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Commonwealth of Virginia
Department of Medical Assistance Services

2022–23 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,[1-1] 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 2022–23, 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, Family Access to Medical Insurance Security (FAMIS) MOMS, and FAMIS Prenatal Coverage programs. The Contract Year 2022–23 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, postpartum contraceptive care) 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) 2022. 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 2022 paid by Virginia Medicaid regardless of whether the births occurred in Virginia. Births paid by Virginia Medicaid were assigned to one of five program categories based on the mother's program at the time of delivery:[1-2]

- The Medicaid for Pregnant Women program uses Title XIX (Medicaid) funding to serve pregnant women with incomes up to 143 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 133 percent of the FPL. Members who become pregnant while already enrolled in

[1-1] 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: Mar 4, 2024.

[1-2] A standard disregard of 5 percent FPL is applied to the Medicaid for Pregnant Women, Medicaid Expansion, and FAMIS MOMS programs if the woman's income is slightly above the household income.

the Medicaid Expansion group may remain in that eligibility category during the pregnancy, while individuals 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 (CHIP) funding under Section 1115 Demonstration authority to serve pregnant women with incomes up to 200 percent of the FPL and provides benefits similar to Medicaid through the duration of pregnancy and for the postpartum period.
- The FAMIS Prenatal Coverage program uses Title XXI (CHIP) funding to provide coverage for pregnant women with incomes below 200 percent of the FPL who do not meet immigration status rules for other coverage.[1-3]
- The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, or FAMIS Prenatal Coverage programs. Please note, births to women in Plan First and the Department of Corrections (DOC) and births to members who are only eligible for emergency benefits are excluded.[1-4,1-5]

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, FAMIS Prenatal Coverage, 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 five Medicaid programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, FAMIS Prenatal Coverage, 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 2022:

- *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).

1-3 In July 2022, coverage of postpartum benefits was expanded from 60 days to one year after delivery for all full benefit Medicaid and FAMIS MOMS populations; however, members enrolled in the FAMIS Prenatal Coverage program are still limited to 60 days postpartum coverage.

1-4 The "Other Aid Categories" include births paid by Medicaid or CHIP as part of the Low Income Families with Children (LIFC) (parents and caretaker adults), disabled individuals, Medicaid Children, Foster Children and Former Foster Youth, Adoption Assistance Children, FAMIS Children, presumptively eligible individuals, and others.

1-5 For the 2021–22 Medicaid and CHIP Maternal and Child Health Focus Study, births to women in the FAMIS Prenatal Coverage program were included in the Other Aid Categories program. Therefore, HSAG recalculated CY 2021 rates for the Other Aid Categories program to include births for women in the FAMIS Prenatal Coverage program.

  - *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 2022:

- *Postpartum ED Utilization*—The percentage of postpartum women who utilized ED services within 90 days of delivery.[1-6]
- *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.
- *Utilization of Contraceptive Care for Postpartum Women*—The percentage of women who received a most or moderately effective contraceptive (MMEC) or a long-acting reversible contraceptive (LARC) within three and 90 days of 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 program, delivery system, trimester of prenatal care initiation, length of continuous enrollment, and managed care organizations [MCOs]).

HSAG presents the birth outcomes study indicators stratified by key demographic, enrollment, and program characteristics, with comparisons to CY 2020 and CY 2021 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.[1-7] HSAG used the Federal Fiscal Year (FFY)

[1-6] For this report, HSAG recalculated the CY 2021 *Postpartum ED Utilization* indicator due to HSAG identifying that deliveries that originated in the ED were inadvertently being counted as postpartum ED visits. As a result, the CY 2021 results presented in this report do not match the CY 2021 results presented in the 2021–22 Medicaid and CHIP Maternal and Child Health Focus Study.

[1-7] 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: Mar 4, 2024.

2022 CMS Core Set benchmarks for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator.[1-8]

Further, HSAG presents the CY 2022 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 program at delivery, delivery system, trimester of prenatal care initiation, and length of continuous enrollment), with comparison. 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.

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 2020–CY 2022

	CY 2020		CY 2021		CY 2022	
	Number	Percent	Number	Percent	Number	Percent
Overall Births*						
Total Births	37,316	100.0%	36,480	100.0%	37,269	100.0%
Multiple Gestation Births	1,255	3.4%	1,184	3.2%	1,153	3.1%
Singleton Births	36,061	96.6%	35,296	96.8%	36,116	96.9%
Medicaid Births**						
Total Births	33,401	100.0%	34,150	100.0%	37,046	100.0%
Multiple Gestation Births	1,171	3.5%	1,118	3.3%	1,147	3.1%
Singleton Births	32,230	96.5%	33,032	96.7%	35,899	96.9%

** Overall Births includes all births paid by Virginia Medicaid.*
*** 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 increased in CY 2022, returning to CY 2020 levels. The number of Medicaid Births increased by approximately 3,000 births from CY 2021 to CY 2022, which is primarily attributed to the implementation of the FAMIS Prenatal Coverage program in July 2021.

[1-8] Centers for Medicare & Medicaid Services. 2022 Child and Adult Health Care Quality Measures Quality. Available at: https://data.medicaid.gov/dataset/dfd13757-d763-4f7a-9641-3f06ce21b4c6. Accessed on: Mar 4, 2024.

Births in each measurement period were stratified into five Medicaid programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, FAMIS Prenatal Coverage, 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 2020–CY 2022

Overall Births	CY 2020		CY 2021		CY 2022	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births	32,230	100.0%	33,032	100.0%	35,899	100.0%
Medicaid Program						
Medicaid for Pregnant Women	19,772	61.3%	15,682	47.5%	13,144	36.6%
Medicaid Expansion	4,576	14.2%	6,548	19.8%	7,950	22.1%
FAMIS MOMS	2,091	6.5%	1,785	5.4%	1,817	5.1%
FAMIS Prenatal Coverage	—	—	2,007	6.1%	4,882	13.6%
Other Aid Categories†	5,791	18.0%	7,010	21.2%	8,106	22.6%
Medicaid Delivery System						
FFS	3,025	9.4%	3,916	11.9%	3,305	9.2%
Managed Care	29,205	90.6%	29,116	88.1%	32,594	90.8%

— indicates no births to women in FAMIS Prenatal Coverage occurred during CY 2020 given that the program was implemented in July 2021.
† Other Aid Categories includes all other births not covered by the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and FAMIS Prenatal Coverage programs.

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 2020. 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 steadily increased since CY 2020. Additionally, given the implementation of the FAMIS Prenatal Coverage program on July 1, 2021, which provides comprehensive pregnancy coverage for women who do not meet the immigration status rules for other Medicaid programs, births to women in this program doubled between CY 2021 and CY 2022.

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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Births With Early and Adequate Prenatal Care	76.4%	22,245	71.9%	23,780	72.7%	25,535	72.1%
*Births With Inadequate Prenatal Care**	*NA*	4,651	15.0%	5,106	15.6%	5,454	15.4%
*Births With No Prenatal Care**	*NA*	534	1.7%	685	2.1%	1,072	3.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	3,168	9.8%	3,327	10.1%	3,446	9.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	2,979	9.2%	3,074	9.3%	3,279	9.1%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

The percentage of CY 2022 *Births With Early and Adequate Prenatal Care* was consistent with prior years and continued to fall below the national benchmark. While the rate for the *Preterm Births (<37 Weeks Gestation)* indicator improved from CY 2021 to CY 2022, the rate continued to fall below the national 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 2022 study indicator results for the five Medicaid Programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, FAMIS Prenatal Coverage, 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 2022

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%	1,601	1,007	62.9%	11,376	8,632	75.9%^

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	1,601	381	23.8%	11,376	1,518	13.3%^
*Births With No Prenatal Care**	*NA*	1,601	70	4.4%	11,376	213	1.9%^
Preterm Births (<37 Weeks Gestation)*	9.4%	1,639	161	9.8%	11,505	978	8.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	1,638	147	9.0%	11,503	1,006	8.7%
Medicaid Expansion							
Births With Early and Adequate Prenatal Care	76.4%	172	131	76.2%	7,674	5,966	77.7%
*Births With Inadequate Prenatal Care**	*NA*	172	19	11.0%	7,674	835	10.9%
*Births With No Prenatal Care**	*NA*	172	*S*	*S*	7,674	177	2.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	173	27	15.6%	7,776	815	10.5%^
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	173	17	9.8%	7,773	781	10.0%
FAMIS MOMS							
Births With Early and Adequate Prenatal Care	76.4%	392	296	75.5%	1,404	1,095	78.0%
*Births With Inadequate Prenatal Care**	*NA*	392	59	15.1%	1,404	171	12.2%
*Births With No Prenatal Care**	*NA*	392	*S*	*S*	1,404	19	1.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	399	52	13.0%	1,417	98	6.9%^

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	399	46	11.5%	1,417	91	6.4%^
FAMIS Prenatal Coverage							
Births With Early and Adequate Prenatal Care	76.4%	1,565	663	42.4%	3,247	2,128	65.5%^
*Births With Inadequate Prenatal Care**	*NA*	1,565	586	37.4%	3,247	657	20.2%^
*Births With No Prenatal Care**	*NA*	1,565	146	9.3%	3,247	130	4.0%^
Preterm Births (<37 Weeks Gestation)*	9.4%	1,599	150	9.4%	3,282	220	6.7%^
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	1,600	124	7.8%	3,282	185	5.6%^
Other Aid Categories†							
Births With Early and Adequate Prenatal Care	76.4%	360	219	60.8%	7,620	5,398	70.8%^
*Births With Inadequate Prenatal Care**	*NA*	360	89	24.7%	7,620	1,139	14.9%^
*Births With No Prenatal Care**	*NA*	360	25	6.9%	7,620	278	3.6%^
Preterm Births (<37 Weeks Gestation)*	9.4%	366	44	12.0%	7,739	901	11.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	366	41	11.2%	7,738	841	10.9%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.
† Other Aid Categories includes all other births not covered by the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and FAMIS Prenatal Coverage programs.
^ indicates a statistically significant difference between the study population rate and the comparison group rate.
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, 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. 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. Similarly, the FAMIS Prenatal Coverage program had the lowest rates of *Births With Early and Adequate Prenatal Care*, but had the lowest rates for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators, which outperformed national benchmarks in CY 2021 and CY 2022. Of note, the Other Aid Categories rates for all three study indicators underperformed in comparison to the national benchmarks for all three measurement periods.

Table 1-5 presents the overall maternal health outcomes study indicator results for CY 2021 and CY 2022.

Table 1-5—Overall Maternal Health Outcomes Study Indicator Findings Among Singleton Births, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Postpartum ED Utilization*	4,627	14.0%	5,929	16.5%
Postpartum Ambulatory Care Utilization	17,024	51.5%	21,067	58.7%
Prenatal Maternal Depression Screening	1,638	5.0%	1,932	5.4%
Postpartum Maternal Depression Screening	2,251	6.8%	2,821	7.9%
MMEC Within 3 Days of Delivery	—	—	3,869	10.8%
MMEC Within 90 Days of Delivery	—	—	14,412	40.2%
LARC Within 3 Days of Delivery	—	—	860	2.4%
LARC Within 90 Days of Delivery	—	—	4,640	12.9%

** a lower rate indicates better performance for this indicator.*
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.

Approximately 17 percent and 59 percent of postpartum women utilized ED and ambulatory care services, respectively, in CY 2022. Please note that these study indicators are not specific to postpartum care services and instead represent overall utilization of ED and ambulatory services within the postpartum period; therefore, exercise caution when interpreting results. In CY 2022, women who received no prenatal care had the highest rates of *Postpartum ED Utilization* (17.6 percent), while women who were continuously enrolled for more than 180 days had higher rates of *Postpartum Ambulatory Care Utilization* (60.8 percent). Of note, the rates of *Postpartum ED Utilization* and *Postpartum Ambulatory Care Utilization* increased from CY 2021 to CY 2022, which is likely the result of the lower rates of ED utilization and ambulatory care seen in CY 2021 due to the coronavirus disease 2019 (COVID-19) public health emergency (PHE).[1-9]

[1-9] McGough M, Amin K, and Cox C. How has healthcare utilization changed since the pandemic? *Peterson-KFF Health System Tracker*. Available at: https://www.healthsystemtracker.org/chart-collection/how-has-healthcare-utilization-changed-since-the-

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.[1-10]
- COVID-19 may have impacted the CY 2020 study indicator results given the public efforts put in place during CY 2020 to mitigate the spread of COVID-19 (e.g., social distancing, stay at home orders). Additionally, researchers have found that women who were pregnant during the early stages of the COVID-19 pandemic had increased fears and stress about delivering in a hospital, especially when a support person could not be in the hospital for the delivery or go to prenatal visits with the mother.[1-11,1-12] Further, COVID-19 may have also impacted women's ability to get timely and frequent prenatal care. As a result, caution should be exercised when comparing CY 2021 and CY 2022 study indicator results to those for CY 2020.
- 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 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 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. The Virginia Department of Social Services (VDSS), the agency responsible for determining Medicaid eligibility in Virginia,

pandemic/#Percent%20of%20adults%20(age%2018%20years%20and%20older)%20who%20reported%20delaying%20or%20going%20without%20medical%20care%20due%20to%20COVID-19%20pandemic,%202021. Accessed on: Mar 4, 2024.

1-10 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: Mar 4, 2024.

1-11 Whipps MDM, Phipps JE, Simmons LA. Perinatal health care access, childbirth concerns, and birthing decision-making among pregnant people in California during COVID-19. *BMC Pregnancy and Childbirth*. 2021; 21(477). Available at: https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-021-03942-y. Accessed on: Mar 4, 2024.

1-12 Meaney S, Letiao S, Olander EK, et al. The impact of COVID-19 on pregnant womens' experiences and perceptions of antenatal maternity care, social support, and stress-reduction strategies. *Women and Birth*. 2021. Available at: https://doi.org/10.1016/j.wombi.2021.04.013. Accessed on: Mar 4, 2024.

allows seven days to process a Medicaid application from a pregnant woman; 45 days is allowed for processing if the pregnant woman applies for additional services beyond Medicaid (e.g., supplemental nutrition assistance). 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. 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 and subsequently impact birth outcomes.
- Due to differing methodologies and data sources, study findings are not comparable to the Healthcare Effectiveness Data and Information Set (HEDIS®)[1-13] *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.
- HSAG developed the maternal health outcomes study indicators; therefore, comparisons to national benchmarks cannot be made. However, the *MMEC Within 3 Days of Delivery* and *LARC Within 3 Days of Delivery* study indicators have comparable national Medicaid benchmarks for two age groups (i.e., 15 to 20 years of age and 21 to 44 years of age). Given that HSAG does not present these study indicators by age throughout the report, HSAG only refers to these benchmarks in narrative for contextual information, where appropriate. Further, due to billing practices of providers (e.g., global billing), some study indicator results (i.e., maternal depression screening) are likely more representative of data completeness, rather than actual performance.
- Since the FAMIS Prenatal Coverage program began in July 2021, women included in the FAMIS Prenatal Coverage population at the time of delivery may not have been eligible for the program in time to receive timely or adequate prenatal care; therefore, exercise caution when interpreting study indicator rates for this population for CY 2021 and CY 2022. Further, given that the FAMIS Prenatal Coverage program only provides postpartum care for 60 days after delivery, exercise caution when interpreting the maternal health outcome study indicators that assess care received in the postpartum period given many of the indicators look at care beyond 60 days of delivery.

Conclusions and Recommendations

The 2022–23 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, recommendations for DMAS' consideration, and DMAS' follow-up on prior year focus study recommendations. 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:

[1-13] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

- On August 26, 2022, Governor Glenn Youngkin announced the new Partnership for Petersburg initiative, which includes six focus areas: Prepare Petersburg Students for Life, Improve Access to Health Care, Keep Our Community Safe, Keep Petersburg Moving, Foster Business & Economic Growth, and Build Relationships with Community and Faith Leaders. The Commonwealth of Virginia and community partners will work together to improve the health of Petersburg residents by expanding access to screenings, promoting awareness of primary care and prenatal care, and addressing health disparities by connecting Petersburg residents with medical and social services.
- In July 2022, under Governor Glenn Youngkin, DMAS implemented a 12-month continuous postpartum coverage for members through an 1115 demonstration waiver.
- In 2021, pursuant to state legislation, DMAS amended the state plan to authorize prescriptions of contraceptives up to a 12-month supply.

Please see the DMAS' Follow-Up on Prior Focus Study Recommendations section for more details regarding these policy changes and other DMAS initiatives.

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 2020 and CY 2022 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 fall below 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 2022 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 2022. DMAS should monitor how rates of *Births With Early and Adequate Prenatal Care* improve given the implementation of the FAMIS Prenatal Coverage program on July 1, 2021.

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.[1-14] All study indicator results for the Medicaid Expansion program for CY 2022 demonstrated improvement from CY 2020, with the CY 2022 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 program had the highest rate of *Births With Early and Adequate Prenatal Care* in CY 2022. However, the rate for the *Preterm Births (<37 Weeks)* study indicator continues to fall below national benchmarks, and the *Newborns With Low Birth Weight (<2,500 grams*) rate is at risk of falling below national benchmarks again (i.e., the CY 2022 rate is only 0.1 percentage points above the national benchmark). Therefore, DMAS should continue to monitor this population by assessing the risk factors for women in the Medicaid Expansion program that could be contributing to higher rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)*.

The FAMIS MOMS program continued to exceed national benchmarks for all three study indicators in CY 2022, though it is important to note that women enrolled in FAMIS MOMS have different income eligibility limits compared to other pregnant women (i.e., FAMIS MOMS covers women with incomes up to 200 percent of the FPL[1-15]). 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 second 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 social determinants of health (SDoH) that may distinguish these women from other Medicaid members.

The FAMIS Prenatal Coverage program had the lowest rates of *Births With Early and Adequate Prenatal Care* but the most favorable rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* compared to other Medicaid programs. Given that some women who had births in early CY 2022 may not have had prenatal care covered in their first trimester, DMAS should monitor how the *Births With Early and Adequate Prenatal Care* study indicator rate changes in CY 2023 for women enrolled in the FAMIS Prenatal Coverage program.

Women residing in Petersburg had rates that did not meet the national benchmark for *Births With Early and Adequate Prenatal Care* and *Newborns With Low Birth Weight (<2,500 grams)*; however, the *Preterm Births (<37 Weeks Gestation)* rate improved and outperformed the national benchmark in CY 2022. Of note, the *Births With Early and Adequate Prenatal Care* study indicator rate in Petersburg was 4 percentage points lower than the Overall Virginia Medicaid rate, and the *Newborns With Low Birth Weight (<2,500 grams)* study indicator rate in Petersburg was 5 percentage points higher than the Overall Virginia Medicaid rate, demonstrating opportunities for improvement within Petersburg.

1-14 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: Mar 4, 2024.

1-15 A standard disregard of 5 percent FPL is applied to the Medicaid for Pregnant Women, Medicaid Expansion, and FAMIS MOMS programs if the woman's income is slightly above the household income.

Maternal Health Outcomes

This study assessed eight maternal health outcomes related to utilization in the postpartum period, important screenings during the prenatal and postpartum periods, and receipt of contraceptives in the postpartum period. Overall, approximately 17 percent and 59 percent of postpartum women utilized ED and ambulatory care services, respectively. Women who received no 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 74 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 abdominal pain and other digestive/abdomen signs and symptoms, complications specified during the puerperium, and respiratory signs and symptoms. Additionally, approximately 39 percent of women who had an ED visit after delivery had the visit in the first 14 days after delivery, and approximately 24 percent had the visit between 31 and 60 days of delivery, and the amount of prenatal care received did not impact ED utilization in the postpartum period. 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.[1-16] This indicates that Medicaid members have lower rates of ED visits within the first two weeks following delivery than are seen nationally.

Approximately 11 percent of women received a maternal depression screening during the prenatal or postpartum period. 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.

Approximately 11 percent and 40 percent of postpartum women received an MMEC within three and 90 days of delivery, respectively, in CY 2022. Additionally, approximately 2 percent and 13 percent of postpartum women received a LARC within three and 90 days of delivery, respectively. For women 15 to 20 years of age in Virginia Medicaid, the rate of *MMEC Within 3 Days of Delivery* exceeded the national Medicaid 50th percentile by approximately 1 percentage point, while the rate of *LARC Within 3 Days of Delivery* fell slightly below the national Medicaid 50th percentile.[1-17] For women 21 to 44 years of age in Virginia Medicaid, the rate of *MMEC Within 3 Days of Delivery* fell below the national Medicaid 50th percentile, while the rate of *LARC Within 3 Days of Delivery* exceeded the national Medicaid 50th percentile.[1-18] Given that performance on these study indicators is heavily impacted by member preference when it comes to choosing to use contraceptives, exercise caution when interpreting these study indicator rates.

Racial/ethnic disparities exist for the maternal health outcomes, with Asian, Non-Hispanic women having significantly more favorable rates of ED visits (lower is better) and ambulatory care visits (higher is better) 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 that all other races/ethnicities. Higher rates of ED visits can be indicative

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1-16 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: Mar 4, 2024.

1-17 Centers for Medicare & Medicaid Services. 2022 Child and Adult Health Care Quality Measures Quality. Available at: https://data.medicaid.gov/dataset/dfd13757-d763-4f7a-9641-3f06ce21b4c6. Accessed on: Mar 4, 2024.

1-18 Ibid.

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 care 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, White, Non-Hispanic and Black, Non-Hispanic women were significantly more likely to receive a depression screening in the perinatal period, and Hispanic women of any race were significantly less likely. Hispanic women of any race had significantly higher rates of receiving contraceptives compared to all other races/ethnicities, while White, Non-Hispanic and Asian, Non-Hispanic women had significantly lower rates of receiving contraceptives.

In CY 2022, women in the FAMIS Prenatal Coverage and FAMIS MOMS programs had the most favorable rates for *Postpartum ED Utilization*; however, women in the FAMIS MOMS program had the lowest rates of *Postpartum Ambulatory Care*. While women in the FAMIS Prenatal Coverage program had the lowest rates of depression screening, these women had the highest rates for receiving contraceptives. This is likely due to the fact that approximately 90 percent of FAMIS Prenatal Coverage deliveries were to Hispanic, Any Race women who had significantly lower rates of receiving a depression screening and significantly higher rates of receiving contraceptives. Of note, women in the FAMIS Prenatal Coverage program are only eligible for postpartum coverage for 60 days postpartum, which may be impacting the rates for this population.

Women residing in Petersburg had a rate of *Postpartum Ambulatory Care Utilization* approximately 5 percentage points higher than the Overall Virginia Medicaid rate; however, women in Petersburg also had a rate of *Postpartum ED Utilization* approximately 6 percentage points higher than the Overall Virginia Medicaid rate, demonstrating an opportunity for improvement. Women in Petersburg had similar rates as the Overall Virginia Medicaid rate for receiving LARCs within 90 days of delivery; however, women in Petersburg also had much lower rates of depression screening and receiving MMEC within three and 90 days of delivery.

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 72 percent of births in CY 2022 received early and adequate prenatal care, and approximately 18 percent of births in CY 2022 received inadequate or no prenatal care. The 2022–23 secret shopper survey that assessed appointment availability for prenatal care providers who accept Medicaid in Virginia found that only 28.0 percent provided a first, second, or third trimester appointment date. Of those that offered appointments, 52.0 percent of cases were offered a first trimester appointment date, 14.7 percent of cases were offered a second trimester appointment date, and 17.3 percent of cases were offered a third trimester appointment date. The common reasons for not scheduling prenatal care appointments included requiring preregistration, personal information, medical records, or physician approval prior to scheduling the appointment.
  - The results of this study and the secret shopper survey study suggest that DMAS and the MCOs should investigate the factors contributing to women's ability to access timely prenatal care and implement targeted improvement efforts. These efforts should include ensuring that all women of childbearing age establish a primary care provider (PCP) or obstetrician/gynecologist

(OB/GYN) prior to pregnancy and receive necessary preventive care (e.g., taking folic acid) and management of conditions (e.g., diabetes, high blood pressure, obesity) that were previously left untreated or unmanaged. Improving the health of a woman prior to conception will help to ensure better outcomes for both the mother and baby.[1-19] Additionally, given the results of the secret shopper survey, DMAS and the MCOs should investigate the administrative burden that appears to be preventing appointments from being made.

- To improve prenatal care among Virginia Medicaid members, HSAG and DMAS work on a number of initiatives, including the performance improvement project (PIP) and the Performance Withhold Program (PWP). In 2023, the Medallion 4.0 (Acute) MCOs submitted baseline data and interventions for the *Ensuring Timeliness of Prenatal Visits* PIP, which aims to assess whether targeted interventions increase 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. Additionally, as part of the SFY 2023 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. DMAS should monitor how the PIP and PWP impact MCO efforts towards ensuring women receive timely prenatal care. Further, for 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—Timeliness of Prenatal Care* indicator to continue to incentivize MCO performance on this indicator.
- Unplanned pregnancies are associated with higher rates of preterm births and newborns with low birthweight.[1-20] LARCs are an effective contraceptive method that can help reduce unplanned and short-interval pregnancies.[1-21] In CY 2022, approximately 11 percent and 40 percent of postpartum women received an MMEC within three and 90 days of delivery, respectively, and approximately 2 percent and 13 percent of postpartum women received a LARC within three and 90 days of delivery, respectively. While the rates for contraceptives received in three days of delivery are similar to national benchmarks, the MCOs should work to inform their providers, and DMAS should continue to work with hospitals to institute protocols that allow physicians to leverage the Virginia Postpartum LARC toolkit.[1-22]
  - Given that Medicaid members can receive a 12-month supply of contraceptives, DMAS and the MCOs should assess how many members are using contraceptives prior to becoming pregnant. Given that the MCOs will be reporting the CMS *Contraceptive Care—All Women* measure for measurement 2023 as part of the Non-Interactive Data Submission System (IDSS) data collection tool, DMAS can use this information to determine a baseline for contraceptive use. The MCOs can also work to ensure that women have an established gynecologist prior to pregnancy in order for women to discuss their contraceptive options with their provider.

1-19 March of Dimes. Planning for a baby. Available at: https://www.marchofdimes.org/find-support/topics/planning-for-baby. Accessed on: Mar 4, 2024.

1-20 National Institute for Children's Health Quality. As Unplanned Pregnancy Rates Drop, Births Improve. Available at: https://www.nichq.org/insight/unplanned-pregnancy-rates-drop-births-improve. Accessed on: Mar 4, 2024.

1-21 CMS. Increasing Access, Quality, and Equity in Postpartum Care in Medicaid and CHIP: A Toolkit for State Medicaid and CHIP Agencies. August 2023. Available at: https://www.medicaid.gov/sites/default/files/2023-08/ppc-for-state-and-medicaid-toolkit.pdf. Accessed on: Mar 4, 2024.

1-22 Virginia Department of Health and Virginia Department of Medical Assistance Services. Virginia Postpartum LARC Toolkit, November 2021. Available at: https://www.vdh.virginia.gov/content/uploads/sites/28/2021/11/VA_Postpartum_LARC_Toolkit_rev-2021.pdf. Accessed on: Mar 4, 2024.

- Approximately 17 percent and 59 percent of postpartum women utilized ED and ambulatory care services, respectively. Additionally, approximately 24 percent of women who had an ED visit after delivery had the visit between 31 and 60 days of delivery. DMAS should consider investigating the utilization of ED services in the postpartum period to understand the factors contributing to why women are seeking care in the ED instead of an outpatient setting (e.g., assess if these women have an established PCP or OB/GYN).
- Approximately 52 percent of women who had a delivery in CY 2022 did not have a postpartum visit. Of note, the rate of no postpartum visits is 4.5 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. 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.[1-23] Given that most women who had a delivery in CY 2022 either did not have a postpartum visit or it was more than three weeks after delivery, DMAS and the MCOs should investigate the reasons why women are not having a postpartum visit (e.g., transportation issues, appointment availability). To increase postpartum care visits, DMAS and the MCOs could consider providing postpartum home visits or leveraging telehealth services for members with high-risk medical conditions, and increasing members' knowledge about the availability of transportation services for postpartum care.[1-24] The state of Michigan has a postpartum home visit program, which has resulted in participating Medicaid members being 1.5 times more likely to have a postpartum visit compared to those who did not participate in the program.[1-25]
  - In July 2022, DMAS implemented a 12-month continuous postpartum coverage for members through a Section 1115 waiver demonstration. It will be important to monitor how postpartum visit rates change in CY 2023 when most women will have this coverage.
  - As part of the SFY 2023 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. To continue to incentive 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.
- Less than 12 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

1-23 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#:~:text=All%20women%20should%20ideally%20have,than%2012%20weeks%20after%20birth. Accessed on: Mar 4, 2024.

1-24 CMS. Increasing Access, Quality, and Equity in Postpartum Care in Medicaid and CHIP: A Toolkit for State Medicaid and CHIP Agencies. August 2023. Available at: https://www.medicaid.gov/sites/default/files/2023-08/ppc-for-state-and-medicaid-toolkit.pdf. Accessed on: Mar 4, 2024.

1-25 Ibid.

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 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. Further, DMAS could consider requiring the MCOs to report the prenatal and postpartum maternal depression screening study indicators to DMAS annually in order to improve these rates.

- Given that doulas began providing services to Virginia Medicaid members in August 2022, HSAG recommends including an assessment of whether the use of doula services impacts birth and maternal health outcomes for deliveries in CY 2023 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) 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.

DMAS' Follow-Up on Prior Focus Study Recommendation

In addition to the recommendations noted above, DMAS provided the following detailed feedback to HSAG regarding QI actions and initiatives:

- As part of the 12-month continuous postpartum coverage for members DMAS implemented through a Section 1115 waiver demonstration, DMAS is required to develop a comprehensive evaluation plan with measures focusing on access, utilization of services, health outcomes and reducing racial/ethnic and other disparities in coverage, access, and health outcomes. As part of the evaluation plan, DMAS will track screenings for depression during the postpartum period. Claims data, MCO self-reported data, and member self-reported data will be used.
- DMAS will include the *Screening for Depression and Follow-Up Plan* and *Contraceptive Care* Core Set measures as part of the Non-IDSS data collection from the MCOs in the 2023 (measurement year 2022) measures reporting template.
- DMAS acted on HSAG's recommendation of an analysis in this year's Medicaid and CHIP Maternal and Child Health Focus Study to include additional information on ED visits for postpartum women.
- Virginia acknowledges the need for further work on access to/use of LARCs in the early postpartum period. In 2016, Virginia unbundled LARC insertions from the diagnostic-related group (DRG) and allowed hospital reimbursement as a separate payment for LARCs placed after delivery. Unfortunately, data showed that LARC insertion at delivery did not increase, but actually decreased between 2018 and 2021. The COVID-19 PHE disrupted Virginia's plans to execute a focused communications campaign regarding this change. Use of LARCs during the early postpartum period will remain a priority in Virginia's training and outreach plans for members and providers.
- DMAS will continue to measure utilization of LARCs and other contraceptive methods during the 12-month postpartum period through analysis of claims and encounter data and through member surveys conducted as part of the postpartum Section 1115 demonstration evaluation.

- DMAS managed care contracts require MCOs to report monthly the number of maternal mental health screenings attempted and completed. DMAS is reviewing technical specifications and contract language and will recommend adjustments as necessary to gather more actionable information and ensure that all members receive evidence-based screenings and assessments during the prenatal and postpartum periods.
- DMAS is working with the Virginia Department of Health (VDH) to update the interagency data sharing agreement to leverage additional vital statistics data—in particular, mortality data—that will be used in the Section 1115 demonstration evaluation of the 12 months postpartum coverage extension. DMAS is expanding our agency's analysis of claims and encounters data to better understand factors contributing to poor birth outcomes in Virginia.

Partnership for Petersburg

In collaboration with the MCOs, providers, and other stakeholders serving the Petersburg area:

- In July 2023, DMAS mailed out more than 200 prenatal and postpartum care flyers to pregnant members residing in Petersburg. The flyer raised awareness of prenatal and postpartum care, MCO extended benefits services, and contact information of local OB/GYNs and Federally Qualified Health Centers (FQHCs) in Petersburg. As a follow up, DMAS and its contracted MCOs conducted direct outreach to those members who, based on claims data, did not appear to have completed a prenatal or postpartum care visit.
- DMAS and its MCOs track prenatal and postpartum care for its Petersburg members on a bimonthly basis. In September 2023, 68 percent of the identified women in the prenatal group had received at least one visit, and 75 percent of the identified women in the postpartum group had received at least one visit postpartum. Please note, these numbers are based on DMAS claims data, MCO claims data, and direct-to-member outreach (survey) data. DMAS and its MCOs continue with this targeted tracking and outreach.
- Virginia's contracted MCOs, as well as Conexus and DentaQuest partners, participated in over 150 Petersburg area events, and Virginia's MCOs have invested more than $4 million to support the Petersburg community. Events included area mobile health clinics and resource fairs. These efforts have focused on pregnant and postpartum members in an effort to facilitate OB visits and access doula services. Virginia's MCOs have also committed to hosting quarterly community events targeting pregnant and postpartum members. At these events, the MCOs provide education on topics such as safe sleep and car seat safety and give away resources such as diapers, cribettes, wipes, and other supplies.
- DMAS held a series of meetings that included Petersburg-area maternity providers, local FQHCs, the regional medical center, MCOs, and other stakeholders to learn about community needs, barriers, and opportunities to better serve Petersburg women and children.
- DMAS, in partnership with the MCOs, launched two doula and licensed/medical provider engagement videos in December 2022, which are being used for statewide licensed medical provider education and community doula recruitment efforts.
- DMAS and the MCOs worked directly with members, helping them access community doula services in Petersburg. There are 35 state-certified, Medicaid-approved doulas covering the Petersburg/Hopewell area, five of which directly reside in Petersburg or Hopewell. Virginia Medicaid covered 34 doula-assisted births in Petersburg between January 1, 2023, and July 31, 2023.

- The Urban Baby Beginnings Petersburg Maternal Health Hub opened on April 11, 2023. The Petersburg Maternal Health Hub, along with several other hubs operating in the state, represents a community-based model of care which can help address factors that contribute to maternal and infant morbidity and mortality. The maternal health hub, located at 1965 Wakefield Street in Petersburg, was created through a three-year, $825,000 grant from the Anthem Blue Cross and Blue Shield Foundation.
- In November 2023, DMAS, in partnership with the Virginia Hospital and Healthcare Association and Bon Secours Health System, hosted Saturday maternal health clinic hours at the Bon Secours Southside OB/GYN clinic in Petersburg. Dr. Daphne Bazile saw eight members during the clinic. DMAS will host the next Saturday clinic in January 2024.

Maternal Health

- The current 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, more robust data deliverable requirements based on guidelines established by the American Academy of Pediatrics and American College of Obstetricians and Gynecologists.
- Improving health outcomes for all pregnant and postpartum women remains a top priority for DMAS, with a focus on reducing racial disparities and maternal mortality. Working across the agency, and with input from sister agencies, providers, members, and contracted MCOs, DMAS is implementing best practices in the following areas to improve wellbeing for all Medicaid members:
  - Eligibility and Enrollment: Streamline enrollment for pregnant women/newborns
  - Outreach and Information: Engage internal and external stakeholders and share information with members
  - Connections: Engage providers, community stakeholders, hospitals, and agencies
  - New and Improved Services and Policies: Collaborate on Virginia initiatives to enhance services
  - Oversight: Use data and reports to evaluate and improve programs
- DMAS completed the National Academy for State Health Policy (NASHP) Maternal and Child Health Policy Innovation Program (MCH PIP) in April 2023. This two-year convening sought to identify, develop, and implement policy changes or develop specific plans for policy changes and/or strategies with the goal of improving access to quality care.
- The MCH PIP Member Postpartum Coverage toolkit was distributed in 2023 and included details on the new extended postpartum coverage benefits, postpartum visits, wellness checks, postpartum mental health, post-delivery care, and breastfeeding.
- DMAS and its MCOs are participating in a Center for Medicaid and CHIP Services (CMCS) Quality Improvement Initiative called Improving Maternal Health by Reducing Low-Risk Cesarean Delivery (LRCD). CMCS' contractor utilizes industry QI advisors, data advisors, and subject matter experts (SMEs) to provide Virginia with support, technical assistance, and education. Thus far, the group has focused on doula services and is now working to define interventions and outcome measures for further study.

Doula Services

- DMAS conducts quarterly Virginia Task Force meetings that assist with the promulgation of regulations and implementation of the doula certification process and serves as an informational resource for policy-related matters for VDH. Priorities for the group include establishing a workforce and professional development committee to ensure continued training and professional development for doulas.
- As of August 2023, 124 doulas obtained state certification, 84 doulas completed Medicaid enrollment, and 76 doulas contracted with an MCO.
- DMAS conducts quarterly meetings to engage practicing doulas, MCOs, and other key stakeholders around topics of interest and the Virginia Medicaid doula services.
- DMAS hosts monthly Getting Started as a Community Doula information sessions to engage individuals interested in becoming doulas and practicing doulas seeking to learn more about becoming a Medicaid Community Doula provider.
- In partnership with the MCOs, DMAS completed a Medicaid member engagement video, which is intended to educate Medicaid members statewide on the Virginia Medicaid Doula services and the benefits of having doula support throughout pregnancy and during the postpartum period.
- DMAS, in partnership with the MCOs, launched two doula and licensed/medical provider engagement videos, which are being used for statewide licensed medical provider education and community doula recruitment efforts.
- Monthly meetings bring together partner agencies and key community stakeholders to share information regarding federal, State, and local grants; key legislation; and initiatives related to maternal health. Participants include staff from DMAS, VDH, Virginia Hospital and Healthcare Association, Virginia Neonatal Perinatal Collaborative, and the Virginia Department of Behavioral Health and Developmental Services.
- In November 2022, VDH launched a Title V Environmental Scan (Doula Survey). The survey was sent to the local VDH health districts across Virginia and included doula-specific questions to gauge knowledge from the local health departments around doulas and doula care. The information collected provides insight to regional knowledge of doulas/doula care and will be very helpful for future DMAS engagement and roll-out strategies. It was also a chance to learn more about the healthcare providers and families within the local health districts.

Child Health

- DMAS continues to assist with the enrollment of Early Intervention (EI) providers in the Provider Services Solution portal (PRSS) in accordance with the mandatory Federal 21st Century Cures Act requirement. Virginia must comply and enroll all providers, including MCO in-network providers.
- DMAS conducts quarterly EI meetings to engage MCOs, key stakeholders, Virginia's Local Lead Agencies (LLAs), and EI providers to share information regarding issues affection the EI community. DMAS facilitated six MCO-provided trainings regarding EI processes to further educate the EI provider community. The trainings addressed Individual and Family Support Program (IFSP) communication procedures, EI provider enrollment processes, and claims and T Codes billing.
- DMAS is currently implementing measures to increase awareness and enhance services of the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit amongst providers, MCOs, and Virginia Medicaid members. DMAS will explain the EPSDT benefit in a three module

training and target the basics of the EPSDT benefit, specialized services, and authorization of services. DMAS will implement training in early 2024.

- Working with the MCOs, DMAS participated in an Infant Well Child Affinity Group to increase well-child visits. The Affinity Group initiated interventions with different providers in the target regions of Roanoke/Alleghany, Northern & Winchester, Tidewater, Petersburg, and Southwest. DMAS as well as seven other states receive technical assistance from Mathematica to analyze interventions that have an impact on infant well-child visit rates and quality of care and access to members. The initiative started in March 2021 and will conclude in December 2023.

2. Overview and Methodology

Overview

As an optional activity under the *CMS EQR Protocols, February* 2023,[2-1] DMAS contracted with HSAG to conduct a focus study in contract year 2022–23 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, FAMIS MOMS, and FAMIS Prenatal Coverage programs. The Contract Year 2022–23 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, postpartum contraceptive care) 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 2022. 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 2022 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.[2-2] DMAS used deterministic and probabilistic data linkage methods to match HSAG's list of potential study members to birth registry records.[2-3] 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.

2-1 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: Mar 4, 2024.

2-2 The Virginia birth registry contains records of live births; other pregnancy outcomes are not included in this study.

2-3 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.

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 probabilistic data linkage considerations in each measurement period, in addition to changes in the demographics of women with births paid by Virginia Medicaid.[2-4]

The eligible population was further classified by Medicaid program and service delivery system as follows:[2-5]

- The Medicaid for Pregnant Women program uses Title XIX funding to serve pregnant women with incomes up to 143 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 133 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 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 200 percent of the FPL and provides benefits similar to Medicaid through the duration of pregnancy and for the postpartum period.
- The FAMIS Prenatal Coverage program uses Title XXI funding to provide coverage for pregnant women with incomes below 200 percent of the FPL who do not meet immigration status rules for other coverage.[2-6]
- The Other Aid Categories include births paid by Medicaid that do not fall within the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, or FAMIS Prenatal Coverage programs. Please note, births to women in Plan First and DOC, and births to members who are only eligible for emergency benefits are excluded.[2-7,2-8]

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, FAMIS Prenatal Coverage, and Other Aid Categories) at delivery were

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2-4 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 2020–21 and 2021–22 studies, resulting in a variable percentage of probable birth record linkages that were manually reviewed for each measurement period.

2-5 A standard disregard of 5 percent FPL is applied to the Medicaid for Pregnant Women, Medicaid Expansion, and FAMIS MOMS programs if the woman’s income is slightly above the household income.

2-6 In July 2022, coverage of postpartum benefits was expanded from 60 days to one year after delivery for all full benefit Medicaid and FAMIS MOMS populations; however, members enrolled in the FAMIS Prenatal Coverage program are still limited to 60 days postpartum coverage.

2-7 The “Other Aid Categories” include births paid by Medicaid or CHIP as part of the LIFC (parents and caretaker adults), disabled individuals, Medicaid Children, Foster Children and Former Foster Youth, Adoption Assistance Children, FAMIS Children, presumptively eligible individuals, and others.

2-8 For the 2021–22 Medicaid and CHIP Maternal and Child Health Focus Study, births to women in the FAMIS Prenatal Coverage program were included in the Other Aid Categories program. Therefore, HSAG recalculated CY 2021 rates for the Other Aid Categories program to include births for women in the FAMIS Prenatal Coverage program.

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,[2-9] 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 2020 CMS Core Set benchmarks for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator. 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 2022 study indicator results to historical results, when applicable. Please note that HSAG recalculated the historical Other Aid Categories birth outcomes study indicator results to exclude births covered by the FAMIS Prenatal Coverage program, which were previously calculated in the Other Aid Categories for CY 2020 and CY 2021. Due to these changes, the CY 2020 and CY 2021 results presented in this report do not match results presented in the 2022–23 Birth Outcomes Focus Study report.

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 2022:

- 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.

[2-9] 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: Mar 4, 2024.

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.[2-10] 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 prenatal care began. 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.[2-11] 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.[2-12] 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.[2-13] DMAS opted to compare study

[2-10] Krueger PM, Scholl TO. Adequacy of prenatal care and pregnancy outcome. The Journal of the American Osteopathic Association. 2000; 100(8):485–492.

[2-11] 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.

[2-12] 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: Mar 4, 2024.

[2-13] 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

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.

Preterm Births

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

In 2022, preterm delivery affected approximately one in 10 infants born in the United States.[2-14] Preterm delivery (births prior to 37 weeks of gestation) is a leading cause of infant mortality, and 80.4 infant deaths per 100,000 live births in 2021 were attributable to causes related to preterm birth and low birth weight.[2-15] Additionally, between 2019 and 2021, preterm birth rates in the United States were 52 percent higher among African American women than all other women (i.e., Asian/Pacific Islander, White, Hispanic, and American Indian/Alaska Native).[2-16] 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.[2-17]

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.[2-18] 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.[2-19]

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

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: Mar 4, 2024.

2-14 National Center for Health Statistics, Centers for Disease Control and Prevention. Births in the United States, 2022. Available at: https://www.cdc.gov/nchs/products/databriefs/db477.htm. Accessed on: Mar 4, 2024.

2-15 National Center for Health Statistics, Centers for Disease Control and Prevention. Data Brief 456. Available at: https://www.cdc.gov/nchs/data/databriefs/db456.pdf. Accessed on: Mar 4, 2024.

2-16 March of Dimes. 2022 March of Dimes Report Card: United States. Available at: https://www.marchofdimes.org/sites/default/files/2022-11/March-of-Dimes-2022-Full-Report-Card.pdf. Accessed on: Mar 4, 2024.

2-17 Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Preterm Birth. Available at: https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm. Accessed on: Mar 4, 2024.

2-18 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/#:~:text=Conclusion(s),infertility%20included%20the%20earliest%20deliveries. Accessed on: Mar 4, 2024.

2-19 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.

care may provide clinicians opportunities to monitor and address potential causes of preterm deliveries.[2-20]

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.[2-21] DMAS opted to compare study indicator findings to the Healthy People 2030 goal of 9.4 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.

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.[2-22] Low birth weight affects approximately one in 12 babies born in the United States.[2-23]

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).[2-24] 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.[2-25]

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

2-20 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.

2-21 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: Mar 4, 2024.

2-22 March of Dimes. Low birthweight. Available at: https://www.marchofdimes.org/find-support/topics/birth/low-birthweight. Accessed on: Mar 4, 2024.

2-23 Ibid.

2-24 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.

2-25 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.

population.[2-26] DMAS opted to use the FFY 2022 benchmark of 10.1 percent for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator.[2-27]

Maternal Health Outcomes Study Indicators

HSAG calculated the following five maternal health outcomes study indicators for singleton, live births during CY 2022 paid by Virginia Medicaid:

- Percentage of postpartum women who utilized ED services within 90 days of delivery
- 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
- Percentage of women who received an MMEC or a LARC within three and 90 days of delivery

The following subsections define the five 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.[2-28] 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.[2-29]

2-26 Centers for Medicare & Medicaid Services. 2022 Child and Adult Health Care Quality Measures Quality. Available at: https://data.medicaid.gov/dataset/dfd13757-d763-4f7a-9641-3f06ce21b4c6. Accessed on: Mar 4, 2024.

2-27 Ibid.

2-28 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: Mar 4, 2024.

2-29 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: Mar 4, 2024.

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.[2-30] Postpartum visits provide an opportunity for mothers to receive physical examinations; discuss contraceptive options, 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 and access to effective contraception, 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.

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.[2-31] 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.[2-32] 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.[2-33] 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.[2-34]

2-30 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: Mar 4, 2024.

2-31 Cleveland Clinic Journal of Medicine. *Perinatal depression: A review.* Available at: https://www.ccjm.org/content/87/5/273#:~:text=INCIDENCE%2C%20ETIOLOGY%2C%20AND%20RISK%20FACTORS,half%20million%20women%20each%20year. Accessed on: Mar 4, 2024.

2-32 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: Mar 4, 2024.

2-33 Medline Plus. *Postpartum Depression Screening.* Available at: https://medlineplus.gov/lab-tests/postpartum-depression-screening/. Accessed on: Mar 4, 2024.

2-34 Centers for Disease Control and Prevention. Depression During and After Pregnancy. Available at: https://www.cdc.gov/reproductivehealth/features/maternal-depression/index.html. Accessed on: Mar 4, 2024.

Postpartum Contraceptive Care Utilization

Postpartum contraceptive care prevents unintended and closely spaced pregnancies. Closely spaced pregnancies (i.e., pregnancies within 12 to 18 months of a delivery) are associated with adverse outcomes, including preterm births and low birth weight infants.[2-35] Further, Medicaid women are approximately 40 percent more likely to have a short between-pregnancy interval.[2-36] Therefore, providing counseling and ensuring access to contraceptives after delivery are critical for women enrolled in Medicaid to improve outcomes and lower costs for unplanned or closely spaced pregnancies. Most effective forms of contraception include female sterilization, contraceptive implants, or intrauterine devices or systems (IUD/IUS) and moderately effective forms of contraception include injectables, oral pills, patches, or rings.[2-37] LARCs include implants or IUD/IUS.[2-38] In 2021, 38.3 percent of women 15 to 20 years of age and 37.8 percent of women 21 to 44 years of age in Medicaid used an MMEC within 60 days of delivery.[2-39] Additionally, 14.9 percent of women 15 to 20 years of age and 11.4 percent of women 21 to 44 years of age in Medicaid used a LARC within 60 days of delivery.[2-40]

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 2022 measurement period. HSAG used Pearson's chi-square tests to assess statistically significant differences between the CY 2022 study population and comparison group for each birth outcomes indicator.

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

2-35 Gemmill A, and Lindberg LD. Short Interpregnancy Intervals in the United States. *Obstetrics & Gynecology*, vol. 122, 2013, pp. 64–71.

2-36 National Institute for Children's Health Quality (NICHQ). Strategies to Increase Access to Long-Acting Reversible Contraception (LARC) in Medicaid. May 2016. Available at: https://www.nichq.org/sites/default/files/resource-file/Increasing-Access-To-LARC_CoIIN-NASHP.pdf. Accessed on: Mar 4, 2024.

2-37 U.S. Department of Health & Human Services: Office of Population Affairs. Most or Moderately Effective Contraceptive Methods. Available at: https://opa.hhs.gov/research-evaluation/title-x-services-research/contraceptive-care-measures/most-or-moderately-effective. Accessed on: Mar 4, 2024.

2-38 U.S. Department of Health & Human Services: Office of Population Affairs. Long-Acting Reversible Contraceptive (LARC) Methods. Available at: https://opa.hhs.gov/research-evaluation/title-x-services-research/contraceptive-care-measures/long-acting-reversible. Accessed on: Mar 4, 2024.

2-39 Centers for Medicare & Medicaid Services. 2022 Child and Adult Health Care Quality Measures Quality. Available at: https://data.medicaid.gov/dataset/dfd13757-d763-4f7a-9641-3f06ce21b4c6. Accessed on: Mar 4, 2024.

2-40 Ibid.

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.[2-41] 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.

[2-41] 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 2020, CY 2021, and CY 2022 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 2020–CY 2022

	CY 2020		CY 2021		CY 2022	
	Number	Percent	Number	Percent	Number	Percent
Overall Births*						
Total Births	37,316	100.0%	36,480	100.0%	37,269	100.0%
Multiple Gestation Births	1,255	3.4%	1,184	3.2%	1,153	3.1%
Singleton Births	36,061	96.6%	35,296	96.8%	36,116	96.9%
Medicaid Births**						
Total Births	33,401	100.0%	34,150	100.0%	37,046	100.0%
Multiple Gestation Births	1,171	3.5%	1,118	3.3%	1,147	3.1%
Singleton Births	32,230	96.5%	33,032	96.7%	35,899	96.9%

** Overall Births includes all births paid by Virginia Medicaid.*
*** 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 increased in CY 2022, returning to CY 2020 levels. The number of Medicaid Births increased by approximately 3,000 births from CY 2021 to CY 2022, which is primarily attributed to the implementation of the FAMIS Prenatal Coverage program in July 2021.

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, FAMIS Prenatal Coverage, and Other Aid Categories), managed care program (i.e., Medallion 4.0 [Acute] or Commonwealth Coordinated Care [CCC] Plus 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 2020–CY 2022

Overall Births	CY 2020		CY 2021		CY 2022	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births	32,230	100.0%	33,032	100.0%	35,899	100.0%
Medicaid Program						
Medicaid for Pregnant Women	19,772	61.3%	15,682	47.5%	13,144	36.6%
Medicaid Expansion	4,576	14.2%	6,548	19.8%	7,950	22.1%
FAMIS MOMS	2,091	6.5%	1,785	5.4%	1,817	5.1%
FAMIS Prenatal Coverage	—	—	2,007	6.1%	4,882	13.6%
Other Aid Categories†	5,791	18.0%	7,010	21.2%	8,106	22.6%
Medicaid Managed Care Program*						
CCC Plus (MLTSS)	887	2.8%	928	2.8%	1,000	2.8%
Medallion 4.0 (Acute)	28,318	87.9%	28,188	85.3%	31,594	88.0%
Medicaid Delivery System						
FFS	3,025	9.4%	3,916	11.9%	3,305	9.2%
Managed Care	29,205	90.6%	29,116	88.1%	32,594	90.8%

— indicates no births to women in FAMIS Prenatal Coverage occurred during CY 2020 given that the program was implemented in July 2021.
** Because not all births were to women in Medicaid managed care programs, the percentage of births for the CCC Plus (MLTSS) and Medallion 4.0 (Acute) managed care programs do not sum to 100 percent.*
† Other Aid Categories includes all other births not covered by the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and FAMIS Prenatal Coverage programs.

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 2020. 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 steadily increased since CY 2020. Additionally, given the implementation of the FAMIS Prenatal Coverage program on July 1, 2021, which provides comprehensive pregnancy coverage for women who do not meet the immigration status rules for other Medicaid programs, births to women in this program doubled between CY 2021 and CY 2022.

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 2020–CY 2022

Overall Births	CY 2020		CY 2021		CY 2022	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births†	32,230	100.0%	33,032	100.0%	35,899	100.0%
Maternal Age at Delivery						
≤15 Years	94	0.3%	98	0.3%	108	0.3%
16–17 Years	469	1.5%	446	1.4%	429	1.2%
18–20 Years	3,460	10.7%	3,433	10.4%	3,329	9.3%
21–24 Years	7,618	23.6%	7,499	22.7%	7,772	21.6%
25–29 Years	9,835	30.5%	9,878	29.9%	10,642	29.6%
30–34 Years	6,801	21.1%	7,276	22.0%	8,405	23.4%
35–39 Years	3,119	9.7%	3,505	10.6%	4,122	11.5%
40–44 Years	733	2.3%	831	2.5%	1,014	2.8%
≥45 Years	41	0.1%	38	0.1%	55	0.2%
Unknown	60	0.2%	28	0.1%	23	0.1%
Maternal Race/Ethnicity						
White, Non-Hispanic	13,953	43.3%	12,475	37.8%	12,730	35.5%
Black, Non-Hispanic	12,439	38.6%	11,740	35.5%	11,494	32.0%
Asian, Non-Hispanic	1,199	3.7%	1,317	4.0%	544	1.5%
Hispanic, Any Race	4,177	13.0%	6,276	19.0%	8,817	24.6%
Other/Unknown	462	1.4%	1,224	3.7%	2,314	6.4%
Managed Care Region of Residence						
Central	8,153	25.3%	8,714	26.4%	9,345	26.0%
Charlottesville/Western	4,086	12.7%	4,160	12.6%	4,360	12.1%
Northern & Winchester	7,113	22.1%	8,201	24.8%	9,967	27.8%
Roanoke/Alleghany	3,135	9.7%	3,030	9.2%	3,223	9.0%
Southwest	1,915	5.9%	1,081	3.3%	994	2.8%
Tidewater	7,821	24.3%	7,841	23.7%	7,910	22.0%

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.

Most CY 2022 births paid by Virginia Medicaid were to women 21 to 34 years of age (74.6 percent) who were White, Non-Hispanic (35.5 percent) or Black, Non-Hispanic (32.0 percent). Consistent with prior years, most (75.8 percent) CY 2022 births were to women who resided in the Central, Northern &

Winchester, or Tidewater regions. Of note, the number of births paid by Virginia Medicaid to Hispanic, Any Race women and women residing in Northern & Winchester continued to increase from CY 2021 to CY 2022, which may be attributed to the implementation of the FAMIS Prenatal Coverage program during CY 2021.

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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Births With Early and Adequate Prenatal Care	76.4%	22,245	71.9%	23,780	72.7%	25,535	72.1%
*Births With Inadequate Prenatal Care**	*NA*	4,651	15.0%	5,106	15.6%	5,454	15.4%
*Births With No Prenatal Care**	*NA*	534	1.7%	685	2.1%	1,072	3.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	3,168	9.8%	3,327	10.1%	3,446	9.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	2,979	9.2%	3,074	9.3%	3,279	9.1%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

The percentage of CY 2022 *Births With Early and Adequate Prenatal Care* was consistent with prior years and continued to fall below the national benchmark. While the rate for the *Preterm Births (<37 Weeks Gestation)* indicator improved from CY 2021 to CY 2022, the rate continued to fall below the national 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 and CY 2022.

Table 3-5—Birth Outcomes Study Indicator Findings Among Singleton Births by Race/Ethnicity, CY 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	9,572	73.7%	9,359	75.7%	9,606	76.4%
*Births With Inadequate Prenatal Care**	*NA*	1,783	13.7%	1,648	13.3%	1,651	13.1%
*Births With No Prenatal Care**	*NA*	192	1.5%	240	1.9%	248	2.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	1,296	9.3%	1,112	8.9%	1,078	8.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	1,079	7.7%	933	7.5%	930	7.3%
Black, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	8,821	72.0%	8,660	74.4%	8,280	73.2%
*Births With Inadequate Prenatal Care**	*NA*	1,827	14.9%	1,586	13.6%	1,586	14.0%
*Births With No Prenatal Care**	*NA*	240	2.0%	253	2.2%	310	2.7%
Preterm Births (<37 Weeks Gestation)*	9.4%	1,382	11.1%	1,447	12.3%	1,390	12.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	1,508	12.1%	1,515	12.9%	1,530	13.3%
Asian, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	795	67.8%	956	73.4%	919	73.4%
*Births With Inadequate Prenatal Care**	*NA*	184	15.7%	186	14.3%	186	14.9%
*Births With No Prenatal Care**	*NA*	*S*	*S*	19	1.5%	31	2.5%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	99	8.3%	98	7.4%	85	6.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	94	7.8%	85	6.5%	95	7.5%
Hispanic, Any Race							
Births With Early and Adequate Prenatal Care	76.4%	2,752	67.5%	3,938	63.4%	5,602	64.3%
*Births With Inadequate Prenatal Care**	*NA*	771	18.9%	1,501	24.2%	1,801	20.7%
*Births With No Prenatal Care**	*NA*	83	2.0%	148	2.4%	442	5.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	351	8.4%	556	8.9%	764	8.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	261	6.2%	440	7.0%	606	6.9%
Other/Unknown							
Births With Early and Adequate Prenatal Care	76.4%	305	68.1%	867	71.5%	1,119	71.6%
*Births With Inadequate Prenatal Care**	*NA*	86	19.2%	185	15.3%	230	14.7%
*Births With No Prenatal Care**	*NA*	*S*	*S*	25	2.1%	41	2.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	40	8.7%	114	9.3%	129	8.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	37	8.0%	101	8.3%	117	7.4%

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

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,[3-1] 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 met the national benchmark in CY 2022. 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 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 2022 disparities analysis, which identified that White, Non-Hispanic and Black, Non-Hispanic women had significantly more *Births With Early and Adequate Prenatal Care* than all other races/ethnicities, while 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 *Births With Early and Adequate Prenatal Care*, *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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Central							
Births With Early and Adequate Prenatal Care	76.4%	5,886	72.9%	6,658	76.8%	7,052	76.5%
*Births With Inadequate Prenatal Care**	*NA*	1,047	13.0%	954	11.0%	1,026	11.1%
*Births With No Prenatal Care**	*NA*	159	2.0%	231	2.7%	325	3.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	798	9.8%	972	11.2%	970	10.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	820	10.1%	918	10.5%	927	9.9%
Charlottesville/Western							
Births With Early and Adequate Prenatal Care	76.4%	3,106	77.0%	3,230	78.4%	3,235	75.1%

[3-1] Martin JA, Hamilton BE, Osterman MJK. Births in the United States, 2022. National Center for Health Statistics Data Brief, No. 447. 2023. Available at: https://www.cdc.gov/nchs/data/databriefs/db477.pdf. Accessed on: Mar 4, 2024.

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	602	14.9%	585	14.2%	705	16.4%
*Births With No Prenatal Care**	*NA*	40	1.0%	62	1.5%	67	1.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	352	8.6%	360	8.7%	375	8.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	352	8.6%	354	8.5%	386	8.9%
Northern & Winchester							
Births With Early and Adequate Prenatal Care	76.4%	4,502	65.0%	5,039	62.5%	6,389	65.1%
*Births With Inadequate Prenatal Care**	*NA*	1,342	19.4%	1,927	23.9%	2,014	20.5%
*Births With No Prenatal Care**	*NA*	136	2.0%	184	2.3%	414	4.2%
Preterm Births (<37 Weeks Gestation)*	9.4%	607	8.5%	704	8.6%	826	8.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	535	7.5%	572	7.0%	705	7.1%
Roanoke/Alleghany							
Births With Early and Adequate Prenatal Care	76.4%	2,223	74.0%	2,213	73.3%	2,355	73.4%
*Births With Inadequate Prenatal Care**	*NA*	359	12.0%	400	13.3%	437	13.6%
*Births With No Prenatal Care**	*NA*	37	1.2%	40	1.3%	34	1.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	313	10.0%	308	10.2%	292	9.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	292	9.3%	298	9.8%	302	9.4%
Southwest							
Births With Early and Adequate Prenatal Care	76.4%	772	67.8%	836	77.4%	776	78.5%
*Births With Inadequate Prenatal Care**	*NA*	175	15.4%	145	13.4%	137	13.9%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	25	2.2%	20	1.9%	12	1.2%
Preterm Births (<37 Weeks Gestation)*	9.4%	192	10.0%	77	7.1%	78	7.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	174	9.1%	70	6.5%	62	6.2%
Tidewater							
Births With Early and Adequate Prenatal Care	76.4%	5,750	74.1%	5,800	74.6%	5,652	72.7%
*Births With Inadequate Prenatal Care**	*NA*	1,126	14.5%	1,094	14.1%	1,125	14.5%
*Births With No Prenatal Care**	*NA*	137	1.8%	148	1.9%	217	2.8%
Preterm Births (<37 Weeks Gestation)*	9.4%	904	11.6%	904	11.5%	892	11.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	804	10.3%	862	11.0%	887	11.2%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

In CY 2022, the Southwest region outperformed the national benchmarks for all study indicators for which benchmarks were available. This may be attributed to the fact that approximately 91 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 having 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 who live in this region (approximately 49 percent) 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. Of note, the Central and Northern & Winchester regions had a large increase in the number of births paid by Medicaid from CY 2020 to CY 2022, which is likely attributed to the implementation of the FAMIS Prenatal Coverage program. Tidewater 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 54 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 12.1 percent and 13.3 percent, respectively. Of note, the rate for the *Preterm Births (<37 Weeks)* study indicator in Roanoke/Alleghany improved from CY 2021 to CY 2022 to meet the national benchmark.

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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Medicaid for Pregnant Women							
Births With Early and Adequate Prenatal Care	76.4%	13,737	72.4%	11,493	73.9%	9,639	74.3%
*Births With Inadequate Prenatal Care**	*NA*	2,839	15.0%	2,337	15.0%	1,899	14.6%
*Births With No Prenatal Care**	*NA*	241	1.3%	239	1.5%	283	2.2%
Preterm Births (<37 Weeks Gestation)*	9.4%	1,750	8.9%	1,460	9.3%	1,139	8.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	1,699	8.6%	1,333	8.5%	1,153	8.8%
Medicaid Expansion							
Births With Early and Adequate Prenatal Care	76.4%	3,249	73.8%	5,031	77.5%	6,097	77.7%
*Births With Inadequate Prenatal Care**	*NA*	578	13.1%	722	11.1%	854	10.9%
*Births With No Prenatal Care**	*NA*	90	2.0%	154	2.4%	183	2.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	544	11.9%	733	11.2%	842	10.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	463	10.1%	707	10.8%	798	10.0%
FAMIS MOMS							
Births With Early and Adequate Prenatal Care	76.4%	1,564	76.8%	1,382	78.1%	1,391	77.4%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	261	12.8%	219	12.4%	230	12.8%
*Births With No Prenatal Care**	*NA*	11	0.5%	12	0.7%	27	1.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	163	7.8%	161	9.0%	150	8.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	150	7.2%	145	8.1%	137	7.5%
FAMIS Prenatal Coverage							
Births With Early and Adequate Prenatal Care	76.4%	—	—	977	49.3%	2,791	58.0%
*Births With Inadequate Prenatal Care**	*NA*	—	—	736	37.1%	1,243	25.8%
*Births With No Prenatal Care**	*NA*	—	—	69	3.5%	276	5.7%
Preterm Births (<37 Weeks Gestation)*	9.4%	—	—	163	8.1%	370	7.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	—	—	123	6.1%	309	6.3%
Other Aid Categories†							
Births With Early and Adequate Prenatal Care	76.4%	3,695	66.9%	4,897	70.6%	5,617	70.4%
*Births With Inadequate Prenatal Care**	*NA*	973	17.6%	1,092	15.7%	1,228	15.4%
*Births With No Prenatal Care**	*NA*	192	3.5%	211	3.0%	303	3.8%
Preterm Births (<37 Weeks Gestation)*	9.4%	711	12.3%	810	11.6%	945	11.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	667	11.5%	766	10.9%	882	10.9%

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

— indicates no births to women in FAMIS Prenatal Coverage occurred during CY 2020 given that the program was implemented in July 2021.
NA indicates there is not an applicable national benchmark for this indicator.
† Other Aid Categories includes all other births not covered by the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and FAMIS Prenatal Coverage programs.

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. 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. Similarly, the FAMIS Prenatal Coverage program had the lowest rates of *Births With Early and Adequate Prenatal Care*, but had the lowest rates for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators, which outperformed national benchmarks in CY 2021 and CY 2022. Of note, the 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 program for each measurement period.

Table 3-8—Birth Outcomes Study Indicator Findings Among Singleton Births by Managed Care Program at Delivery, CY 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
CCC Plus (MLTSS)							
Births With Early and Adequate Prenatal Care	76.4%	587	68.7%	660	71.9%	681	68.9%
*Births With Inadequate Prenatal Care**	*NA*	142	16.6%	137	14.9%	164	16.6%
*Births With No Prenatal Care**	*NA*	29	3.4%	36	3.9%	46	4.7%
Preterm Births (<37 Weeks Gestation)*	9.4%	140	15.8%	154	16.6%	159	15.9%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	138	15.6%	146	15.8%	157	15.7%
Medallion 4.0 (Acute)							
Births With Early and Adequate Prenatal Care	76.4%	19,777	72.8%	20,800	74.4%	22,874	73.4%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	3,947	14.5%	4,007	14.3%	4,575	14.7%
*Births With No Prenatal Care**	*NA*	388	1.4%	473	1.7%	810	2.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	2,694	9.5%	2,760	9.8%	2,928	9.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	2,561	9.0%	2,590	9.2%	2,809	8.9%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

Births to women in the Medallion 4.0 (Acute) managed care program 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 and rates for *Preterm Births (<37 Weeks Gestation)* outperforming the national benchmark for CY 2022. For births to women in the CCC Plus (MLTSS) managed care program, none of the study indicators met the national benchmarks in any measurement period; therefore, opportunities exist to ensure that CCC Plus (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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
FFS							
Births With Early and Adequate Prenatal Care	76.4%	1,881	64.8%	2,320	60.2%	1,980	61.0%
*Births With Inadequate Prenatal Care**	*NA*	562	19.4%	962	24.9%	715	22.0%
*Births With No Prenatal Care**	*NA*	117	4.0%	176	4.6%	216	6.7%
Preterm Births (<37 Weeks Gestation)*	9.4%	334	11.0%	413	10.5%	359	10.9%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	280	9.3%	338	8.6%	313	9.5%
Managed Care							
Births With Early and Adequate Prenatal Care	76.4%	20,364	72.7%	21,460	74.3%	23,555	73.2%
*Births With Inadequate Prenatal Care**	*NA*	4,089	14.6%	4,144	14.4%	4,739	14.7%
*Births With No Prenatal Care**	*NA*	417	1.5%	509	1.8%	856	2.7%
Preterm Births (<37 Weeks Gestation)*	9.4%	2,834	9.7%	2,914	10.0%	3,087	9.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	2,699	9.2%	2,736	9.4%	2,966	9.1%

** a lower rate indicates better performance for this indicator.*
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 CY 2022 for all study indicators. 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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
First Trimester							
Births With Early and Adequate Prenatal Care	76.4%	20,033	84.8%	21,409	86.6%	22,929	86.6%
*Births With Inadequate Prenatal Care**	*NA*	585	2.5%	610	2.5%	691	2.6%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	2,256	9.5%	2,393	9.7%	2,467	9.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	2,114	9.0%	2,270	9.2%	2,335	8.8%
Second Trimester							
Births With Early and Adequate Prenatal Care	76.4%	2,212	41.1%	2,371	40.9%	2,606	42.1%
*Births With Inadequate Prenatal Care**	*NA*	2,678	49.8%	2,989	51.5%	3,092	49.9%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	458	8.5%	560	9.7%	532	8.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	472	8.8%	510	8.8%	571	9.2%
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*	1,388	100.0%	1,507	100.0%	1,671	100.0%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	131	9.3%	143	9.4%	139	8.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	130	9.3%	125	8.2%	133	7.9%
No Prenatal Care							
Births With Early and Adequate Prenatal Care	76.4%	0	0.0%	0	0.0%	0	0.0%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
*Births With No Prenatal Care**	*NA*	534	100.0%	685	100.0%	1,072	100.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	140	26.2%	188	27.5%	240	22.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	105	19.7%	137	20.0%	184	17.2%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

Women who initiated prenatal care in their first, second, or third trimesters surpassed the national benchmarks for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators for CY 2022. Of note, initiating prenatal care in the first trimester did not guarantee better outcomes as demonstrated by the better rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* for those women who initiated prenatal care in the third trimester. Of note, approximately 74 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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
≤30 Days							
Births With Early and Adequate Prenatal Care	76.4%	632	65.2%	954	57.5%	753	60.6%
*Births With Inadequate Prenatal Care**	*NA*	173	17.8%	448	27.0%	267	21.5%
*Births With No Prenatal Care**	*NA*	43	4.4%	85	5.1%	95	7.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	103	10.1%	160	9.5%	149	11.7%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	91	8.9%	133	7.9%	123	9.7%
31–90 Days							
Births With Early and Adequate Prenatal Care	76.4%	1,002	62.8%	1,190	57.9%	962	54.2%
*Births With Inadequate Prenatal Care**	*NA*	360	22.6%	598	29.1%	541	30.5%
*Births With No Prenatal Care**	*NA*	50	3.1%	65	3.2%	100	5.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	198	11.9%	227	10.9%	186	10.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	161	9.7%	176	8.5%	159	8.8%
91–180 Days							
Births With Early and Adequate Prenatal Care	76.4%	2,165	62.5%	1,914	61.7%	2,166	58.5%
*Births With Inadequate Prenatal Care**	*NA*	844	24.4%	824	26.5%	1,060	28.6%
*Births With No Prenatal Care**	*NA*	66	1.9%	72	2.3%	153	4.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	388	10.8%	334	10.6%	380	10.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	368	10.2%	319	10.1%	346	9.2%
>180 Days							
Births With Early and Adequate Prenatal Care	76.4%	18,424	74.1%	19,686	76.2%	21,628	75.5%
*Births With Inadequate Prenatal Care**	*NA*	3,256	13.1%	3,218	12.5%	3,579	12.5%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	373	1.5%	460	1.8%	722	2.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	2,474	9.6%	2,595	10.0%	2,727	9.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	2,355	9.1%	2,439	9.4%	2,649	9.1%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

Women who were continuously enrolled for any length of time prior to delivery had rates that outperformed the national benchmark for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator, with women enrolled between 31 and 90 days prior to delivery having the lowest rate. Of note, the rate of *Preterm Births (<37 Weeks Gestation)* for women enrolled more than 180 days improved from CY 2021 to CY 2022 and met the national benchmark in CY 2022. Despite not meeting the national benchmark in CY 2022 for the *Births With Early and Adequate Prenatal Care* study indicator, women who were continuously enrolled for more than 180 days had the highest rate compared to women who were enrolled for less time. This finding is expected given that women enrolled for more than 180 days likely had an opportunity to initiate prenatal care in their first trimester.

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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Aetna							
Births With Early and Adequate Prenatal Care	76.4%	2,703	73.5%	3,028	76.4%	3,316	74.9%
*Births With Inadequate Prenatal Care**	*NA*	519	14.1%	549	13.8%	655	14.8%
*Births With No Prenatal Care**	*NA*	46	1.3%	54	1.4%	79	1.8%
Preterm Births (<37 Weeks Gestation)*	9.4%	373	9.7%	402	10.1%	397	8.9%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	322	8.4%	381	9.6%	376	8.4%
HealthKeepers							
Births With Early and Adequate Prenatal Care	76.4%	6,357	72.6%	6,609	74.2%	7,356	73.7%
*Births With Inadequate Prenatal Care**	*NA*	1,271	14.5%	1,291	14.5%	1,383	13.9%
*Births With No Prenatal Care**	*NA*	121	1.4%	145	1.6%	289	2.9%
Preterm Births (<37 Weeks Gestation)*	9.4%	836	9.3%	870	9.7%	953	9.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	785	8.7%	772	8.6%	916	9.1%
Molina							
Births With Early and Adequate Prenatal Care	76.4%	1,454	72.4%	1,543	73.4%	1,748	70.8%
*Births With Inadequate Prenatal Care**	*NA*	317	15.8%	293	13.9%	384	15.5%
*Births With No Prenatal Care**	*NA*	43	2.1%	56	2.7%	81	3.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	229	11.0%	216	10.2%	256	10.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	242	11.7%	223	10.5%	233	9.4%
Optima							
Births With Early and Adequate Prenatal Care	76.4%	4,380	74.4%	4,586	76.1%	4,719	74.1%
*Births With Inadequate Prenatal Care**	*NA*	828	14.1%	769	12.8%	911	14.3%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	85	1.4%	109	1.8%	167	2.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	627	10.4%	667	11.0%	645	10.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	595	9.9%	629	10.4%	656	10.1%
UnitedHealthcare							
Births With Early and Adequate Prenatal Care	76.4%	1,816	71.3%	1,944	70.2%	2,536	70.4%
*Births With Inadequate Prenatal Care**	*NA*	373	14.6%	489	17.7%	586	16.3%
*Births With No Prenatal Care**	*NA*	40	1.6%	48	1.7%	130	3.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	234	8.7%	244	8.7%	310	8.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	238	8.9%	233	8.4%	308	8.5%
VA Premier							
Births With Early and Adequate Prenatal Care	76.4%	3,654	71.0%	3,750	73.7%	3,880	73.0%
*Births With Inadequate Prenatal Care**	*NA*	781	15.2%	753	14.8%	820	15.4%
*Births With No Prenatal Care**	*NA*	82	1.6%	97	1.9%	110	2.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	535	9.6%	515	10.0%	526	9.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	517	9.3%	498	9.7%	477	8.8%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

UnitedHealthcare was the only MCO to exceed the national benchmarks for both *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,5000 grams)* for all three measurement

periods despite having the lowest rate of *Births With Early and Adequate Prenatal Care* in CY 2021 and CY 2022. Of note, 33 percent of women enrolled in UnitedHealthcare were Hispanic women of any race, who, as Table 3-5 shows, have the most favorable rates of preterm births and newborns with low birth weight despite having the lowest rates of births with early and adequate prenatal care. Aetna and HealthKeepers also met or outperformed the national benchmarks for *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,5000 grams)* in CY 2022. Molina and Optima had the highest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* in CY 2022, demonstrating opportunities for improvement for both MCOs. Of note, 43 percent of women enrolled in Optima were Black, Non-Hispanic, who, as Table 3-5 shows, have the least favorable rates of preterm births and newborns with low birth weight.

Comparative Analysis

Table 3-13 presents the CY 2022 birth outcomes study indicator results for the five Medicaid Programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, FAMIS Prenatal Coverage, 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 2022

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%	1,601	1,007	62.9%	11,376	8,632	75.9%^
*Births With Inadequate Prenatal Care**	*NA*	1,601	381	23.8%	11,376	1,518	13.3%^
*Births With No Prenatal Care**	*NA*	1,601	70	4.4%	11,376	213	1.9%^
Preterm Births (<37 Weeks Gestation)*	9.4%	1,639	161	9.8%	11,505	978	8.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	1,638	147	9.0%	11,503	1,006	8.7%

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
Medicaid Expansion							
Births With Early and Adequate Prenatal Care	76.4%	172	131	76.2%	7,674	5,966	77.7%
*Births With Inadequate Prenatal Care**	*NA*	172	19	11.0%	7,674	835	10.9%
*Births With No Prenatal Care**	*NA*	172	*S*	*S*	7,674	177	2.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	173	27	15.6%	7,776	815	10.5%^
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	173	17	9.8%	7,773	781	10.0%
FAMIS MOMS							
Births With Early and Adequate Prenatal Care	76.4%	392	296	75.5%	1,404	1,095	78.0%
*Births With Inadequate Prenatal Care**	*NA*	392	59	15.1%	1,404	171	12.2%
*Births With No Prenatal Care**	*NA*	392	*S*	*S*	1,404	19	1.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	399	52	13.0%	1,417	98	6.9%^
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	399	46	11.5%	1,417	91	6.4%^
FAMIS Prenatal Coverage							
Births With Early and Adequate Prenatal Care	76.4%	1,565	663	42.4%	3,247	2,128	65.5%^
*Births With Inadequate Prenatal Care**	*NA*	1,565	586	37.4%	3,247	657	20.2%^
*Births With No Prenatal Care**	*NA*	1,565	146	9.3%	3,247	130	4.0%^

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	1,599	150	9.4%	3,282	220	6.7%^
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	1,600	124	7.8%	3,282	185	5.6%^
Other Aid Categories†							
Births With Early and Adequate Prenatal Care	76.4%	360	219	60.8%	7,620	5,398	70.8%^
*Births With Inadequate Prenatal Care**	*NA*	360	89	24.7%	7,620	1,139	14.9%^
*Births With No Prenatal Care**	*NA*	360	25	6.9%	7,620	278	3.6%^
Preterm Births (<37 Weeks Gestation)*	9.4%	366	44	12.0%	7,739	901	11.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	366	41	11.2%	7,738	841	10.9%

** a lower rate indicates better performance for this indicator.*
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).
† Other Aid Categories includes all other births not covered by the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and FAMIS Prenatal Coverage programs.
^ indicates a statistically significant difference between the study population rate and the comparison group rate.

Overall, the Medicaid for Pregnant Women, FAMIS MOMS, and FAMIS Prenatal Coverage programs demonstrated strength in CY 2022, with the study populations outperforming the applicable national benchmark for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators. Of note, the Medicaid Expansion study population also outperformed the national benchmark for the *Newborns With Low Birth Weight (<2,500 grams)* study indicator. Additionally, the Medicaid Expansion and FAMIS MOMS study populations outperformed the national benchmark for the *Births With Early and Adequate Prenatal Care* study indicator. Conversely, the Other Aid Categories study population rates underperformed in comparison to the national benchmark for all three study indicators that could be compared to national benchmarks.

Of note, the comparison population was primarily comprised of Hispanic women of any race, women who resided in the Northern & Winchester region, and were 25 to 29 years of age. However, the study population was primarily comprised of White, Non-Hispanic and Black, Non-Hispanic women, women who resided in the Central or Northern & Winchester regions, and were 25 to 29 years of age. For both the comparison and study populations, Hispanic women of any race and women residing in the

Northern & Winchester region had the lowest rates of births with early and adequate prenatal care, yet some of the most 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 2020–CY 2022

Overall Births	CY 2020		CY 2021		CY 2022	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births†	2,091	100.0%	1,785	100.0%	1,817	100.0%
Medicaid Delivery System						
FFS	264	12.6%	259	14.5%	267	14.7%
Managed Care	1,827	87.4%	1,526	85.5%	1,550	85.3%
Maternal Age at Delivery						
≤15 Years	*S*	*S*	0	0.0%	*S*	*S*
16–17 Years	*S*	*S*	*S*	*S*	*S*	*S*
18–20 Years	99	4.7%	74	4.1%	76	4.2%
21–24 Years	383	18.3%	363	20.3%	367	20.2%
25–29 Years	747	35.7%	620	34.7%	603	33.2%
30–34 Years	521	24.9%	455	25.5%	470	25.9%
35–39 Years	267	12.8%	217	12.2%	231	12.7%
40–44 Years	55	2.6%	45	2.5%	50	2.8%
≥45 Years	*S*	*S*	*S*	*S*	*S*	*S*
Unknown	*S*	*S*	*S*	*S*	*S*	*S*
Maternal Race/Ethnicity						
White, Non-Hispanic	914	43.7%	709	39.7%	698	38.4%
Black, Non-Hispanic	621	29.7%	529	29.6%	470	25.9%
Asian, Non-Hispanic	172	8.2%	131	7.3%	67	3.7%
Hispanic, Any Race	344	16.5%	344	19.3%	421	23.2%
Other/Unknown	40	1.9%	72	4.0%	161	8.9%
Managed Care Region of Residence						
Central	475	22.7%	408	22.9%	464	25.5%
Charlottesville/Western	206	9.9%	213	11.9%	216	11.9%

Overall Births	CY 2020		CY 2021		CY 2022	
	Number	Percent	Number	Percent	Number	Percent
Northern & Winchester	740	35.4%	625	35.0%	646	35.6%
Roanoke/Alleghany	161	7.7%	140	7.8%	134	7.4%
Southwest	63	3.0%	34	1.9%	37	2.0%
Tidewater	446	21.3%	364	20.4%	314	17.3%

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).

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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
FFS							
Births With Early and Adequate Prenatal Care	76.4%	183	71.5%	195	76.5%	211	79.3%
*Births With Inadequate Prenatal Care**	*NA*	42	16.4%	35	13.7%	25	9.4%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	24	9.1%	25	9.7%	30	11.3%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	17	6.4%	22	8.5%	28	10.5%
Managed Care							
Births With Early and Adequate Prenatal Care	76.4%	1,381	77.5%	1,187	78.4%	1,180	77.1%
*Births With Inadequate Prenatal Care**	*NA*	219	12.3%	184	12.2%	205	13.4%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	139	7.6%	136	8.9%	120	7.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	133	7.3%	123	8.1%	109	7.0%

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

Study indicator rates for FAMIS MOMS women in managed care outperformed the national benchmarks for all study indicators in CY 2022, demonstrating strength. Additionally, study indicator rates for FAMIS MOMS women in FFS exceeded the applicable national benchmarks for *Births With Early and Adequate Prenatal Care*.

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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	693	79.0%	570	81.3%	554	80.3%
*Births With Inadequate Prenatal Care**	*NA*	107	12.2%	76	10.8%	80	11.6%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	61	6.7%	53	7.5%	49	7.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	55	6.0%	46	6.5%	40	5.7%
Black, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	481	78.7%	409	77.9%	367	78.8%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	67	11.0%	62	11.8%	56	12.0%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	60	9.7%	58	11.0%	46	9.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	64	10.3%	56	10.6%	45	9.6%
Asian, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	125	74.0%	107	82.9%	50	75.8%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	12	9.3%	11	16.7%
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	16	9.3%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	*S*	*S*
Hispanic, Any Race							
Births With Early and Adequate Prenatal Care	76.4%	236	69.2%	248	72.5%	304	73.3%
*Births With Inadequate Prenatal Care**	*NA*	66	19.4%	55	16.1%	60	14.5%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	14	3.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	26	7.6%	30	8.7%	36	8.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	17	4.9%	25	7.3%	33	7.8%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Other/Unknown							
Births With Early and Adequate Prenatal Care	76.4%	29	74.4%	48	66.7%	116	73.0%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	14	19.4%	23	14.5%
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	0	0.0%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	*S*	*S*

** a lower rate indicates better performance for this indicator.*
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 2022 *Births With Early and Adequate Prenatal Care* and *Newborns With Low Birth Weight (<2,500 grams)* rates for Black, Non-Hispanic women enrolled in FAMIS MOMS outperformed the national benchmarks, 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 FAMIS MOMS Hispanic women of any race having the second 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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Central							
Births With Early and Adequate Prenatal Care	76.4%	379	80.3%	351	86.0%	382	83.0%
*Births With Inadequate Prenatal Care**	*NA*	49	10.4%	32	7.8%	43	9.3%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	35	7.4%	42	10.3%	37	8.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	34	7.2%	40	9.8%	32	6.9%
Charlottesville/Western							
Births With Early and Adequate Prenatal Care	76.4%	170	82.5%	171	83.0%	180	83.7%
*Births With Inadequate Prenatal Care**	*NA*	23	11.2%	24	11.7%	23	10.7%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	16	7.8%	16	7.5%	13	6.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	12	5.8%	16	7.5%	*S*	*S*
Northern & Winchester							
Births With Early and Adequate Prenatal Care	76.4%	502	69.2%	427	69.1%	436	68.6%
*Births With Inadequate Prenatal Care**	*NA*	122	16.8%	111	18.0%	116	18.2%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	18	2.8%
Preterm Births (<37 Weeks Gestation)*	9.4%	46	6.2%	52	8.3%	55	8.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	42	5.7%	40	6.4%	58	9.0%
Roanoke/Alleghany							
Births With Early and Adequate Prenatal Care	76.4%	127	80.4%	121	86.4%	110	82.1%
*Births With Inadequate Prenatal Care**	*NA*	15	9.5%	*S*	*S*	11	8.2%
*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*	11	8.2%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	11	8.2%
Southwest							
Births With Early and Adequate Prenatal Care	76.4%	25	75.8%	31	91.2%	35	94.6%
*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 (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	*S*	*S*
Tidewater							
Births With Early and Adequate Prenatal Care	76.4%	361	81.5%	280	77.3%	243	78.9%
*Births With Inadequate Prenatal Care**	*NA*	50	11.3%	47	13.0%	35	11.4%
*Births With No Prenatal Care**	*NA*	*S*	*S*	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	48	10.8%	34	9.3%	31	9.9%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	44	9.9%	32	8.8%	23	7.3%

** a lower rate indicates better performance for this indicator.*
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 did not meet the national benchmarks in any of the measurement periods for *Births With Early and Adequate Prenatal Care*; however, the rates for *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* did meet the national benchmarks for all three measurement periods. Women residing in the Central and Roanoke/Alleghany regions had rates for all three study indicators that outperformed national benchmarks in CY 2022. Conversely, despite women residing in the Tidewater region having a rate of *Births With Early and Adequate Prenatal Care* that exceeded the national benchmark, the *Preterm Births (<37 Weeks Gestation)* rate underperformed in comparison to national benchmarks in CY 2022.

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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
≤30 Days							
Births With Early and Adequate Prenatal Care	76.4%	99	73.9%	90	72.6%	103	78.6%
*Births With Inadequate Prenatal Care**	*NA*	19	14.2%	23	18.5%	14	10.7%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	14	10.1%	11	8.8%	19	14.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	14	10.1%	11	8.8%	13	9.8%
31–90 Days							
Births With Early and Adequate Prenatal Care	76.4%	124	75.2%	128	74.4%	134	74.9%
*Births With Inadequate Prenatal Care**	*NA*	24	14.5%	25	14.5%	29	16.2%
*Births With No Prenatal Care**	*NA*	*S*	*S*	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	14	8.2%	19	10.9%	21	11.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	11	6.5%	16	9.2%	20	10.9%
91–180 Days							
Births With Early and Adequate Prenatal Care	76.4%	320	73.2%	262	75.5%	257	71.6%
*Births With Inadequate Prenatal Care**	*NA*	73	16.7%	55	15.9%	66	18.4%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	40	8.9%	44	12.5%	48	13.2%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	46	10.2%	34	9.6%	46	12.6%
>180 Days							
Births With Early and Adequate Prenatal Care	76.4%	1,018	78.7%	900	80.1%	892	79.5%
*Births With Inadequate Prenatal Care**	*NA*	142	11.0%	116	10.3%	121	10.8%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	14	1.2%
Preterm Births (<37 Weeks Gestation)*	9.4%	94	7.1%	87	7.7%	62	5.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	79	6.0%	84	7.4%	58	5.1%

** a lower rate indicates better performance for this indicator.*
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 2022 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)*.

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 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
First Trimester							
Births With Early and Adequate Prenatal Care	76.4%	1,400	88.3%	1,231	89.2%	1,246	89.5%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	24	1.5%	18	1.3%	15	1.1%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	122	7.7%	122	8.8%	119	8.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	102	6.4%	115	8.3%	106	7.6%
Second Trimester							
Births With Early and Adequate Prenatal Care	76.4%	164	43.4%	151	47.0%	145	46.6%
*Births With Inadequate Prenatal Care**	*NA*	175	46.3%	145	45.2%	149	47.9%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	29	9.0%	18	5.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	28	7.4%	19	5.9%	20	6.4%
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*	62	100.0%	56	100.0%	66	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 (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		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*	11	100.0%	12	100.0%	27	100.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	0	0.0%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	*S*	*S*

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

In CY 2022, most women enrolled in FAMIS MOMS (approximately 69 percent) initiated prenatal care in the first trimester and outperformed the national benchmarks for all three study indicators with an applicable benchmark. 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.

FAMIS Prenatal Coverage

Table 3-20 provides the FAMIS Prenatal Coverage singleton births characteristics, stratified by delivery system, maternal age at delivery, maternal race/ethnicity, and managed care region of residence.

Table 3-20—FAMIS Prenatal Coverage Singleton Birth Characteristics, CY 2021–CY 2022

Overall Births	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Singleton Births†	2,007	100.0%	4,880	100.0%
Medicaid Delivery System				
FFS	1,217	60.6%	1,038	21.3%
Managed Care	790	39.4%	3,842	78.7%
Maternal Age at Delivery				
≤15 Years	*S*	*S*	*S*	*S*
16–17 Years	26	1.3%	61	1.3%

Overall Births	CY 2021		CY 2022	
	Number	Percent	Number	Percent
18–20 Years	199	9.9%	394	8.1%
21–24 Years	324	16.1%	841	17.2%
25–29 Years	501	25.0%	1,324	27.1%
30–34 Years	493	24.6%	1,211	24.8%
35–39 Years	350	17.4%	790	16.2%
40–44 Years	103	5.1%	236	4.8%
≥45 Years	*S*	*S*	*S*	*S*
Maternal Race/Ethnicity				
White, Non-Hispanic	38	1.9%	141	2.9%
Black, Non-Hispanic	40	2.0%	125	2.6%
Asian, Non-Hispanic	24	1.2%	93	1.9%
Hispanic, Any Race	1,874	93.4%	4,396	90.1%
Other/Unknown	31	1.5%	125	2.6%
Managed Care Region of Residence				
Central	382	19.0%	1,036	21.2%
Charlottesville/Western	104	5.2%	300	6.1%
Northern & Winchester	1,309	65.2%	2,996	61.4%
Roanoke/Alleghany	63	3.1%	170	3.5%
Southwest	14	0.7%	23	0.5%
Tidewater	135	6.7%	346	7.1%

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.
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 number of births covered by the FAMIS Prenatal Coverage program nearly doubled from CY 2021 to CY 2022, which is expected given that the program was implemented on July 1, 2021 (i.e., only births to women for the last six months of the year were covered). Most births for women in the FAMIS Prenatal Coverage program were to women 21 to 34 years of age (69.1 percent); Hispanic, Any Race women (90.1 percent); and women residing in Northern & Winchester (61.4 percent).

Table 3-21 presents the FAMIS Prenatal Coverage birth outcomes study indicator results stratified by delivery system for each measurement period.

Table 3-21—Birth Outcomes Study Indicator Findings Among FAMIS Prenatal Coverage Singleton Births by Delivery System, CY 2021–CY 2022

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
FFS					
Births With Early and Adequate Prenatal Care	76.4%	573	47.6%	479	47.1%
*Births With Inadequate Prenatal Care**	*NA*	440	36.6%	319	31.4%
*Births With No Prenatal Care**	*NA*	54	4.5%	102	10.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	106	8.7%	113	10.9%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	72	5.9%	89	8.6%
Managed Care					
Births With Early and Adequate Prenatal Care	76.4%	404	51.8%	2,310	60.9%
*Births With Inadequate Prenatal Care**	*NA*	297	38.1%	924	24.3%
*Births With No Prenatal Care**	*NA*	15	1.9%	175	4.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	57	7.2%	257	6.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	51	6.5%	219	5.7%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

Despite not meeting the national benchmark for the *Births With Early and Adequate Prenatal Care* study indicator in both years, study indicator rates for FAMIS Prenatal Coverage women in managed care outperformed the applicable national benchmarks for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators. While the rates for FAMIS Prenatal Coverage women in managed care improved from CY 2021 to CY 2022, the rates for the FAMIS Prenatal Coverage women in FFS worsened from CY 2021 to CY 2022. Despite this, the *Newborns With Low Birth Weight (<2,500 grams)* study indicator rates for the FAMIS Prenatal Coverage women in FFS met national benchmarks in both years.

Table 3-22 presents the FAMIS Prenatal Coverage birth outcomes study indicator results stratified by MCO for each measurement period.

Table 3-22—Birth Outcomes Study Indicator Findings Among FAMIS Prenatal Coverage Singleton Births by MCO, CY 2021–CY 2022

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
Aetna					
Births With Early and Adequate Prenatal Care	76.4%	66	53.7%	305	60.0%
*Births With Inadequate Prenatal Care**	*NA*	49	39.8%	132	26.0%
*Births With No Prenatal Care**	*NA*	*S*	*S*	20	3.9%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	41	8.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	30	5.9%
HealthKeepers					
Births With Early and Adequate Prenatal Care	76.4%	113	50.2%	717	64.4%
*Births With Inadequate Prenatal Care**	*NA*	90	40.0%	228	20.5%
*Births With No Prenatal Care**	*NA*	*S*	*S*	41	3.7%
Preterm Births (<37 Weeks Gestation)*	9.4%	18	7.9%	67	6.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	13	5.7%	60	5.3%
Molina					
Births With Early and Adequate Prenatal Care	76.4%	35	48.6%	251	60.3%
*Births With Inadequate Prenatal Care**	*NA*	30	41.7%	96	23.1%
*Births With No Prenatal Care**	*NA*	*S*	*S*	27	6.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	28	6.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	18	4.3%
Optima					
Births With Early and Adequate Prenatal Care	76.4%	58	55.8%	350	59.3%

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	32	30.8%	155	26.3%
*Births With No Prenatal Care**	*NA*	*S*	*S*	30	5.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	34	5.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	41	6.9%
UnitedHealthcare					
Births With Early and Adequate Prenatal Care	76.4%	80	53.0%	405	58.8%
*Births With Inadequate Prenatal Care**	*NA*	54	35.8%	176	25.5%
*Births With No Prenatal Care**	*NA*	*S*	*S*	41	6.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	13	8.6%	55	7.9%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	14	9.2%	45	6.5%
VA Premier					
Births With Early and Adequate Prenatal Care	76.4%	52	49.5%	282	58.9%
*Births With Inadequate Prenatal Care**	*NA*	42	40.0%	137	28.6%
*Births With No Prenatal Care**	*NA*	*S*	*S*	16	3.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	32	6.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	25	5.0%

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

Despite the rate of *Births With Early and Adequate Prenatal Care* increasing from CY 2021 to CY 2022 for all MCOs, none of the MCOs met the national benchmark for this study indicator in either year. Given that FAMIS Prenatal Coverage was implemented in July 2021, it will be important to monitor how these rates improve over time. All MCOs with reportable rates met the national benchmarks for *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* in both years.

Table 3-23 presents the FAMIS Prenatal Coverage birth outcomes study indicator results stratified by race/ethnicity for each measurement period.

Table 3-23—Birth Outcomes Study Indicator Findings Among FAMIS Prenatal Coverage Singleton Births by Race/Ethnicity, CY 2021–CY 2022

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
White, Non-Hispanic					
Births With Early and Adequate Prenatal Care	76.4%	21	55.3%	91	66.4%
*Births With Inadequate Prenatal Care**	*NA*	12	31.6%	21	15.3%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	13	9.2%
Black, Non-Hispanic					
Births With Early and Adequate Prenatal Care	76.4%	19	47.5%	58	48.7%
*Births With Inadequate Prenatal Care**	*NA*	14	35.0%	45	37.8%
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*
Asian, Non-Hispanic					
Births With Early and Adequate Prenatal Care	76.4%	13	54.2%	58	63.7%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	24	26.4%
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
Hispanic, Any Race					
Births With Early and Adequate Prenatal Care	76.4%	906	49.0%	2,508	57.8%
*Births With Inadequate Prenatal Care**	*NA*	694	37.5%	1,123	25.9%
*Births With No Prenatal Care**	*NA*	64	3.5%	264	6.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	145	7.7%	344	7.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	108	5.8%	281	6.4%
Other/Unknown					
Births With Early and Adequate Prenatal Care	76.4%	18	58.1%	74	59.7%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	30	24.2%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*

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

While no races/ethnicities met the national benchmark for the rate of *Births With Early and Adequate Prenatal Care* study indicator, the rate for White, Non-Hispanic women was 17.7 percentage points and 8.6 percentage points higher than the rates for Black, Non-Hispanic women and Hispanic women of any race, respectively. The rates for all races/ethnicities with reportable rates outperformed the national benchmarks for the *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* study indicators in CY 2022.

Table 3-24 presents the FAMIS Prenatal Coverage birth outcomes study indicator results stratified by maternal age at delivery for each measurement period.

Table 3-24—Birth Outcomes Study Indicator Findings Among FAMIS Prenatal Coverage Singleton Births by Maternal Age at Delivery, CY 2021–CY 2022

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
≤15 Years					
Births With Early and Adequate Prenatal Care	76.4%	*S*	*S*	*S*	*S*
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	0	0.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*
16–17 Years					
Births With Early and Adequate Prenatal Care	76.4%	*S*	*S*	25	43.1%
*Births With Inadequate Prenatal Care**	*NA*	11	47.8%	23	39.7%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*
18–20 Years					
Births With Early and Adequate Prenatal Care	76.4%	81	40.9%	195	50.4%
*Births With Inadequate Prenatal Care**	*NA*	84	42.4%	121	31.3%
*Births With No Prenatal Care**	*NA*	*S*	*S*	22	5.7%
Preterm Births (<37 Weeks Gestation)*	9.4%	19	9.5%	19	4.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	16	8.0%	19	4.8%
21–24 Years					
Births With Early and Adequate Prenatal Care	76.4%	136	42.8%	431	51.9%

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	130	40.9%	235	28.3%
*Births With No Prenatal Care**	*NA*	17	5.3%	57	6.9%
Preterm Births (<37 Weeks Gestation)*	9.4%	17	5.2%	46	5.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	15	4.6%	48	5.7%
25–29 Years					
Births With Early and Adequate Prenatal Care	76.4%	251	50.9%	775	59.5%
*Births With Inadequate Prenatal Care**	*NA*	176	35.7%	333	25.6%
*Births With No Prenatal Care**	*NA*	17	3.4%	77	5.9%
Preterm Births (<37 Weeks Gestation)*	9.4%	38	7.6%	87	6.6%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	34	6.8%	71	5.4%
30–34 Years					
Births With Early and Adequate Prenatal Care	76.4%	249	51.0%	725	60.9%
*Births With Inadequate Prenatal Care**	*NA*	176	36.1%	277	23.3%
*Births With No Prenatal Care**	*NA*	15	3.1%	65	5.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	40	8.1%	86	7.1%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	27	5.5%	62	5.1%
35–39 Years					
Births With Early and Adequate Prenatal Care	76.4%	185	53.0%	497	63.4%
*Births With Inadequate Prenatal Care**	*NA*	122	35.0%	170	21.7%
*Births With No Prenatal Care**	*NA*	*S*	*S*	36	4.6%

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	31	8.9%	87	11.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	17	4.9%	70	8.9%
40–44 Years					
Births With Early and Adequate Prenatal Care	76.4%	63	61.2%	135	57.7%
*Births With Inadequate Prenatal Care**	*NA*	33	32.0%	72	30.8%
*Births With No Prenatal Care**	*NA*	*S*	*S*	13	5.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	12	11.7%	35	14.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	26	11.0%
≥45 Years					
Births With Early and Adequate Prenatal Care	76.4%	*S*	*S*	*S*	*S*
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*

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

While women 35 to 39 years of age had the highest rates of *Births With Early and Adequate Prenatal Care* in CY 2022, the rate fell below the national benchmark. The *Births With Early and Adequate Prenatal Care* rates increased for women 18 to 39 years of age and no age group met the national benchmark. Women 35 to 39 years of age and 40 to 44 years of age had the highest reportable rates of *Preterm Births (<37 Weeks Gestation)* compared to other age groups and underperformed in comparison to the national benchmarks in CY 2022. Women 40 to 44 years of age also had the highest reportable rate of *Newborns With Low Birth Weight (<2,500 grams)* and underperformed in comparison to the national benchmark in CY 2022.

Table 3-25 presents the FAMIS Prenatal Coverage birth outcomes study indicator results stratified by geographic managed care region for each measurement period.

Table 3-25—Birth Outcomes Study Indicator Findings Among FAMIS Prenatal Coverage Singleton Births by Managed Care Region of Maternal Residence, CY 2021–CY 2022

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
Central					
Births With Early and Adequate Prenatal Care	76.4%	212	55.5%	615	60.2%
*Births With Inadequate Prenatal Care**	*NA*	103	27.0%	203	19.9%
*Births With No Prenatal Care**	*NA*	16	4.2%	86	8.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	29	7.6%	81	7.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	24	6.3%	72	6.9%
Charlottesville/Western					
Births With Early and Adequate Prenatal Care	76.4%	67	66.3%	183	62.0%
*Births With Inadequate Prenatal Care**	*NA*	29	28.7%	76	25.8%
*Births With No Prenatal Care**	*NA*	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	20	6.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	18	6.0%
Northern & Winchester					
Births With Early and Adequate Prenatal Care	76.4%	577	44.8%	1,658	56.2%
*Births With Inadequate Prenatal Care**	*NA*	547	42.4%	836	28.3%
*Births With No Prenatal Care**	*NA*	42	3.3%	166	5.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	115	8.8%	236	7.9%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	82	6.3%	192	6.4%
Roanoke/Alleghany					
Births With Early and Adequate Prenatal Care	76.4%	41	65.1%	120	70.6%

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	13	20.6%	32	18.8%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*
Southwest					
Births With Early and Adequate Prenatal Care	76.4%	*S*	*S*	*S*	*S*
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	0	0.0%	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	0	0.0%	0	0.0%
Tidewater					
Births With Early and Adequate Prenatal Care	76.4%	71	53.0%	196	57.1%
*Births With Inadequate Prenatal Care**	*NA*	40	29.9%	85	24.8%
*Births With No Prenatal Care**	*NA*	10	7.5%	15	4.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	11	8.1%	26	7.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	17	4.9%
Unknown					
Births With Early and Adequate Prenatal Care	76.4%	*S*	*S*	*S*	*S*
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*

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

Despite most women (61.4 percent) enrolled in the FAMIS Prenatal Coverage program residing in the Northern & Winchester region, the rate for *Births With Early and Adequate Prenatal Care* was lowest in this region when compared to the other regions with reportable rates. Women in the Northern & Winchester region also had the highest reportable rate of *Preterm Births (<37 Weeks Gestation)* and the second highest reportable rate of *Newborns With Low Birth Weight (<2,500 grams)*.

Table 3-26 presents the FAMIS Prenatal Coverage birth outcomes study indicator results stratified by length of continuous enrollment for each measurement period.

Table 3-26—Birth Outcomes Study Indicator Findings Among FAMIS Prenatal Coverage Singleton Births by Length of Continuous Enrollment, CY 2021–CY 2022

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
≤30 Days					
Births With Early and Adequate Prenatal Care	76.4%	366	48.7%	254	47.9%
*Births With Inadequate Prenatal Care**	*NA*	268	35.6%	160	30.2%
*Births With No Prenatal Care**	*NA*	35	4.7%	61	11.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	69	9.0%	65	12.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	43	5.6%	48	8.9%
31–90 Days					
Births With Early and Adequate Prenatal Care	76.4%	328	45.9%	228	36.3%
*Births With Inadequate Prenatal Care**	*NA*	289	40.5%	272	43.3%
*Births With No Prenatal Care**	*NA*	23	3.2%	52	8.3%

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	63	8.7%	57	8.9%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	52	7.2%	51	7.9%
91–180 Days					
Births With Early and Adequate Prenatal Care	76.4%	256	55.2%	742	51.6%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	479	33.3%
*Births With No Prenatal Care**	*NA*	*S*	*S*	78	5.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	124	8.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	104	7.1%
>180 Days					
Births With Early and Adequate Prenatal Care	76.4%	18	60.0%	1,557	70.7%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	329	14.9%
*Births With No Prenatal Care**	*NA*	*S*	*S*	84	3.8%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	121	5.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	103	4.6%

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

Women continuously enrolled in FAMIS Prenatal Coverage for more than 180 days during CY 2022 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)*. As expected, the length of time women were continuously enrolled in the FAMIS Prenatal Coverage program has increased since CY 2021 and it will be important to continue to monitor this in future years.

Table 3-27 presents the FAMIS Prenatal Coverage birth outcomes study indicator results stratified by trimester of prenatal care initiation for each measurement period.

Table 3-27—Birth Outcomes Study Indicator Findings Among FAMIS Prenatal Coverage Singleton Births by Trimester of Prenatal Care Initiation, CY 2021–CY 2022

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
First Trimester					
Births With Early and Adequate Prenatal Care	76.4%	688	77.9%	2,198	80.8%
*Births With Inadequate Prenatal Care**	*NA*	36	4.1%	112	4.1%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	64	7.3%	202	7.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	54	6.1%	170	6.2%
Second Trimester					
Births With Early and Adequate Prenatal Care	76.4%	289	38.4%	591	41.2%
*Births With Inadequate Prenatal Care**	*NA*	423	56.2%	751	52.4%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	68	9.0%	106	7.4%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	50	6.6%	83	5.8%
Third Trimester					
Births With Early and Adequate Prenatal Care	76.4%	0	0.0%	0	0.0%
*Births With Inadequate Prenatal Care**	*NA*	278	100.0%	380	100.0%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	16	5.7%	22	5.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	23	6.0%
No Prenatal Care					
Births With Early and Adequate Prenatal Care	76.4%	0	0.0%	0	0.0%

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	0	0.0%	0	0.0%
*Births With No Prenatal Care**	*NA*	69	100.0%	277	100.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	14	20.3%	30	10.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	26	9.4%

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

Approximately 45 percent of women enrolled in FAMIS Prenatal Coverage initiated prenatal care in the first trimester during CY 2022, and the rates of *Births With Early and Adequate Prenatal Care* met the national benchmark in both years. Only women who had no prenatal care had rates of *Preterm Births (<37 Weeks Gestation)* that underperformed compared to the national benchmark in both years.

Partnership for Petersburg

Table 3-28 presents the overall study indicator results for births occurring to women residing in Petersburg during CY 2021 and CY 2022.

Table 3-28—Overall Birth Outcomes Study Indicator Findings Among Singleton Births in Petersburg, CY 2021–CY 2022

Study Indicator	National Benchmark	CY 2021		CY 2022	
		Number	Percent	Number	Percent
Births With Early and Adequate Prenatal Care	76.4%	275	71.2%	256	68.1%
*Births With Inadequate Prenatal Care**	*NA*	52	13.5%	48	12.8%
*Births With No Prenatal Care**	*NA*	24	6.2%	30	8.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	56	14.5%	34	9.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	57	14.7%	53	14.1%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

Despite the rate for *Births With Early and Adequate Prenatal Care* declining for Petersburg from CY 2021 to CY 2022, the *Preterm Births (<37 Weeks Gestation)* rate improved and outperformed the national benchmark in CY 2022. Given the high rate of *Newborns With Low Birth Weight (<2,500 grams)* in both years, opportunities exist to improve early and adequate prenatal care. Of note, the *Births With Early and Adequate Prenatal Care* study indicator rate in Petersburg was 4 percentage points lower than the Overall Virginia Medicaid rate, and the *Newborns With Low Birth Weight (<2,500 grams)* study indicator rate in Petersburg was 5 percentage points higher than the Overall Virginia Medicaid rate, demonstrating opportunities for improvement within Petersburg.

Maternal Health Outcomes and Study Indicator Results and Trending

Table 3-29 presents the maternal health study indicator results for CY 2021 and CY 2022. Please refer to Appendix A for additional stratifications for maternal health study indicator results not presented in this section.

Table 3-29—Maternal Health Outcomes Study Indicator Findings Among Singleton Births, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Postpartum ED Utilization*	4,627	14.0%	5,929	16.5%
Postpartum Ambulatory Care Utilization	17,024	51.5%	21,067	58.7%
Prenatal Maternal Depression Screening	1,638	5.0%	1,932	5.4%
Postpartum Maternal Depression Screening	2,251	6.8%	2,821	7.9%
MMEC Within 3 Days of Delivery	—	—	3,869	10.8%
MMEC Within 90 Days of Delivery	—	—	14,412	40.2%
LARC Within 3 Days of Delivery	—	—	860	2.4%
LARC Within 90 Days of Delivery	—	—	4,640	12.9%

** a lower rate indicates better performance for this indicator.*
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.

Approximately 17 percent and 59 percent of postpartum women utilized ED and ambulatory care services, respectively, in CY 2022. 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 2022, women who received no prenatal care had the highest rates of *Postpartum ED Utilization* (17.6 percent), while women who were continuously enrolled for more than 180 days had higher rates of *Postpartum Ambulatory Care Utilization* (60.8 percent). Of note, the rates of *Postpartum ED Utilization* and

Postpartum Ambulatory Care Utilization increased from CY 2021 to CY 2022, which is likely the result of the lower rates of ED utilization and ambulatory care seen in CY 2021 due to the COVID-19 PHE.[3-2]

Approximately 5 percent of prenatal women and approximately 8 percent of postpartum women received a maternal depression screening. Please note that these study indicators only consider women who received a standardized maternal depression screening; therefore, these rates are likely low due to providers using non-standardized screenings. Overall, HSAG found that women who initiated prenatal care in their first trimester and women who were continuously enrolled for more than 180 days had the highest rates of *Prenatal Maternal Depression Screening* and *Postpartum Maternal Depression Screening* in CY 2022.

Approximately 11 percent and 40 percent of postpartum women received an MMEC within three and 90 days of delivery, respectively, in CY 2022. Additionally, approximately 2 percent and 13 percent of postpartum women received a LARC within three and 90 days of delivery, respectively. While national Medicaid benchmarks are not yet available for the contraceptive study indicators received within 90 days of delivery, benchmarks are available for contraceptives received within three days of delivery. For women 15 to 20 years of age in Virginia Medicaid, the rate of *MMEC Within 3 Days of Delivery* exceeded the national Medicaid 50th percentile by approximately 1 percentage point, while the rate of *LARC Within 3 Days of Delivery* fell slightly below the national Medicaid 50th percentile.[3-3] For women 21 to 44 years of age in Virginia Medicaid, the rate of *MMEC Within 3 Days of Delivery* fell below the national Medicaid 50th percentile, while the rate of *LARC Within 3 Days of Delivery* exceeded the national Medicaid 50th percentile.[3-4] Given that performance on these study indicators is heavily impacted by member preference when it comes to choosing to use contraceptives, exercise caution when interpreting these study indicator rates. Postpartum contraceptives are effective at preventing short interpregnancy intervals (i.e., a pregnancy that occurs less than 18 months after delivery), preterm births, and other associated complications.[3-5] Therefore, while members ultimately have a choice when it comes to contraceptive care, ensuring that members are aware of their contraception options is a critical part of postpartum care.

3-2 McGough M, Amin K, and Cox C. How has healthcare utilization changed since the pandemic? *Peterson-KFF Health System Tracker*. Available at: https://www.healthsystemtracker.org/chart-collection/how-has-healthcare-utilization-changed-since-the-pandemic/#Percent%20of%20adults%20(age%2018%20years%20and%20older)%20who%20reported%20delaying%20or%20going%20without%20medical%20care%20due%20to%20COVID-19%20pandemic,%202021. Accessed on: Mar 4, 2024.

3-3 Centers for Medicare & Medicaid Services. 2022 Child and Adult Health Care Quality Measures Quality. Available at: https://data.medicaid.gov/dataset/dfd13757-d763-4f7a-9641-3f06ce21b4c6. Accessed on: Mar 4, 2024.

3-4 Ibid.

3-5 Rodriguez MA, Meath T, Watson K, et al. Postpartum Contractive Use Among US Medicaid Recipients. *JAMA Network Open*. 2022;5(1). Available at: https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2788449. Accessed on: Mar 4, 2024.

Study Indicators Stratified by Select Demographics

Table 3-30 presents 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.

Table 3-30—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Race/Ethnicity, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
White, Non-Hispanic				
Postpartum ED Utilization*	1,731	13.9%	2,126	16.7%
Postpartum Ambulatory Care Utilization	6,549	52.5%	7,480	58.8%
Prenatal Maternal Depression Screening	783	6.3%	893	7.0%
Postpartum Maternal Depression Screening	1,050	8.4%	1,064	8.4%
MMEC Within 3 Days of Delivery	—	—	1,241	9.8%
MMEC Within 90 Days of Delivery	—	—	4,981	39.1%
LARC Within 3 Days of Delivery	—	—	226	1.8%
LARC Within 90 Days of Delivery	—	—	1,515	11.9%
Black, Non-Hispanic				
Postpartum ED Utilization*	1,919	16.3%	2,321	20.2%
Postpartum Ambulatory Care Utilization	6,022	51.3%	6,645	57.8%
Prenatal Maternal Depression Screening	629	5.4%	672	5.8%
Postpartum Maternal Depression Screening	756	6.4%	1,014	8.8%
MMEC Within 3 Days of Delivery	—	—	1,219	10.6%
MMEC Within 90 Days of Delivery	—	—	4,460	38.8%
LARC Within 3 Days of Delivery	—	—	351	3.1%
LARC Within 90 Days of Delivery	—	—	1,277	11.1%
Asian, Non-Hispanic				
Postpartum ED Utilization*	103	7.8%	122	9.6%
Postpartum Ambulatory Care Utilization	705	53.5%	786	61.9%
Prenatal Maternal Depression Screening	22	1.7%	27	2.1%
Postpartum Maternal Depression Screening	64	4.9%	94	7.4%
MMEC Within 3 Days of Delivery	—	—	68	5.4%
MMEC Within 90 Days of Delivery	—	—	345	27.2%
LARC Within 3 Days of Delivery	—	—	13	1.0%
LARC Within 90 Days of Delivery	—	—	127	10.0%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Hispanic, Any Race				
Postpartum ED Utilization*	685	10.9%	1,133	12.9%
Postpartum Ambulatory Care Utilization	3,093	49.3%	5,196	58.9%
Prenatal Maternal Depression Screening	161	2.6%	251	2.8%
Postpartum Maternal Depression Screening	302	4.8%	529	6.0%
MMEC Within 3 Days of Delivery	—	—	1,228	13.9%
MMEC Within 90 Days of Delivery	—	—	4,042	45.9%
LARC Within 3 Days of Delivery	—	—	249	2.8%
LARC Within 90 Days of Delivery	—	—	1,501	17.0%
Other/Unknown				
Postpartum ED Utilization*	189	15.4%	227	14.3%
Postpartum Ambulatory Care Utilization	655	53.5%	960	60.5%
Prenatal Maternal Depression Screening	43	3.5%	89	5.6%
Postpartum Maternal Depression Screening	79	6.5%	120	7.6%
MMEC Within 3 Days of Delivery	—	—	113	7.1%
MMEC Within 90 Days of Delivery	—	—	584	36.8%
LARC Within 3 Days of Delivery	—	—	21	1.3%
LARC Within 90 Days of Delivery	—	—	220	13.9%

** a lower rate indicates better performance for this indicator.*
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.
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.

Asian, Non-Hispanic women had significantly more favorable rates of ED and ambulatory care 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.

While rates of depression screening were low for all races/ethnicities, White, Non-Hispanic and Black, Non-Hispanic women were significantly more likely to receive a depression screening in the perinatal period, and Hispanic women of any race were significantly less likely.

Hispanic women of any race had significantly higher rates of receiving contraceptives compared to all other races/ethnicities, while White, Non-Hispanic and Asian, Non-Hispanic women had significantly lower rates of receiving contraceptives. Of note, Black, Non-Hispanic women had significantly lower rates of receiving contraceptives within 90 days of delivery but significantly higher rates of receiving LARCs within three days of delivery compared to all other races/ethnicities.

Table 3-31 presents study indicator results stratified by geographic managed care region.

Table 3-31—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Managed Care Region of Maternal Residence, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Central				
Postpartum ED Utilization*	1,378	15.8%	1,668	17.9%
Postpartum Ambulatory Care Utilization	5,072	58.2%	5,864	62.8%
Prenatal Maternal Depression Screening	394	4.5%	530	5.7%
Postpartum Maternal Depression Screening	372	4.3%	622	6.7%
MMEC Within 3 Days of Delivery	—	—	840	9.0%
MMEC Within 90 Days of Delivery	—	—	3,820	40.9%
LARC Within 3 Days of Delivery	—	—	233	2.5%
LARC Within 90 Days of Delivery	—	—	1,275	13.7%
Charlottesville/Western				
Postpartum ED Utilization*	543	13.1%	672	15.4%
Postpartum Ambulatory Care Utilization	2,099	50.5%	2,535	58.1%
Prenatal Maternal Depression Screening	592	14.2%	554	12.7%
Postpartum Maternal Depression Screening	593	14.3%	417	9.6%
MMEC Within 3 Days of Delivery	—	—	529	12.1%
MMEC Within 90 Days of Delivery	—	—	1,909	43.8%
LARC Within 3 Days of Delivery	—	—	138	3.2%
LARC Within 90 Days of Delivery	—	—	618	14.2%
Northern & Winchester				
Postpartum ED Utilization*	930	11.3%	1,292	13.0%
Postpartum Ambulatory Care Utilization	4,351	53.1%	6,071	60.9%
Prenatal Maternal Depression Screening	88	1.1%	188	1.9%
Postpartum Maternal Depression Screening	259	3.2%	483	4.8%
MMEC Within 3 Days of Delivery	—	—	874	8.8%
MMEC Within 90 Days of Delivery	—	—	3,701	37.1%
LARC Within 3 Days of Delivery	—	—	*S*	*S*
LARC Within 90 Days of Delivery	—	—	1,263	12.7%
Roanoke/Alleghany				
Postpartum ED Utilization*	456	15.0%	584	18.1%
Postpartum Ambulatory Care Utilization	1,537	50.7%	1,808	56.1%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Prenatal Maternal Depression Screening	149	4.9%	163	5.1%
Postpartum Maternal Depression Screening	*S*	*S*	107	3.3%
MMEC Within 3 Days of Delivery	—	—	479	14.9%
MMEC Within 90 Days of Delivery	—	—	1,366	42.4%
LARC Within 3 Days of Delivery	—	—	168	5.2%
LARC Within 90 Days of Delivery	—	—	461	14.3%
Southwest				
Postpartum ED Utilization*	213	19.7%	235	23.7%
Postpartum Ambulatory Care Utilization	607	56.2%	644	64.9%
Prenatal Maternal Depression Screening	32	3.0%	47	4.7%
Postpartum Maternal Depression Screening	*S*	*S*	17	1.7%
MMEC Within 3 Days of Delivery	—	—	152	15.3%
MMEC Within 90 Days of Delivery	—	—	478	48.1%
LARC Within 3 Days of Delivery	—	—	*S*	*S*
LARC Within 90 Days of Delivery	—	—	92	9.3%
Tidewater				
Postpartum ED Utilization*	1,106	14.1%	1,461	18.5%
Postpartum Ambulatory Care Utilization	3,356	42.8%	4,097	51.8%
Prenatal Maternal Depression Screening	383	4.9%	446	5.6%
Postpartum Maternal Depression Screening	930	11.9%	1,171	14.8%
MMEC Within 3 Days of Delivery	—	—	989	12.5%
MMEC Within 90 Days of Delivery	—	—	3,109	39.3%
LARC Within 3 Days of Delivery	—	—	287	3.6%
LARC Within 90 Days of Delivery	—	—	921	11.6%

** a lower rate indicates better performance for this indicator.*
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.
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* but the highest rates of *Postpartum Ambulatory Care Utilization.* Of note, approximately 91 percent of deliveries to women in the Southwest region were to White, Non-Hispanic women, who, as shown in Table 3-30, had the second highest rate of *Postpartum ED Utilization* and third highest rate of *Postpartum Ambulatory Care Utilization*. The Northern & Winchester region had the most favorable rates of *Postpartum ED Utilization*, and the Tidewater region had the least favorable rates of *Postpartum Ambulatory Care Utilization*. Of note, approximately 56 percent of women residing in Tidewater are Black, Non-Hispanic

and had significantly worse rates of *Postpartum Ambulatory Care Utilization* compared to all other races/ethnicities, as shown in Table 3-30.

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 56 percent and 27 percent of women who had deliveries in Charlottesville/Western were White, Non-Hispanic and Black, Non-Hispanic, respectively. For the Tidewater region, approximately 56 percent and 27 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 3-30.

The Southwest region had the highest rates of *MMEC Within 3 Days of Delivery* and *MMEC Within 90 Days of Delivery,* while the Roanoke/Alleghany region had the highest rates of *LARC Within 3 Days of Delivery* and *LARC Within 90 Days of Delivery*. However, the Northern & Winchester region had the lowest rates for two of the four contraceptive study indicators (*MMEC Within 3 Days* and *MMEC Within 90 Days of Delivery*). Of note, the Northern & Winchester region is approximately 47 percent Hispanic women of any race, who, as shown in Table 3-30, had significantly better rates of receiving contraceptives compared to all other races/ethnicities. However, the low rates of the other racial/ethnic groups (i.e., White, Non-Hispanic; Black Non-Hispanic; and Asian, Non-Hispanic) in the Northern & Winchester region resulted in the overall low rates for contraceptives within this region.

Study Indicator Findings by Medicaid Characteristics

Table 3-32 presents the study indicator results stratified by Medicaid program.

Table 3-32—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Medicaid Program, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Medicaid for Pregnant Women				
Postpartum ED Utilization*	2,175	13.9%	2,184	16.6%
Postpartum Ambulatory Care Utilization	8,301	52.9%	7,821	59.5%
Prenatal Maternal Depression Screening	709	4.5%	650	4.9%
Postpartum Maternal Depression Screening	1,147	7.3%	1,106	8.4%
MMEC Within 3 Days of Delivery	—	—	1,229	9.4%
MMEC Within 90 Days of Delivery	—	—	5,082	38.7%
LARC Within 3 Days of Delivery	—	—	247	1.9%
LARC Within 90 Days of Delivery	—	—	1,598	12.2%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Medicaid Expansion				
Postpartum ED Utilization*	905	13.8%	1,400	17.6%
Postpartum Ambulatory Care Utilization	3,265	49.9%	4,655	58.6%
Prenatal Maternal Depression Screening	387	5.9%	512	6.4%
Postpartum Maternal Depression Screening	485	7.4%	691	8.7%
MMEC Within 3 Days of Delivery	—	—	797	10.0%
MMEC Within 90 Days of Delivery	—	—	3,132	39.4%
LARC Within 3 Days of Delivery	—	—	172	2.2%
LARC Within 90 Days of Delivery	—	—	893	11.2%
FAMIS MOMS				
Postpartum ED Utilization*	191	10.7%	218	12.0%
Postpartum Ambulatory Care Utilization	855	47.9%	994	54.7%
Prenatal Maternal Depression Screening	*S*	*S*	52	2.9%
Postpartum Maternal Depression Screening	109	6.1%	142	7.8%
MMEC Within 3 Days of Delivery	—	—	128	7.0%
MMEC Within 90 Days of Delivery	—	—	597	32.9%
LARC Within 3 Days of Delivery	—	—	17	0.9%
LARC Within 90 Days of Delivery	—	—	205	11.3%
FAMIS Prenatal Coverage				
Postpartum ED Utilization*	158	7.9%	534	10.9%
Postpartum Ambulatory Care Utilization	888	44.2%	2,806	57.5%
Prenatal Maternal Depression Screening	*S*	*S*	84	1.7%
Postpartum Maternal Depression Screening	53	2.6%	229	4.7%
MMEC Within 3 Days of Delivery	—	—	786	16.1%
MMEC Within 90 Days of Delivery	—	—	2,314	47.4%
LARC Within 3 Days of Delivery	—	—	169	3.5%
LARC Within 90 Days of Delivery	—	—	898	18.4%
Other Aid Categories†				
Postpartum ED Utilization*	1,198	17.1%	1,593	19.7%
Postpartum Ambulatory Care Utilization	3,715	53.0%	4,791	59.1%
Prenatal Maternal Depression Screening	489	7.0%	634	7.8%
Postpartum Maternal Depression Screening	457	6.5%	653	8.1%
MMEC Within 3 Days of Delivery	—	—	929	11.5%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
MMEC Within 90 Days of Delivery	—	—	3,287	40.6%
LARC Within 3 Days of Delivery	—	—	255	3.1%
LARC Within 90 Days of Delivery	—	—	1,046	12.9%

** a lower rate indicates better performance for this indicator.*
† Other Aid Categories includes all other births not covered by the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and FAMIS Prenatal Coverage programs.
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.
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.

In CY 2022, women in the FAMIS Prenatal Coverage and FAMIS MOMS programs had the most favorable rates for *Postpartum ED Utilization*; however, women in the FAMIS MOMS program had the lowest rates of *Postpartum Ambulatory Care*. As discussed previously, all postpartum ED and ambulatory utilization increased from CY 2021 to CY 2022, which could be the result of utilization returning to pre-pandemic levels in CY 2022.

While women in the FAMIS Prenatal Coverage program had the lowest rates of depression screening, these women had the highest rates for receiving contraceptives. This is likely due to the fact that approximately 90 percent of FAMIS Prenatal Coverage deliveries were to Hispanic, Any Race women, who, as Table 3-30 shows, had significantly lower rates of receiving a depression screening and significantly higher rates of receiving contraceptives. Additionally, women in the FAMIS Prenatal Coverage program are only eligible for postpartum coverage for 60 days postpartum, which may be impacting the rates for this population.

Table 3-33 presents the study indicator results stratified by delivery system for each measurement period.

Table 3-33—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Managed Care Program at Delivery, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
CCC Plus (MLTSS)				
Postpartum ED Utilization*	217	23.4%	311	31.2%
Postpartum Ambulatory Care Utilization	566	61.0%	728	72.9%
Prenatal Maternal Depression Screening	80	8.6%	97	9.7%
Postpartum Maternal Depression Screening	59	6.4%	92	9.2%
MMEC Within 3 Days of Delivery	—	—	171	17.1%
MMEC Within 90 Days of Delivery	—	—	429	43.0%
LARC Within 3 Days of Delivery	—	—	51	5.1%
LARC Within 90 Days of Delivery	—	—	133	13.3%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Medallion 4.0 (Acute)				
Postpartum ED Utilization*	4,094	14.5%	5,308	16.8%
Postpartum Ambulatory Care Utilization	14,882	52.8%	18,980	60.1%
Prenatal Maternal Depression Screening	1,543	5.5%	1,816	5.7%
Postpartum Maternal Depression Screening	2,079	7.4%	2,643	8.4%
MMEC Within 3 Days of Delivery	—	—	3,555	11.3%
MMEC Within 90 Days of Delivery	—	—	13,373	42.3%
LARC Within 3 Days of Delivery	—	—	736	2.3%
LARC Within 90 Days of Delivery	—	—	4,256	13.5%

** a lower rate indicates better performance for this indicator.*
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.

Overall, women enrolled in CCC Plus (MLTSS) managed care had better rates on most maternal health study indicators compared to women enrolled in Medallion 4.0 (Acute) managed care in CY 2022. Women enrolled in CCC Plus (MLTSS) managed care had nearly double the rate of Medallion 4.0 (Acute) for the *Postpartum ED Utilization* study indicator.

Table 3-34 presents the study indicator results stratified by delivery system for each measurement period.

Table 3-34—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Delivery System, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
FFS				
Postpartum ED Utilization*	316	8.1%	310	9.4%
Postpartum Ambulatory Care Utilization	1,576	40.2%	1,359	41.1%
Prenatal Maternal Depression Screening	15	0.4%	19	0.6%
Postpartum Maternal Depression Screening	113	2.9%	86	2.6%
MMEC Within 3 Days of Delivery	—	—	143	4.3%
MMEC Within 90 Days of Delivery	—	—	610	18.5%
LARC Within 3 Days of Delivery	—	—	73	2.2%
LARC Within 90 Days of Delivery	—	—	251	7.6%
Managed Care				
Postpartum ED Utilization*	4,311	14.8%	5,619	17.2%
Postpartum Ambulatory Care Utilization	15,448	53.1%	19,708	60.5%
Prenatal Maternal Depression Screening	1,623	5.6%	1,913	5.9%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Postpartum Maternal Depression Screening	2,138	7.3%	2,735	8.4%
MMEC Within 3 Days of Delivery	—	—	3,726	11.4%
MMEC Within 90 Days of Delivery	—	—	13,802	42.4%
LARC Within 3 Days of Delivery	—	—	787	2.4%
LARC Within 90 Days of Delivery	—	—	4,389	13.5%

** a lower rate indicates better performance for this indicator.*
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.

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 3-35 presents the study indicator results among singleton births by trimester of prenatal care initiation.

Table 3-35—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Trimester of Prenatal Care Initiation, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
First Trimester				
Postpartum ED Utilization*	3,547	14.3%	4,474	16.9%
Postpartum Ambulatory Care Utilization	12,893	52.1%	15,687	59.3%
Prenatal Maternal Depression Screening	1,303	5.3%	1,533	5.8%
Postpartum Maternal Depression Screening	1,819	7.4%	2,265	8.6%
MMEC Within 3 Days of Delivery	—	—	2,815	10.6%
MMEC Within 90 Days of Delivery	—	—	10,892	41.2%
LARC Within 3 Days of Delivery	—	—	572	2.2%
LARC Within 90 Days of Delivery	—	—	3,448	13.0%
Second Trimester				
Postpartum ED Utilization*	720	12.4%	936	15.1%
Postpartum Ambulatory Care Utilization	2,885	49.7%	3,502	56.5%
Prenatal Maternal Depression Screening	232	4.0%	288	4.6%
Postpartum Maternal Depression Screening	308	5.3%	388	6.3%
MMEC Within 3 Days of Delivery	—	—	752	12.1%
MMEC Within 90 Days of Delivery	—	—	2,477	40.0%
LARC Within 3 Days of Delivery	—	—	189	3.1%
LARC Within 90 Days of Delivery	—	—	825	13.3%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Third Trimester				
Postpartum ED Utilization*	217	14.3%	253	15.0%
Postpartum Ambulatory Care Utilization	732	48.3%	941	55.8%
Prenatal Maternal Depression Screening	74	4.9%	54	3.2%
Postpartum Maternal Depression Screening	81	5.3%	98	5.8%
MMEC Within 3 Days of Delivery	—	—	189	11.2%
MMEC Within 90 Days of Delivery	—	—	586	34.8%
LARC Within 3 Days of Delivery	—	—	62	3.7%
LARC Within 90 Days of Delivery	—	—	226	13.4%
No Prenatal Care				
Postpartum ED Utilization*	99	14.5%	189	17.6%
Postpartum Ambulatory Care Utilization	370	54.0%	659	61.5%
Prenatal Maternal Depression Screening	19	2.8%	30	2.8%
Postpartum Maternal Depression Screening	24	3.5%	50	4.7%
MMEC Within 3 Days of Delivery	—	—	95	8.9%
MMEC Within 90 Days of Delivery	—	—	301	28.1%
LARC Within 3 Days of Delivery	—	—	34	3.2%
LARC Within 90 Days of Delivery	—	—	93	8.7%

** a lower rate indicates better performance for this indicator.*
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.

Women who received no prenatal care had higher rates of *Postpartum ED Utilization* and *Postpartum Ambulatory Care 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 and contraceptives within 90 days of delivery, 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 second highest rate of *Postpartum ED Utilization*. Approximately 87 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 3-36 presents the study indicator results among singleton births by length of continuous enrollment.

Table 3-36—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by Length of Continuous Enrollment, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
≤30 Days				
Postpartum ED Utilization*	138	8.2%	103	8.1%
Postpartum Ambulatory Care Utilization	620	36.8%	503	39.6%
Prenatal Maternal Depression Screening	*S*	*S*	0	0.0%
Postpartum Maternal Depression Screening	31	1.8%	27	2.1%
MMEC Within 3 Days of Delivery	—	—	57	4.5%
MMEC Within 90 Days of Delivery	—	—	226	17.8%
LARC Within 3 Days of Delivery	—	—	27	2.1%
LARC Within 90 Days of Delivery	—	—	88	6.9%
31–90 Days				
Postpartum ED Utilization*	194	9.3%	212	11.7%
Postpartum Ambulatory Care Utilization	941	45.2%	870	48.0%
Prenatal Maternal Depression Screening	*S*	*S*	14	0.8%
Postpartum Maternal Depression Screening	89	4.3%	90	5.0%
MMEC Within 3 Days of Delivery	—	—	130	7.2%
MMEC Within 90 Days of Delivery	—	—	509	28.1%
LARC Within 3 Days of Delivery	—	—	36	2.0%
LARC Within 90 Days of Delivery	—	—	209	11.5%
91–180 Days				
Postpartum ED Utilization*	309	9.8%	462	12.3%
Postpartum Ambulatory Care Utilization	1,468	46.7%	2,052	54.5%
Prenatal Maternal Depression Screening	32	1.0%	62	1.6%
Postpartum Maternal Depression Screening	152	4.8%	207	5.5%
MMEC Within 3 Days of Delivery	—	—	398	10.6%
MMEC Within 90 Days of Delivery	—	—	1,399	37.2%
LARC Within 3 Days of Delivery	—	—	98	2.6%
LARC Within 90 Days of Delivery	—	—	538	14.3%
>180 Days				
Postpartum ED Utilization*	3,984	15.3%	5,151	17.8%
Postpartum Ambulatory Care Utilization	13,977	53.6%	17,633	60.8%
Prenatal Maternal Depression Screening	1,599	6.1%	1,856	6.4%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Postpartum Maternal Depression Screening	1,979	7.6%	2,497	8.6%
MMEC Within 3 Days of Delivery	—	—	3,283	11.3%
MMEC Within 90 Days of Delivery	—	—	12,271	42.3%
LARC Within 3 Days of Delivery	—	—	699	2.4%
LARC Within 90 Days of Delivery	—	—	3,805	13.1%

** a lower rate indicates better performance for this indicator.*
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Overall, the longer a woman was enrolled in Virginia Medicaid, the more likely she was to have higher rates for the maternal health outcomes study indicators. Of note, women enrolled for more than 180 days prior to delivery had the highest rate of *Postpartum ED Utilization*, and women enrolled between 91 and 180 days had the highest rates of receiving LARCs within three and 90 days of delivery.

MCO Study Indicator Results

Table 3-37 presents the maternal health outcomes study indicators stratified by MCO.

Table 3-37—Maternal Health Outcomes Study Indicator Findings Among Singleton Births by MCO, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Aetna				
Postpartum ED Utilization*	598	15.0%	728	16.3%
Postpartum Ambulatory Care Utilization	2,150	53.9%	2,625	58.7%
Prenatal Maternal Depression Screening	221	5.5%	242	5.4%
Postpartum Maternal Depression Screening	273	6.8%	293	6.6%
MMEC Within 3 Days of Delivery	—	—	513	11.5%
MMEC Within 90 Days of Delivery	—	—	1,938	43.4%
LARC Within 3 Days of Delivery	—	—	116	2.6%
LARC Within 90 Days of Delivery	—	—	618	13.8%
HealthKeepers				
Postpartum ED Utilization*	1,195	13.3%	1,727	17.1%
Postpartum Ambulatory Care Utilization	4,369	48.5%	6,298	62.4%
Prenatal Maternal Depression Screening	329	3.7%	475	4.7%
Postpartum Maternal Depression Screening	551	6.1%	950	9.4%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
MMEC Within 3 Days of Delivery	—	—	1,072	10.6%
MMEC Within 90 Days of Delivery	—	—	4,258	42.2%
LARC Within 3 Days of Delivery	—	—	179	1.8%
LARC Within 90 Days of Delivery	—	—	1,402	13.9%
Molina				
Postpartum ED Utilization*	360	17.0%	401	16.1%
Postpartum Ambulatory Care Utilization	1,093	51.6%	1,403	56.4%
Prenatal Maternal Depression Screening	68	3.2%	108	4.3%
Postpartum Maternal Depression Screening	91	4.3%	258	10.4%
MMEC Within 3 Days of Delivery	—	—	276	11.1%
MMEC Within 90 Days of Delivery	—	—	978	39.3%
LARC Within 3 Days of Delivery	—	—	74	3.0%
LARC Within 90 Days of Delivery	—	—	340	13.7%
Optima				
Postpartum ED Utilization*	979	16.1%	1,157	17.9%
Postpartum Ambulatory Care Utilization	3,125	51.4%	3,626	56.1%
Prenatal Maternal Depression Screening	425	7.0%	450	7.0%
Postpartum Maternal Depression Screening	725	11.9%	698	10.8%
MMEC Within 3 Days of Delivery	—	—	749	11.6%
MMEC Within 90 Days of Delivery	—	—	2,716	42.0%
LARC Within 3 Days of Delivery	—	—	172	2.7%
LARC Within 90 Days of Delivery	—	—	755	11.7%
UnitedHealthcare				
Postpartum ED Utilization*	365	13.1%	549	15.1%
Postpartum Ambulatory Care Utilization	1,518	54.4%	2,146	59.0%
Prenatal Maternal Depression Screening	39	1.4%	91	2.5%
Postpartum Maternal Depression Screening	95	3.4%	143	3.9%
MMEC Within 3 Days of Delivery	—	—	441	12.1%
MMEC Within 90 Days of Delivery	—	—	1,456	40.0%
LARC Within 3 Days of Delivery	—	—	83	2.3%
LARC Within 90 Days of Delivery	—	—	490	13.5%
VA Premier				
Postpartum ED Utilization*	814	15.8%	1,057	19.4%

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Postpartum Ambulatory Care Utilization	3,193	62.2%	3,610	66.4%
Prenatal Maternal Depression Screening	541	10.5%	547	10.1%
Postpartum Maternal Depression Screening	403	7.8%	393	7.2%
MMEC Within 3 Days of Delivery	—	—	675	12.4%
MMEC Within 90 Days of Delivery	—	—	2,456	45.2%
LARC Within 3 Days of Delivery	—	—	163	3.0%
LARC Within 90 Days of Delivery	—	—	784	14.4%

** a lower rate indicates better performance for this indicator.*
— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.

In CY 2022, VA Premier had the highest rates for most maternal health outcome study indicators, including all four contraceptive study indicators, prenatal depression screening, and postpartum ambulatory care utilization, demonstrating overall strength for VA Premier. Conversely, UnitedHealthcare had the lowest rates of depression screenings, and HealthKeepers had the lowest rates of women receiving contraceptives within three days of delivery.

Postpartum ED Utilization Analysis

Table 3-39 presents the count and percentage of postpartum ED visits during CY 2022.

Table 3-38—Count and Percentage of Postpartum ED Visits, CY 2022

Number of ED Visits per Member	Count of ED Visits	Percentage of ED Visits
1 ED Visit	4,404	74.3%
2 ED Visits	1,043	17.6%
3 ED Visits	284	4.8%
4 ED Visits	116	2.0%
5 ED Visits	37	0.6%
6 ED Visits	18	0.3%
7 ED Visits	11	0.2%
8 or More ED Visits	16	0.3%

Table 3-39 presents the most common primary diagnoses for postpartum ED visits in CY 2022.

Table 3-39—Most Common Primary Diagnoses for Postpartum ED Visits, CY 2022

Primary Diagnosis Category	Number of ED Visits	Percentage of ED Visits
Abdominal pain and other digestive/abdomen signs and symptoms	1,377	10.3%
Complications specified during the puerperium	1,033	7.7%
Respiratory signs and symptoms	697	5.2%
External causes of morbidity	605	4.5%
Headache; including migraine	554	4.1%
Nonspecific chest pain	439	3.3%
Other specified female genital disorders	425	3.2%
Nausea and vomiting	396	3.0%
Musculoskeletal pain, not low back pain	375	2.8%
Hypertension and hypertensive-related conditions complicating	338	2.5%
Other specified upper respiratory infections	309	2.3%
Urinary tract infections	284	2.1%
Fever	273	2.0%
Biliary tract disease	261	1.9%
Skin/Subcutaneous signs and symptoms	251	1.9%
Nonmalignant breast conditions	208	1.6%
Disorders of teeth and gingiva	203	1.5%
Other general signs and symptoms	183	1.4%
Skin and subcutaneous tissue infections	159	1.2%
Genitourinary signs and symptoms	151	1.1%
COVID-19	149	1.1%
General sensation/perception signs and symptoms	144	1.1%
Circulatory signs and symptoms	143	1.1%

The most common primary diagnosis codes for an ED visit after delivery were for abdominal pain and other digestive/abdomen signs and symptoms; complications specified during the puerperium; respiratory signs and symptoms; external causes of morbidity;[3-6] and headache, including migraine.

[3-6] The most common secondary diagnosis categories for claims/encounters with a primary diagnosis category of external causes of morbidity were musculoskeletal pain, not low back pain; other unspecified injury; open wounds to limbs, initial encounter; and superficial injury, contusion, initial encounter.

Table 3-40 presents postpartum ED visits stratified by when the ED visit occurred during the postpartum period.

Table 3-40—Postpartum ED Visits by Postpartum Period, CY 2022

Timing of First ED Visit	Num	Rate
Total ED Visits	5,929	100.0%
Less than 7 days of delivery	1,147	19.3%
Between 7 and 14 days after delivery	1,137	19.2%
Between 15 and 30 days after delivery	1,069	18.0%
Between 31 and 60 days after delivery	1,444	24.4%
Between 61 and 90 days after delivery	1,132	19.1%

Approximately 24 percent of women who had an ED visit after delivery had the visit between 31 and 60 days of 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.[3-7] For Virginia Medicaid, 31 percent of ED visits were within 10 days of delivery and 50 percent of ED visits occurred within 23 days of delivery in CY 2022.

Table 3-41 presents postpartum ED visits stratified by Kotelchuck Index Score.

Table 3-41—Postpartum ED Visits by Kotelchuck Index Score, CY 2022

Adequacy of Prenatal Care	Denom	Num	Rate
Total	35,889	5,929	16.5%
Births With Early and Adequate Prenatal Care	25,526	4,239	16.6%
Births With Intermediate Prenatal Care	3,349	558	16.7%
Births With Inadequate Prenatal Care	5,454	865	15.9%
Births With No Prenatal Care	1,072	189	17.6%
Births Missing Prenatal Care Information	488	78	16.0%

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 care for women who did not receive any prenatal care was only 1 percentage point higher than those who received early and adequate prenatal care.

Table 3-42 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 in the postpartum period.

[3-7] 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: Mar 4, 2024.

Table 3-42—Postpartum ED Visits by Completion and Timing of Postpartum Follow-up Visits, CY 2022

Timing of Postpartum Visit	Num	Rate
Postpartum Visit Timing With No ED Visit		
No Postpartum Visit	15,634	52.2%
Postpartum Visit Within Less Than 7 Days of Delivery	1,191	4.0%
Postpartum Visit Between 7 and 14 Days After Delivery	1,939	6.5%
Postpartum Visit Between 15 and 30 Days After Delivery	2,004	6.7%
Postpartum Visit Between 31 and 60 Days After Delivery	8,084	27.0%
Postpartum Visit Between 61 and 84 Days After Delivery	1,108	3.7%
Postpartum Visit Timing With ED Visit		
No Postpartum Visit	2,831	47.7%
Postpartum Visit Within Less Than 7 Days of Delivery	278	4.7%
Postpartum Visit Between 7 and 14 Days After Delivery	524	8.8%
Postpartum Visit Between 15 and 30 Days After Delivery	493	8.3%
Postpartum Visit Between 31 and 60 Days After Delivery	1,579	26.6%
Postpartum Visit Between 61 and 84 Days After Delivery	224	3.8%

Approximately 52 percent of women who had a delivery in CY 2022 did not have a postpartum visit or an ED visit within the postpartum period. Of note, the rate of no postpartum visits is 4.5 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. The American College of Obstetricians and Gynecologists recommends women have a postpartum visit within three weeks of delivery.[3-8] Given that postpartum coverage was extended to 12 months (from 60 days) in July 2022, it is likely that these rates will improve in CY 2023 given that all women with deliveries in CY 2023 will

[3-8] 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#:~:text=All%20women%20should%20ideally%20have,than%2012%20weeks%20after%20birth. Accessed on: Mar 4, 2024.

have 12 months of postpartum care. Further, given that these visits were captured with administrative data, it is possible that these rates are underestimating the rate of postpartum visits.

Additional Population-Specific Stratifications

Partnership for Petersburg

Table 3-43 presents the overall study indicator results for births occurring to women residing in Petersburg during CY 2021 and CY 2022.

Table 3-43—Overall Maternal Health Outcomes Study Indicator Findings Among Singleton Births in Petersburg, CY 2021–CY 2022

Study Indicator	CY 2021		CY 2022	
	Number	Percent	Number	Percent
Postpartum ED Utilization*	69	17.8%	85	22.5%
Postpartum Ambulatory Care Utilization	223	57.6%	239	63.4%
Prenatal Maternal Depression Screening	*S*	*S*	11	2.9%
Postpartum Maternal Depression Screening	*S*	*S*	14	3.7%
MMEC Within 3 Days of Delivery	—	—	32	8.5%
MMEC Within 90 Days of Delivery	—	—	135	35.8%
LARC Within 3 Days of Delivery	—	—	*S*	*S*
LARC Within 90 Days of Delivery	—	—	48	12.7%

— indicates the study indicator is new for CY 2022; therefore, rates are not available for CY 2021.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Women residing in Petersburg had a rate of *Postpartum Ambulatory Care Utilization* approximately 5 percentage points higher than the Overall Virginia Medicaid rate; however, women in Petersburg also had a rate of *Postpartum ED Utilization* approximately 6 percentage points higher than the Overall Virginia Medicaid rate, demonstrating an opportunity for improvement. Women in Petersburg had similar rates as the Overall Virginia Medicaid rate for receiving LARCs within 90 days of delivery; however, women in Petersburg also had much lower rates of depression screening and receiving MMEC within three and 90 days of delivery.

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.[4-1]
- COVID-19 may have impacted the CY 2020 study indicator results given the public efforts put in place during CY 2020 to mitigate the spread of COVID-19 (e.g., social distancing, stay at home orders). Additionally, researchers have found that women who were pregnant during the early stages of the COVID-19 pandemic had increased fears and stress about delivering in a hospital, especially when a support person could not be in the hospital for the delivery or go to prenatal visits with the mother.[4-2,4-3] Further, COVID-19 may have also impacted women's ability to get timely and frequent prenatal care. As a result, caution should be exercised when comparing CY 2021 and CY 2022 study indicator results to those for CY 2020.
- 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).

4-1 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: Mar 4, 2024.

4-2 Whipps MDM, Phipps JE, Simmons LA. Perinatal health care access, childbirth concerns, and birthing decision-making among pregnant people in California during COVID-19. *BMC Pregnancy and Childbirth*. 2021; 21(477). Available at: https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-021-03942-y. Accessed on: Mar 4, 2024.

4-3 Meaney S, Letiao S, Olander EK, et al. The impact of COVID-19 on pregnant womens' experiences and perceptions of antenatal maternity care, social support, and stress-reduction strategies. *Women and Birth*. 2021. Available at: https://doi.org/10.1016/j.wombi.2021.04.013. Accessed on: Mar 4, 2024.

- The Commonwealth of Virginia allows 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. VDSS, the agency responsible for determining Medicaid eligibility in Virginia, allows seven days to process a Medicaid application from a pregnant woman; 45 days is allowed for processing if the pregnant woman applies for additional services beyond Medicaid (e.g., supplemental nutrition assistance). 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. 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 and subsequently impact birth outcomes.
- 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.
- HSAG developed the maternal health outcomes study indicators; therefore, comparisons to national benchmarks cannot be made. However, the *MMEC Within 3 Days of Delivery* and *LARC Within 3 Days of Delivery* study indicators have comparable national Medicaid benchmarks for two age groups (i.e., 15 to 20 years of age and 21 to 44 years of age). Given that HSAG does not present these study indicators by age throughout the report, HSAG only refers to these benchmarks in narrative for contextual information, where appropriate. Further, due to billing practices of providers (e.g., global billing), some study indicator results (i.e., maternal depression screening) are likely more representative of data completeness, rather than actual performance.
- Since the FAMIS Prenatal Coverage program began in July 2021, women included in the FAMIS Prenatal Coverage population at the time of delivery may not have been eligible for the program in time to receive timely or adequate prenatal care; therefore, exercise caution when interpreting study indicator rates for this population for CY 2021 and CY 2022. Further, given that the FAMIS Prenatal Coverage program only provides postpartum care for 60 days after delivery, exercise caution when interpreting the maternal health outcome study indicators that assess care received in the postpartum period given many of the indicators look at care beyond 60 days of delivery.

The 2022–23 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, recommendations for DMAS' consideration, and DMAS' follow-up on prior year focus study recommendations. 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:

- On August 26, 2022, Governor Glenn Youngkin announced the new Partnership for Petersburg initiative, which includes six focus areas: Prepare Petersburg Students for Life, Improve Access to

Health Care, Keep Our Community Safe, Keep Petersburg Moving, Foster Business & Economic Growth, and Build Relationships with Community and Faith Leaders. The Commonwealth of Virginia and community partners will work together to improve the health of Petersburg residents by expanding access to screenings, promoting awareness of primary care and prenatal care, and addressing health disparities by connecting Petersburg residents with medical and social services.

- In July 2022, under Governor Glenn Youngkin, DMAS implemented a 12-month continuous postpartum coverage for members through an 1115 demonstration waiver.
- In 2021, pursuant to state legislation, DMAS amended the state plan to authorize prescriptions of contraceptives up to a 12-month supply.

Please see the DMAS' Follow-Up on Prior Focus Study Recommendations section for more detail regarding these policy changes and other DMAS initiatives.

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 2020 and CY 2022 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 fall below 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 2022 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 2022. DMAS should monitor how rates of *Births With Early and Adequate Prenatal Care* improve given the implementation of the FAMIS Prenatal Coverage program on July 1, 2021.

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.[4-4] All study indicator results for the Medicaid Expansion program for CY 2022 demonstrated improvement from CY 2020, with the CY 2022 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 program had the highest rate of *Births With Early and Adequate Prenatal Care* in CY 2022. However, the rate for the *Preterm Births (<37 Weeks)* study indicator continues to fall below national benchmarks, and the *Newborns With Low Birth Weight (<2,500 grams*) rate is at risk of falling below national benchmarks again (i.e., the CY 2022 rate is only 0.1 percentage points above the national benchmark). Therefore, DMAS should continue to monitor this population by assessing the risk factors for women in the Medicaid Expansion program that could be contributing to higher rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)*.

The FAMIS MOMS program continued to exceed national benchmarks for all three study indicators in CY 2022, though it is important to note that women enrolled in FAMIS MOMS have different income eligibility limits compared to other pregnant women (i.e., FAMIS MOMS covers women with incomes up to 200 percent of the FPL[4-5]). 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 second 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.

The FAMIS Prenatal Coverage program had the lowest rates of *Births With Early and Adequate Prenatal Care* but the most favorable rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns With Low Birth Weight (<2,500 grams)* compared to other Medicaid programs. Given that some women who had births in early CY 2022 may not have had prenatal care covered in their first trimester, DMAS should monitor how the *Births With Early and Adequate Prenatal Care* study indicator rate changes in CY 2023 for women enrolled in the FAMIS Prenatal Coverage program.

Women residing in Petersburg had rates that did not meet the national benchmark for *Births With Early and Adequate Prenatal Care* and *Newborns With Low Birth Weight (<2,500 grams);* however, the *Preterm Births (<37 Weeks Gestation)* rate improved and outperformed the national benchmark in CY 2022. Of note, the *Births With Early and Adequate Prenatal Care* study indicator rate in Petersburg was 4 percentage points lower than the Overall Virginia Medicaid rate, and the *Newborns With Low Birth Weight (<2,500 grams)* study indicator rate in Petersburg was 5 percentage points higher than the Overall Virginia Medicaid rate, demonstrating opportunities for improvement within Petersburg.

4-4 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: Mar 4, 2024.

4-5 A standard disregard of 5 percent FPL is applied to the Medicaid for Pregnant Women, Medicaid Expansion, and FAMIS MOMS programs if the woman's income is slightly above the household income.

Maternal Health Outcomes

This study assessed eight maternal health outcomes related to utilization in the postpartum period, important screenings during the prenatal and postpartum periods, and receipt of contraceptives in the postpartum period. Overall, approximately 17 percent and 59 percent of postpartum women utilized ED and ambulatory care services, respectively. Women who received no 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 74 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 abdominal pain and other digestive/abdomen signs and symptoms, complications specified during the puerperium, and respiratory signs and symptoms. Additionally, approximately 39 percent of women who had an ED visit after delivery had the visit in the first 14 days after delivery, and approximately 24 percent had the visit between 31 and 60 days of delivery, and the amount of prenatal care received did not impact ED utilization in the postpartum period. 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.[4-6] This indicates that Medicaid members have lower rates of ED visits within the first two weeks following delivery than are seen nationally.

Approximately 11 percent of women received a maternal depression screening during the prenatal or postpartum period. 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.

Approximately 11 percent and 40 percent of postpartum women received an MMEC within three and 90 days of delivery, respectively, in CY 2022. Additionally, approximately 2 percent and 13 percent of postpartum women received a LARC within three and 90 days of delivery, respectively. For women 15 to 20 years of age in Virginia Medicaid, the rate of *MMEC Within 3 Days of Delivery* exceeded the national Medicaid 50th percentile by approximately 1 percentage point, while the rate of *LARC Within 3 Days of Delivery* fell slightly below the national Medicaid 50th percentile.[4-7] For women 21 to 44 years of age in Virginia Medicaid, the rate of *MMEC Within 3 Days of Delivery* fell below the national Medicaid 50th percentile, while the rate of *LARC Within 3 Days of Delivery* exceeded the national Medicaid 50th percentile.[4-8] Given that performance on these study indicators is heavily impacted by member preference when it comes to choosing to use contraceptives, exercise caution when interpreting these study indicator rates.

Racial/ethnic disparities exist for the maternal health outcomes, with Asian, Non-Hispanic women having significantly more favorable rates of ED visits (lower is better) and ambulatory care visits (higher is better) 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 that all other races/ethnicities. Higher rates of ED visits can be indicative

4-6 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: Mar 4, 2024.

4-7 Centers for Medicare & Medicaid Services. 2022 Child and Adult Health Care Quality Measures Quality. Available at: https://data.medicaid.gov/dataset/dfd13757-d763-4f7a-9641-3f06ce21b4c6. Accessed on: Mar 4, 2024.

4-8 Ibid.

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 care 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, White, Non-Hispanic and Black, Non-Hispanic women were significantly more likely to receive a depression screening in the perinatal period, and Hispanic women of any race were significantly less likely. Hispanic women of any race had significantly higher rates of receiving contraceptives compared to all other races/ethnicities, while White, Non-Hispanic and Asian, Non-Hispanic women had significantly lower rates of receiving contraceptives.

In CY 2022, women in the FAMIS Prenatal Coverage and FAMIS MOMS programs had the most favorable rates for *Postpartum ED Utilization*; however, women in the FAMIS MOMS program had the lowest rates of *Postpartum Ambulatory Care*. While women in the FAMIS Prenatal Coverage program had the lowest rates of depression screening, these women had the highest rates for receiving contraceptives. This is likely due to the fact that approximately 90 percent of FAMIS Prenatal Coverage deliveries were to Hispanic, Any Race women who had significantly lower rates of receiving a depression screening and significantly higher rates of receiving contraceptives. Of note, women in the FAMIS Prenatal Coverage program are only eligible for postpartum coverage for 60 days postpartum, which may be impacting the rates for this population.

Women residing in Petersburg had a rate of *Postpartum Ambulatory Care Utilization* approximately 5 percentage points higher than the Overall Virginia Medicaid rate; however, women in Petersburg also had a rate of *Postpartum ED Utilization* approximately 6 percentage points higher than the Overall Virginia Medicaid rate, demonstrating an opportunity for improvement. Women in Petersburg had similar rates as the Overall Virginia Medicaid rate for receiving LARCs within 90 days of delivery; however, women in Petersburg also had much lower rates of depression screenings and receiving MMEC within three and 90 days of delivery.

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 72 percent of births in CY 2022 received early and adequate prenatal care, and approximately 18 percent of births in CY 2022 received inadequate or no prenatal care. The 2022–23 secret shopper survey that assessed appointment availability for prenatal care providers who accept Medicaid in Virginia found that only 28.0 percent provided a first, second, or third trimester appointment date. Of those that offered appointments, 52.0 percent of cases were offered a first trimester appointment date, 14.7 percent of cases were offered a second trimester appointment date, and 17.3 percent of cases were offered a third trimester appointment date. The common reasons for not scheduling prenatal care appointments included requiring preregistration, personal information, medical records, or physician approval prior to scheduling the appointment.
  - The results of this study and the secret shopper survey study suggest that DMAS and the MCOs should investigate the factors contributing to women's ability to access timely prenatal care and implement targeted improvement efforts. These efforts should include ensuring that all

women of childbearing age establish a PCP or OB/GYN prior to pregnancy and receive necessary preventive care (e.g., taking folic acid) and management of conditions (e.g., diabetes, high blood pressure, obesity) that were previously left untreated or unmanaged. Improving the health of a woman prior to conception will help to ensure better outcomes for both the mother and baby.[4-9] Additionally, given the results of the secret shopper survey, DMAS and the MCOs should investigate the administrative burden that appears to be preventing appointments from being made.

- To improve prenatal care among Virginia Medicaid members, HSAG and DMAS work on a number of initiatives, including the PIP and PWP. In 2023, the Medallion 4.0 (Acute) MCOs submitted baseline data and interventions for the *Ensuring Timeliness of Prenatal Visits* PIP, which aims to assess whether targeted interventions increase 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. Additionally, as part of the SFY 2023 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. DMAS should monitor how the PIP and PWP impact MCO efforts towards ensuring women receive timely prenatal care. Further, for 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—Timeliness of Prenatal Care* indicator to continue to incentivize MCO performance on this indicator.
- Unplanned pregnancies are associated with higher rates of preterm births and newborns with low birthweight.[4-10] LARCs are an effective contraceptive method that can help reduce unplanned and short-interval pregnancies.[4-11] In CY 2022, approximately 11 percent and 40 percent of postpartum women received an MMEC within three and 90 days of delivery, respectively, and approximately 2 percent and 13 percent of postpartum women received a LARC within three and 90 days of delivery, respectively. While the rates for contraceptives received in three days of delivery are similar to national benchmarks, the MCOs should work to inform their providers, and DMAS should continue to work with hospitals to institute protocols that allow physicians to leverage the Virginia Postpartum LARC toolkit.[4-12]
  - Given that Medicaid members can receive a 12-month supply of contraceptives, DMAS and the MCOs should assess how many members are using contraceptives prior to becoming pregnant. Given that the MCOs will be reporting the CMS *Contraceptive Care—All Women* measure for measurement 2023 as part of the Non-IDSS data collection tool, DMAS can use this information to determine a baseline for contraceptive use. The MCOs can also work to ensure that women

4-9 March of Dimes. Planning for a baby. Available at: https://www.marchofdimes.org/find-support/topics/planning-for-baby. Accessed on: Mar 4, 2024.

4-10 National Institute for Children's Health Quality. As Unplanned Pregnancy Rates Drop, Births Improve. Available at: https://www.nichq.org/insight/unplanned-pregnancy-rates-drop-births-improve. Accessed on: Mar 4, 2024.

4-11 CMS. Increasing Access, Quality, and Equity in Postpartum Care in Medicaid and CHIP: A Toolkit for State Medicaid and CHIP Agencies. August 2023. Available at: https://www.medicaid.gov/sites/default/files/2023-08/ppc-for-state-and-medicaid-toolkit.pdf. Accessed on: Mar 4, 2024.

4-12 Virginia Department of Health and Virginia Department of Medical Assistance Services. Virginia Postpartum LARC Toolkit, November 2021. Available at: https://www.vdh.virginia.gov/content/uploads/sites/28/2021/11/VA_Postpartum_LARC_Toolkit_rev-2021.pdf. Accessed on: Mar 4, 2024.

have an established gynecologist prior to pregnancy in order for women to discuss their contraceptive options with their provider.

- Approximately 17 percent and 59 percent of postpartum women utilized ED and ambulatory care services, respectively. Additionally, approximately 24 percent of women who had an ED visit after delivery had the visit between 31 and 60 days of delivery. DMAS should consider investigating the utilization of ED services in the postpartum period to understand the factors contributing to why women are seeking care in the ED instead of an outpatient setting (e.g., assess if these women have an established PCP or OB/GYN).
- Approximately 52 percent of women who had a delivery in CY 2022 did not have a postpartum visit. Of note, the rate of no postpartum visits is 4.5 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. 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.[4-13] Given that most women who had a delivery in CY 2022 either did not have a postpartum visit or it was more than three weeks after delivery, DMAS and the MCOs should investigate the reasons why women are not having a postpartum visit (e.g., transportation issues, appointment availability). To increase postpartum care visits, DMAS and the MCOs could consider providing postpartum home visits or leveraging telehealth services for members with high-risk medical conditions, and increasing members' knowledge about the availability of transportation services for postpartum care.[4-14] The state of Michigan has a postpartum home visit program, which has resulted in participating Medicaid members being 1.5 times more likely to have a postpartum visit compared to those who did not participate in the program.[4-15]
  - In July 2022, DMAS implemented a 12-month continuous postpartum coverage for members through a Section 1115 waiver demonstration. It will be important to monitor how postpartum visit rates change in CY 2023 when most women will have this coverage.
  - As part of the SFY 2023 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. To continue to incentive 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.

4-13 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#:~:text=All%20women%20should%20ideally%20have,than%2012%20weeks%20after%20birth. Accessed on: Mar 4, 2024.

4-14 CMS. Increasing Access, Quality, and Equity in Postpartum Care in Medicaid and CHIP: A Toolkit for State Medicaid and CHIP Agencies. August 2023. Available at: https://www.medicaid.gov/sites/default/files/2023-08/ppc-for-state-and-medicaid-toolkit.pdf. Accessed on: Mar 4, 2024.

4-15 Ibid.

- Less than 12 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 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. Further, DMAS could consider requiring the MCOs to report the prenatal and postpartum maternal depression screening study indicators to DMAS annually in order to improve these rates.
- Given that doulas began providing services to Virginia Medicaid members in August 2022, HSAG recommends including an assessment of whether the use of doula services impacts birth and maternal health outcomes for deliveries in CY 2023 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) 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.

DMAS' Follow-Up on Prior Focus Study Recommendations

In addition to the recommendations noted above, DMAS provided the following detailed feedback to HSAG regarding QI actions and initiatives:

- As part of the 12-month continuous postpartum coverage for members DMAS implemented through a Section 1115 waiver demonstration, DMAS is required to develop a comprehensive evaluation plan with measures focusing on access, utilization of services, health outcomes and reducing racial/ethnic and other disparities in coverage, access, and health outcomes. As part of the evaluation plan, DMAS will track screenings for depression during the postpartum period. Claims data, MCO self-reported data, and member self-reported data will be used.
- DMAS will include the *Screening for Depression and Follow-Up Plan* and *Contraceptive Care* Core Set measures as part of the Non-IDSS data collection from the MCOs in the 2023 (measurement year 2022) measures reporting template.
- DMAS acted on HSAG's recommendation of an analysis in this year's Medicaid and CHIP Maternal and Child Health Focus Study to include additional information on ED visits for postpartum women.
- Virginia acknowledges the need for further work on access to/use of LARCs in the early postpartum period. In 2016, Virginia unbundled LARC insertions from the DRG and allowed hospital reimbursement as a separate payment for LARCs placed after delivery. Unfortunately, data showed that LARC insertion at delivery did not increase, but actually decreased between 2018 and 2021. The COVID-19 PHE disrupted Virginia's plans to execute a focused communications campaign

regarding this change. Use of LARCs during the early postpartum period will remain a priority in Virginia's training and outreach plans for members and providers.

- DMAS will continue to measure utilization of LARCs and other contraceptive methods during the 12-month postpartum period through analysis of claims and encounter data and through member surveys conducted as part of the postpartum Section 1115 demonstration evaluation.
- DMAS managed care contracts require MCOs to report monthly the number of maternal mental health screenings attempted and completed. DMAS is reviewing technical specifications and contract language and will recommend adjustments as necessary to gather more actionable information and ensure that all members receive evidence-based screenings and assessments during the prenatal and postpartum periods.
- DMAS is working with VDH to update the interagency data sharing agreement to leverage additional vital statistics data—in particular, mortality data—that will be used in the Section 1115 demonstration evaluation of the 12 months postpartum coverage extension. DMAS is expanding our agency's analysis of claims and encounters data to better understand factors contributing to poor birth outcomes in Virginia.

Partnership for Petersburg

In collaboration with the MCOs, providers, and other stakeholders serving the Petersburg area:

- In July 2023, DMAS mailed out more than 200 prenatal and postpartum care flyers to pregnant members residing in Petersburg. The flyer raised awareness of prenatal and postpartum care, MCO extended benefits services, and contact information of local OB/GYNs and Federally Qualified Health Centers (FQHCs) in Petersburg. As a follow up, DMAS and its contracted MCOs conducted direct outreach to those members who, based on claims data, did not appear to have completed a prenatal or postpartum care visit.
- DMAS and its MCOs track prenatal and postpartum care for its Petersburg members on a bimonthly basis. In September 2023, 68 percent of the identified women in the prenatal group had received at least one visit, and 75 percent of the identified women in the postpartum group had received at least one visit postpartum. Please note, these numbers are based on DMAS claims data, MCO claims data, and direct-to-member outreach (survey) data. DMAS and its MCOs continue with this targeted tracking and outreach.
- Virginia's contracted MCOs, as well as Conexus and DentaQuest partners, participated in over 150 Petersburg area events, and Virginia's MCOs have invested more than $4 million to support the Petersburg community. Events included area mobile health clinics and resource fairs. These efforts have focused on pregnant and postpartum members in an effort to facilitate OB visits and access doula services. Virginia's MCOs have also committed to hosting quarterly community events targeting pregnant and postpartum members. At these events, the MCOs provide education on topics such as safe sleep and car seat safety and give away resources such as diapers, cribettes, wipes, and other supplies.
- DMAS held a series of meetings that included Petersburg-area maternity providers, local FQHCs, the regional medical center, MCOs, and other stakeholders to learn about community needs, barriers, and opportunities to better serve Petersburg women and children.

- DMAS, in partnership with the MCOs, launched two doula and licensed/medical provider engagement videos in December 2022, which are being used for statewide licensed medical provider education and community doula recruitment efforts.
- DMAS and the MCOs worked directly with members, helping them access community doula services in Petersburg. There are 35 state-certified, Medicaid-approved doulas covering the Petersburg/Hopewell area, five of which directly reside in Petersburg or Hopewell. Virginia Medicaid covered 34 doula-assisted births in Petersburg between January 1, 2023, and July 31, 2023.
- The Urban Baby Beginnings Petersburg Maternal Health Hub opened on April 11, 2023. The Petersburg Maternal Health Hub, along with several other hubs operating in the state, represents a community-based model of care which can help address factors that contribute to maternal and infant morbidity and mortality. The maternal health hub, located at 1965 Wakefield Street in Petersburg, was created through a three-year, $825,000 grant from the Anthem Blue Cross and Blue Shield Foundation.
- In November 2023, DMAS, in partnership with the Virginia Hospital and Healthcare Association and Bon Secours Health System, hosted Saturday maternal health clinic hours at the Bon Secours Southside OB/GYN clinic in Petersburg. Dr. Daphne Bazile saw eight members during the clinic. DMAS will host the next Saturday clinic in January 2024.

Maternal Health

- The current 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, more robust data deliverable requirements based on guidelines established by the American Academy of Pediatrics and American College of Obstetricians and Gynecologists.
- Improving health outcomes for all pregnant and postpartum women remains a top priority for DMAS, with a focus on reducing racial disparities and maternal mortality. Working across the agency, and with input from sister agencies, providers, members, and contracted MCOs, DMAS is implementing best practices in the following areas to improve wellbeing for all Medicaid members:
  - Eligibility and Enrollment: Streamline enrollment for pregnant women/newborns
  - Outreach and Information: Engage internal and external stakeholders and share information with members
  - Connections: Engage providers, community stakeholders, hospitals, and agencies
  - New and Improved Services and Policies: Collaborate on Virginia initiatives to enhance services
  - Oversight: Use data and reports to evaluate and improve programs
- DMAS completed the NASHP MCH PIP in April 2023. This two-year convening sought to identify, develop, and implement policy changes or develop specific plans for policy changes and/or strategies with the goal of improving access to quality care.
- The MCH PIP Member Postpartum Coverage toolkit was distributed in 2023 and included details on the new extended postpartum coverage benefits, postpartum visits, wellness checks, postpartum mental health, post-delivery care, and breastfeeding.
- DMAS and its MCOs are participating in a CMCS Quality Improvement Initiative called Improving Maternal Health by Reducing LRCD. CMCS' contractor utilizes industry QI advisors, data advisors,

and SMEs to provide Virginia with support, technical assistance, and education. Thus far, the group has focused on doula services and is now working to define interventions and outcome measures for further study.

Doula Services

- DMAS conducts quarterly Virginia Task Force meetings that assist with the promulgation of regulations and implementation of the doula certification process and serves as an informational resource for policy-related matters for VDH. Priorities for the group include establishing a workforce and professional development committee to ensure continued training and professional development for doulas.
- As of August 2023, 124 doulas obtained state certification, 84 doulas completed Medicaid enrollment, and 76 doulas contracted with an MCO.
- DMAS conducts quarterly meetings to engage practicing doulas, MCOs, and other key stakeholders around topics of interest and the Virginia Medicaid doula services.
- DMAS hosts monthly Getting Started as a Community Doula information sessions to engage individuals interested in becoming doulas and practicing doulas seeking to learn more about becoming a Medicaid Community Doula provider.
- In partnership with the MCOs, DMAS completed a Medicaid member engagement video, which is intended to educate Medicaid members statewide on the Virginia Medicaid Doula services and the benefits of having doula support throughout pregnancy and during the postpartum period.
- DMAS, in partnership with the MCOs, launched two doula and licensed/medical provider engagement videos, which are being used for statewide licensed medical provider education and community doula recruitment efforts.
- Monthly meetings bring together partner agencies and key community stakeholders to share information regarding federal, State, and local grants; key legislation; and initiatives related to maternal health. Participants include staff from DMAS, VDH, Virginia Hospital and Healthcare Association, Virginia Neonatal Perinatal Collaborative, and the Virginia Department of Behavioral Health and Developmental Services.
- In November 2022, VDH launched a Title V Environmental Scan (Doula Survey). The survey was sent to the local VDH health districts across Virginia and included doula-specific questions to gauge knowledge from the local health departments around doulas and doula care. The information collected provides insight to regional knowledge of doulas/doula care and will be very helpful for future DMAS engagement and roll-out strategies. It was also a chance to learn more about the healthcare providers and families within the local health districts.

Child Health

- DMAS continues to assist with the enrollment of EI providers in the PRSS in accordance with the mandatory Federal 21st Century Cures Act requirement. Virginia must comply and enroll all providers, including MCO in-network providers.
- DMAS conducts quarterly EI meetings to engage MCOs, key stakeholders, Virginia's LLAs, and EI providers to share information regarding issues affection the EI community. DMAS facilitated six

MCO-provided trainings regarding EI processes to further educate the EI provider community. The trainings addressed IFSP communication procedures, EI provider enrollment processes, and claims and T Codes billing.

- DMAS is currently implementing measures to increase awareness and enhance services of the EPSDT benefit amongst providers, MCOs, and Virginia Medicaid members. DMAS will explain the EPSDT benefit in a three-module training and target the basics of the EPSDT benefit, specialized services, and authorization of services. DMAS will implement training in early 2024.
- Working with the MCOs, DMAS participated in an Infant Well Child Affinity Group to increase well-child visits. The Affinity Group initiated interventions with different providers in the target regions of Roanoke/Alleghany, Northern & Winchester, Tidewater, Petersburg, and Southwest. DMAS as well as seven other states receive technical assistance from Mathematica to analyze interventions that have an impact on infant well-child visit rates and quality of care and access to members. The initiative started in March 2021 and will conclude in December 2023.

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 2020 through CY 2022.

Table A-1—Birth Outcomes Study Indicator Findings Among FAMIS MOMS Singleton Births by Maternal Age at Delivery, CY 2020–CY 2022

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
≤15 Years							
Births With Early and Adequate Prenatal Care	76.4%	0	0.0%	0	0.0%	*S*	*S*
*Births With Inadequate Prenatal Care**	*NA*	0	0.0%	0	0.0%	*S*	*S*
*Births With No Prenatal Care**	*NA*	*S*	*S*	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	0	0.0%	0	0.0%	0	0.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	0	0.0%	*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 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With No Prenatal Care**	*NA*	*S*	*S*	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	0	0.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	0	0.0%
18–20 Years							
Births With Early and Adequate Prenatal Care	76.4%	71	75.5%	60	82.2%	54	71.1%
*Births With Inadequate Prenatal Care**	*NA*	12	12.8%	*S*	*S*	14	18.4%
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	*S*	*S*
21–24 Years							
Births With Early and Adequate Prenatal Care	76.4%	292	78.3%	281	77.8%	300	82.2%
*Births With Inadequate Prenatal Care**	*NA*	48	12.9%	49	13.6%	39	10.7%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	29	7.6%	24	6.6%	29	7.9%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	33	8.6%	22	6.1%	26	7.1%
25–29 Years							
Births With Early and Adequate Prenatal Care	76.4%	563	76.7%	480	78.0%	458	76.8%
*Births With Inadequate Prenatal Care**	*NA*	92	12.5%	77	12.5%	81	13.6%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	55	7.4%	59	9.5%	41	6.8%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	57	7.6%	52	8.4%	40	6.6%
30–34 Years							
Births With Early and Adequate Prenatal Care	76.4%	381	75.4%	352	78.2%	353	76.2%
*Births With Inadequate Prenatal Care**	*NA*	64	12.7%	51	11.3%	59	12.7%
*Births With No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	32	6.1%	45	9.9%	40	8.5%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	29	5.6%	40	8.8%	35	7.4%

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
35–39 Years							
Births With Early and Adequate Prenatal Care	76.4%	200	77.8%	166	77.6%	173	75.9%
*Births With Inadequate Prenatal Care**	*NA*	34	13.2%	24	11.2%	25	11.0%
*Births With No Prenatal Care**	*NA*	*S*	*S*	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	30	11.2%	18	8.3%	27	11.7%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	18	6.7%	13	6.0%	22	9.6%
40–44 Years							
Births With Early and Adequate Prenatal Care	76.4%	47	85.5%	34	75.6%	37	75.5%
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
*Births With No Prenatal Care**	*NA*	0	0.0%	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	*S*	*S*
≥45 Years							
Births With Early and Adequate Prenatal Care	76.4%	*S*	*S*	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2020		CY 2021		CY 2022	
		Number	Percent	Number	Percent	Number	Percent
*Births With Inadequate Prenatal Care**	*NA*	*S*	*S*	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*	*S*	*S*	0	0.0%
Newborns With Low Birth Weight (<2,500 grams)*	10.1%	*S*	*S*	*S*	*S*	0	0.0%

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

Additional Birth Outcomes Study Indicator Results

Table A-2 presents the CY 2022 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 2022

MCO	Managed Care Program	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 (<2,500 grams)*	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Aetna	CCC Plus (MLTSS)	94	64.8%	27	18.6%	*S*	*S*	26	17.9%	27	18.6%
	Medallion 4.0 (Acute)	3,220	75.3%	628	14.7%	*S*	*S*	371	8.6%	349	8.1%
	Total	3,314	74.9%	655	14.8%	79	1.8%	397	8.9%	376	8.4%
HealthKeepers	CCC Plus (MLTSS)	192	71.1%	37	13.7%	11	4.1%	50	18.4%	47	17.3%
	Medallion 4.0 (Acute)	7,163	73.7%	1,346	13.9%	278	2.9%	903	9.2%	869	8.9%
	Total	7,355	73.7%	1,383	13.9%	289	2.9%	953	9.4%	916	9.1%
Molina	CCC Plus (MLTSS)	76	76.0%	14	14.0%	*S*	*S*	*S*	*S*	*S*	*S*
	Medallion 4.0 (Acute)	1,672	70.5%	370	15.6%	*S*	*S*	S	S	S	S
	Total	1,748	70.8%	384	15.5%	81	3.3%	256	10.3%	233	9.4%

MCO	Managed Care Program	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 (<2,500 grams)*	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Optima	CCC Plus (MLTSS)	143	66.8%	40	18.7%	11	5.1%	35	16.0%	37	16.9%
	Medallion 4.0 (Acute)	4,575	74.4%	871	14.2%	156	2.5%	610	9.8%	619	9.9%
	Total	4,718	74.1%	911	14.3%	167	2.6%	645	10.0%	656	10.1%
UnitedHealthcare	CCC Plus (MLTSS)	71	65.7%	21	19.4%	*S*	*S*	S	S	S	S
	Medallion 4.0 (Acute)	2,464	70.6%	565	16.2%	*S*	*S*	S	S	S	S
	Total	2,535	70.4%	586	16.3%	130	3.6%	310	8.5%	307	8.4%
VA Premier	CCC Plus (MLTSS)	104	69.3%	25	16.7%	*S*	*S*	23	15.1%	25	16.4%
	Medallion 4.0 (Acute)	3,774	73.1%	795	15.4%	*S*	*S*	503	9.5%	452	8.6%
	Total	3,878	73.0%	820	15.4%	110	2.1%	526	9.7%	477	8.8%
Total	**CCC Plus (MLTSS)**	**680**	**68.9%**	**164**	**16.6%**	**46**	**4.7%**	**159**	**15.9%**	**157**	**15.7%**
	Medallion 4.0 (Acute)	**22,868**	**73.4%**	**4,575**	**14.7%**	**810**	**2.6%**	**2,928**	**9.3%**	**2,808**	**8.9%**
	Total	**23,548**	**73.2%**	**4,739**	**14.7%**	**856**	**2.7%**	**3,087**	**9.5%**	**2,965**	**9.1%**

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

Table A-3 presents the CY 2022 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 2022

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
White, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	79.6%	78.0%	74.1%	76.2%	75.0%	75.2%
*Births With Inadequate Prenatal Care**	*NA*	12.2%	12.4%	12.9%	13.2%	13.0%	14.1%
*Births With No Prenatal Care**	*NA*	0.9%	1.5%	2.0%	2.3%	3.0%	2.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	7.8%	7.9%	9.0%	8.3%	6.8%	10.3%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	6.9%	6.6%	6.7%	7.7%	6.9%	8.3%
Black, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	75.9%	73.3%	72.4%	75.0%	73.8%	71.2%
*Births With Inadequate Prenatal Care**	*NA*	13.6%	13.2%	14.2%	13.4%	13.6%	15.1%
*Births With No Prenatal Care**	*NA*	1.7%	3.1%	3.3%	2.3%	2.5%	2.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	11.2%	11.9%	13.7%	12.7%	10.9%	11.7%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	12.0%	13.1%	16.4%	13.6%	13.0%	13.2%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
Asian, Non-Hispanic							
Births With Early and Adequate Prenatal Care	76.4%	78.1%	72.7%	67.6%	75.0%	68.8%	79.6%
*Births With Inadequate Prenatal Care**	*NA*	14.9%	13.6%	20.6%	11.3%	19.5%	12.5%
*Births With No Prenatal Care**	*NA*	0.9%	3.3%	2.9%	1.6%	1.3%	0.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	6.0%	5.9%	13.0%	8.9%	6.5%	4.0%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	6.9%	8.3%	10.1%	7.3%	7.1%	5.7%
Hispanic, Any Race							
Births With Early and Adequate Prenatal Care	76.4%	65.2%	69.3%	63.6%	67.4%	63.6%	68.4%
*Births With Inadequate Prenatal Care**	*NA*	21.4%	16.5%	21.5%	19.6%	21.0%	20.5%
*Births With No Prenatal Care**	*NA*	3.6%	4.2%	4.9%	4.5%	5.4%	2.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	8.1%	8.5%	8.6%	7.1%	9.0%	7.4%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	6.6%	7.0%	5.7%	7.2%	6.7%	5.2%
Other/Unknown							
Births With Early and Adequate Prenatal Care	76.4%	68.6%	70.2%	74.3%	75.0%	67.8%	74.7%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
*Births With Inadequate Prenatal Care**	*NA*	16.6%	15.0%	8.9%	12.3%	18.8%	13.3%
*Births With No Prenatal Care**	*NA*	2.3%	3.9%	5.0%	1.4%	2.7%	0.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	5.6%	11.0%	5.9%	7.6%	6.7%	5.4%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	4.5%	10.0%	5.0%	7.2%	9.3%	3.0%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

Table A-4 presents the CY 2022 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 2022

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
Central							
Births With Early and Adequate Prenatal Care	76.4%	79.2%	79.3%	75.8%	77.8%	73.7%	73.2%
*Births With Inadequate Prenatal Care**	*NA*	10.6%	9.4%	9.4%	10.6%	12.9%	14.3%
*Births With No Prenatal Care**	*NA*	2.4%	2.5%	4.7%	3.7%	4.6%	3.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	10.0%	10.2%	10.9%	9.8%	9.4%	11.2%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	9.4%	10.1%	10.8%	10.1%	10.9%	8.4%
Charlottesville/Western							
Births With Early and Adequate Prenatal Care	76.4%	78.9%	74.9%	73.5%	74.7%	73.3%	76.5%
*Births With Inadequate Prenatal Care**	*NA*	14.8%	15.5%	18.4%	16.3%	18.9%	14.8%
*Births With No Prenatal Care**	*NA*	0.5%	1.3%	0.7%	1.0%	2.3%	2.2%
Preterm Births (<37 Weeks Gestation)*	9.4%	8.3%	6.9%	10.6%	9.3%	7.7%	8.8%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	9.5%	6.9%	7.7%	11.5%	6.6%	9.1%
Northern & Winchester							
Births With Early and Adequate Prenatal Care	76.4%	65.3%	68.3%	62.8%	65.0%	66.8%	68.8%
*Births With Inadequate Prenatal Care**	*NA*	22.5%	17.5%	22.1%	21.5%	19.0%	18.9%
*Births With No Prenatal Care**	*NA*	2.6%	4.0%	5.3%	4.0%	4.0%	2.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	8.2%	8.1%	11.3%	5.5%	7.9%	7.1%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	6.5%	7.3%	8.3%	5.5%	7.1%	5.3%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
Roanoke/Alleghany							
Births With Early and Adequate Prenatal Care	76.4%	76.3%	76.4%	71.0%	71.7%	76.3%	70.9%
*Births With Inadequate Prenatal Care**	*NA*	12.0%	13.1%	13.5%	14.6%	11.8%	14.3%
*Births With No Prenatal Care**	*NA*	0.6%	0.9%	1.1%	1.2%	1.1%	1.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	7.2%	9.9%	7.4%	10.6%	6.8%	10.3%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	6.3%	9.2%	8.0%	9.4%	8.5%	11.6%
Southwest							
Births With Early and Adequate Prenatal Care	76.4%	82.3%	82.2%	75.0%	75.4%	75.9%	79.8%
*Births With Inadequate Prenatal Care**	*NA*	14.9%	9.6%	15.0%	12.7%	13.8%	14.6%
*Births With No Prenatal Care**	*NA*	0.0%	0.0%	3.8%	2.4%	0.9%	1.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	7.9%	8.2%	3.8%	5.6%	8.6%	8.0%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	7.3%	3.2%	7.5%	5.6%	5.2%	6.6%
Tidewater							
Births With Early and Adequate Prenatal Care	76.4%	73.4%	73.4%	70.7%	74.9%	68.7%	73.8%

Study Indicator	National Benchmark	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
*Births With Inadequate Prenatal Care**	*NA*	15.8%	13.6%	16.2%	13.4%	13.7%	14.6%
*Births With No Prenatal Care**	*NA*	1.6%	2.8%	1.8%	2.5%	4.7%	1.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	9.0%	11.2%	11.2%	11.8%	12.3%	12.2%
Newborns With Low Birth Weight (<2,500 grams)*	9.7%	9.8%	11.5%	11.0%	11.4%	12.3%	11.8%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

Table A-5 through Table A-10 present the CY 2022 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 2022

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	415	83.3%	42	8.4%	*S*	*S*	40	8.0%	31	6.2%
HealthKeepers	828	83.4%	80	8.1%	12	1.2%	91	9.0%	76	7.6%
Molina	178	83.2%	*S*	*S*	*S*	*S*	20	9.2%	13	6.0%
Optima	361	78.6%	47	10.2%	13	2.8%	46	9.8%	41	8.8%
UnitedHealthcare	180	73.5%	32	13.1%	*S*	*S*	15	6.0%	22	8.7%
VA Premier	287	80.4%	40	11.2%	12	3.4%	46	12.7%	24	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Black, Non-Hispanic										
Aetna	566	79.4%	74	10.4%	17	2.4%	84	11.6%	90	12.4%
HealthKeepers	936	77.3%	117	9.7%	39	3.2%	147	12.0%	164	13.4%
Molina	205	73.5%	29	10.4%	15	5.4%	43	15.2%	50	17.7%
Optima	545	79.9%	63	9.2%	23	3.4%	80	11.4%	88	12.5%
UnitedHealthcare	259	80.2%	31	9.6%	11	3.4%	33	10.2%	41	12.7%
VA Premier	369	70.4%	76	14.5%	16	3.1%	63	12.0%	59	11.3%
Asian, Non-Hispanic										
Aetna	20	87.0%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	45	86.5%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Optima	14	87.5%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%
VA Premier	17	85.0%	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*
Hispanic, Any Race										
Aetna	186	68.9%	43	15.9%	12	4.4%	24	8.9%	20	7.4%
HealthKeepers	318	73.8%	55	12.8%	17	3.9%	36	8.2%	28	6.4%
Molina	97	66.4%	22	15.1%	*S*	*S*	*S*	*S*	*S*	*S*
Optima	178	70.4%	39	15.4%	17	6.7%	*S*	*S*	21	8.2%
UnitedHealthcare	107	64.5%	29	17.5%	13	7.8%	23	13.7%	*S*	*S*
VA Premier	186	67.4%	50	18.1%	*S*	*S*	28	10.0%	19	6.8%

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Other/Unknown										
Aetna	43	86.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	96	81.4%	11	9.3%	*S*	*S*	12	10.2%	15	12.7%
Molina	25	89.3%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	45	76.3%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	18	62.1%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	41	77.4%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*

** 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.

Table A-6—Charlottesville/Western Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	209	80.7%	34	13.1%	*S*	*S*	21	8.0%	23	8.7%
HealthKeepers	319	79.0%	58	14.4%	*S*	*S*	22	5.4%	24	5.9%
Molina	123	75.9%	25	15.4%	*S*	*S*	17	10.4%	11	6.7%
Optima	406	75.2%	85	15.7%	*S*	*S*	46	8.5%	52	9.6%
UnitedHealthcare	145	74.7%	32	16.5%	*S*	*S*	14	7.1%	12	6.1%
VA Premier	446	75.1%	96	16.2%	14	2.4%	54	9.0%	48	8.0%

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Black, Non-Hispanic										
Aetna	91	76.5%	22	18.5%	0	0.0%	12	10.1%	13	10.9%
HealthKeepers	116	71.2%	30	18.4%	*S*	*S*	22	13.3%	21	12.7%
Molina	55	76.4%	14	19.4%	*S*	*S*	*S*	*S*	*S*	*S*
Optima	263	73.5%	58	16.2%	*S*	*S*	44	12.2%	59	16.4%
UnitedHealthcare	54	73.0%	14	18.9%	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	207	78.1%	33	12.5%	*S*	*S*	27	10.0%	40	14.9%
Asian, Non-Hispanic										
Aetna	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*
HealthKeepers	14	82.4%	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Molina	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	0	0.0%
Optima	12	92.3%	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
VA Premier	11	84.6%	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Hispanic, Any Race										
Aetna	32	76.2%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	62	69.7%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Molina	22	56.4%	13	33.3%	0	0.0%	*S*	*S*	0	0.0%
Optima	91	71.7%	27	21.3%	*S*	*S*	*S*	*S*	11	8.7%
UnitedHealthcare	39	66.1%	17	28.8%	0	0.0%	*S*	*S*	*S*	*S*
VA Premier	75	75.0%	16	16.0%	*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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Other/Unknown										
Aetna	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
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%
Optima	32	82.1%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
VA Premier	35	87.5%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*

** 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.

Table A-7—Northern & Winchester Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	184	73.3%	45	17.9%	*S*	*S*	24	9.4%	22	8.7%
HealthKeepers	540	69.7%	134	17.3%	18	2.3%	43	5.5%	40	5.1%
Molina	87	68.5%	21	16.5%	*S*	*S*	*S*	*S*	*S*	*S*
Optima	121	72.9%	23	13.9%	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	263	73.9%	49	13.8%	*S*	*S*	26	7.2%	26	7.2%
VA Premier	197	72.7%	40	14.8%	*S*	*S*	27	9.6%	17	6.1%

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Black, Non-Hispanic										
Aetna	111	68.9%	30	18.6%	0	0.0%	16	9.8%	*S*	*S*
HealthKeepers	406	68.5%	107	18.0%	22	3.7%	65	10.8%	59	9.8%
Molina	51	67.1%	16	21.1%	*S*	*S*	*S*	*S*	15	19.7%
Optima	60	69.0%	17	19.5%	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	173	71.2%	39	16.0%	*S*	*S*	24	9.8%	24	9.8%
VA Premier	145	64.2%	47	20.8%	*S*	*S*	16	6.8%	14	6.0%
Asian, Non-Hispanic										
Aetna	41	71.9%	12	21.1%	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	232	69.5%	52	15.6%	15	4.5%	21	6.3%	26	7.8%
Molina	21	60.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	23	60.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	79	67.5%	27	23.1%	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	129	80.1%	19	11.8%	*S*	*S*	*S*	*S*	*S*	*S*
Hispanic, Any Race										
Aetna	262	60.0%	114	26.1%	18	4.1%	34	7.7%	24	5.4%
HealthKeepers	1,117	67.7%	293	17.8%	77	4.7%	138	8.3%	119	7.2%
Molina	190	59.7%	81	25.5%	*S*	*S*	32	10.0%	19	6.0%
Optima	257	61.5%	104	24.9%	23	5.5%	22	5.2%	26	6.2%
UnitedHealthcare	531	62.6%	183	21.6%	48	5.7%	68	8.0%	55	6.4%
VA Premier	229	64.0%	91	25.4%	*S*	*S*	26	6.7%	18	4.6%

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Other/Unknown										
Aetna	29	53.7%	15	27.8%	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	132	66.3%	36	18.1%	*S*	*S*	23	11.4%	16	7.9%
Molina	20	62.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	30	65.2%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	51	66.2%	14	18.2%	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	75	67.6%	16	14.4%	*S*	*S*	*S*	*S*	*S*	*S*

** 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.

Table A-8—Roanoke/Alleghany Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	285	77.2%	41	11.1%	*S*	*S*	27	7.3%	23	6.2%
HealthKeepers	251	78.9%	37	11.6%	*S*	*S*	28	8.8%	29	9.1%
Molina	150	70.8%	29	13.7%	*S*	*S*	*S*	*S*	*S*	*S*
Optima	197	72.2%	36	13.2%	*S*	*S*	22	8.0%	22	8.0%
UnitedHealthcare	179	80.3%	18	8.1%	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	411	70.6%	81	13.9%	*S*	*S*	64	10.9%	67	11.4%

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Black, Non-Hispanic										
Aetna	60	76.9%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	51	70.8%	*S*	*S*	*S*	*S*	13	17.8%	*S*	*S*
Molina	45	63.4%	15	21.1%	*S*	*S*	*S*	*S*	12	16.9%
Optima	47	68.1%	15	21.7%	0	0.0%	15	21.7%	11	15.9%
UnitedHealthcare	58	67.4%	14	16.3%	0	0.0%	12	13.8%	19	21.8%
VA Premier	87	69.0%	18	14.3%	0	0.0%	16	12.5%	22	17.2%
Asian, 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%	0	0.0%	*S*	*S*
Molina	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	*S*	*S*
Optima	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
UnitedHealthcare	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	*S*	*S*
VA Premier	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Hispanic, Any Race										
Aetna	36	69.2%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	34	70.8%	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%
Molina	35	83.3%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Optima	29	78.4%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	30	69.8%	11	25.6%	0	0.0%	*S*	*S*	*S*	*S*
VA Premier	58	76.3%	*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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Other/Unknown										
Aetna	11	64.7%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	11	57.9%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%
Optima	11	61.1%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
VA Premier	21	75.0%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*

** 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.

Table A-9—Southwest Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	132	83.0%	24	15.1%	0	0.0%	13	8.1%	13	8.1%
HealthKeepers	117	83.0%	12	8.5%	0	0.0%	12	8.5%	*S*	*S*
Molina	54	75.0%	11	15.3%	*S*	*S*	*S*	*S*	*S*	*S*
Optima	84	77.8%	12	11.1%	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	79	77.5%	15	14.7%	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	219	80.8%	37	13.7%	*S*	*S*	22	8.1%	19	7.0%

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Black, 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*	0	0.0%
Molina	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Optima	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
VA Premier	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
Asian, Non-Hispanic										
Aetna	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Aetna	—	—	—	—	—	—	—	—	—	—
HealthKeepers	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Molina	—	—	—	—	—	—	—	—	—	—
UnitedHealthcare	—	—	—	—	—	—	—	—	—	—
Hispanic, Any Race										
Aetna	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
HealthKeepers	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*
Molina	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Optima	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%
VA Premier	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Other/Unknown										
Aetna	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
HealthKeepers	—	—	—	—	—	—	—	—	—	—
Optima	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
UnitedHealthcare	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
VA Premier	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%

** a lower rate indicates better performance 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).

Table A-10—Tidewater Region Birth Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White, Non-Hispanic										
Aetna	168	78.1%	29	13.5%	*S*	*S*	13	5.9%	*S*	*S*
HealthKeepers	501	77.0%	87	13.4%	14	2.2%	66	10.0%	44	6.7%
Molina	100	68.0%	26	17.7%	*S*	*S*	17	11.4%	11	7.4%
Optima	463	77.9%	80	13.5%	17	2.9%	56	9.3%	41	6.8%
UnitedHealthcare	61	67.0%	11	12.1%	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	151	75.9%	26	13.1%	*S*	*S*	24	11.8%	16	7.9%

	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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Black, Non-Hispanic										
Aetna	274	72.3%	64	16.9%	*S*	*S*	46	11.9%	56	14.5%
HealthKeepers	891	72.0%	169	13.7%	37	3.0%	147	11.6%	183	14.5%
Molina	177	74.1%	31	13.0%	*S*	*S*	26	10.8%	34	14.1%
Optima	1,133	73.9%	213	13.9%	35	2.3%	208	13.2%	218	13.9%
UnitedHealthcare	116	68.2%	25	14.7%	*S*	*S*	23	13.2%	27	15.5%
VA Premier	323	72.6%	65	14.6%	10	2.2%	68	15.0%	77	17.0%
Asian, Non-Hispanic										
Aetna	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
HealthKeepers	29	70.7%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Optima	39	76.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
VA Premier	11	78.6%	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*
Hispanic, Any Race										
Aetna	71	69.6%	19	18.6%	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	178	72.1%	39	15.8%	*S*	*S*	31	12.4%	23	9.2%
Molina	48	65.8%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	163	71.5%	31	13.6%	*S*	*S*	23	10.0%	17	7.4%
UnitedHealthcare	37	72.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	90	73.2%	23	18.7%	*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 (<2,500 grams)*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Other/Unknown										
Aetna	28	65.1%	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*
HealthKeepers	81	72.3%	11	9.8%	*S*	*S*	14	12.4%	11	9.7%
Molina	14	73.7%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	88	78.6%	*S*	*S*	*S*	*S*	13	11.6%	12	10.7%
UnitedHealthcare	16	69.6%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	38	76.0%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*

** 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).

Birth Outcomes Cross-Measure Analysis

Table A-11 presents the CY 2022 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 2022

MCO	Study Indicator	Missing Information	No PNC	Inadequate PNC	Intermediate PNC	Adequate PNC	Adequate Plus PNC
Aetna	Preterm Births (<37 Weeks Gestation)*	23.4%	16.5%	7.9%	7.5%	2.9%	18.6%
	Newborns With Low Birth Weight (<2,500 grams)*	21.3%	8.9%	8.7%	8.0%	4.0%	15.0%
HealthKeepers	Preterm Births (<37 Weeks Gestation)*	14.0%	20.1%	8.2%	4.4%	3.3%	19.9%
	Newborns With Low Birth Weight (<2,500 grams)*	15.0%	15.3%	8.8%	6.0%	4.9%	15.8%
Molina	Preterm Births (<37 Weeks Gestation)*	38.9%	22.2%	7.8%	7.0%	4.0%	20.6%
	Newborns With Low Birth Weight (<2,500 grams)*	33.3%	14.8%	8.3%	7.4%	6.0%	14.7%
Optima	Preterm Births (<37 Weeks Gestation)*	15.8%	26.3%	8.5%	6.9%	3.6%	18.1%
	Newborns With Low Birth Weight (<2,500 grams)*	10.9%	23.4%	10.0%	7.9%	5.5%	15.7%
UnitedHealthcare	Preterm Births (<37 Weeks Gestation)*	20.0%	18.5%	7.2%	3.7%	2.5%	18.8%
	Newborns With Low Birth Weight (<2,500 grams)*	14.3%	16.9%	6.8%	3.7%	4.3%	16.2%

MCO	Study Indicator	Missing Information	No PNC	Inadequate PNC	Intermediate PNC	Adequate PNC	Adequate Plus PNC
VA Premier	Preterm Births (<37 Weeks Gestation)*	12.4%	29.1%	9.4%	5.9%	3.4%	18.4%
	Newborns With Low Birth Weight (<2,500 grams)*	10.0%	20.2%	10.1%	5.7%	3.8%	15.3%

PNC=prenatal care
** a lower rate indicates better performance for this indicator.*

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 2022

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	1,027	25.2%	1,994	49.0%	347	8.5%	603	14.8%	66	1.6%	36	0.9%
		Yes	234	58.9%	59	14.9%	28	7.1%	52	13.1%	13	3.3%	11	2.8%
	*Newborns With Low Birth Weight (<2,500 grams)**	No	1,072	26.2%	1,970	48.1%	345	8.4%	598	14.6%	72	1.8%	37	0.9%
		Yes	189	50.3%	83	22.1%	30	8.0%	57	15.2%	*S*	*S*	*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
HealthKeepers	*Preterm Births (<37 Weeks Gestation)**	No	2,326	25.5%	4,304	47.1%	915	10.0%	1,270	13.9%	231	2.5%	92	1.0%
		Yes	578	60.7%	147	15.4%	42	4.4%	113	11.9%	58	6.1%	15	1.6%
	*Newborns With Low Birth Weight (<2,500 grams)**	No	2,445	26.6%	4,233	46.1%	900	9.8%	1,261	13.7%	245	2.7%	91	1.0%
		Yes	459	50.1%	218	23.8%	57	6.2%	122	13.3%	44	4.8%	16	1.7%
Molina	*Preterm Births (<37 Weeks Gestation)**	No	538	24.1%	1,027	46.0%	239	10.7%	354	15.9%	63	2.8%	11	0.5%
		Yes	140	54.7%	43	16.8%	18	7.0%	30	11.7%	18	7.0%	*S*	*S*
	*Newborns With Low Birth Weight (<2,500 grams)**	No	578	25.6%	1,006	44.6%	238	10.6%	352	15.6%	69	3.1%	12	0.5%
		Yes	100	42.9%	64	27.5%	19	8.2%	32	13.7%	12	5.2%	*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
Optima	*Preterm Births (<37 Weeks Gestation)**	No	1,702	29.2%	2,547	43.8%	529	9.1%	834	14.3%	123	2.1%	85	1.5%
		Yes	375	58.1%	94	14.6%	39	6.0%	77	11.9%	44	6.8%	16	2.5%
	*Newborns With Low Birth Weight (<2,500 grams)**	No	1,751	30.1%	2,497	43.0%	523	9.0%	820	14.1%	128	2.2%	90	1.5%
		Yes	326	49.7%	144	22.0%	45	6.9%	91	13.9%	39	5.9%	11	1.7%
United Healthcare	*Preterm Births (<37 Weeks Gestation)**	No	800	24.1%	1,511	45.4%	336	10.1%	544	16.4%	106	3.2%	29	0.9%
		Yes	185	59.7%	39	12.6%	13	4.2%	42	13.5%	24	7.7%	*S*	*S*
	*Newborns With Low Birth Weight (<2,500 grams)**	No	825	24.8%	1,483	44.5%	336	10.1%	546	16.4%	108	3.2%	31	0.9%
		Yes	160	52.1%	67	21.8%	13	4.2%	40	13.0%	22	7.2%	*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
VA Premier	*Preterm Births (<37 Weeks Gestation)**	No	1,303	26.5%	2,203	44.9%	477	9.7%	743	15.1%	78	1.6%	106	2.2%
		Yes	294	55.9%	78	14.8%	30	5.7%	77	14.6%	32	6.1%	15	2.9%
	*Newborns With Low Birth Weight (<2,500 grams)**	No	1,352	27.3%	2,195	44.3%	478	9.6%	737	14.9%	88	1.8%	109	2.2%
		Yes	245	51.4%	86	18.0%	29	6.1%	83	17.4%	22	4.6%	12	2.5%
FFS	*Preterm Births (<37 Weeks Gestation)**	No	559	19.0%	1,202	40.8%	307	10.4%	664	22.6%	165	5.6%	47	1.6%
		Yes	171	47.6%	46	12.8%	29	8.1%	51	14.2%	51	14.2%	11	3.1%
	*Newborns With Low Birth Weight (<2,500 grams)**	No	594	19.9%	1,193	39.9%	311	10.4%	662	22.1%	178	6.0%	52	1.7%
		Yes	136	43.5%	55	17.6%	25	8.0%	53	16.9%	38	12.1%	*S*	*S*

** 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).

Additional Maternal Health Outcomes Study Indicator Results

Table A-13 presents the CY 2022 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 2022

MCO	Managed Care Program	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
		Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Aetna	CCC Plus (MLTSS)	43	29.7%	108	74.5%	17	11.7%	14	9.7%	25	17.2%	65	44.8%	*S*	*S*	23	15.9%
	Medallion 4.0 (Acute)	685	15.8%	2,517	58.2%	225	5.2%	279	6.5%	488	11.3%	1,873	43.3%	*S*	*S*	595	13.8%
	Total	728	16.3%	2,625	58.7%	242	5.4%	293	6.6%	513	11.5%	1,938	43.4%	116	2.6%	618	13.8%
HealthKeepers	CCC Plus (MLTSS)	84	30.9%	214	78.7%	28	10.3%	31	11.4%	49	18.0%	131	48.2%	*S*	*S*	38	14.0%
	Medallion 4.0 (Acute)	1,643	16.7%	6,084	62.0%	447	4.6%	919	9.4%	1,023	10.4%	4,127	42.0%	*S*	*S*	1,364	13.9%
	Total	1,727	17.1%	6,298	62.4%	475	4.7%	950	9.4%	1,072	10.6%	4,258	42.2%	179	1.8%	1,402	13.9%
Molina	CCC Plus (MLTSS)	30	30.0%	64	64.0%	*S*	*S*	*S*	*S*	20	20.0%	36	36.0%	*S*	*S*	17	17.0%
	Medallion 4.0 (Acute)	371	15.5%	1,339	56.1%	*S*	*S*	*S*	*S*	256	10.7%	942	39.4%	*S*	*S*	323	13.5%
	Total	401	16.1%	1,403	56.4%	108	4.3%	258	10.4%	276	11.1%	978	39.3%	74	3.0%	340	13.7%
Optima	CCC Plus (MLTSS)	64	29.2%	144	65.8%	25	11.4%	30	13.7%	33	15.1%	89	40.6%	11	5.0%	19	8.7%

MCO	Managed Care Program	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
		Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
	Medallion 4.0 (Acute)	1,093	17.5%	3,482	55.7%	425	6.8%	668	10.7%	716	11.5%	2,627	42.1%	161	2.6%	736	11.8%
	Total	1,157	17.9%	3,626	56.1%	450	7.0%	698	10.8%	749	11.6%	2,716	42.0%	172	2.7%	755	11.7%
United Healthcare	CCC Plus (MLTSS)	39	35.5%	73	66.4%	*S*	*S*	*S*	*S*	15	13.6%	36	32.7%	*S*	*S*	13	11.8%
	Medallion 4.0 (Acute)	510	14.5%	2,073	58.8%	*S*	*S*	*S*	*S*	426	12.1%	1,420	40.3%	*S*	*S*	477	13.5%
	Total	549	15.1%	2,146	59.0%	91	2.5%	143	3.9%	441	12.1%	1,456	40.0%	83	2.3%	490	13.5%
VA Premier	CCC Plus (MLTSS)	51	33.6%	125	82.2%	18	11.8%	*S*	*S*	29	19.1%	72	47.4%	*S*	*S*	23	15.1%
	Medallion 4.0 (Acute)	1,006	19.0%	3,485	66.0%	529	10.0%	*S*	*S*	646	12.2%	2,384	45.1%	*S*	*S*	761	14.4%
	Total	1,057	19.4%	3,610	66.4%	547	10.1%	393	7.2%	675	12.4%	2,456	45.2%	163	3.0%	784	14.4%
Total	**CCC Plus (MLTSS)**	**311**	**31.2%**	**728**	**72.9%**	**97**	**9.7%**	**92**	**9.2%**	**171**	**17.1%**	**429**	**43.0%**	**51**	**5.1%**	**133**	**13.3%**
	Medallion 4.0 (Acute)	**5,308**	**16.8%**	**18,980**	**60.1%**	**1,816**	**5.7%**	**2,643**	**8.4%**	**3,555**	**11.3%**	**13,373**	**42.3%**	**736**	**2.3%**	**4,256**	**13.5%**
	Total	**5,619**	**17.2%**	**19,708**	**60.5%**	**1,913**	**5.9%**	**2,735**	**8.4%**	**3,726**	**11.4%**	**13,802**	**42.4%**	**787**	**2.4%**	**4,389**	**13.5%**

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

Table A-14 presents the CY 2022 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 2022

Study Indicator	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
White, Non-Hispanic						
Postpartum ED Utilization*	15.2%	16.7%	17.4%	17.1%	16.0%	21.5%
Postpartum Ambulatory Care Utilization	58.5%	62.2%	56.1%	55.6%	56.6%	67.4%
Prenatal Maternal Depression Screening	6.9%	6.0%	3.8%	7.8%	2.8%	13.9%
Postpartum Maternal Depression Screening	6.9%	11.3%	7.9%	10.8%	4.3%	7.2%
MMEC Within 3 Days of Delivery	10.6%	9.2%	9.4%	10.1%	9.8%	12.7%
MMEC Within 90 Days of Delivery	42.8%	41.1%	39.3%	39.9%	35.9%	45.3%
LARC Within 3 Days of Delivery	2.1%	1.2%	1.8%	1.8%	2.0%	2.4%
LARC Within 90 Days of Delivery	13.1%	13.5%	12.1%	10.8%	10.3%	13.7%
Black, Non-Hispanic						
Postpartum ED Utilization*	19.9%	21.0%	19.1%	20.5%	18.1%	22.7%
Postpartum Ambulatory Care Utilization	58.2%	60.8%	54.1%	55.3%	56.3%	65.8%
Prenatal Maternal Depression Screening	5.5%	5.3%	5.2%	7.1%	3.2%	8.7%
Postpartum Maternal Depression Screening	7.2%	10.3%	9.0%	11.1%	4.0%	8.3%
MMEC Within 3 Days of Delivery	9.6%	10.8%	10.4%	12.3%	8.0%	12.7%
MMEC Within 90 Days of Delivery	40.6%	40.3%	35.0%	42.0%	34.1%	42.6%

Study Indicator	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
LARC Within 3 Days of Delivery	2.9%	2.8%	3.6%	3.3%	2.9%	3.7%
LARC Within 90 Days of Delivery	11.2%	11.7%	11.2%	10.9%	11.7%	12.4%
Asian, Non-Hispanic						
Postpartum ED Utilization*	10.3%	12.5%	8.7%	12.1%	3.9%	8.4%
Postpartum Ambulatory Care Utilization	55.2%	69.3%	60.9%	53.2%	60.0%	73.6%
Prenatal Maternal Depression Screening	4.3%	2.6%	1.4%	4.8%	0.0%	0.9%
Postpartum Maternal Depression Screening	2.6%	10.3%	10.1%	16.1%	2.6%	4.0%
MMEC Within 3 Days of Delivery	9.5%	4.4%	2.9%	7.3%	8.4%	5.7%
MMEC Within 90 Days of Delivery	26.7%	27.9%	27.5%	34.7%	33.5%	28.2%
LARC Within 3 Days of Delivery	2.6%	0.9%	1.4%	0.8%	0.6%	1.3%
LARC Within 90 Days of Delivery	12.9%	11.6%	10.1%	9.7%	10.3%	9.3%
Hispanic, Any Race						
Postpartum ED Utilization*	13.3%	14.0%	11.3%	14.0%	13.0%	13.5%
Postpartum Ambulatory Care Utilization	59.9%	63.9%	59.1%	59.0%	63.5%	61.8%
Prenatal Maternal Depression Screening	2.7%	2.8%	4.3%	4.5%	1.9%	5.4%
Postpartum Maternal Depression Screening	5.0%	6.0%	16.1%	8.9%	3.5%	6.3%
MMEC Within 3 Days of Delivery	16.2%	14.2%	14.8%	14.1%	18.7%	15.3%
MMEC Within 90 Days of Delivery	51.7%	50.7%	46.1%	46.3%	49.6%	54.4%

Study Indicator	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
LARC Within 3 Days of Delivery	3.2%	1.4%	4.0%	3.2%	2.4%	4.2%
LARC Within 90 Days of Delivery	18.9%	18.5%	19.4%	14.8%	17.9%	19.9%
Other/Unknown						
Postpartum ED Utilization*	16.4%	13.0%	16.8%	16.2%	17.3%	13.8%
Postpartum Ambulatory Care Utilization	62.1%	60.9%	55.4%	57.9%	59.3%	71.8%
Prenatal Maternal Depression Screening	4.5%	3.2%	5.0%	9.7%	2.7%	10.1%
Postpartum Maternal Depression Screening	8.5%	6.8%	7.9%	12.2%	5.3%	7.0%
MMEC Within 3 Days of Delivery	11.9%	6.2%	14.9%	7.9%	8.0%	4.4%
MMEC Within 90 Days of Delivery	40.1%	32.1%	36.6%	45.7%	41.3%	40.9%
LARC Within 3 Days of Delivery	1.1%	1.1%	4.0%	1.8%	1.3%	1.0%
LARC Within 90 Days of Delivery	16.9%	10.6%	13.9%	15.1%	18.7%	17.4%

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

Table A-15 presents the CY 2022 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 2022

Study Indicator	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
Central						
Postpartum ED Utilization*	17.6%	17.8%	16.1%	18.8%	17.7%	22.6%
Postpartum Ambulatory Care Utilization	63.3%	66.4%	60.0%	60.3%	63.2%	70.4%
Prenatal Maternal Depression Screening	5.7%	5.4%	6.0%	7.6%	4.9%	7.2%
Postpartum Maternal Depression Screening	6.6%	7.6%	10.5%	7.5%	4.4%	6.0%
MMEC Within 3 Days of Delivery	9.9%	8.5%	9.6%	8.4%	9.9%	11.2%
MMEC Within 90 Days of Delivery	43.9%	43.1%	42.2%	42.4%	37.7%	43.6%
LARC Within 3 Days of Delivery	2.6%	1.7%	2.9%	2.2%	3.0%	3.5%
LARC Within 90 Days of Delivery	14.4%	13.8%	16.1%	12.8%	13.4%	14.6%
Charlottesville/Western						
Postpartum ED Utilization*	14.2%	15.1%	16.2%	15.7%	14.0%	19.8%
Postpartum Ambulatory Care Utilization	55.9%	57.4%	56.3%	56.6%	56.3%	67.2%
Prenatal Maternal Depression Screening	11.9%	11.2%	1.8%	11.7%	0.9%	27.4%
Postpartum Maternal Depression Screening	7.7%	15.4%	7.7%	10.4%	3.4%	11.6%

Study Indicator	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
MMEC Within 3 Days of Delivery	12.2%	11.8%	8.8%	11.4%	14.6%	14.9%
MMEC Within 90 Days of Delivery	45.5%	45.5%	38.0%	47.6%	44.3%	48.7%
LARC Within 3 Days of Delivery	3.2%	2.9%	2.5%	2.1%	4.9%	3.0%
LARC Within 90 Days of Delivery	13.5%	16.2%	14.4%	12.8%	14.0%	15.1%
Northern & Winchester						
Postpartum ED Utilization*	13.5%	14.5%	14.3%	13.9%	13.0%	8.6%
Postpartum Ambulatory Care Utilization	60.0%	65.0%	61.2%	54.7%	61.5%	70.1%
Prenatal Maternal Depression Screening	1.3%	2.6%	3.4%	0.8%	1.2%	2.8%
Postpartum Maternal Depression Screening	3.0%	6.2%	12.8%	4.1%	4.3%	2.3%
MMEC Within 3 Days of Delivery	9.4%	9.4%	9.8%	11.9%	12.1%	5.3%
MMEC Within 90 Days of Delivery	39.9%	39.8%	36.3%	36.8%	40.5%	40.9%
LARC Within 3 Days of Delivery	0.1%	0.3%	0.0%	0.3%	0.2%	0.3%
LARC Within 90 Days of Delivery	13.9%	14.5%	12.3%	11.4%	13.3%	12.9%
Roanoke/Alleghany						
Postpartum ED Utilization*	13.1%	21.6%	18.3%	18.1%	18.4%	22.8%
Postpartum Ambulatory Care Utilization	54.7%	61.7%	55.3%	51.7%	58.6%	61.3%
Prenatal Maternal Depression Screening	5.5%	3.9%	2.6%	5.7%	2.5%	9.1%
Postpartum Maternal Depression Screening	3.4%	5.6%	4.9%	3.0%	1.1%	3.3%

Study Indicator	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
MMEC Within 3 Days of Delivery	15.2%	18.6%	15.8%	11.1%	14.8%	17.8%
MMEC Within 90 Days of Delivery	44.5%	46.0%	44.1%	39.6%	46.8%	48.3%
LARC Within 3 Days of Delivery	6.1%	6.2%	7.2%	3.5%	4.9%	5.4%
LARC Within 90 Days of Delivery	16.7%	16.1%	14.6%	10.1%	17.0%	15.5%
Southwest						
Postpartum ED Utilization*	26.0%	19.6%	18.8%	23.0%	25.0%	27.7%
Postpartum Ambulatory Care Utilization	71.8%	53.8%	63.8%	50.8%	62.9%	77.5%
Prenatal Maternal Depression Screening	5.6%	2.5%	1.3%	4.0%	5.2%	7.3%
Postpartum Maternal Depression Screening	0.6%	2.5%	0.0%	3.2%	0.0%	2.4%
MMEC Within 3 Days of Delivery	18.6%	11.4%	8.8%	12.7%	19.0%	19.0%
MMEC Within 90 Days of Delivery	58.2%	46.8%	48.8%	34.9%	50.0%	51.6%
LARC Within 3 Days of Delivery	1.1%	0.6%	1.3%	0.0%	2.6%	1.0%
LARC Within 90 Days of Delivery	7.9%	8.9%	7.5%	7.1%	10.3%	11.8%
Tidewater						
Postpartum ED Utilization*	18.0%	19.8%	16.4%	19.2%	14.3%	23.8%
Postpartum Ambulatory Care Utilization	49.3%	55.8%	45.2%	54.8%	41.8%	55.6%
Prenatal Maternal Depression Screening	6.2%	5.5%	6.3%	6.8%	3.7%	5.4%
Postpartum Maternal Depression Screening	14.0%	16.0%	14.4%	16.5%	5.7%	16.3%

Study Indicator	Aetna	Health Keepers	Molina	Optima	United Healthcare	VA Premier
MMEC Within 3 Days of Delivery	13.0%	13.1%	13.2%	13.4%	10.6%	13.7%
MMEC Within 90 Days of Delivery	41.8%	42.8%	34.9%	41.8%	28.7%	44.0%
LARC Within 3 Days of Delivery	3.5%	3.1%	4.3%	3.9%	5.2%	4.3%
LARC Within 90 Days of Delivery	12.3%	12.3%	11.8%	11.2%	11.2%	15.3%

** a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.

Table A-16 through Table A-21 present the CY 2022 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 2022

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic																
Aetna	74	14.8%	306	61.3%	36	7.2%	41	8.2%	35	7.0%	222	44.5%	*S*	*S*	76	15.2%
HealthKeepers	169	16.8%	674	67.0%	59	5.9%	90	8.9%	59	5.9%	410	40.8%	*S*	*S*	134	13.3%
Molina	33	15.2%	131	60.4%	13	6.0%	20	9.2%	*S*	*S*	95	43.8%	*S*	*S*	32	14.7%
Optima	81	17.3%	277	59.2%	31	6.6%	37	7.9%	35	7.5%	197	42.1%	*S*	*S*	63	13.5%
UnitedHealthcare	45	17.8%	151	59.7%	16	6.3%	15	5.9%	*S*	*S*	69	27.3%	*S*	*S*	15	5.9%
VA Premier	86	23.8%	267	73.8%	31	8.6%	28	7.7%	23	6.4%	147	40.6%	*S*	*S*	46	12.7%
Black, Non-Hispanic																
Aetna	154	21.3%	456	63.1%	40	5.5%	42	5.8%	58	8.0%	281	38.9%	16	2.2%	76	10.5%

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
HealthKeepers	260	21.3%	799	65.4%	74	6.1%	94	7.7%	111	9.1%	508	41.6%	23	1.9%	146	11.9%
Molina	54	19.1%	172	61.0%	20	7.1%	21	7.4%	15	5.3%	103	36.5%	*S*	*S*	34	12.1%
Optima	159	22.6%	431	61.2%	53	7.5%	53	7.5%	45	6.4%	271	38.5%	*S*	*S*	72	10.2%
UnitedHealthcare	68	21.0%	209	64.5%	17	5.2%	12	3.7%	25	7.7%	120	37.0%	*S*	*S*	40	12.3%
VA Premier	135	25.7%	378	71.9%	39	7.4%	30	5.7%	55	10.5%	208	39.5%	17	3.2%	59	11.2%
Asian, Non-Hispanic																
Aetna	*S*	*S*	16	69.6%	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
HealthKeepers	*S*	*S*	37	71.2%	*S*	*S*	*S*	*S*	*S*	*S*	17	32.7%	0	0.0%	*S*	*S*
Molina	0	0.0%	6	50.0%	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
Optima	*S*	*S*	9	56.3%	0	0.0%	0	0.0%	0	0.0%	*S*	*S*	0	0.0%	*S*	*S*
UnitedHealthcare	0	0.0%	10	58.8%	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
VA Premier	*S*	*S*	17	81.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
Hispanic, Any Race																
Aetna	37	13.7%	172	63.5%	*S*	*S*	13	4.8%	57	21.0%	158	58.3%	20	7.4%	61	22.5%
HealthKeepers	59	13.5%	292	66.7%	19	4.3%	23	5.3%	61	13.9%	248	56.6%	20	4.6%	97	22.1%
Molina	17	11.6%	81	55.5%	*S*	*S*	27	18.5%	26	17.8%	77	52.7%	12	8.2%	39	26.7%
Optima	33	12.9%	155	60.8%	23	9.0%	19	7.5%	44	17.3%	137	53.7%	17	6.7%	43	16.9%
UnitedHealthcare	19	11.3%	114	67.9%	*S*	*S*	*S*	*S*	41	24.4%	94	56.0%	15	8.9%	44	26.2%
VA Premier	45	16.1%	173	62.0%	13	4.7%	*S*	*S*	58	20.8%	159	57.0%	20	7.2%	64	22.9%

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Other/Unknown																
Aetna	*S*	*S*	42	82.4%	*S*	*S*	*S*	*S*	*S*	*S*	22	43.1%	0	0.0%	11	21.6%
HealthKeepers	13	11.0%	81	68.6%	*S*	*S*	*S*	*S*	*S*	*S*	39	33.1%	0	0.0%	*S*	*S*
Molina	*S*	*S*	21	75.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	*S*	*S*	34	56.7%	*S*	*S*	*S*	*S*	*S*	*S*	26	43.3%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	16	55.2%	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
VA Premier	11	20.4%	39	72.2%	*S*	*S*	*S*	*S*	*S*	*S*	22	40.7%	0	0.0%	*S*	*S*

** 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.

Table A-17—Charlottesville/Western Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic																
Aetna	33	12.5%	146	55.5%	30	11.4%	22	8.4%	33	12.5%	110	41.8%	*S*	*S*	33	12.5%
HealthKeepers	58	14.3%	246	60.6%	49	12.1%	70	17.2%	41	10.1%	184	45.3%	*S*	*S*	65	16.0%
Molina	25	15.3%	87	53.4%	*S*	*S*	*S*	*S*	12	7.4%	60	36.8%	*S*	*S*	20	12.3%
Optima	88	16.2%	313	57.5%	62	11.4%	56	10.3%	68	12.5%	249	45.8%	12	2.2%	71	13.1%

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
UnitedHealthcare	35	17.9%	110	56.1%	*S*	*S*	*S*	*S*	30	15.3%	84	42.9%	*S*	*S*	25	12.8%
VA Premier	122	20.2%	402	66.7%	177	29.4%	69	11.4%	79	13.1%	283	46.9%	11	1.8%	85	14.1%
Black, Non-Hispanic																
Aetna	16	13.4%	66	55.5%	*S*	*S*	12	10.1%	11	9.2%	65	54.6%	*S*	*S*	18	15.1%
HealthKeepers	28	17.0%	86	52.1%	19	11.5%	23	13.9%	25	15.2%	76	46.1%	*S*	*S*	23	13.9%
Molina	15	20.8%	41	56.9%	*S*	*S*	*S*	*S*	*S*	*S*	28	38.9%	*S*	*S*	*S*	*S*
Optima	59	16.4%	181	50.3%	48	13.3%	30	8.3%	38	10.6%	175	48.6%	*S*	*S*	39	10.8%
UnitedHealthcare	10	13.2%	39	51.3%	0	0.0%	*S*	*S*	*S*	*S*	29	38.2%	*S*	*S*	*S*	*S*
VA Premier	60	22.3%	183	68.0%	70	26.0%	30	11.2%	50	18.6%	138	51.3%	15	5.6%	45	16.7%
Asian, Non-Hispanic																
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Optima	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	0	0.0%	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Hispanic, Any Race																
Aetna	11	26.2%	27	64.3%	*S*	*S*	0	0.0%	*S*	*S*	24	57.1%	*S*	*S*	*S*	*S*
HealthKeepers	17	18.7%	49	53.8%	*S*	*S*	*S*	*S*	11	12.1%	47	51.6%	*S*	*S*	19	20.9%
Molina	*S*	*S*	28	71.8%	0	0.0%	*S*	*S*	*S*	*S*	18	46.2%	*S*	*S*	*S*	*S*

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
Optima	15	11.8%	84	66.1%	S	S	16	12.6%	14	11.0%	66	52.0%	S	S	24	18.9%
UnitedHealthcare	S	S	37	60.7%	0	0.0%	S	S	S	S	34	55.7%	S	S	13	21.3%
VA Premier	16	15.5%	65	63.1%	19	18.4%	14	13.6%	18	17.5%	56	54.4%	S	S	17	16.5%
Other/Unknown																
Aetna	S	S	S	S	S	S	0	0.0%	0	0.0%	S	S	0	0.0%	0	0.0%
HealthKeepers	0	0.0%	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Molina	S	S	S	S	0	0.0%	0	0.0%	0	0.0%	S	S	0	0.0%	S	S
Optima	S	S	29	72.5%	S	S	S	S	S	S	22	55.0%	0	0.0%	S	S
UnitedHealthcare	0	0.0%	S	S	0	0.0%	0	0.0%	S	S	S	S	S	S	S	S
VA Premier	S	S	31	77.5%	15	37.5%	S	S	S	S	20	50.0%	S	S	S	S

** 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.

Table A-18—Northern & Winchester Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic																
Aetna	40	15.7%	147	57.9%	S	S	S	S	14	5.5%	88	34.6%	S	S	30	11.8%
HealthKeepers	117	14.9%	494	63.1%	33	4.2%	61	7.8%	55	7.0%	266	34.0%	S	S	105	13.4%
Molina	26	20.0%	78	60.0%	S	S	14	10.8%	11	8.5%	42	32.3%	0	0.0%	17	13.1%
Optima	25	14.6%	82	48.0%	S	S	S	S	16	9.4%	51	29.8%	S	S	14	8.2%
UnitedHealthcare	44	12.3%	201	56.0%	S	S	26	7.2%	22	6.1%	118	32.9%	S	S	34	9.5%
VA Premier	30	10.7%	189	67.5%	21	7.5%	13	4.6%	15	5.4%	114	40.7%	0	0.0%	37	13.2%
Black, Non-Hispanic																
Aetna	28	17.1%	95	57.9%	0	0.0%	S	S	S	S	53	32.3%	0	0.0%	15	9.1%
HealthKeepers	114	19.0%	383	63.7%	16	2.7%	46	7.7%	27	4.5%	174	29.0%	S	S	60	10.0%
Molina	14	18.4%	38	50.0%	S	S	S	S	S	S	15	19.7%	0	0.0%	S	S
Optima	13	14.9%	42	48.3%	0	0.0%	S	S	S	S	22	25.3%	0	0.0%	S	S
UnitedHealthcare	37	15.2%	142	58.2%	S	S	S	S	13	5.3%	66	27.0%	S	S	26	10.7%
VA Premier	20	8.5%	173	73.6%	0	0.0%	S	S	S	S	83	35.3%	0	0.0%	21	8.9%
Asian, Non-Hispanic																
Aetna	S	S	33	55.9%	S	S	0	0.0%	S	S	13	22.0%	0	0.0%	S	S
HealthKeepers	47	14.0%	244	72.8%	S	S	26	7.8%	11	3.3%	90	26.9%	0	0.0%	37	11.0%
Molina	S	S	23	63.9%	0	0.0%	S	S	0	0.0%	S	S	0	0.0%	S	S
Optima	S	S	20	52.6%	0	0.0%	S	S	S	S	S	S	0	0.0%	S	S

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
UnitedHealthcare	*S*	*S*	73	62.4%	0	0.0%	*S*	*S*	*S*	*S*	37	31.6%	0	0.0%	11	9.4%
VA Premier	*S*	*S*	125	73.1%	0	0.0%	0	0.0%	*S*	*S*	45	26.3%	0	0.0%	*S*	*S*
Hispanic, Any Race																
Aetna	51	11.5%	273	61.6%	*S*	*S*	11	2.5%	58	13.1%	215	48.5%	0	0.0%	77	17.4%
HealthKeepers	216	13.0%	1,087	65.4%	29	1.7%	80	4.8%	236	14.2%	828	49.8%	0	0.0%	292	17.6%
Molina	36	11.3%	206	64.6%	15	4.7%	46	14.4%	38	11.9%	136	42.6%	0	0.0%	42	13.2%
Optima	51	12.1%	245	58.1%	*S*	*S*	16	3.8%	60	14.2%	181	42.9%	*S*	*S*	54	12.8%
UnitedHealthcare	116	13.6%	549	64.4%	12	1.4%	29	3.4%	150	17.6%	409	47.9%	*S*	*S*	130	15.2%
VA Premier	35	9.0%	256	66.0%	11	2.8%	11	2.8%	33	8.5%	202	52.1%	*S*	*S*	64	16.5%
Other/Unknown																
Aetna	*S*	*S*	37	67.3%	*S*	*S*	*S*	*S*	*S*	*S*	20	36.4%	0	0.0%	*S*	*S*
HealthKeepers	26	12.9%	121	59.9%	*S*	*S*	*S*	*S*	*S*	*S*	67	33.2%	0	0.0%	25	12.4%
Molina	*S*	*S*	18	56.3%	*S*	*S*	*S*	*S*	*S*	*S*	13	40.6%	0	0.0%	*S*	*S*
Optima	*S*	*S*	29	63.0%	0	0.0%	*S*	*S*	*S*	*S*	18	39.1%	0	0.0%	*S*	*S*
UnitedHealthcare	12	15.4%	50	64.1%	*S*	*S*	*S*	*S*	*S*	*S*	39	50.0%	0	0.0%	19	24.4%
VA Premier	*S*	*S*	96	78.0%	*S*	*S*	0	0.0%	*S*	*S*	45	36.6%	0	0.0%	23	18.7%

** 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).

Table A-19—Roanoke/Alleghany Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic																
Aetna	47	12.7%	214	57.8%	24	6.5%	15	4.1%	51	13.8%	158	42.7%	19	5.1%	56	15.1%
HealthKeepers	68	21.4%	206	64.8%	11	3.5%	17	5.3%	55	17.3%	142	44.7%	12	3.8%	43	13.5%
Molina	44	20.7%	122	57.3%	*S*	*S*	*S*	*S*	28	13.1%	90	42.3%	*S*	*S*	27	12.7%
Optima	50	18.2%	147	53.6%	19	6.9%	*S*	*S*	30	10.9%	109	39.8%	*S*	*S*	25	9.1%
UnitedHealthcare	38	17.0%	135	60.3%	*S*	*S*	*S*	*S*	32	14.3%	100	44.6%	*S*	*S*	33	14.7%
VA Premier	137	23.3%	373	63.5%	57	9.7%	15	2.6%	99	16.9%	275	46.8%	30	5.1%	81	13.8%
Black, Non-Hispanic																
Aetna	11	14.1%	43	55.1%	*S*	*S*	*S*	*S*	*S*	*S*	30	38.5%	*S*	*S*	*S*	*S*
HealthKeepers	19	26.0%	43	58.9%	*S*	*S*	*S*	*S*	14	19.2%	29	39.7%	*S*	*S*	13	17.8%
Molina	12	16.9%	39	54.9%	*S*	*S*	*S*	*S*	14	19.7%	31	43.7%	*S*	*S*	*S*	*S*
Optima	16	23.2%	38	55.1%	*S*	*S*	*S*	*S*	*S*	*S*	30	43.5%	*S*	*S*	*S*	*S*
UnitedHealthcare	20	23.0%	49	56.3%	*S*	*S*	*S*	*S*	*S*	*S*	35	40.2%	*S*	*S*	13	14.9%
VA Premier	32	25.0%	72	56.3%	*S*	*S*	*S*	*S*	23	18.0%	58	45.3%	*S*	*S*	17	13.3%
Asian, Non-Hispanic																
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	0	0.0%	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
UnitedHealthcare	0	0.0%	S	S	0	0.0%	0	0.0%	0	0.0%	S	S	0	0.0%	S	S
VA Premier	0	0.0%	S	S	0	0.0%	S	S	S	S	S	S	S	S	S	S
Hispanic, Any Race																
Aetna	S	S	17	32.7%	0	0.0%	0	0.0%	11	21.2%	30	57.7%	S	S	14	26.9%
HealthKeepers	S	S	22	45.8%	S	S	S	S	15	31.3%	34	70.8%	S	S	14	29.2%
Molina	S	S	19	45.2%	S	S	S	S	S	S	23	54.8%	S	S	14	33.3%
Optima	S	S	14	37.8%	S	S	S	S	S	S	15	40.5%	S	S	11	29.7%
UnitedHealthcare	S	S	25	58.1%	S	S	S	S	12	27.9%	30	69.8%	S	S	14	32.6%
VA Premier	15	19.7%	43	56.6%	S	S	S	S	22	28.9%	51	67.1%	S	S	20	26.3%
Other/Unknown																
Aetna	S	S	S	S	0	0.0%	S	S	S	S	S	S	S	S	S	S
HealthKeepers	S	S	12	63.2%	0	0.0%	S	S	S	S	S	S	S	S	S	S
Molina	S	S	S	S	S	S	S	S	S	S	S	S	0	0.0%	S	S
Optima	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
UnitedHealthcare	S	S	S	S	0	0.0%	0	0.0%	0	0.0%	S	S	0	0.0%	S	S
VA Premier	S	S	14	50.0%	S	S	0	0.0%	S	S	S	S	S	S	S	S

** 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).

Table A-20—Southwest Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic																
Aetna	40	24.8%	117	72.7%	*S*	*S*	*S*	*S*	29	18.0%	95	59.0%	*S*	*S*	12	7.5%
HealthKeepers	30	21.1%	76	53.5%	*S*	*S*	*S*	*S*	16	11.3%	69	48.6%	*S*	*S*	12	8.5%
Molina	15	20.8%	50	69.4%	*S*	*S*	0	0.0%	*S*	*S*	36	50.0%	0	0.0%	*S*	*S*
Optima	24	22.2%	57	52.8%	*S*	*S*	*S*	*S*	*S*	*S*	38	35.2%	0	0.0%	*S*	*S*
UnitedHealthcare	25	24.5%	63	61.8%	*S*	*S*	0	0.0%	21	20.6%	50	49.0%	*S*	*S*	*S*	*S*
VA Premier	78	28.6%	213	78.0%	20	7.3%	*S*	*S*	54	19.8%	138	50.5%	*S*	*S*	32	11.7%
Black, Non-Hispanic																
Aetna	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%
HealthKeepers	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
Molina	0	0.0%	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Optima	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	0	0.0%	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*	0	0.0%	0	0.0%
Asian, Non-Hispanic																
Aetna	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	*S*	*S*	0	0.0%	*S*	*S*
HealthKeepers	0	0.0%	*S*	*S*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Molina	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Optima	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
UnitedHealthcare	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
VA Premier	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic, Any Race																
Aetna	S	S	S	S	S	S	0	0.0%	S	S	S	S	0	0.0%	0	0.0%
HealthKeepers	0	0.0%	S	S	0	0.0%	0	0.0%	S	S	S	S	0	0.0%	0	0.0%
Molina	0	0.0%	0	0.0%	0	0.0%	0	0.0%	S	S	S	S	S	S	S	S
Optima	0	0.0%	S	S	0	0.0%	S	S	S	S	S	S	0	0.0%	0	0.0%
UnitedHealthcare	S	S	S	S	S	S	0	0.0%	0	0.0%	S	S	0	0.0%	S	S
VA Premier	S	S	S	S	0	0.0%	S	S	S	S	S	S	S	S	S	S
Other/Unknown																
Aetna	0	0.0%	0	0.0%	0	0.0%	0	0.0%	S	S	S	S	0	0.0%	S	S
HealthKeepers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Molina	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Optima	S	S	S	S	0	0.0%	0	0.0%	0	0.0%	S	S	0	0.0%	0	0.0%
UnitedHealthcare	S	S	S	S	0	0.0%	0	0.0%	0	0.0%	S	S	0	0.0%	S	S
VA Premier	0	0.0%	S	S	0	0.0%	S	S	0	0.0%	S	S	0	0.0%	0	0.0%

** a lower rate indicates better performance 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.

Table A-21—Tidewater Region Maternal Health Outcomes Study Indicators Stratified by MCO and Race/Ethnicity, CY 2022

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
White, Non-Hispanic																
Aetna	34	15.5%	104	47.3%	18	8.2%	34	15.5%	27	12.3%	84	38.2%	*S*	*S*	25	11.4%
HealthKeepers	111	16.8%	364	55.2%	44	6.7%	133	20.2%	79	12.0%	292	44.3%	12	1.8%	87	13.2%
Molina	22	14.8%	62	41.6%	*S*	*S*	*S*	*S*	*S*	*S*	49	32.9%	*S*	*S*	*S*	*S*
Optima	101	16.7%	329	54.5%	49	8.1%	123	20.4%	56	9.3%	222	36.8%	11	1.8%	54	8.9%
UnitedHealthcare	11	11.8%	37	39.8%	*S*	*S*	*S*	*S*	*S*	*S*	20	21.5%	*S*	*S*	*S*	*S*
VA Premier	43	21.2%	110	54.2%	14	6.9%	37	18.2%	23	11.3%	89	43.8%	*S*	*S*	35	17.2%
Black, Non-Hispanic																
Aetna	80	20.8%	193	50.1%	20	5.2%	44	11.4%	52	13.5%	167	43.4%	17	4.4%	48	12.5%
HealthKeepers	279	22.1%	710	56.3%	63	5.0%	176	13.9%	183	14.5%	548	43.4%	48	3.8%	143	11.3%
Molina	47	19.5%	111	46.1%	*S*	*S*	*S*	*S*	37	15.4%	83	34.4%	*S*	*S*	26	10.8%
Optima	322	20.5%	850	54.1%	95	6.0%	224	14.2%	247	15.7%	674	42.9%	76	4.8%	183	11.6%
UnitedHealthcare	29	16.7%	71	40.8%	*S*	*S*	*S*	*S*	17	9.8%	56	32.2%	*S*	*S*	18	10.3%
VA Premier	121	26.7%	258	56.8%	23	5.1%	64	14.1%	72	15.9%	199	43.8%	22	4.8%	58	12.8%
Asian, Non-Hispanic																
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	19	46.3%	*S*	*S*	11	26.8%	*S*	*S*	13	31.7%	*S*	*S*	*S*	*S*
Molina	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%	0	0.0%
Optima	*S*	*S*	28	54.9%	*S*	*S*	14	27.5%	*S*	*S*	22	43.1%	0	0.0%	*S*	*S*

MCO	Postpartum ED Utilization*		Postpartum Ambulatory Care Utilization		Prenatal Maternal Depression Screening		Postpartum Maternal Depression Screening		MMEC Within 3 Days of Delivery		MMEC Within 90 Days of Delivery		LARC Within 3 Days of Delivery		LARC Within 90 Days of Delivery	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
UnitedHealthcare	S	S	S	S	0	0.0%	0	0.0%	S	S	S	S	0	0.0%	0	0.0%
VA Premier	S	S	S	S	0	0.0%	S	S	0	0.0%	S	S	0	0.0%	S	S
Hispanic, Any Race																
Aetna	17	16.5%	58	56.3%	S	S	22	21.4%	15	14.6%	48	46.6%	S	S	S	S
HealthKeepers	51	20.5%	140	56.2%	14	5.6%	37	14.9%	31	12.4%	109	43.8%	S	S	39	15.7%
Molina	S	S	37	50.0%	S	S	S	S	S	S	32	43.2%	S	S	16	21.6%
Optima	49	21.4%	139	60.7%	15	6.6%	44	19.2%	29	12.7%	100	43.7%	S	S	29	12.7%
UnitedHealthcare	S	S	23	45.1%	S	S	S	S	S	S	16	31.4%	S	S	S	S
VA Premier	20	16.1%	61	49.2%	S	S	25	20.2%	17	13.7%	57	46.0%	S	S	27	21.8%
Other/Unknown																
Aetna	S	S	17	39.5%	S	S	S	S	S	S	17	39.5%	0	0.0%	S	S
HealthKeepers	17	15.0%	63	55.8%	S	S	14	12.4%	S	S	32	28.3%	S	S	S	S
Molina	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Optima	17	15.2%	60	53.6%	11	9.8%	20	17.9%	S	S	55	49.1%	S	S	17	15.2%
UnitedHealthcare	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
VA Premier	13	26.0%	31	62.0%	S	S	S	S	S	S	22	44.0%	S	S	S	S

** 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.