489	7.0%	634	7.8%	604	7.9%
Postpartum Maternal Depression Screenings	457	6.5%	653	8.1%	722	9.4%

** A lower rate indicates better performance for this indicator.*
† The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, or FAMIS MOMS. The Other Aid Categories include LIFC (parents and caretaker adults), individuals covered under the Aged, Blind, or Disabled Medicaid groups, Medicaid Children, Youth in Foster Care and Adoption Assistance, Former Foster Care Members, FAMIS Children, and others. The Other Aid Categories exclude births to women in Plan First and DOC (i.e., incarcerated individuals).

In CY 2023, women in the FAMIS MOMS program had the most favorable rates for *Postpartum ED Utilization*; however, women in the FAMIS MOMS program had the lowest rates of *Postpartum Ambulatory Care*, which is consistent with prior years. Women in the Other Aid Categories had the highest rate of *Prenatal Maternal Depression Screenings*, and women across all programs had similar rates for the *Postpartum Maternal Depression Screenings*.

Table 3-24 presents the study indicator results stratified by managed care population for each measurement period.

Table 3-24—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Managed Care Population at Delivery, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
MLTSS						
Postpartum ED Utilization*	217	23.4%	311	31.2%	339	34.1%
Postpartum Ambulatory Care Utilization	566	61.0%	728	72.9%	714	71.8%

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Prenatal Maternal Depression Screenings	80	8.6%	97	9.7%	92	9.2%
Postpartum Maternal Depression Screenings	59	6.4%	92	9.2%	89	8.9%
Acute						
Postpartum ED Utilization*	4,036	14.7%	4,873	17.6%	4,844	18.1%
Postpartum Ambulatory Care Utilization	14,526	53.0%	16,676	60.1%	16,220	60.6%
Prenatal Maternal Depression Screenings	1,539	5.6%	1,736	6.3%	1,695	6.3%
Postpartum Maternal Depression Screenings	2,060	7.5%	2,439	8.8%	2,669	10.0%

** A lower rate indicates better performance for this indicator.*

Women enrolled in the MLTSS managed care population had more favorable rates for *Postpartum Ambulatory Care Utilization* and *Prenatal Maternal Depression Screenings* compared to women enrolled in the Acute managed care population in CY 2023. Women enrolled in the MLTSS managed care population had nearly double the rate of the Acute managed care population for the *Postpartum ED Utilization* study indicator, demonstrating opportunities for improvement for the MLTSS managed care population to ensure postpartum care is not received in an ED setting.

Table 3-25 presents the study indicator results stratified by delivery system for each measurement period.

Table 3-25—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Delivery System, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
FFS						
Postpartum ED Utilization*	216	8.0%	211	9.3%	255	11.1%
Postpartum Ambulatory Care Utilization	1,044	38.7%	857	37.8%	947	41.2%
Prenatal Maternal Depression Screenings	14	0.5%	15	0.7%	37	1.6%
Postpartum Maternal Depression Screenings	79	2.9%	61	2.7%	80	3.5%
Managed Care						
Postpartum ED Utilization*	4,253	15.0%	5,184	18.0%	5,183	18.7%

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Postpartum Ambulatory Care Utilization	15,092	53.3%	17,404	60.5%	16,934	61.0%
Prenatal Maternal Depression Screenings	1,619	5.7%	1,833	6.4%	1,787	6.4%
Postpartum Maternal Depression Screenings	2,119	7.5%	2,531	8.8%	2,758	9.9%

** A lower rate indicates better performance for this indicator.*

With the exception of the *Postpartum ED Utilization* study indicator, women in managed care had more favorable rates on the maternal health outcomes than women in FFS.

Table 3-26 presents the study indicator results among singleton births by trimester of prenatal care initiation.

Table 3-26—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Trimester of Prenatal Care Initiation, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
First Trimester						
Postpartum ED Utilization*	3,468	14.5%	4,164	17.5%	4,095	18.4%
Postpartum Ambulatory Care Utilization	12,510	52.5%	14,101	59.4%	13,418	60.3%
Prenatal Maternal Depression Screenings	1,301	5.5%	1,489	6.3%	1,439	6.5%
Postpartum Maternal Depression Screenings	1,798	7.5%	2,121	8.9%	2,204	9.9%
Second Trimester						
Postpartum ED Utilization*	666	13.2%	788	16.5%	901	17.6%
Postpartum Ambulatory Care Utilization	2,539	50.3%	2,713	57.0%	2,928	57.2%
Prenatal Maternal Depression Screenings	231	4.6%	255	5.4%	261	5.1%
Postpartum Maternal Depression Screenings	285	5.6%	327	6.9%	415	8.1%
Third Trimester						
Postpartum ED Utilization*	196	15.8%	215	16.5%	217	16.6%
Postpartum Ambulatory Care Utilization	617	49.8%	728	55.8%	764	58.5%

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Prenatal Maternal Depression Screenings	72	5.8%	51	3.9%	73	5.6%
Postpartum Maternal Depression Screenings	74	6.0%	84	6.4%	118	9.0%
No Prenatal Care						
Postpartum ED Utilization*	95	15.4%	156	19.6%	156	16.6%
Postpartum Ambulatory Care Utilization	333	54.1%	482	60.6%	549	58.3%
Prenatal Maternal Depression Screenings	19	3.1%	26	3.3%	27	2.9%
Postpartum Maternal Depression Screenings	23	3.7%	40	5.0%	63	6.7%

** A lower rate indicates better performance for this indicator.*

Women who initiated prenatal care in the third trimester or had no prenatal care had more favorable rates of *Postpartum ED Utilization* compared to women who initiated prenatal care during any trimester. Additionally, women who received no prenatal care also had the lowest rates of receiving a depression screening in the perinatal period, while women who initiated prenatal care in the first trimester had the highest rates for these study indicators. Of note, women who initiated prenatal care in the first trimester had the highest rate of *Postpartum ED Utilization*. Approximately 92 percent of these women received Adequate or Adequate Plus prenatal care, which suggests that these women may have had high-risk pregnancies that may have impacted their utilization of the ED in the postpartum period.

Table 3-27 presents the study indicator results among singleton births by length of continuous enrollment.

Table 3-27—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Length of Continuous Enrollment, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
≤30 Days						
Postpartum ED Utilization*	76	8.3%	57	7.8%	49	7.3%
Postpartum Ambulatory Care Utilization	292	31.8%	227	31.2%	224	33.2%
Prenatal Maternal Depression Screenings	*S*	*S*	*S*	*S*	*S*	*S*
Postpartum Maternal Depression Screenings	15	1.6%	18	2.5%	23	3.4%
31–90 Days						
Postpartum ED Utilization*	127	9.4%	142	12.2%	111	10.6%

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Postpartum Ambulatory Care Utilization	596	43.9%	538	46.1%	484	46.3%
Prenatal Maternal Depression Screenings	*S*	*S*	*S*	*S*	*S*	*S*
Postpartum Maternal Depression Screenings	59	4.3%	54	4.6%	75	7.2%
91–180 Days						
Postpartum ED Utilization*	282	10.5%	302	13.1%	248	12.8%
Postpartum Ambulatory Care Utilization	1,269	47.4%	1,210	52.5%	1,045	53.8%
Prenatal Maternal Depression Screenings	29	1.1%	33	1.4%	23	1.2%
Postpartum Maternal Depression Screenings	146	5.5%	146	6.3%	134	6.9%
>180 Days						
Postpartum ED Utilization*	3,982	15.3%	4,893	18.3%	5,028	19.1%
Postpartum Ambulatory Care Utilization	13,966	53.7%	16,282	60.8%	16,125	61.2%
Prenatal Maternal Depression Screenings	1,598	6.1%	1,809	6.8%	1,791	6.8%
Postpartum Maternal Depression Screenings	1,978	7.6%	2,374	8.9%	2,606	9.9%

** A lower rate indicates better performance for this indicator.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Overall, the vast majority of women were continuously enrolled in Virginia Medicaid for more than 180 days. Women enrolled for more than 180 days prior to delivery had the least favorable rates for *Postpartum ED Utilization* and the most favorable rates for all remaining study indicators.

MCO Study Indicator Results

Table 3-28 presents the maternal health outcomes study indicators stratified by MCO.

Table 3-28—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by MCO, CY 2021–CY 2023

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Aetna						
Postpartum ED Utilization*	586	15.2%	666	16.8%	678	16.6%
Postpartum Ambulatory Care Utilization	2,091	54.1%	2,322	58.7%	2,410	59.0%
Prenatal Maternal Depression Screenings	221	5.7%	232	5.9%	215	5.3%
Postpartum Maternal Depression Screenings	267	6.9%	274	6.9%	349	8.5%
HealthKeepers						
Postpartum ED Utilization*	1,184	13.5%	1,604	17.9%	1,547	18.4%
Postpartum Ambulatory Care Utilization	4,276	48.7%	5,627	62.8%	5,175	61.5%
Prenatal Maternal Depression Screenings	328	3.7%	459	5.1%	494	5.9%
Postpartum Maternal Depression Screenings	548	6.2%	905	10.1%	991	11.8%
Molina						
Postpartum ED Utilization*	354	17.3%	363	17.6%	348	17.3%
Postpartum Ambulatory Care Utilization	1,066	52.1%	1,145	55.4%	1,209	60.0%
Prenatal Maternal Depression Screenings	68	3.3%	93	4.5%	118	5.9%
Postpartum Maternal Depression Screenings	90	4.4%	189	9.1%	329	16.3%
Sentara**						
Postpartum ED Utilization*	1,779	16.2%	2,085	19.3%	2,153	21.0%
Postpartum Ambulatory Care Utilization	6,218	56.5%	6,591	61.0%	6,439	62.8%
Prenatal Maternal Depression Screenings	964	8.8%	967	8.9%	873	8.5%
Postpartum Maternal Depression Screenings	1,123	10.2%	1,039	9.6%	917	8.9%
United						
Postpartum ED Utilization*	350	13.3%	466	15.8%	457	15.4%
Postpartum Ambulatory Care Utilization	1,441	54.6%	1,719	58.4%	1,701	57.3%

Study Indicator	CY 2021		CY 2022		CY 2023	
	Number	Percent	Number	Percent	Number	Percent
Prenatal Maternal Depression Screenings	38	1.4%	82	2.8%	87	2.9%
Postpartum Maternal Depression Screenings	91	3.5%	124	4.2%	172	5.8%

** A lower rate indicates better performance for this indicator.*
*** HSAG combined Optima and VA Premier for CY 2021 and CY 2022 in this year's report and displays the rates as Sentara. Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*

In CY 2023, Sentara had the least favorable rate of *Postpartum ED Utilization*, but the most favorable rates of *Postpartum Ambulatory Care Utilization* and *Prenatal Maternal Depression Screenings* compared to all other MCOs. Conversely, United had the most favorable rate of *Postpartum ED Utilization*, but the least favorable rates of *Postpartum Ambulatory Care Utilization*, *Prenatal Maternal Depression Screenings*, and *Postpartum Maternal Depression Screenings*.

Postpartum ED Utilization Analysis

Table 3-29 presents the count and percentage of ED visits within 90 days postpartum during CY 2022 and CY 2023.

Table 3-29—Count and Percentage of Postpartum ED Visits, CY 2022–CY 2023

Number of ED Visits per Member	CY 2022		CY 2023	
	Count of ED Visits	Percentage of ED Visits	Count of ED Visits	Percentage of ED Visits
1 ED Visit	3,985	73.9%	3,994	73.4%
2 ED Visits	955	17.7%	989	18.2%
3 ED Visits	267	4.9%	286	5.3%
4 ED Visits	107	2.0%	83	1.5%
5 ED Visits	36	0.7%	38	0.7%
6 ED Visits	18	0.3%	23	0.4%
7 ED Visits	11	0.2%	*S*	*S*
8 or More ED Visits	16	0.3%	*S*	*S*

S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table 3-30 presents the most common primary diagnoses for ED visits within 90 days postpartum in CY 2023.

Table 3-30—Most Common Primary Diagnoses for Postpartum ED Visits, CY 2023

Primary Diagnosis Category	Number of ED Visits	Percentage of ED Visits
Complications specified during the puerperium	1,744	16.1%
Abdominal pain and other digestive/abdomen signs and symptoms	609	5.6%
Hypertension and hypertensive-related conditions complicating	511	4.7%
Urinary tract infections	425	3.9%
Other specified upper respiratory infections	361	3.3%
Nonspecific chest pain	288	2.7%
Headache; including migraine	285	2.6%
Other specified female genital disorders	283	2.6%
Biliary tract disease	257	2.4%
Respiratory signs and symptoms	232	2.1%
Musculoskeletal pain; not low back pain	202	1.9%
Skin and subcutaneous tissue infections	188	1.7%

Primary Diagnosis Category	Number of ED Visits	Percentage of ED Visits
Nonmalignant breast conditions	166	1.5%
Disorders of teeth and gingiva	148	1.4%
Complication of other surgical or medical care or injury; initial encounter	143	1.3%
Complications specified during childbirth	142	1.3%
Sprains and strains; initial encounter	129	1.2%
Nausea and vomiting	125	1.2%
Superficial injury; contusion, initial encounter	124	1.1%
Sickle cell trait/anemia	122	1.1%
Essential hypertension	117	1.1%
Viral infection	110	1.0%

The most common primary diagnosis codes for an ED visit after delivery in CY 2023 were for complications specified during the puerperium; abdominal pain and other digestive/abdomen signs and symptoms; hypertension and hypertensive-related conditions complicating; urinary tract infections; and other specified upper respiratory infections.

Table 3-31 presents postpartum ED visits stratified by when the ED visit occurred during the postpartum period (i.e., within 90 days of delivery).

Table 3-31—Postpartum ED Visits by Postpartum Period, CY 2022–CY 2023

Timing of First ED Visit	CY 2022		CY 2023	
	Num	Rate	Num	Rate
Total ED Visits	5,395	100.0%	5,438	100.0%
Within 7 days of delivery	1,253	23.2%	1,343	24.7%
Between 8 and 14 days after delivery	814	15.1%	824	15.2%
Between 15 and 30 days after delivery	953	17.7%	926	17.0%
Between 31 and 60 days after delivery	1,316	24.4%	1,278	23.5%
Between 61 and 90 days after delivery	1,059	19.6%	1,067	19.6%

Approximately 25 percent of women who had an ED visit after delivery had the visit within seven days of delivery, and approximately 24 percent of women had the ED visit between 31 and 60 days after delivery. According to national literature, approximately 25 percent of women seek care in the ED in the first six months postpartum, with 50 percent of visits occurring within the first 10 days.[52] For Virginia

[52] Brousseau EC, Danilack V, Cai F, Matteson KA. Emergency Department Visits for Postpartum Complications. *J Womens Health*. 2018. (3):253-257. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5865248/#B2. Accessed on: Jan 24, 2025.

Medicaid, approximately 33 percent of ED visits were within 10 days of delivery and 50 percent of ED visits occurred within 24 days of delivery in CY 2023.

Table 3-32 presents postpartum ED visits (i.e., within 90 days of delivery) stratified by Kotelchuck Index Score.

Table 3-32—Postpartum ED Visits by Kotelchuck Index Score, CY 2022–CY 2023

Adequacy of Prenatal Care	CY 2022			CY 2023		
	Num	Denom	Rate	Num	Denom	Rate
Total	5,395	31,009	17.4%	5,438	30,038	18.1%
Births With Early and Adequate Prenatal Care	3,914	22,737	17.2%	3,994	22,103	18.1%
Births With Intermediate Prenatal Care	511	2,847	17.9%	461	2,436	18.9%
Births With Inadequate Prenatal Care	741	4,211	17.6%	755	4,125	18.3%
Births With No Prenatal Care	156	796	19.6%	156	941	16.6%
Births Missing Prenatal Care Info	73	418	17.5%	72	433	16.6%

Overall, the amount of prenatal care members received did not impact their ED utilization in the postpartum period. The rate of ED utilization in the postpartum period for women who did not receive any prenatal care improved by 3 percentage points from CY 2022 to CY 2023. Despite this improvement, the rate of ED utilization in the postpartum period for women who did not receive any prenatal care was only 1.5 percentage points lower than those who received early and adequate prenatal care.

Table 3-33 presents postpartum visits stratified by the completion and timing of postpartum follow-up visits for those who did and did not have an ED visit within 90 days postpartum).

Table 3-33—Postpartum ED Visits by Completion and Timing of Postpartum Follow-up Visits, CY 2022–CY 2023

Timing of Postpartum Visit	CY 2022		CY 2023	
	Num	Rate	Num	Rate
Postpartum Visit Timing With No ED Visit				
No Postpartum Visit	13,616	53.2%	12,237	49.7%
Postpartum Visit Within Less Than 7 Days of Delivery	983	3.8%	1,158	4.7%
Postpartum Visit Between 7 and 14 Days After Delivery	1,706	6.7%	1,788	7.3%
Postpartum Visit Between 15 and 30 Days After Delivery	1,702	6.6%	1,974	8.0%
Postpartum Visit Between 31 and 60 Days After Delivery	6,665	26.0%	6,564	26.7%

Timing of Postpartum Visit	CY 2022		CY 2023	
	Num	Rate	Num	Rate
Postpartum Visit Between 61 and 84 Days After Delivery	942	3.7%	879	3.6%
Postpartum Visit Timing With ED Visit				
No Postpartum Visit	2,614	48.5%	2,288	42.1%
Postpartum Visit Within Less Than 7 Days of Delivery	260	4.8%	326	6.0%
Postpartum Visit Between 7 and 14 Days After Delivery	476	8.8%	563	10.4%
Postpartum Visit Between 15 and 30 Days After Delivery	453	8.4%	571	10.5%
Postpartum Visit Between 31 and 60 Days After Delivery	1,381	25.6%	1,475	27.1%
Postpartum Visit Between 61 and 84 Days After Delivery	211	3.9%	215	4.0%

Approximately 50 percent of women who had a delivery in CY 2023 did not have a postpartum visit or an ED visit within the postpartum period, which is an improvement of approximately 3 percentage points from CY 2022. In CY 2023, the rate of no postpartum visits was approximately 8 percentage points lower for women who had an ED visit in the postpartum period compared to those women who did not have an ED visit. Approximately 26 percent and 27 percent of women in CY 2022 and CY 2023, respectively, had a postpartum visit between 31 and 60 days of delivery regardless of if a woman had an ED visit or not. The American College of Obstetricians and Gynecologists recommends women have a postpartum visit within three weeks of delivery.[53] While there was some improvement in postpartum visits between 7 and 30 days of delivery regardless of if a women had an ED visit or not, it is important to monitor how the 12-month postpartum coverage improves these rates in the future. Further, given that these visits were captured with administrative data, it is possible that these rates are underestimating the rate of postpartum visits.

[53] American College of Obstructions and Gynecologists. Committee Opinion: Optimizing Postpartum Care. 2018: 736. Available at: Optimizing Postpartum Care | ACOG. Accessed on: Jan 24, 2025.

4. Conclusions and Recommendations

This section discusses the limitations of the study and then provides conclusions and recommendations.

Study Limitations

Study findings and conclusions may be affected by limitations related to the study design and source data. As such, caveats include, but are not limited to, the following:

- Study indicator and stratification results may be influenced by the accuracy and timeliness of the birth registry data and administrative Medicaid eligibility, enrollment, and demographic data used for calculations.
  - Additionally, study indicators rely on gestational estimate data from the birth registry. Reliability of these data, especially due to data collection practice variations in individual healthcare facilities, may have a disproportionate influence on regional study indicator results.[54]
- Healthy People 2030 goals are presented for comparison to Virginia Medicaid results for the *Births With Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks Gestation)* study indicators. Caution should be used when comparing study results to national benchmarks, as the benchmarks were derived from birth records covered by all payer types and may not mirror birth outcomes among women with births paid by Title XIX or Title XXI.
- The probabilistic data linkage process allows for manual data reviews to confirm or negate a potential match. The degree of manual review for each measurement period may result in annual differences in the number of birth certificates matched to enrollment data. Affected birth records tend to include women without SSNs and with differences in the names listed in the Medicaid and birth registry systems (e.g., names that are hyphenated and/or difficult to spell).
- The Commonwealth of Virginia allows hospital presumptive eligibility for pregnant women to receive outpatient services, including prenatal care. However, DMAS does not cover inpatient care under the assumption that a woman will qualify for Title XIX or Title XXI benefits. Virginia allows 7 days to process a Medicaid/FAMIS application from a pregnant woman. If additional documentation is needed to verify eligibility, up to 45 days is allowed for processing. As such, a pregnant woman new to Medicaid may have up to a 45-day waiting period before being eligible to have inpatient services covered by Title XIX or Title XXI benefits. Women's understanding of Medicaid benefits and the timing of coverage may result in delayed initiation or continuation of prenatal care.
- As many pregnant women new to Medicaid may not be enrolled in Title XIX or Title XXI benefits until their second or third trimester, use caution when interpreting study findings. Additionally, members are enrolled in FFS prior to enrollment in managed care and do not receive care coordination or care management while enrolled in FFS. Due to the multifactorial nature of birth outcomes and the need for pre-pregnancy interventions, a single delivery system or Medicaid program may not have had adequate time to contact new Medicaid members which can potentially impact birth outcomes.

[54] Dietz PM, Bombard JM, Hutchings YL, et. al. Validation of obstetric estimate of gestational age on US birth certificates. *American Journal of Obstetrics and Gynecology*. Apr 2014; 2010(4): 335.e1-335.e5. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4560346/. Accessed on: Jan 24, 2025.

- Due to differing methodologies and data sources, study findings are not comparable to the HEDIS *Timeliness of Prenatal Care* indicator results. Specifically, the HEDIS *Timeliness of Prenatal Care* indicator does not follow a calendar year measurement period, requires the woman to be continuously enrolled with the health plan for 43 days prior to delivery through 60 days after delivery, and only requires one prenatal care visit for numerator compliance.

Conclusions and Recommendations

The 2023–24 Medicaid and CHIP Maternal and Child Health Focus Study highlights identified priorities for the Medicaid program that focus on maternal health outcomes, behavioral health enhancement, and access to high quality healthcare services. DMAS continues to work with HSAG and the MCOs to address areas of opportunity to provide high quality care to Virginians. This section includes the conclusions from this year's study and recommendations for DMAS' consideration. As context for the conclusions and recommendations, DMAS has implemented recent policy changes related to maternal and child health, and developed a series of strategies to improve maternal and child health outcomes among its members, including the following:

- In June 2024, Virginia Governor Glenn Youngkin issued Executive Order #32, re-establishing the Task Force on Maternal Health Data and Quality Measures. This Task Force had been previously established by legislation in 2021, and the DMAS Director will continue to serve on it. Per the Order, the Task Force shall:
  - (i) Monitor progress and evaluate all data from state-level stakeholders, including third-party payers, and all available electronic claims data to examine quality of care with regard to race, ethnicity, and other demographic and clinical outcomes data;
  - (ii) Monitor progress and evaluate data from existing state-level sources mandated for maternal care, including the HEDIS measure updates to *Prenatal and Postpartum Care* and *Postpartum Depression Screening and Follow-Up*.
  - (iii) Examine the barriers preventing the collection and reporting of timely maternal health data from all stakeholders, including payers;
  - (iv) Examine current maternal health benefit requirements and determine the need for additional benefits to protect women's health;
  - (v) Evaluate the impact of Social Determinants of Health screening on pregnant women and its impact on outcomes data;
  - (vi) Analyze available data one year after delivery, including local-health district level data that will assist in better understanding the scope of the issue; and
  - (vii) Develop recommendations, based upon best practices, for standard quality metrics on maternal care.
- Virginia continued outreach and messaging to ensure that pregnant and postpartum members are aware they are covered for 12 months postpartum. DMAS' Strategic Communications Team and Community Outreach and Member Engagement Team (COMET) coordinated messaging, outreach, and materials to inform applicants and members about important benefits they could access, and ensure stakeholders understood eligibility rules, as Virginia completed initial post-continuous coverage redeterminations throughout the "unwinding."
- Virginia was selected for the National Governors Association's Improving Maternal and Child Health in Rural America Learning Collaborative. The office of Health and Human Resources, Virginia

Department of Health (VDH) and DMAS are collaborating to develop a strategic plan focused on improving maternal and child health in Southwest Virginia, where substance use is particularly high.

- On February 29, 2024, the Office of the Secretary of Health and Human Resources gathered representatives from across Virginia, including legislators, state agencies, and medical community members to discuss strategies for improving Maternal Health at an inaugural Maternal Health Roundtable. The Governor delivered opening remarks and challenged attendees to establish measurable next steps that address struggling maternal health numbers in the Commonwealth. Presenters spoke to the landscape of maternal health in Virginia, Medicaid Maternity and Postpartum Care, Private Sector Care, and a community perspective reflecting best practices. A second Maternal Health Roundtable was held on May 29, 2024, which emphasized perinatal mental health and available resources (including Postpartum Support Virginia, which delivers direct services to perinatal families and provides training to providers; and the Virginia Mental Health Access Program, which connects primary care providers to mental health specialty hubs for consultation).
- In 2023, as part of the Governor's initiatives related to the Partnership for Petersburg and his maternal health focus, Secretary of Health and Human Services (SHHR), DMAS, VAHP met with leadership from Bon Secours Southside Regional Hospital to discuss potential ideas to increase both prenatal and postpartum care in Petersburg. During that discussion, the idea of extended hours (either Saturday or after hours on weekdays) was brought up and Dr. Daphne Bazile wholeheartedly agreed to champion the initiative.
- Dr. Bazile's office, DMAS, and the MCOs began a pilot in November 2023 offering extended clinic hours. A total of 4 clinics have been completed. The number of members attending appointments has increased with each visit. Another clinic is scheduled for April 26, 2025.
- As a result of Dr. Bazile's dedication to the members of Petersburg, DMAS began spreading the word and Inova Health System has followed suit and now offers extended hours.
- DMAS' Baby Steps VA cross-agency workgroup provides targeted information and outreach regarding DMAS' maternal and infant healthcare initiatives. Baby Steps developed a Provider FAQ about the 12-months postpartum coverage. Ongoing Baby Steps communications and outreach efforts include a bi-monthly newsletter highlighting changes in DMAS policies, programs, and services affecting the target populations. Key metrics for assessing progress, as well as community and partner agency maternal health initiatives are shared through Baby Steps VA.
- Baby Steps VA also facilitates bi-monthly meetings to ensure key interested groups (providers, health care organizations, fellow state agencies, and other stakeholders) remain abreast of program and policy changes. Meetings typically include more than 70 participants, and during the reporting period, included presentations from DMAS about its new Cardinal Model of Care; Medicaid MCOs about their behavioral health initiatives targeting pregnant women and infants; fellow state agencies, including the VDH and Department of Behavioral Health and Developmental Services; the March of Dimes, and Virginia's Health Information Exchange about its Emergency Department Care Coordination initiative.
- In August 2023, DMAS hosted a provider summit in the Southwest region (Abingdon, VA) with a focus on maternal health, pharmacy, and behavioral health. Facilitated by DMAS Chief Medical Officer Dr. Lisa Price Stevens, the provider summit was an opportunity to hear from the Southwest provider community about their interests and concerns and to share information about Virginia Medicaid initiatives. More than 80 participants attended, including physicians and allied clinical healthcare providers, substance use treatment professionals, pharmacists, doulas, midwives, lactation consultants, and health department clinical and administrative staff. Representatives from

other state agencies and the Medicaid MCOs also participated in the event. Activities included a panel discussion with local Southwest region health department professionals, area hospital systems' providers of maternal and behavioral health care, doulas, and representatives from the VDH and DMAS.

- DMAS also engaged in outreach activities to providers and members to promote the Medicaid community doula benefit (implemented beginning Spring 2022). Three Medicaid doula provider information videos were developed and launched. The videos are used for doula recruitment and engagement, general education, outreach to the licensed provider community and to educate Medicaid members on the role and benefits of doulas and doula care. The videos are available on the Community Doula Program page of the DMAS website. DMAS held three Community Doula Meetings in 2023 (February, July, and November) and two in the first half of 2024 (March and May). The Virginia Doula Taskforce held two meetings in 2023 (January and November).
- To continue and build upon local availability of community doulas, DMAS and its Baby Steps partners were instrumental in the launch of a May 2024 partnership with Germanna Community College to train and certify doulas. Doula training requires 60 hours of education on core competencies, and certification is handled through the Virginia Certification Board. Upon completion, DMAS assists interested doulas with becoming credentialed through Medicaid.
- In collaboration with Medicaid MCO, Conexus mobile vision clinics, DentaQuest (i.e., the Virginia Medicaid/FAMIS dental benefit administrator), and community partners, DMAS promoted awareness of prenatal care as part of this initiative by reaching out to pregnant members who had not yet received prenatal services. DMAS and the Medicaid managed care plans:
  - Identified Petersburg members in the prenatal and postpartum phases of pregnancy at three points in time in July, September and November of 2023.
  - Targeted members who, based on claims data, had not had a clinical care visit.
  - Provided direct outreach to those members in the form of hand-addressed mailers to inform them of benefits and services available and provided care coordination, including assistance with appointment scheduling and transportation.
- DMAS held a series of meetings that included Petersburg-area maternity providers, local Federally Qualified Health Centers (FQHC), the regional medical center, MCOs, and other stakeholders to learn about community needs, barriers, and opportunities to better serve Petersburg women and children. DMAS closely tracked doula work in Petersburg, too: 35 state-certified, Medicaid-approved doulas cover the Petersburg/Hopewell area, 5 of whom themselves reside in Petersburg or Hopewell. Since the Medicaid doula benefit began, there have been 51 doula-assisted births in Petersburg.
- From October 2021 through December 2023, DMAS collaborated with four Virginia MCOs (Aetna, Anthem, Molina, and United) to participate in a MAC Quality Improvement Infant Well Child Affinity Group to increase well-child visits. Virginia initiated interventions with different providers in the target regions of Roanoke/Alleghany, Northern & Winchester, Tidewater, Petersburg, and Southwest. Based on the findings, the MCOs and DMAS devised and launched a campaign of education for both pregnant members and hospital providers covering newborn eligibility and enrollment.
- Additionally, in August 2023, DMAS implemented a new automated enrollment process for newborns, thus decreasing the number of manual steps that must be taken to facilitate newborn enrollment.
- DMAS partnered with Dr. Bazile and Bon Secours for a pilot in November 2023 to offer extended hours to Medicaid women.

  - On Saturday, November 11, 2023, Bon Secours Southside OBGYN Office held clinic hours from 9:30am-12pm. Dr. Daphne Bazile and her team allocated slots of time to see members. DMAS and the health plans contacted members in many different ways, such as flyers, phone calls, text messages and emails to ensure our members were aware and could take advantage of the opportunity to see Dr. Bazile on a Saturday.
  - DMAS filled all of the appointment slots. The health plans provided giveaways, and DMAS provided doughnuts and members were greeted. The appointments ranged from annual check-ups, prenatal and postpartum follow-up visits. Several key leadership staff was also present and greeted the members as they came in for the appointments. The team included: Deputy Secretary of Health and Human Resources, Leah Mills; DMAS Chief Medical Officer, Dr. Lisa Stevens; DMAS Director, Cheryl Roberts; and other DMAS staff. Once the appointments were completed, DMAS (Leah Mills, Cheryl Roberts and Dr. Lisa Price Stevens) met with Dr. Bazile and her team to hear about their experiences and future opportunities.

- In October 2023, Virginia combined its two existing managed care programs – Commonwealth Coordinated Care Plus (CCC Plus; serving members with complex healthcare needs often requiring long-term services and supports) and Medallion 4.0 (serving all other members) – into one unified managed care program known as Cardinal Care Managed Care (CCMC). Cardinal Care promotes a population-based, rather than a program-based approach to identifying and managing health care needs for all members to improve the experience of care for members, add value for providers, and reduce system inefficiencies. This ensures that pregnant women with pregnancy-related risk factors receive more intensive care management from the MCO; including, if applicable, care management (previously available only under the CCC Plus contract).
- In Spring 2024, DMAS finalized implementation of the Cardinal Model of Care, in which, under the new, unified contract, all pregnant women are assessed for pregnancy risk, and those assessed as at-risk receive clinical care management services at one of three levels of support (depending on level of risk and need). The model of care strengthens requirements around identifying women of higher risk and insuring more intensive care management for those women. Importantly, social determinants of health must be factored into the that identification.
- Under the Cardinal Model of Care, all MCOs use member health assessments and data (e.g., claims data, population health data) to identify whether a member is pregnant, and pregnant women and infants with higher risks for poor outcomes and planning receive additional outreach and related initiatives based on data. Upon completion of a risk assessment, a pregnant member's MCO can then assign them to an appropriate level of care management based on risk status. MCOs must include the following in their risk stratification policies and procedures:
  - The presence of co-morbid or chronic conditions, sexually transmitted infections, etc.;
  - Previous pregnancy complications and adverse birth outcomes;
  - History of or current substance use (e.g., alcohol, tobacco, prescription or recreational drug use);
  - History of, or a current positive screen for, depression, anxiety and/or other behavioral health concerns; and
  - The Member's personal safety (e.g., housing situation, violence).
- DMAS is also in the process of re-procuring its Medicaid managed care contracts. The procurement underway reflects DMAS' goals to improve MCO accountability in service delivery and member access with particular focus on maternal and child health. The new contract will strengthen DMAS' ability to conduct oversight of the MCOs with updated, robust data deliverable requirements based

on guidelines established by the American Academy of Pediatrics and American College of Obstetricians and Gynecologists.

Conclusions

Birth Outcomes

This study considered five quantitative indicators related to prenatal care and associated birth outcomes among births paid by Virginia Medicaid. Between the CY 2021 and CY 2023 measurement periods, study indicators related to prenatal care and preterm births showed opportunities for improvement for Virginia Medicaid members. Specifically, overall results for the *Births With Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks Gestation)* indicators continued to underperform relative to national benchmarks for all three measurement periods. Conversely, rates for the *Newborns With Low Birth Weight (<2,500 grams)* indicator outperformed the national benchmark for all three measurement periods, demonstrating strength for Virginia Medicaid.

The CY 2023 study indicator results also show regional differences in care, with women residing in the Central and Tidewater regions having the highest rates of preterm births and newborns with low birth weight and women in the Southwest region having the lowest rates. Within all regions, racial/ethnic disparities exist, with Black, Non-Hispanic women having the highest rates of preterm births and newborns with low birth weight, and Hispanic women of any race having the lowest rates of early and adequate prenatal care for CY 2023.

DMAS' implementation of the Medicaid Expansion program on January 1, 2019, provided an opportunity for DMAS and the MCOs to provide healthcare coverage to women who were not previously eligible for Medicaid before pregnancy and between pregnancies. Research has shown that Medicaid Expansion programs have helped women obtain better health coverage before, during, and after pregnancy, which leads to improved prenatal and postpartum care. Further, Medicaid Expansion programs also decrease the likelihood of women experiencing gaps in healthcare coverage, and continuous coverage is important for improving health outcomes for mothers and babies.[55] In CY 2023, the number of births to women in Medicaid Expansion stabilized. All study indicator results for the Medicaid Expansion program for CY 2023 demonstrated continued improvement from CY 2021, with the CY 2023 rates for *Births With Early and Adequate Prenatal Care* and *Newborns With Low Birth Weight (<2,500 grams*) surpassing the national benchmark. Additionally, the Medicaid Expansion rate for the *Births With Early and Adequate Prenatal Care* study indictor was 5.5 percentage points higher than the Medicaid for Pregnant Women rate in CY 2023, which supports the importance of Medicaid Expansion women having health coverage prior to becoming pregnant (i.e., women enrolled in Medicaid for Pregnant Women only became eligible for Medicaid because they were pregnant and may not have had the opportunity to receive timely prenatal care). However, while the rate for the *Preterm Births (<37 Weeks)* study indicator is improving, it continues to underperform relative to national benchmarks. The population of women who enroll in the Medicaid Expansion program may have different characteristics and healthcare needs than women in other programs; therefore, DMAS should

[55] Searing A, Ross DC. Medicaid Expansion Fills Gaps in Maternal Health Coverage Leading to Healthier Mothers and Babies. Georgetown University Health Policy Institute, Center for Children and Families. May 2019. Available at: https://ccf.georgetown.edu/wp-content/uploads/2019/05/Maternal-Health_FINAL-1.pdf. Accessed on: Jan 24, 2025.

continue to monitor this population by assessing the risk factors that could be contributing to higher rates of *Preterm Births (<37 Weeks Gestation)*.

The FAMIS MOMS program continued to outperform national benchmarks for all three study indicators in CY 2023, and all study indicator rates improved from CY 2021, though it is important to note that women enrolled in FAMIS MOMS have higher incomes compared to pregnant women in other Medicaid programs (i.e., FAMIS MOMS covers women with incomes up to 205 percent of the FPL[56]). However, it is beyond the scope of the current study to assess the degree to which study indicator results for women in FAMIS MOMS differ from study indicator results for women in other Medicaid programs based on household income. Though limited in number, births to women enrolled in FAMIS MOMS, especially those with continuous enrollment more than 120 days prior to delivery, had the highest rate of *Births With Early and Adequate Prenatal Care* and the lowest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)*. While these rates remained stable over time, the promising results from this program suggest that it could offer a valuable starting point for assessing members' satisfaction with care and underlying SDOH that may distinguish these women from other Medicaid members.

Maternal Health Outcomes

This study assessed four maternal health outcomes related to utilization in the postpartum period and important screenings during the prenatal and postpartum periods. Overall, approximately 18 percent and 60 percent of women utilized ED and ambulatory care services, respectively, within 90 days postpartum. In CY 2023, women who received intermediate prenatal care had the highest rates of *Postpartum ED Utilization*, while women who were continuously enrolled for more than 180 days had higher rates of *Postpartum Ambulatory Care Utilization*. Approximately 73 percent of women who had an ED visit during the postpartum period had one ED visit, and the most common primary diagnosis codes for an ED visit after delivery were for complications specified during the puerperium; abdominal pain and other digestive/abdomen signs and symptoms; hypertension and hypertensive-related conditions complicating; urinary tract infections; and other specified upper respiratory infections. Additionally, approximately 25 percent of women who had an ED visit after delivery had the visit in the first seven days after delivery, and another 24 percent of women had the ED visit between 31 and 60 days of delivery. According to national literature, approximately 25 percent of women seek ED care in the first six months postpartum, with 50 percent of visits occurring within the first 10 days.[57] This indicates that Medicaid members have lower rates of ED visits within the first 10 days following delivery than are seen nationally.

Approximately 14 percent of women received a maternal depression screening during the prenatal or postpartum period. While the rates for *Prenatal Maternal Depression Screenings* were stable between CY 2022 and CY 2023, the rates for *Postpartum Maternal Depression Screenings* (i.e., between seven and 84 days postpartum) have steadily increased since CY 2021. These low rates suggest that data may be incomplete and/or providers may not be billing for these services separately. For the maternal depression screenings, it may be possible that these screenings are happening; however, providers may not be using a standardized screening tool.

[56] This figure includes a standard disregard of 5 percent FPL.

[57] Brousseau EC, Danilack V, Cai F, Matteson KA. Emergency Department Visits for Postpartum Complications. *J Womens Health*. 2018. 27(3):253-257. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5865248/#B2. Accessed on: Jan 24, 2025.

Racial/ethnic disparities exist for the maternal health outcomes, with White, Non-Hispanic women, Asian, Non-Hispanic women, and Hispanic women of any race having significantly more favorable rates of ED visits (lower is better) in CY 2022 and CY 2023 after delivery than all other races/ethnicities, while Black, Non-Hispanic women had significantly less favorable rates. This finding suggests Black, Non-Hispanic women are seeking care in an ED setting at a higher rate than all other races/ethnicities. Higher rates of ED visits can be indicative of a lack of knowledge about the postpartum period for Medicaid members, as well as a lack of appropriate care management in ambulatory care settings. Increased timely ambulatory care during the postpartum period could result in early screening and identification of comorbid conditions, as well as an opportunity to provide education to Medicaid members on what to expect physiologically during the postpartum period. While rates of depression screening are low for all races/ethnicities despite some slight improvement in postpartum depression screenings, Black, Non-Hispanic women were significantly more likely to receive a depression screening in the perinatal period.

Recommendations

HSAG collaborated with DMAS to ensure that this study contributes to existing QI data needs while informing current and future maternal and child health initiatives. As such, HSAG offers the following recommendations based on the findings detailed in this report:

- Overall, approximately 75 percent of births in CY 2023 received early and adequate prenatal care, and approximately 17 percent of births in CY 2023 received inadequate or no prenatal care.
  - To improve prenatal care among Virginia Medicaid members, HSAG and DMAS work on several initiatives, including the PIP and the PWP. In 2024, the MCOs submitted remeasurement data for the *Ensuring Timeliness of Prenatal Visits* PIP, which assessed whether targeted interventions increased the percentage of deliveries that had a prenatal care visit in the first trimester or within 42 days of a member's enrollment with the MCO. Three of the five MCOs (HealthKeepers, Molina, and United) had improvements in CY 2023 over baseline, while the other two MCOs had declines in CY 2023 over baseline. Additionally, as part of the SFY 2024 PWP, the MCOs were eligible to earn back a portion of their quality withhold for performance on the *Prenatal and Postpartum Care—Timeliness of Prenatal Care* indicator based on how the MCO rate compared to national Medicaid benchmarks and/or if the MCO rate improved from prior years. While only one MCO (United) performed above the national Medicaid 50th percentile for the *Prenatal and Postpartum Care—Timeliness of Prenatal Care* indicator, all MCOs improved from CY 2022 and CY 2023 and earned an improvement bonus. DMAS should monitor how the PIP and PWP impact MCO efforts toward ensuring women receive timely prenatal care. Further, for future PWPs and as MCO performance improves, DMAS should consider reassessing the performance threshold for MCOs to earn back a portion of their quality withhold for the *Prenatal and Postpartum Care—Timeliness of Prenatal Care* indicator to continue to incentivize MCO performance for this indicator.
- Approximately 18 percent and 60 percent of women utilized ED and ambulatory care services, respectively, within 90 days postpartum. Additionally, approximately 25 percent of women who had an ED visit after delivery had the visit within seven days of delivery. HSAG recognizes that DMAS is investigating the utilization of ED services in the postpartum period to understand the characteristics and drivers of ED visits. In future studies, HSAG will share the results of DMAS' investigation, if available, and will provide actionable recommendations to DMAS and/or the MCOs.

- Approximately 50 percent of women who had a delivery in CY 2023 did not have a postpartum visit within 90 days of delivery, which is an improvement of 3 percentage points from CY 2022. In CY 2023, the rate of no postpartum visits was approximately 8 percentage points lower for women who had an ED visit in the postpartum period compared to those women who did not have an ED visit. Approximately 27 percent of women had a postpartum visit between 31 and 60 days of delivery regardless of if a woman had an ED visit or not.
  - Please note, all postpartum visits were assessed with administrative data; therefore, the postpartum visit rates may be underestimating the actual number of postpartum visits. For example, postpartum visits may be billed under bundled pregnancy services and may not be distinguishable from other pregnancy-related services. As a result, exercise caution when interpreting these study findings.
  - The American College of Obstetricians and Gynecologists recommends women have a postpartum visit within three weeks of delivery.[58] Given that most women who had a delivery in CY 2023 either did not have a postpartum visit or it was more than three weeks after delivery, and these women also did not seek care in an ED, DMAS and the MCOs should investigate the reasons why women are not having a postpartum visit (e.g., transportation issues, appointment availability). Additionally, given the contract requirements of the Cardinal Care MCOs to assess all pregnant women for risk and determine the appropriate level of care management, it will be important to monitor how these requirements impact birth and maternal outcomes in future studies.
  - In July 2022, DMAS implemented a 12-month continuous postpartum coverage extension for members through a Section 1115 demonstration waiver. While there was some improvement in postpartum visits between seven and 30 days of delivery regardless of whether a woman had an ED visit or not, it is important to monitor how the 12-month postpartum coverage improves these rates in the future. Additionally, given DMAS' and Baby Steps Virginia's outreach campaigns to both members and providers about the 12-months postpartum care coverage extension, as well as the increasing availability and use of doulas, it will be important to assess how these efforts impact postpartum visits in future years.
    - Virginia's evaluation plan for its 12-Month Postpartum Extension 1115 waiver includes a survey instrument to measure postpartum members' experiences accessing care after delivery. Respondents will indicate whether or not they had a visit in the first 12 weeks postpartum. If not, they are asked their primary reason for not having a visit. If so, they are asked about the content of the visit using questions derived from the CDC's PRAMS questionnaire and the MORI. Further, DMAS will oversample postpartum members who had a high-risk event at any time during the perinatal period (e.g., gestational diabetes, preeclampsia/eclampsia, maternal substance use diagnosis, postpartum depression or psychosis diagnosis, infection, hemorrhage, thrombotic emboli, cardiovascular conditions related to pregnancy, incarceration, or prenatal tobacco use). Members whose infants had a health-related event (e.g., preterm birth, low-birth weight, or neonatal abstinence syndrome) will also be oversampled. Once the survey results are available, DMAS should leverage this information to understand the relationship between risk factors and mothers seeking postpartum care.
  - As part of the SFY 2024 PWP, the MCOs were eligible to earn back a portion of their quality withhold for performance on the *Prenatal and Postpartum Care—Postpartum Care* indicator

[58] American College of Obstructions and Gynecologists. Committee Opinion: Optimizing Postpartum Care. 2018: 736. Available at: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care. Accessed on: Dec 27, 2024Jan 24, 2025.

based on how the MCO rate compared to national Medicaid benchmarks and/or if the MCO rate improved from prior years. While only one MCO (United) performed above the national Medicaid 50th percentile for the *Prenatal and Postpartum Care—Postpartum Care* indicator, all MCOs, except United, improved from CY 2022 to CY 2023 and earned an improvement bonus. To continue incentivizing performance on this indicator in future PWPs, DMAS should consider reassessing the performance threshold for MCOs to earn back a portion of their quality withhold for the *Prenatal and Postpartum Care—Postpartum Care* indicator.

- Approximately 14 percent of women had evidence of a maternal depression screening in administrative data sources, either during the prenatal or postpartum periods. However, this is likely due to provider billing practices (i.e., these screenings were performed during standard prenatal/postpartum visits and were not billed separately) or the use of nonstandardized screening methods that were not captured by the measures that HSAG developed to calculate these indicators.
  - DMAS is currently tracking the incidence of maternal mental health assessment by MCO in order to secure a baseline rate and collect information on instruments used. With this information, DMAS should consider working with the MCOs and providers to promote the use of, and provide trainings related to, standardized maternal depression screening tools during the perinatal period. For example, DMAS may leverage existing collaboratives (e.g., MCO maternal and child health collaborative) to encourage MCOs to share and learn best practices for ensuring providers use standardized maternal depression screening tools and bill for them appropriately. Further, DMAS could consider requiring the MCOs to report the HEDIS *Prenatal Depression Screening and Follow-Up* and *Postpartum Depression Screening and Follow-Up* measures to DMAS annually in order to improve these rates. Currently, the MCO reporting of the *Postpartum Depression Screening and Follow-Up* measure is optional.
- Doulas began providing services to Virginia Medicaid members in August 2022, and while there was an increase in doula utilization for CY 2023 births (i.e., from seven in CY 2022 to 101 in CY 2023), the number is too small to stratify results for inclusion in this year's report. Therefore, HSAG recommends including an assessment of whether the use of doula services increases in CY 2024 and impacts birth and maternal health outcomes for deliveries as part of next year's Medicaid and CHIP Maternal and Child Health Focus Study (e.g., assess if members with doula services have lower postpartum ED utilization).
- For future focus studies, DMAS should consider leveraging additional data fields in the vital statistics data or other data sources (e.g., claims/encounter data, survey data) to better understand the factors contributing to poor birth outcomes in Virginia. These data sources could be used to assess risk factors (pre-pregnancy and gestational diabetes and hypertension, and previous preterm births and poor pregnancy outcomes); a mother's substance use before and during pregnancy (smoking, alcohol, and drug use); and a mother's BMI before pregnancy and at delivery. Although data may be incomplete, HSAG could still leverage the available data to help understand and provide additional context to the study indicator results.

Appendix A: Detailed Findings by Study Indicator

Additional Birth Outcomes FAMIS MOMS Stratifications

Table A-1 presents the FAMIS MOMS birth outcomes study indicator results stratified by maternal age at delivery for CY 2021 through CY 2023.

Table A-1—Birth Outcomes Study Indicator Findings Among FAMIS MOMS Singleton Births by Maternal Age at Delivery, CY 2021–CY 2023

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
≤15 Years							
Births With Early and Adequate Prenatal Care	76.4%	—	—	*S*	*S*	—	—
*Births With Inadequate Prenatal Care**	*NA*	—	—	*S*	*S*	—	—
*Births With No Prenatal Care**	*NA*	—	—	0	0.0%	—	—
Preterm Births (<37 Weeks Gestation)*	9.4%^	—	—	0	0.0%	—	—
Newborns With Low Birth Weight (<2,500g)*	10.4%	—	—	*S*	*S*	—	—
16–17 Years							
Births With Early and Adequate Prenatal Care	76.4%	*S*	*S*	*S*	*S*	*S*	*S*
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	*S*	*S*	0	0.0%	*S*	*S*
Newborns With Low Birth Weight (<2,500g)*	10.4%	*S*	*S*	0	0.0%	0	0.0%
18–20 Years							
Births With Early and Adequate Prenatal Care	76.4%	60	82.2%	54	71.1%	75	77.3%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	14	18.4%	12	12.4%
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	*S*	*S*	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500g)*	10.4%	*S*	*S*	*S*	*S*	*S*	*S*
21–24 Years							
Births With Early and Adequate Prenatal Care	76.4%	281	77.8%	300	82.2%	305	81.1%
*Births With Inadequate Prenatal Care**	*NA*	49	13.6%	39	10.7%	42	11.2%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%^	24	6.6%	29	7.9%	17	4.5%
Newborns With Low Birth Weight (<2,500g)*	10.4%	22	6.1%	26	7.1%	21	5.5%
25–29 Years							
Births With Early and Adequate Prenatal Care	76.4%	480	78.0%	458	76.8%	461	80.9%
*Births With Inadequate Prenatal Care**	*NA*	77	12.5%	81	13.6%	60	10.5%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	22	3.9%
Preterm Births (<37 Weeks Gestation)*	9.4%^	59	9.5%	41	6.8%	37	6.4%
Newborns With Low Birth Weight (<2,500g)*	10.4%	52	8.4%	40	6.6%	44	7.6%
30–34 Years							
Births With Early and Adequate Prenatal Care	76.4%	352	78.2%	353	76.2%	393	76.8%
*Births With Inadequate Prenatal Care**	*NA*	51	11.3%	59	12.7%	65	12.7%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	13	2.5%
Preterm Births (<37 Weeks Gestation)*	9.4%^	45	9.9%	40	8.5%	42	8.2%

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Newborns With Low Birth Weight (<2,500g)*	10.4%	40	8.8%	35	7.4%	31	6.0%
35–39 Years							
Births With Early and Adequate Prenatal Care	76.4%	166	77.6%	173	75.9%	184	79.3%
*Births With Inadequate Prenatal Care**	*NA*	24	11.2%	25	11.0%	31	13.4%
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	18	8.3%	27	11.7%	31	13.1%
Newborns With Low Birth Weight (<2,500g)*	10.4%	13	6.0%	22	9.6%	23	9.7%
40–44 Years							
Births With Early and Adequate Prenatal Care	76.4%	34	75.6%	37	75.5%	42	82.4%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%^	*S*	*S*	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500g)*	10.4%	*S*	*S*	*S*	*S*	*S*	*S*
≥45 Years							

Study Indicator	National Benchmark	CY 2021		CY 2022		CY 2023	
		Number	Percent	Number	Percent	Number	Percent
Births With Early and Adequate Prenatal Care	76.4%	*S*	*S*	*S*	*S*	*S*	*S*
*Births With Inadequate Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	*S*	*S*	0	0.0%	0	0.0%
Newborns With Low Birth Weight (<2,500g)*	10.4%	*S*	*S*	0	0.0%	0	0.0%

** A lower rate indicates better performance for this indicator.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.
— indicates no member met the numerator or denominator criteria for this stratification.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Additional Birth Outcomes Study Indicator Results

Table A-2 presents the CY 2023 birth outcomes study indicator results stratified by MCO and managed care program.

Table A-2—Birth Outcomes Study Indicators Stratified by MCO and Managed Care Program, CY 2023

MCO	Managed Care Population	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Aetna	Acute	3,004	77.0%	509	13.0%	*S*	*S*	367	9.3%	353	9.0%
	MLTSS	105	75.0%	19	13.6%	*S*	*S*	24	16.9%	26	18.3%
	Total	3,109	76.9%	528	13.1%	95	2.4%	391	9.6%	379	9.3%
HealthKeepers	Acute	6,076	75.5%	1,050	13.0%	283	3.5%	776	9.5%	729	8.9%
	MLTSS	184	75.7%	37	15.2%	12	4.9%	45	18.2%	46	18.6%
	Total	6,260	75.5%	1,087	13.1%	295	3.6%	821	9.8%	775	9.2%
Molina	Acute	1,377	73.0%	287	15.2%	*S*	*S*	192	10.0%	180	9.4%
	MLTSS	63	60.0%	22	21.0%	*S*	*S*	11	10.5%	15	14.3%
	Total	1,440	72.3%	309	15.5%	61	3.1%	203	10.1%	195	9.7%
Sentara	Acute	7,330	75.6%	1,335	13.8%	*S*	*S*	990	10.0%	920	9.3%
	MLTSS	277	70.8%	67	17.1%	*S*	*S*	71	18.0%	66	16.7%
	Total	7,607	75.4%	1,402	13.9%	250	2.5%	1,061	10.3%	986	9.6%
UnitedHealthcare	Acute	2,062	73.0%	428	15.2%	*S*	*S*	271	9.5%	233	8.1%
	MLTSS	62	62.0%	17	17.0%	*S*	*S*	25	23.6%	22	20.8%
	Total	2,124	72.6%	445	15.2%	112	3.8%	296	10.0%	255	8.6%

MCO	Managed Care Population	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Total	Acute	19,849	75.3%	3,609	13.7%	772	2.9%	2,596	9.7%	2,415	9.0%
	MLTSS	691	70.6%	162	16.5%	41	4.2%	176	17.7%	175	17.6%
	Total	20,540	75.1%	3,771	13.8%	813	3.0%	2,772	10.0%	2,590	9.3%

Note: Due to rounding, the percentages in each column may not sum to 100 percent.
** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Table A-3 presents the CY 2023 birth outcomes study indictor results stratified by MCO and race/ethnicity.

Table A-3—Overall Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Sentara**	United
White, Non-Hispanic						
Births With Early and Adequate Prenatal Care	76.4%	79.4%	77.9%	76.5%	76.7%	76.2%
*Births With Inadequate Prenatal Care**	*NA*	11.9%	11.6%	12.6%	13.1%	14.0%
*Births With No Prenatal Care**	*NA*	1.7%	3.1%	2.4%	2.5%	2.4%
Preterm Births (<37 Weeks Gestation)*	9.4%^	8.7%	9.6%	9.0%	8.4%	9.2%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	7.2%	7.5%	7.1%	6.6%	8.0%
Black, Non-Hispanic						
Births With Early and Adequate Prenatal Care	76.4%	76.3%	76.0%	70.5%	74.4%	73.2%
*Births With Inadequate Prenatal Care**	*NA*	12.8%	12.9%	16.7%	14.2%	14.1%
*Births With No Prenatal Care**	*NA*	2.2%	3.0%	3.1%	2.5%	3.8%
Preterm Births (<37 Weeks Gestation)*	9.4%^	11.2%	11.6%	11.0%	13.1%	11.2%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	13.7%	13.0%	13.1%	13.6%	11.4%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Sentara**	United
Asian, Non-Hispanic						
Births With Early and Adequate Prenatal Care	76.4%	76.8%	69.4%	68.8%	75.1%	70.9%
*Births With Inadequate Prenatal Care**	*NA*	14.9%	18.0%	23.4%	13.7%	13.7%
*Births With No Prenatal Care**	*NA*	1.8%	4.1%	3.1%	2.2%	4.4%
Preterm Births (<37 Weeks Gestation)*	9.4%^	8.2%	6.4%	1.5%	9.6%	8.2%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	6.5%	6.2%	4.6%	7.2%	8.2%
Hispanic, Any Race						
Births With Early and Adequate Prenatal Care	76.4%	72.2%	71.3%	66.4%	73.5%	66.6%
*Births With Inadequate Prenatal Care**	*NA*	16.3%	14.9%	18.6%	15.3%	18.0%
*Births With No Prenatal Care**	*NA*	4.3%	5.6%	4.3%	3.0%	7.2%
Preterm Births (<37 Weeks Gestation)*	9.4%^	9.4%	7.8%	12.2%	8.3%	11.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	6.4%	6.0%	8.6%	7.0%	5.9%
Other/Unknown						
Births With Early and Adequate Prenatal Care	76.4%	71.8%	75.1%	67.9%	76.9%	68.0%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Sentara**	United
*Births With Inadequate Prenatal Care**	*NA*	15.3%	14.1%	17.9%	14.7%	22.2%
*Births With No Prenatal Care**	*NA*	4.7%	2.5%	5.1%	0.5%	1.3%
Preterm Births (<37 Weeks Gestation)*	9.4%^	7.5%	7.7%	12.2%	8.0%	6.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	6.4%	9.4%	14.6%	8.3%	8.3%

** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

Table A-4 presents the CY 2023 birth outcomes study indictor results stratified by MCO and managed care region of maternal residence.

Table A-4—Overall Birth Outcomes Study Indicators Stratified by MCO and Managed Care Region of Maternal Residence, CY 2023

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Sentara**	United
Central						
Births With Early and Adequate Prenatal Care	76.4%	83.2%	81.5%	75.8%	77.7%	77.7%
*Births With Inadequate Prenatal Care**	*NA*	9.0%	10.6%	13.7%	12.6%	12.6%
*Births With No Prenatal Care**	*NA*	1.7%	2.1%	2.2%	2.2%	2.3%
Preterm Births (<37 Weeks Gestation)*	9.4%^	9.7%	11.6%	10.8%	12.0%	11.1%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Sentara**	United
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	9.6%	11.2%	12.0%	10.6%	10.0%
Charlottesville/Western						
Births With Early and Adequate Prenatal Care	76.4%	74.3%	70.2%	69.6%	72.9%	70.9%
*Births With Inadequate Prenatal Care**	*NA*	16.9%	18.4%	19.4%	16.9%	18.9%
*Births With No Prenatal Care**	*NA*	1.4%	3.3%	3.0%	2.7%	3.4%
Preterm Births (<37 Weeks Gestation)*	9.4%^	10.6%	10.0%	8.3%	9.5%	9.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	9.6%	8.7%	8.8%	9.4%	8.3%
Northern & Winchester						
Births With Early and Adequate Prenatal Care	76.4%	67.0%	68.4%	64.8%	67.2%	68.2%
*Births With Inadequate Prenatal Care**	*NA*	18.4%	16.4%	20.6%	18.9%	18.6%
*Births With No Prenatal Care**	*NA*	4.7%	6.2%	5.4%	3.1%	5.6%
Preterm Births (<37 Weeks Gestation)*	9.4%^	7.6%	7.4%	10.5%	8.3%	8.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	6.3%	6.6%	9.4%	7.0%	6.3%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Sentara**	United
Roanoke/Alleghany						
Births With Early and Adequate Prenatal Care	76.4%	74.9%	77.1%	71.9%	75.1%	76.7%
*Births With Inadequate Prenatal Care**	*NA*	14.7%	12.3%	14.6%	13.2%	11.1%
*Births With No Prenatal Care**	*NA*	2.0%	0.4%	2.3%	1.5%	2.8%
Preterm Births (<37 Weeks Gestation)*	9.4%^	10.0%	8.9%	9.3%	8.2%	10.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	11.1%	7.4%	8.9%	8.0%	10.8%
Southwest						
Births With Early and Adequate Prenatal Care	76.4%	83.7%	75.5%	75.0%	78.5%	80.5%
*Births With Inadequate Prenatal Care**	*NA*	9.9%	11.0%	17.0%	10.4%	8.0%
*Births With No Prenatal Care**	*NA*	0.6%	4.3%	1.1%	2.8%	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%^	5.8%	7.4%	6.8%	6.4%	5.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	6.9%	4.9%	8.0%	6.7%	6.9%
Tidewater						
Births With Early and Adequate Prenatal Care	76.4%	77.0%	78.7%	74.8%	78.2%	71.6%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Sentara**	United
*Births With Inadequate Prenatal Care**	*NA*	12.3%	10.6%	12.0%	11.6%	13.3%
*Births With No Prenatal Care**	*NA*	2.4%	2.6%	3.3%	2.7%	3.9%
Preterm Births (<37 Weeks Gestation)*	9.4%^	11.5%	10.8%	10.9%	11.8%	11.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.4%	11.0%	11.0%	8.1%	11.1%	10.8%

** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
^ CMS' 2024 Medicaid and CHIP Preterm Births (<37 Weeks Gestation) benchmark rate is 11.9 percent.
NA indicates there is not an applicable national benchmark for this indicator.

Table A-5 through Table A-10 present the CY 2023 birth outcomes study indictor results stratified by MCO and race/ethnicity for each managed care region of maternal residence.

Table A-5—Central Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	414	85.9%	40	8.3%	*S*	*S*	39	8.1%	27	5.6%
HealthKeepers	728	82.4%	91	10.3%	12	1.4%	97	10.9%	81	9.1%
Molina	173	83.2%	22	10.6%	*S*	*S*	18	8.5%	15	7.1%
Sentara	612	81.0%	87	11.5%	11	1.5%	71	9.3%	50	6.6%
UnitedHealthcare	197	79.8%	29	11.7%	*S*	*S*	27	10.7%	22	8.7%
Black, Non-Hispanic										

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Aetna	538	80.4%	70	10.5%	12	1.8%	79	11.7%	94	14.0%
HealthKeepers	862	80.2%	117	10.9%	33	3.1%	144	13.2%	157	14.4%
Molina	198	71.5%	43	15.5%	*S*	*S*	35	12.4%	42	14.9%
Sentara	952	76.9%	157	12.7%	30	2.4%	176	14.0%	171	13.6%
UnitedHealthcare	207	77.5%	28	10.5%	*S*	*S*	34	12.6%	34	12.7%
Asian, Non-Hispanic										
Aetna	35	89.7%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	42	77.8%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Molina	11	68.8%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Sentara	39	68.4%	13	22.8%	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	25	89.3%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Hispanic, Any Race										
Aetna	135	84.4%	*S*	*S*	*S*	*S*	14	8.7%	*S*	*S*
HealthKeepers	237	84.3%	26	9.3%	*S*	*S*	23	8.2%	17	6.0%
Molina	52	73.2%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	194	73.8%	36	13.7%	*S*	*S*	29	11.0%	21	8.0%
UnitedHealthcare	77	72.6%	22	20.8%	0	0.0%	*S*	*S*	*S*	*S*
Other/Unknown										
Aetna	44	84.6%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	78	80.4%	11	11.3%	*S*	*S*	*S*	*S*	*S*	*S*
Molina	14	73.7%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Sentara	71	79.8%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	25	71.4%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*

*** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-6—Charlottesville/Western Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	224	76.7%	45	15.4%	*S*	*S*	29	9.8%	23	7.8%
HealthKeepers	313	73.1%	71	16.6%	13	3.0%	45	10.3%	32	7.4%
Molina	102	73.4%	22	15.8%	*S*	*S*	12	8.6%	12	8.6%
Sentara	775	74.2%	159	15.2%	25	2.4%	84	7.9%	71	6.7%
UnitedHealthcare	149	74.9%	31	15.6%	*S*	*S*	20	10.0%	14	7.0%
Black, Non-Hispanic										
Aetna	85	70.2%	21	17.4%	*S*	*S*	13	10.7%	19	15.6%
HealthKeepers	106	65.8%	33	20.5%	*S*	*S*	18	11.0%	21	12.9%
Molina	44	69.8%	11	17.5%	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	419	70.1%	121	20.2%	18	3.0%	84	14.0%	95	15.8%
UnitedHealthcare	47	65.3%	15	20.8%	*S*	*S*	*S*	*S*	*S*	*S*

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Asian, Non-Hispanic										
Aetna	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%
HealthKeepers	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Sentara	11	68.8%	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Hispanic, Any Race										
Aetna	25	69.4%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	46	68.7%	15	22.4%	*S*	*S*	*S*	*S*	*S*	*S*
Molina	11	47.8%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	123	73.2%	27	16.1%	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	20	66.7%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Other/Unknown										
Aetna	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Sentara	58	76.3%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%

** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-7—Northern & Winchester Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	179	68.8%	44	16.9%	*S*	*S*	*S*	*S*	17	6.4%
HealthKeepers	448	69.6%	93	14.4%	41	6.4%	49	7.5%	38	5.8%
Molina	65	67.7%	17	17.7%	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	260	66.8%	78	20.1%	15	3.9%	37	9.2%	27	6.7%
UnitedHealthcare	191	70.5%	56	20.7%	*S*	*S*	22	7.9%	*S*	*S*
Black, Non-Hispanic										
Aetna	105	67.7%	29	18.7%	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	360	70.3%	86	16.8%	23	4.5%	43	8.2%	46	8.8%
Molina	41	64.1%	15	23.4%	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	190	63.1%	64	21.3%	*S*	*S*	28	9.1%	28	9.1%
UnitedHealthcare	158	69.3%	42	18.4%	*S*	*S*	16	7.0%	15	6.6%
Asian, Non-Hispanic										
Aetna	60	71.4%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	217	66.4%	64	19.6%	*S*	*S*	*S*	*S*	21	6.2%
Molina	20	62.5%	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
Sentara	153	76.1%	24	11.9%	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	86	67.2%	21	16.4%	*S*	*S*	*S*	*S*	11	8.5%
Hispanic, Any Race										
Aetna	131	62.4%	47	22.4%	14	6.7%	19	9.0%	12	5.7%
HealthKeepers	590	66.9%	141	16.0%	73	8.3%	71	8.0%	53	5.9%

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Molina	84	64.1%	26	19.8%	*S*	*S*	15	11.5%	13	9.9%
Sentara	193	65.4%	57	19.3%	*S*	*S*	21	6.8%	17	5.5%
UnitedHealthcare	240	65.9%	61	16.8%	38	10.4%	43	11.6%	20	5.4%
Other/Unknown										
Aetna	35	67.3%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	121	69.9%	31	17.9%	*S*	*S*	*S*	*S*	12	6.9%
Molina	16	61.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	62	68.9%	18	20.0%	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	45	69.2%	16	24.6%	*S*	*S*	*S*	*S*	*S*	*S*

** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-8—Roanoke/Alleghany Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	273	75.4%	52	14.4%	*S*	*S*	34	9.4%	38	10.5%
HealthKeepers	254	80.6%	34	10.8%	*S*	*S*	30	9.5%	21	6.7%
Molina	135	73.8%	23	12.6%	*S*	*S*	19	10.4%	17	9.3%
Sentara	609	75.9%	101	12.6%	14	1.7%	60	7.4%	53	6.6%

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
UnitedHealthcare	180	78.3%	25	10.9%	*S*	*S*	23	10.0%	25	10.9%
Black, Non-Hispanic										
Aetna	63	74.1%	*S*	*S*	*S*	*S*	14	16.3%	15	17.4%
HealthKeepers	48	65.8%	14	19.2%	*S*	*S*	*S*	*S*	*S*	*S*
Molina	57	67.9%	16	19.0%	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	140	68.0%	36	17.5%	*S*	*S*	24	11.7%	25	12.1%
UnitedHealthcare	66	76.7%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Asian, Non-Hispanic										
Aetna	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*
Molina	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Sentara	12	80.0%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*
Hispanic, Any Race										
Aetna	30	81.1%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	22	66.7%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Molina	12	60.0%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Sentara	45	83.3%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	20	71.4%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Other/Unknown										
Aetna	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
HealthKeepers	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	0	0.0%
Molina	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*
Sentara	33	82.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*

** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Table A-9—Southwest Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	138	85.2%	15	9.3%	*S*	*S*	*S*	*S*	11	6.7%
HealthKeepers	117	76.5%	15	9.8%	*S*	*S*	*S*	*S*	*S*	*S*
Molina	62	75.6%	14	17.1%	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	284	77.8%	38	10.4%	11	3.0%	23	6.3%	22	6.0%
UnitedHealthcare	66	82.5%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Black, Non-Hispanic										
Aetna	S	S	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
HealthKeepers	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Sentara	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
UnitedHealthcare	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	0	0.0%
Asian, Non-Hispanic										
Aetna	—	—	—	—	*S*	*S*	*S*	*S*	—	—
HealthKeepers	—	—	*S*	*S*	*S*	*S*	—	—	—	—
Molina	*S*	*S*	—	—	*S*	*S*	*S*	*S*	—	—
Sentara	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
UnitedHealthcare	—	—	—	—	—	—	—	—	—	—
Hispanic, Any Race										
Aetna	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Molina	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Sentara	11	84.6%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Other/Unknown										
Aetna	—	—	—	—	—	—	—	—	*S*	*S*
HealthKeepers	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Molina	0	0.0%	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Sentara	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%

** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
— indicates no member met the numerator or denominator criteria for this stratification.

S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-10—Tidewater Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	181	83.8%	*S*	*S*	*S*	*S*	23	10.6%	13	6.0%
HealthKeepers	517	82.2%	49	7.8%	22	3.5%	67	10.4%	53	8.2%
Molina	108	80.0%	*S*	*S*	*S*	*S*	13	9.6%	*S*	*S*
Sentara	605	81.0%	75	10.0%	27	3.6%	74	9.8%	50	6.6%
UnitedHealthcare	94	75.8%	15	12.1%	*S*	*S*	12	9.3%	*S*	*S*
Black, Non-Hispanic										
Aetna	268	74.9%	47	13.1%	*S*	*S*	42	11.4%	52	14.1%
HealthKeepers	864	76.7%	132	11.7%	27	2.4%	135	11.7%	156	13.5%
Molina	155	72.4%	32	15.0%	*S*	*S*	22	10.0%	28	12.7%
Sentara	1,396	76.7%	215	11.8%	47	2.6%	241	13.0%	257	13.8%
UnitedHealthcare	145	72.9%	28	14.1%	*S*	*S*	30	14.7%	27	13.2%
Asian, Non-Hispanic										
Aetna	16	72.7%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	30	83.3%	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%
Molina	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Sentara	53	77.9%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*

	Births With Early and Adequate Prenatal Care		Births With Inadequate Prenatal Care*		Births With No Prenatal Care*		Preterm Births (<37 Weeks Gestation)*		Newborns With Low Birth Weight (<2,500g)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hispanic, Any Race										
Aetna	62	72.1%	16	18.6%	*S*	*S*	12	14.0%	*S*	*S*
HealthKeepers	135	75.4%	25	14.0%	*S*	*S*	14	7.6%	12	6.5%
Molina	40	72.7%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	196	80.3%	31	12.7%	*S*	*S*	25	10.1%	20	8.1%
UnitedHealthcare	29	56.9%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Other/Unknown										
Aetna	19	70.4%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	79	82.3%	*S*	*S*	*S*	*S*	*S*	*S*	12	12.4%
Molina	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%
Sentara	102	78.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*

** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Birth Outcomes Cross-Measure Analysis

Table A-11 presents the CY 2023 cross-measure analysis results that show the distribution of prenatal care by the *Preterm Births (<37 Weeks Gestation)* and the *Newborns With Low Birth Weight (<2,500 grams*) study indicators for each MCO.

Table A-11—Distribution of Adequacy of Prenatal Care by Birth Outcomes (Preterm Births and Low Birth Weight) and MCO, CY 2023

MCO	Study Indicator	Missing Information	No PNC	Inadequate PNC	Intermediate PNC	Adequate PNC	Adequate Plus PNC
Aetna	Preterm Births (<37 Weeks Gestation)*	28.6%	23.2%	8.3%	6.5%	3.8%	17.4%
	Newborns With Low Birth Weight (<2,500 grams)*	14.3%	16.8%	10.0%	7.1%	4.7%	15.3%
HealthKeepers	Preterm Births (<37 Weeks Gestation)*	14.3%	18.3%	8.9%	6.5%	3.6%	17.9%
	Newborns With Low Birth Weight (<2,500 grams)*	13.5%	16.3%	9.5%	5.7%	4.6%	15.2%
Molina	Preterm Births (<37 Weeks Gestation)*	20.8%	21.3%	8.1%	5.5%	3.4%	19.3%
	Newborns With Low Birth Weight (<2,500 grams)*	20.8%	11.5%	11.7%	8.2%	4.5%	15.1%
Sentara**	Preterm Births (<37 Weeks Gestation)*	14.2%	28.5%	9.5%	8.8%	3.8%	17.7%

MCO	Study Indicator	Missing Information	No PNC	Inadequate PNC	Intermediate PNC	Adequate PNC	Adequate Plus PNC
	Newborns With Low Birth Weight (<2,500 grams)*	13.6%	15.7%	10.6%	7.6%	5.0%	14.9%
United	Preterm Births (<37 Weeks Gestation)*	11.6%	30.4%	9.0%	7.8%	2.4%	18.7%
	Newborns With Low Birth Weight (<2,500 grams)*	7.0%	19.8%	7.6%	8.2%	3.8%	14.4%

PNC = prenatal care
** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*

Table A-12 presents the distribution of prenatal care received for women who had or did not have a preterm birth or newborn with low birth weight for each MCO.

Table A-12—Distribution of Prenatal Care by MCO and Whether a Birth Outcome Occurred, CY 2023

MCO	Birth Outcome		Births With Early and Adequate Plus Prenatal Care		Births With Adequate Prenatal Care		Births With Intermediate Prenatal Care		Births With Inadequate Prenatal Care		Births With No Prenatal Care		Births With Missing Prenatal Care Information	
			Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Aetna	*Preterm Births (<37 Weeks Gestation)**	No	1,065	28.8%	1,751	47.4%	289	7.8%	484	13.1%	73	2.0%	30	0.8%
		Yes	224	57.3%	69	17.6%	20	5.1%	44	11.3%	22	5.6%	12	3.1%
	*Newborns With Low Birth Weight (<2,500g)**	No	1,092	29.5%	1,735	46.8%	287	7.7%	475	12.8%	79	2.1%	36	1.0%
		Yes	197	52.0%	85	22.4%	22	5.8%	53	14.0%	16	4.2%	*S*	*S*
HealthKeepers	*Preterm Births (<37 Weeks Gestation)**	No	2,202	29.0%	3,448	45.4%	609	8.0%	990	13.0%	241	3.2%	108	1.4%
		Yes	481	58.6%	129	15.7%	42	5.1%	97	11.8%	54	6.6%	18	2.2%
	*Newborns With Low Birth Weight (<2,500g)**	No	2,276	29.8%	3,414	44.7%	614	8.0%	984	12.9%	247	3.2%	109	1.4%
		Yes	407	52.5%	163	21.0%	37	4.8%	103	13.3%	48	6.2%	17	2.2%
Molina	*Preterm Births (<37 Weeks Gestation)**	No	514	28.4%	776	42.8%	172	9.5%	284	15.7%	48	2.6%	19	1.0%
		Yes	123	60.6%	27	13.3%	*S*	*S*	25	12.3%	13	6.4%	*S*	*S*

MCO	Birth Outcome		Births With Early and Adequate Plus Prenatal Care		Births With Adequate Prenatal Care		Births With Intermediate Prenatal Care		Births With Inadequate Prenatal Care		Births With No Prenatal Care		Births With Missing Prenatal Care Information	
			Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
	*Newborns With Low Birth Weight (<2,500g)**	No	541	29.7%	767	42.1%	167	9.2%	273	15.0%	54	3.0%	19	1.0%
		Yes	96	49.2%	36	18.5%	15	7.7%	36	18.5%	*S*	*S*	*S*	*S*
Sentara**	*Preterm Births (<37 Weeks Gestation)**	No	2,774	30.2%	4,072	44.3%	761	8.3%	1,269	13.8%	179	1.9%	139	1.5%
		Yes	598	56.4%	163	15.4%	73	6.9%	133	12.5%	71	6.7%	23	2.2%
	*Newborns With Low Birth Weight (<2,500g)**	No	2,870	31.0%	4,023	43.4%	771	8.3%	1,254	13.5%	211	2.3%	140	1.5%
		Yes	502	50.9%	212	21.5%	63	6.4%	148	15.0%	39	4.0%	22	2.2%
UnitedHealthcare	*Preterm Births (<37 Weeks Gestation)**	No	733	27.4%	1,193	44.7%	224	8.4%	405	15.2%	78	2.9%	38	1.4%
		Yes	169	57.1%	29	9.8%	19	6.4%	40	13.5%	34	11.5%	*S*	*S*
	Newborns With Low	No	772	28.5%	1,176	43.4%	223	8.2%	411	15.2%	90	3.3%	40	1.5%

MCO	Birth Outcome		Births With Early and Adequate Plus Prenatal Care		Births With Adequate Prenatal Care		Births With Intermediate Prenatal Care		Births With Inadequate Prenatal Care		Births With No Prenatal Care		Births With Missing Prenatal Care Information	
			Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
	*Birth Weight (<2,500g)**	Yes	130	51.0%	46	18.0%	20	7.8%	34	13.3%	22	8.6%	*S*	*S*
FFS	*Preterm Births (<37 Weeks Gestation)**	No	514	25.2%	867	42.5%	206	10.1%	324	15.9%	99	4.9%	30	1.5%
		Yes	138	53.5%	44	17.1%	11	4.3%	30	11.6%	29	11.2%	*S*	*S*
	*Newborns With Low Birth Weight (<2,500g)**	No	540	26.1%	867	41.8%	200	9.7%	327	15.8%	107	5.2%	31	1.5%
		Yes	112	49.6%	44	19.5%	17	7.5%	27	11.9%	21	9.3%	*S*	*S*

** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Additional Maternal Health Outcomes Study Indicator Results

Table A-13 presents the CY 2023 maternal health outcomes study indicator results stratified by MCO and managed care program.

Table A-13—Maternal Health Outcomes Study Indicators Stratified by MCO and Managed Care Program, CY 2023

MCO	Managed Care Population	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
		Num	Rate	Num	Rate	Num	Rate	Num	Rate
Aetna	Acute	629	16.0%	2,303	58.4%	204	5.2%	337	8.6%
	MLTSS	49	34.5%	107	75.4%	11	7.7%	12	8.5%
	Total	678	16.6%	2,410	59.0%	215	5.3%	349	8.5%
HealthKeepers	Acute	1,468	18.0%	4,988	61.0%	474	5.8%	963	11.8%
	MLTSS	79	32.0%	187	75.7%	20	8.1%	28	11.3%
	Total	1,547	18.4%	5,175	61.5%	494	5.9%	991	11.8%
Molina	Acute	307	16.1%	1,138	59.5%	*S*	*S*	*S*	*S*
	MLTSS	41	39.0%	71	67.6%	*S*	*S*	*S*	*S*
	Total	348	17.3%	1,209	60.0%	118	5.9%	329	16.3%
Sentara**	Acute	2,013	20.4%	6,158	62.5%	830	8.4%	884	9.0%
	MLTSS	140	35.4%	281	71.1%	43	10.9%	33	8.4%
	Total	2,153	21.0%	6,439	62.8%	873	8.5%	917	8.9%
UnitedHealthcare	Acute	427	14.9%	1,633	57.1%	*S*	*S*	*S*	*S*
	MLTSS	30	28.3%	68	64.2%	*S*	*S*	*S*	*S*
	Total	457	15.4%	1,701	57.3%	87	2.9%	172	5.8%
	Acute	**4,844**	**18.1%**	**16,220**	**60.6%**	**1,695**	**6.3%**	**2,669**	**10.0%**
	MLTSS	**339**	**34.1%**	**714**	**71.8%**	**92**	**9.2%**	**89**	**8.9%**

MCO	Managed Care Population	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
		Num	Rate	Num	Rate	Num	Rate	Num	Rate
Total	**Total**	**5,183**	**18.7%**	**16,934**	**61.0%**	**1,787**	**6.4%**	**2,758**	**9.9%**

Note: Due to rounding, the percentages in each column may not sum to 100 percent.
** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-14 presents the CY 2023 maternal health outcomes study indictor results stratified by MCO and race/ethnicity.

Table A-14—Overall Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

Study Indicator	Aetna	Health Keepers	Molina	Sentara**	United
White, Non-Hispanic					
Postpartum ED Utilization*	15.9%	17.1%	15.3%	20.3%	15.6%
Postpartum Ambulatory Care Utilization	58.3%	61.2%	57.3%	63.0%	55.5%
Prenatal Maternal Depression Screenings	5.4%	5.3%	6.3%	10.0%	3.8%
Postpartum Maternal Depression Screenings	8.9%	12.2%	11.5%	8.1%	6.1%
Black, Non-Hispanic					
Postpartum ED Utilization*	19.0%	21.3%	22.0%	23.6%	15.8%
Postpartum Ambulatory Care Utilization	60.3%	59.3%	59.2%	62.1%	57.7%

Study Indicator	Aetna	Health Keepers	Molina	Sentara**	United
Prenatal Maternal Depression Screenings	5.5%	7.3%	6.5%	8.1%	2.2%
Postpartum Maternal Depression Screenings	7.7%	11.6%	17.2%	10.2%	4.4%
Asian, Non-Hispanic					
Postpartum ED Utilization*	8.8%	11.9%	12.3%	11.8%	13.6%
Postpartum Ambulatory Care Utilization	55.3%	62.8%	63.1%	69.3%	62.5%
Prenatal Maternal Depression Screenings	3.5%	2.2%	6.2%	2.4%	3.3%
Postpartum Maternal Depression Screenings	11.2%	11.2%	30.8%	5.6%	8.7%
Hispanic, Any Race					
Postpartum ED Utilization*	13.4%	17.1%	13.2%	17.9%	12.2%
Postpartum Ambulatory Care Utilization	56.4%	65.4%	67.0%	61.9%	57.4%
Prenatal Maternal Depression Screenings	3.9%	5.3%	4.3%	7.4%	2.2%
Postpartum Maternal Depression Screenings	7.9%	11.3%	24.8%	8.5%	7.1%
Other/Unknown					
Postpartum ED Utilization*	22.0%	18.3%	14.6%	17.4%	26.3%
Postpartum Ambulatory Care Utilization	67.6%	63.6%	65.9%	63.5%	62.2%

Study Indicator	Aetna	Health Keepers	Molina	Sentara**	United
Prenatal Maternal Depression Screenings	8.1%	5.7%	1.2%	6.0%	2.6%
Postpartum Maternal Depression Screenings	11.0%	12.4%	15.9%	8.5%	3.2%

** A lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*

Table A-15 presents the CY 2023 maternal health outcomes study indictor results stratified by MCO and managed care region of maternal residence.

Table A-15—Overall Maternal Health Outcomes Study Indicators Stratified by MCO and Managed Care Region of Maternal Residence, CY 2023

Study Indicator	Aetna	Health Keepers	Molina	Sentara**	United
Central					
Postpartum ED Utilization*	17.2%	20.7%	19.5%	25.3%	16.2%
Postpartum Ambulatory Care Utilization	64.1%	66.4%	65.7%	68.9%	60.6%
Prenatal Maternal Depression Screenings	4.7%	7.9%	6.3%	7.8%	4.3%
Postpartum Maternal Depression Screenings	5.4%	8.9%	16.1%	7.1%	4.6%
Charlottesville/Western					
Postpartum ED Utilization*	12.8%	15.7%	13.3%	17.4%	16.9%
Postpartum Ambulatory Care Utilization	58.5%	60.3%	56.3%	62.4%	60.4%

Study Indicator	Aetna	Health Keepers	Molina	Sentara**	United
Prenatal Maternal Depression Screenings	9.8%	8.1%	5.0%	13.9%	1.2%
Postpartum Maternal Depression Screenings	10.6%	10.8%	13.8%	6.0%	2.8%
Northern & Winchester					
Postpartum ED Utilization*	15.0%	15.6%	10.5%	13.3%	13.2%
Postpartum Ambulatory Care Utilization	57.8%	63.4%	63.1%	65.9%	59.5%
Prenatal Maternal Depression Screenings	1.4%	2.8%	4.5%	2.9%	1.0%
Postpartum Maternal Depression Screenings	5.4%	8.9%	20.7%	2.6%	7.5%
Roanoke/Alleghany					
Postpartum ED Utilization*	18.0%	18.8%	22.2%	23.6%	16.3%
Postpartum Ambulatory Care Utilization	56.8%	57.0%	62.6%	63.1%	54.8%
Prenatal Maternal Depression Screenings	5.5%	5.1%	5.3%	7.6%	2.5%
Postpartum Maternal Depression Screenings	12.3%	10.7%	10.3%	2.9%	3.0%
Southwest					
Postpartum ED Utilization*	16.2%	19.6%	17.0%	24.5%	25.3%
Postpartum Ambulatory Care Utilization	59.0%	54.6%	58.0%	60.3%	51.7%
Prenatal Maternal Depression Screenings	11.0%	6.1%	4.5%	9.5%	10.3%

Study Indicator	Aetna	Health Keepers	Molina	Sentara**	United
Postpartum Maternal Depression Screenings	2.3%	5.5%	5.7%	1.5%	1.1%
Tidewater					
Postpartum ED Utilization*	18.9%	19.7%	18.5%	21.8%	15.6%
Postpartum Ambulatory Care Utilization	52.4%	55.2%	50.1%	57.0%	47.2%
Prenatal Maternal Depression Screenings	6.0%	6.7%	7.4%	8.3%	5.4%
Postpartum Maternal Depression Screenings	15.6%	19.5%	20.8%	18.1%	9.0%

** A lower rate indicates better performance for this indicator.*

*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*

Table A-16 through Table A-21 present the CY 2023 maternal health outcomes study indictor results stratified by MCO and race/ethnicity for each managed care region of maternal residence.

Table A-16—Central Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic								
Aetna	76	15.7%	310	64.0%	19	3.9%	32	6.6%
HealthKeepers	178	20.0%	618	69.4%	57	6.4%	77	8.7%
Molina	34	16.1%	138	65.4%	14	6.6%	30	14.2%
Sentara	172	22.6%	520	68.3%	56	7.4%	65	8.5%
UnitedHealthcare	39	15.4%	150	59.3%	13	5.1%	13	5.1%
Black, Non-Hispanic								
Aetna	132	19.6%	439	65.2%	34	5.1%	29	4.3%
HealthKeepers	236	21.6%	690	63.2%	101	9.2%	101	9.2%
Molina	70	24.8%	182	64.5%	22	7.8%	43	15.2%
Sentara	357	28.4%	882	70.1%	115	9.1%	90	7.1%
UnitedHealthcare	46	17.1%	169	62.8%	*S*	*S*	11	4.1%
Asian, Non-Hispanic								
Aetna	*S*	*S*	25	64.1%	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	33	61.1%	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
Sentara	*S*	*S*	42	72.4%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Hispanic, Any Race								
Aetna	19	11.8%	92	57.1%	*S*	*S*	*S*	*S*
HealthKeepers	60	21.3%	198	70.2%	23	8.2%	23	8.2%
Molina	*S*	*S*	52	72.2%	*S*	*S*	19	26.4%
Sentara	58	22.1%	175	66.5%	15	5.7%	15	5.7%
UnitedHealthcare	15	14.2%	63	59.4%	*S*	*S*	*S*	*S*
Other/Unknown								
Aetna	*S*	*S*	37	71.2%	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	67	67.7%	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	*S*	*S*	59	63.4%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*

** a lower rate indicates better performance for this indicator.*

*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*

S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-17—Charlottesville/Western Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic								
Aetna	34	11.5%	171	57.8%	27	9.1%	33	11.1%
HealthKeepers	61	14.0%	261	60.0%	36	8.3%	43	9.9%
Molina	15	10.7%	73	52.1%	*S*	*S*	*S*	*S*
Sentara	199	18.8%	688	65.1%	174	16.5%	70	6.6%
UnitedHealthcare	35	17.5%	121	60.5%	*S*	*S*	*S*	*S*
Black, Non-Hispanic								
Aetna	19	15.6%	72	59.0%	13	10.7%	*S*	*S*
HealthKeepers	33	20.2%	102	62.6%	12	7.4%	18	11.0%
Molina	*S*	*S*	40	61.5%	*S*	*S*	*S*	*S*
Sentara	103	17.1%	355	59.1%	65	10.8%	25	4.2%
UnitedHealthcare	12	16.2%	43	58.1%	*S*	*S*	*S*	*S*
Asian, Non-Hispanic								
Aetna	0	0.0%	*S*	*S*	0	0.0%	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
Molina	0	0.0%	*S*	*S*	0	0.0%	*S*	*S*
Sentara	*S*	*S*	12	70.6%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
Hispanic, Any Race								
Aetna	*S*	*S*	22	61.1%	*S*	*S*	*S*	*S*

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
HealthKeepers	12	17.6%	37	54.4%	*S*	*S*	11	16.2%
Molina	*S*	*S*	13	56.5%	0	0.0%	*S*	*S*
Sentara	26	15.2%	101	59.1%	23	13.5%	17	9.9%
UnitedHealthcare	*S*	*S*	15	50.0%	0	0.0%	*S*	*S*
Other/Unknown								
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	*S*	*S*	44	57.9%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%

** a lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-18—Northern & Winchester Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic								
Aetna	46	17.4%	153	58.0%	*S*	*S*	14	5.3%
HealthKeepers	95	14.5%	397	60.8%	17	2.6%	62	9.5%

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Molina	*S*	*S*	55	57.3%	*S*	*S*	12	12.5%
Sentara	67	16.6%	246	60.9%	20	5.0%	19	4.7%
UnitedHealthcare	*S*	*S*	158	56.8%	*S*	*S*	27	9.7%
Black, Non-Hispanic								
Aetna	*S*	*S*	83	51.9%	*S*	*S*	0	0.0%
HealthKeepers	114	21.8%	318	60.9%	12	2.3%	42	8.0%
Molina	*S*	*S*	32	50.0%	*S*	*S*	*S*	*S*
Sentara	36	11.7%	199	64.4%	*S*	*S*	*S*	*S*
UnitedHealthcare	29	12.7%	136	59.4%	*S*	*S*	*S*	*S*
Asian, Non-Hispanic								
Aetna	*S*	*S*	49	57.0%	*S*	*S*	*S*	*S*
HealthKeepers	35	10.4%	211	62.6%	*S*	*S*	26	7.7%
Molina	*S*	*S*	21	63.6%	*S*	*S*	12	36.4%
Sentara	*S*	*S*	160	74.8%	*S*	*S*	*S*	*S*
UnitedHealthcare	17	13.2%	82	63.6%	*S*	*S*	12	9.3%
Hispanic, Any Race								
Aetna	30	14.2%	130	61.3%	*S*	*S*	*S*	*S*
HealthKeepers	133	14.9%	591	66.3%	30	3.4%	83	9.3%
Molina	14	10.7%	95	72.5%	*S*	*S*	35	26.7%
Sentara	46	14.8%	210	67.5%	*S*	*S*	*S*	*S*
UnitedHealthcare	44	11.8%	222	59.7%	*S*	*S*	30	8.1%

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Other/Unknown								
Aetna	*S*	*S*	33	62.3%	*S*	*S*	*S*	*S*
HealthKeepers	26	14.9%	118	67.8%	*S*	*S*	17	9.8%
Molina	*S*	*S*	19	67.9%	0	0.0%	*S*	*S*
Sentara	*S*	*S*	63	67.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	41	62.1%	*S*	*S*	*S*	*S*

** a lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-19—Roanoke/Alleghany Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic								
Aetna	68	18.7%	205	56.5%	19	5.2%	40	11.0%
HealthKeepers	57	18.1%	184	58.4%	18	5.7%	27	8.6%
Molina	40	21.9%	118	64.5%	*S*	*S*	*S*	*S*
Sentara	179	22.2%	512	63.5%	67	8.3%	22	2.7%
UnitedHealthcare	36	15.7%	121	52.6%	*S*	*S*	*S*	*S*
Black, Non-Hispanic								

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Aetna	12	14.0%	47	54.7%	S	S	14	16.3%
HealthKeepers	12	16.4%	36	49.3%	S	S	S	S
Molina	22	26.2%	52	61.9%	S	S	13	15.5%
Sentara	52	25.2%	123	59.7%	11	5.3%	S	S
UnitedHealthcare	18	20.9%	54	62.8%	S	S	S	S
Asian, Non-Hispanic								
Aetna	S	S	S	S	0	0.0%	S	S
HealthKeepers	S	S	11	73.3%	S	S	S	S
Molina	S	S	S	S	S	S	S	S
Sentara	S	S	S	S	0	0.0%	0	0.0%
UnitedHealthcare	S	S	S	S	0	0.0%	S	S
Hispanic, Any Race								
Aetna	S	S	18	47.4%	S	S	S	S
HealthKeepers	S	S	16	47.1%	S	S	S	S
Molina	S	S	11	55.0%	0	0.0%	S	S
Sentara	15	27.8%	31	57.4%	S	S	0	0.0%
UnitedHealthcare	S	S	13	46.4%	0	0.0%	0	0.0%
Other/Unknown								
Aetna	S	S	S	S	0	0.0%	S	S
HealthKeepers	S	S	S	S	0	0.0%	S	S
Molina	0	0.0%	S	S	0	0.0%	0	0.0%

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Sentara	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%

** a lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-20—Southwest Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic								
Aetna	26	16.0%	95	58.3%	17	10.4%	*S*	*S*
HealthKeepers	31	20.3%	83	54.2%	*S*	*S*	*S*	*S*
Molina	15	18.3%	47	57.3%	*S*	*S*	*S*	*S*
Sentara	87	23.7%	219	59.7%	33	9.0%	*S*	*S*
UnitedHealthcare	18	22.5%	41	51.3%	*S*	*S*	*S*	*S*
Black, Non-Hispanic								
Aetna	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%
HealthKeepers	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*
Molina	0	0.0%	*S*	*S*	0	0.0%	0	0.0%
Sentara	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%
Asian, Non-Hispanic								
Aetna	—	—	—	—	—	—	—	—
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Molina	—	—	—	—	—	—	—	—
Sentara	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%
UnitedHealthcare	—	—	—	—	—	—	—	—
Hispanic, Any Race								
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Molina	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Sentara	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%
Other/Unknown								
Aetna	—	—	—	—	*S*	*S*	—	—
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Molina	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*

** a lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
— indicates no member met the numerator or denominator criteria for this stratification.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.

Table A-21—Tidewater Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2023

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic								
Aetna	34	15.7%	108	50.0%	12	5.6%	37	17.1%
HealthKeepers	105	16.3%	349	54.3%	29	4.5%	161	25.0%
Molina	19	14.1%	54	40.0%	13	9.6%	23	17.0%
Sentara	138	18.3%	430	57.1%	66	8.8%	155	20.6%
UnitedHealthcare	17	13.2%	58	45.0%	13	10.1%	20	15.5%
Black, Non-Hispanic								
Aetna	84	22.8%	208	56.5%	23	6.3%	57	15.5%
HealthKeepers	246	21.3%	634	55.0%	90	7.8%	178	15.4%
Molina	49	22.3%	117	53.2%	*S*	*S*	49	22.3%
Sentara	450	24.2%	1,070	57.6%	150	8.1%	303	16.3%
UnitedHealthcare	30	14.7%	95	46.6%	*S*	*S*	13	6.4%
Asian, Non-Hispanic								
Aetna	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
HealthKeepers	*S*	*S*	20	55.6%	*S*	*S*	17	47.2%
Molina	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Sentara	13	18.8%	35	50.7%	*S*	*S*	17	24.6%
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
Hispanic, Any Race								
Aetna	*S*	*S*	38	44.2%	*S*	*S*	*S*	*S*
HealthKeepers	39	21.2%	114	62.0%	16	8.7%	41	22.3%

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Molina	*S*	*S*	32	57.1%	*S*	*S*	12	21.4%
Sentara	41	16.6%	131	53.0%	26	10.5%	51	20.6%
UnitedHealthcare	*S*	*S*	25	48.1%	*S*	*S*	*S*	*S*
Other/Unknown								
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	50	51.5%	*S*	*S*	15	15.5%
Molina	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
Sentara	*S*	*S*	76	58.5%	*S*	*S*	28	21.5%
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*

** a lower rate indicates better performance for this indicator.*
*** Members with enrollment in Optima or VA Premier during CY 2023 are included in the Sentara rate for CY 2023.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11). In instances where only one stratification was suppressed, the values for the second smallest population were also suppressed, even if the values were 11 or more.