Virginia's Maternal & Child Health Section 1115 Demonstration: 12 Months Postpartum Coverage, FAMIS MOMS, and FAMIS Select

Project Nos. 21-W-00058/3 and 11-W-00381/3

Year 3 Annual Report

July 1, 2021 through June 30, 2022

Virginia Department of Medical Assistance Services

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Background

Virginia's Maternal and Child Health Section 1115 Demonstration has three components. Two of the Demonstration programs provide coverage of Title XXI populations, FAMIS MOMS and FAMIS Select. These programs have been in place since the beginning of the Demonstration in 2005. The third component is the newly approved 1115 waiver authority enabling Virginia to provide continuous, full-benefit health care coverage through 12 months postpartum for beneficiaries in both Medicaid and CHIP.

Virginia's Title XXI Children's Health Insurance Program (CHIP) is called Family Access to Medical Insurance Security (FAMIS). This program covers children with family income from 143 to 200 percent of the federal poverty level (FPL) who are uninsured and are not eligible for Medicaid. The Maternal and Child Health Section 1115 Demonstration provides coverage for two Title XXI populations:

- The **FAMIS MOMS** program covers uninsured pregnant individuals with family income up to 200 percent FPL who are not eligible for Medicaid.
- The **FAMIS Select** program provides premium assistance for FAMIS-eligible children whose parents/guardians enroll them in private or employer-sponsored health insurance.

The Department of Medical Assistance Services (DMAS) administers Virginia's Maternal and Child Health Section 1115 Demonstration. The Centers for Medicare and Medicaid Services (CMS) approved the original waiver on June 30, 2005, and DMAS began a phased implementation of the FAMIS MOMS and FAMIS Select programs on August 1, 2005. The demonstration was most recently approved for a ten-year extension for the period October 25, 2019, through June 30, 2029.

On November 18, 2021, CMS approved Virginia's request to amend the Demonstration to test the effects of providing continuous coverage to postpartum individuals in Medicaid and CHIP with income up to and including 200 percent of the federal poverty level (FPL), for a total of 12 months after the end of the pregnancy. The Commonwealth anticipates that the Demonstration will improve continuity of coverage and prevent gaps and disruptions in care during the critical postpartum months. Through the amendment, DMAS aims to strengthen overall coverage and support the health of new mothers and infants in Virginia, including reducing rates of maternal mortality and severe morbidity.

The goals of Virginia's Section 1115 Demonstration for the original FAMIS MOMS and FAMIS Select populations, as outlined in the Evaluation Plan approved November 3, 2021, are as follows:

For FAMIS MOMS:

- Facilitate access to prenatal care for FAMIS MOMS participants.
- Improve selected birth outcomes of FAMIS MOMS participants and their newborns.

For FAMIS Select*:*

- Facilitate access to affordable private and employer-sponsored health insurance for low-income families through premium assistance.
- Monitor and ensure member satisfaction with FAMIS Select program.
- Assure the aggregate cost-effectiveness of the FAMIS Select program.

In compliance with the updated terms of the approved amendment (STC #32), on May 17, 2022, Virginia submitted a draft of the revised Evaluation Plan describing objectives, measures, and evaluation activities for the new 12 months postpartum extended coverage component. A copy of the submitted draft Evaluation Plan is appended to this report. Virginia is currently awaiting review and comments on the Evaluation Plan from CMS.

Operational Updates

Legislative Activities

Two amendments to the state budget affecting the FAMIS MOMS program were adopted by the Virginia General Assembly during the SFY 2020 demonstration year. The first of these amendments directed DMAS to seek federal authority to extend coverage for pregnant women from 60 days to one year postpartum. An additional amendment directed DMAS to seek federal authority to offer medically necessary treatment for substance use disorder (SUD) in an institution for mental diseases (IMD) for FAMIS MOMS enrollees, mirroring the benefits offered to pregnant Medicaid members through Virginia's Addiction and Recovery Treatment Services (ARTS) program.

The state of emergency declared in Virginia in March 2020 due to the novel coronavirus (COVID-19) delayed the funding of these items, but state funding was later reinstated, enabling DMAS to seek federal authority for the changes. DMAS submitted its 1115 demonstration amendment application to extend coverage to 12 months postpartum in March 2021, and on November 11, 2021, CMS approved the amendment. On July 1, 2022, systems changes went into effect for full implementation of the 12 months postpartum continuous coverage.

In consultation with CMS, Virginia determined that modifications to the STCs were not needed in order to authorize IMD coverage for FAMIS MOMS enrollees seeking medically necessary treatment for SUD, as this benefit is already offered to Medicaid pregnant women, and CHIP enrollees are not subject to the Medicaid IMD exclusion. As outlined in the waiver Special Terms and Conditions (STCs), the FAMIS MOMS benefit package reflects the same coverage provided to Medicaid pregnant women.

Virginia's 2021 Special Session I Appropriations Act directed DMAS to seek federal authority to provide Medicaid coverage of community doula services to pregnant and postpartum women. In partnership with the Virginia Department of Health, the Commonwealth has established training and certification processes as well as a state

doula registry, DMAS and its managed care plans began enrolling community doulas as Medicaid providers, and the community doula benefit is now available to members. Because FAMIS MOMS receive the same benefits as Medicaid pregnant women under the state plan, FAMIS MOMS are eligible to receive community doula services.

Virginia's 2022 Special Session I Appropriations Act included a 15 percent rate increase for obstetrics and gynecology covered services, effective July 1, 2022.

Regulatory Updates

Changes to the Virginia Administrative Code (VAC) reflecting the extension of postpartum coverage from 60 days to 12 months postpartum are currently in process. Updates to provider manuals to reflect the new postpartum extended coverage recently took effect. Changes to the VAC and provider manuals and other agency guidance to reflect the new doula benefit are also in process.

DMAS issued a Medicaid provider bulletin in June 2021 announcing the availability of coverage of medically necessary treatment for substance use disorder (SUD) in an institution for mental diseases (IMD) for FAMIS MOMS enrollees.

DMAS recently completed a periodic review of the FAMIS and FAMIS MOMS state regulations, and a regulatory action to make technical updates is underway. Prior to this, the most recent state regulatory action regarding the demonstration programs was the adoption of updates pursuant to the previous periodic review, effective June 26, 2019.[1]

Outreach and Communications Activities

DMAS' Community Outreach and Member Engagement Team (COMET) is responsible for the cost-effective promotion of FAMIS, FAMIS MOMS, FAMIS Select, and the Medicaid programs for children and pregnant women. The Outreach team has regional outreach coordinators who develop knowledge of their respective localities and foster community connections in their assigned regions. Regional outreach coordinators facilitate and attend community outreach and engagement opportunities including presentations, workshops, and community events. They build community partnerships and increase access to materials, tools, and resources among internal and external partners and stakeholders.

In 2019, prior to the onset of the public health emergency, the Governor's Office held a series of maternal health listening sessions in communities throughout the Commonwealth. Regional coordinators participated and gathered information from these listening sessions that they used to better understand and tailor their outreach strategies to the needs of maternal health stakeholders within their respective communities.

During the reporting period, outreach activities included:

[1] Virginia Register of Regulations, Volume 35, Issue 20, effective June 26, 2019.

- Sponsorship of community trainings through *SignUpNow* in numerous localities across the state, and of online training modules to promote FAMIS, FAMIS MOMS, and FAMIS Select;
- Distribution of FAMIS MOMS materials at events, conferences, presentations, and meetings with materials available in both English and Spanish;
- Maintenance of the improved Cover Virginia (https://coverva.org/en) and Cubre Virginia (https://www.cubrevirginia.org/es) websites. The new websites provide a more user-friendly platform—in English and Spanish, respectively—to promote Virginia's medical assistance programs, including FAMIS MOMS and FAMIS Select. The new websites include a live-chat feature where Virginians can chat with a representative in real time. With the relaunch of the websites in March 2021, all pages were reviewed and revised by subject matter experts and division directors to ensure the most up-to-date information is available to members;
- Continued maintenance of the FAMIS MOMS and FAMIS Select pages on the Cover Virginia website at https://www.coverva.org/en/famis-moms/ and https://www.coverva.org/en/famis-select/. The website is available for translation in 48 languages;
- Continued maintenance of the FAMIS MOMS and FAMIS Select pages on CubreVirginia.org, the Spanish-language website at (https://www.cubrevirginia.org/es/famis-moms/ and https://www.cubrevirginia.org/es/famis-select/);
- Maintenance of the Cover Virginia Instagram page, launched in December 2020, to include the promotion of the FAMIS MOMS and FAMIS Select programs as well as other related initiatives throughout the agency;
- Promotion of the FAMIS MOMS and FAMIS Select programs in English and Spanish on the FAMIS and Cover Virginia Facebook pages;
- Continued promotion of the *Staying Healthy* section of the Cover Virginia and Cubre Virginia websites. This section serves as a resource for enrolled families to promote utilization of preventive care services. The site features information for parents and parents-to-be on prenatal care, well-child checkups, prevention, immunizations, safety, nutrition, developmental milestones, parenting, dental care, and more (https://coverva.org/en/staying-healthy-for-children). It contains health-related links and resources for parents and parents-to-be, including a page dedicated to prenatal care information and resources (https://coverva.org/en/staying-healthy-when-pregnant).

The following documents explaining the FAMIS Select program continue to be available to interested families:

- The FAMIS Select brochure in both English and Spanish;
- The FAMIS Select Decision Aid that assists parents in determining which program (FAMIS or FAMIS Select) is the right choice for their family.

DMAS is in the process of updating all FAMIS Select materials to reflect the permanent removal of FAMIS co-payments.

During the reporting period, Virginia continued outreach to promote the launch of the 12 months postpartum coverage. In particular, DMAS' outreach and messaging will

ensure that beneficiaries who are pregnant and within 12 months postpartum as the COVID-19 public health emergency (PHE) ends are aware that they are guaranteed 12 months continuous postpartum coverage, apart from the PHE maintenance of effort (MOE) provision.

DMAS' Strategic Communications Team and COMET are coordinating messaging and outreach to include informing applicants and members about important benefits they can access, including the new doula benefit, and ensuring stakeholders understand eligibility rules as Virginia prepares for PHE unwinding. A stakeholder meeting was conducted in June, and DMAS provided updates about the postpartum coverage extension, doula coverage, and other maternal health policy developments at the Children's Health Insurance Program Advisory Committee (CHIPAC) and Member Advisory Committee (MAC) meetings in June.

With support from Virginia's NASHP Maternal Child Health Policy Innovation Project (MCH-PIP) team, DMAS is preparing materials to inform members about their maternity-related benefits, to be distributed through social media and other channels. DMAS and the MCH-PIP team are working with managed care organizations and stakeholder groups to inform the provider community regarding the benefits and extended eligibility available to pregnant/postpartum Medicaid and FAMIS MOMS members.

Enrollment, Managed Care Delivery, and Operations Updates

FAMIS MOMS and 12 Months Postpartum Continuous Coverage

In the spring of 2022, DMAS launched a community doula benefit for pregnant and postpartum members enrolled in Medicaid and FAMIS MOMS. Doulas are trained community-based nonmedical professionals who provide nonclinical support services prenatally, during labor and delivery, and for up to one year postpartum. State-certified doulas began providing services to members this summer with the first doula prenatal visit occurring in August 2022. As of November 1, 60 doulas have received state certification. Of those, 26 are Medicaid approved, contracted with two or more health plans, and have begun providing services, and 18 are pending Medicaid enrollment. The first doula-supported birth was in October 2022, and to date there have been six births.

Virginia's 2022 Special Session I Appropriations Act included a 15 percent rate increase for obstetrics and gynecology covered services, effective July 1, 2022. Through the Baby Steps Virginia cross-agency workgroup and the NASHP MCH-PIP project, DMAS has been working to improve awareness of recent maternal health program and policy changes such as the rate increase, doula benefit, and 12 months postpartum coverage expansion. DMAS is boosting outreach efforts to providers and members, and working through a maternal health MCO collaborative to develop managed care strategies to connect and follow up with members and increase prenatal and postpartum visits.

The Governor's office recently launched Partnership for Petersburg, an initiative that includes a focus on improving access to health care in the Petersburg region. As part of the project, DMAS is working with MCOs and community partners to promote

awareness of prenatal care by reaching out to members who have not yet received prenatal care services and distributing informational materials. Aetna BetterHealth is leading a Safe Sleep Initiative by partnering with community organizations to provide education to increase understanding and awareness of safe sleep practices, including targeted resource distribution to mothers without access to safe sleeping environments, and developing comprehensive support programs to improve outcomes. Aetna will also be donating cribettes with safe sleep messaging reminders to frontline organizations and will be distributing safe sleep kits at member baby showers.

DMAS is currently planning for the merger of the Medallion 4.0 and CCC Plus programs into a unified managed care program called Cardinal Care, which will be implemented over the coming year. The goal of the new streamlined managed care program is to promote a population-based, rather than a program-based approach to care, in order to improve the experience of care for members, add value for providers, and reduce system inefficiencies.

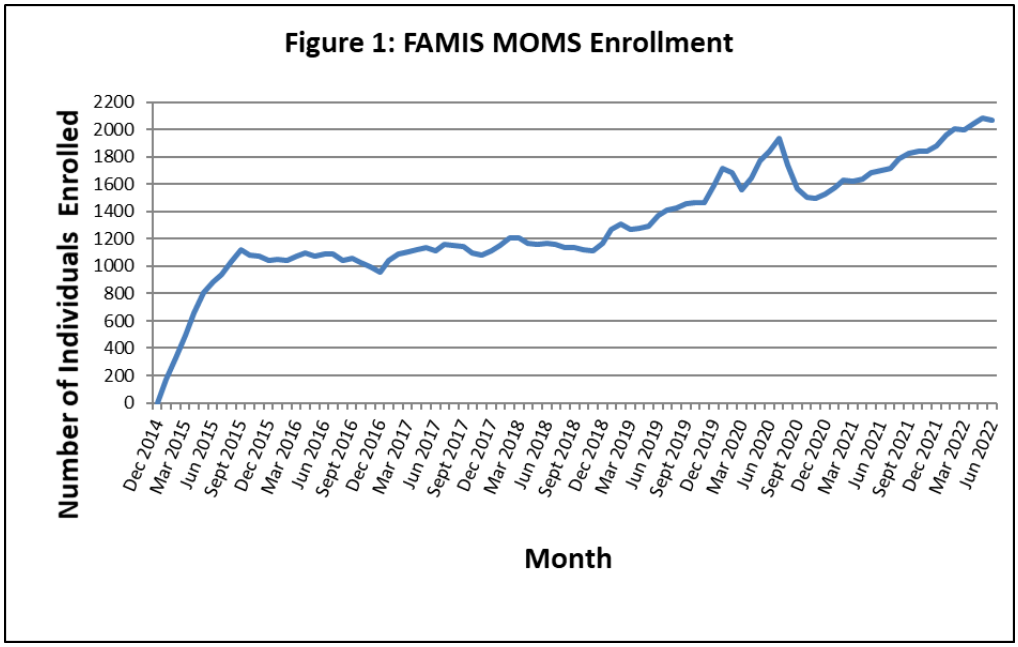
FAMIS Select

DMAS is updating FAMIS Select materials, including the worksheet that assists prospective FAMIS Select applicants in comparing their benefits and projected expenses under FAMIS to their private or employer-sponsored insurance, to reflect the removal of co-payments in the FAMIS Program. FAMIS Select materials will also receive a visual refresh. The FAMIS Select pages on the DMAS and Cover Virginia websites have also been updated to reflect current policy.

Participation in FAMIS MOMS

Enrollment in FAMIS MOMS began in August 2005. The number of pregnant women enrolled increased to 1,203 on October 1, 2008, and then remained relatively level during the final two years of the initial Demonstration period (Years 1–5). Enrollment increased during the first Demonstration extension period (Years 6–8) to a high of 1,670 in December 2012. In June 2013, 1,616 women were enrolled.

Participation in FAMIS MOMS was stable up to the point when enrollment was stopped in January 2014. During the period of January 1, 2014 through November 30, 2014, DMAS phased out the FAMIS MOMS program because the Virginia General Assembly adopted budget language directing DMAS to eliminate the program when health insurance coverage became available through the federally facilitated marketplace (FFM). DMAS reinstated enrollment in FAMIS MOMS in December of 2014. Figure 1 shows the trend since enrollment was reinstated.



Source: DMAS Enrollment Files

Since enrollment was reinstated, the number of enrollees participating increased steadily and stabilized until October 2016. In October of 2016, DMAS was unable to receive transfers from the Federally Facilitated Marketplace (FFM). The issue was resolved in early 2017 and the numbers increased and stabilized once again. In 2018, CMS approved Medicaid and CHIP state plan amendments (#VA-18-0011, VA-18-0015, and VA-18-0016) to authorize Virginia's transition to a determination state, and Virginia began accepting Medicaid and CHIP eligibility determinations made by the FFM.

FAMIS MOMS enrollment grew during the initial months of the COVID-19 public health emergency (PHE), peaking at 1,936 in July 2020, declining over the subsequent months until October 2020, then beginning to climb again. The drop in enrollment in the spring of 2020 could be partly related to DMAS' adherence with CMS guidance issued at that time directing that FAMIS MOMS continue to be redetermined at the end of their 60 days postpartum during the PHE, meaning these individuals' coverage would end unless they qualified for or were enrolled in other coverage groups.

FAMIS MOMS enrollment has steadily grown since the July 1, 2021 launch of the FAMIS Prenatal Coverage program for pregnant individuals previously ineligible due to immigration status (Virginia's new unborn child CHIP State Plan population). It is likely that there has been some spillover of members applying in response to outreach related to the FAMIS Prenatal Coverage launch and ultimately qualifying for and enrolling into FAMIS MOMS.

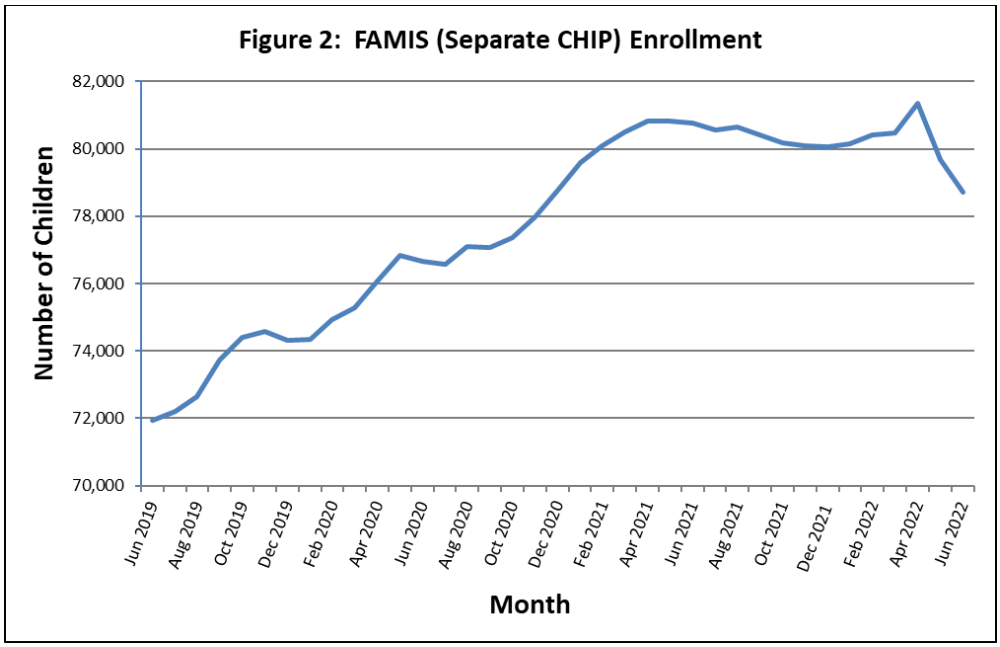
Monthly enrollment as of June 2022 was 2,071—higher than the program's enrollment before the onset of the PHE and higher than the previous July 2020 peak. Average monthly enrollment for SFY 2022 (Demonstration Year 3) was 1,921, up 17.4% from SFY 2021 (DY2). DMAS anticipates that FAMIS MOMS enrollment will see additional growth in the coming year as members remain enrolled for additional months

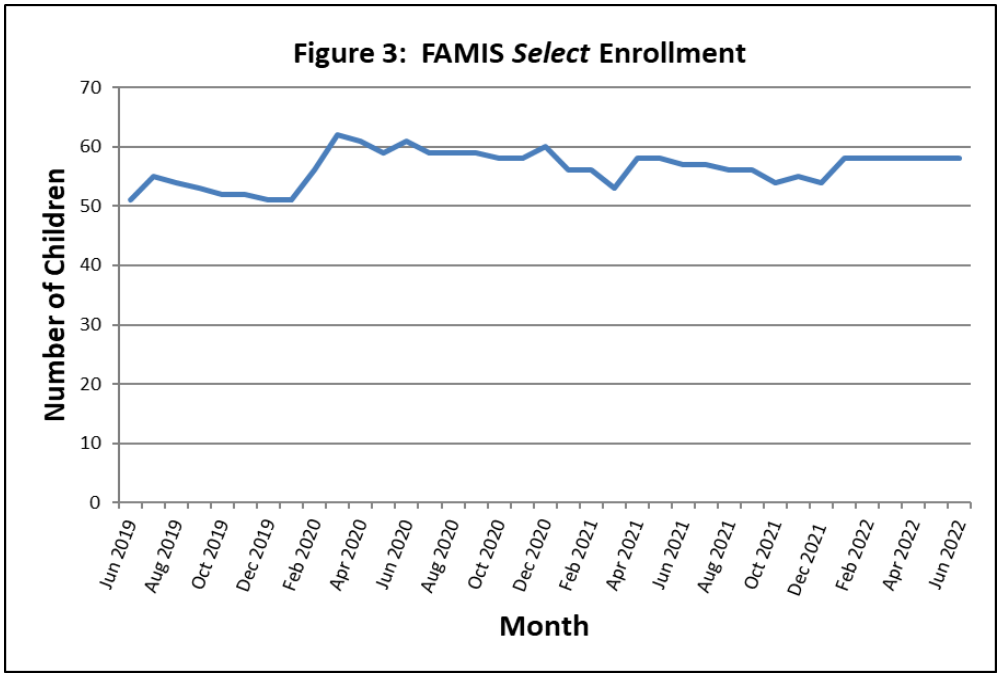
through the postpartum coverage extension.

The steady demand for coverage through FAMIS MOMS and the program's ability to rebound from challenges and continue to attract applicants demonstrates a clear need for this coverage option and underscores the value perceived by providers and community partners who refer women to the program.

Participation in FAMIS Select

A total of 98 children were enrolled in FAMIS Select in August 2005, the first month of the program. Enrollment reached a high of 480 children in March 2009. Figures 2 and 3 show the trend in FAMIS and FAMIS Select enrollment over the past two reporting years. Although FAMIS enrollment has steadily increased during this time, enrollment in FAMIS Select has plateaued, with occasional fluctuations but remaining in the range of 50-60 children enrolled. As of June 2022, 58 children were enrolled in FAMIS Select statewide.





Source: DMAS Enrollment Files

Declining enrollment in FAMIS Select is likely due in large part to changes in employer-sponsored health insurance (ESHI) options. According to the State Health Access Data Assistance Center (SHADAC), there are three main factors in determining the scope of ESHI coverage: (1) the employee must work in a firm that offers ESHI; (2) the worker must be eligible for ESHI coverage based on the employer's criteria; and (3) the worker must take up the option.

SHADAC analysis of data from the Medical Expenditures Panel Survey (MEPS) – Insurance Component, accessed via the SHADAC website in April 2022, indicates that the percentages of Virginia employees eligible for and taking up ESHI are declining.[2] In addition, the employee share and employee premium/out of pocket amounts for family coverage have steadily increased both nationally and in Virginia.[3] These trends have likely contributed to declining interest in the FAMIS Select program.

Percent of Offer, Eligibility, and Take-Up of ESHI Among Virginia Workers					
	2015	**2016**	**2017**	**2018**	**2019**
Offered ESHI	85.7	86.9	84.5	84.8	86.8
Eligible for ESHI	77.0	76.9	74.2	78.4	74.2
Taking up ESHI	75.6	69.3	71.4	72.5	68.6

[2] State Health Access Data Assistance Center (SHADAC), State Health Compare, http://statehealthcompare.shadac.org/.

[3] State Health Access Data Assistance Center (SHADAC), "State-level Trends in Employer-sponsored Health Insurance (ESI), 2015-2019," available at https://www.shadac.org/ESIReport2020.

The cost of ESHI is central to an employer's decision of whether to offer it, and to a worker's decision of whether to participate in an ESHI plan. Over the course of Virginia's Section 1115 Demonstration and the FAMIS Select program, annual insurance premiums for employer-sponsored family coverage in the Commonwealth increased from an average of $10,367 in 2005 to $20,458 in 2020. While employers often cover a large share of these premium costs, the share paid by employees has been increasing. Between 2005 and 2020, the employee's share of the cost of employer-sponsored family coverage increased from 26.5 percent to 31.4 percent.

In Virginia in 2019, the average family plan premium for a private sector worker getting ESHI was $1,655 per month, compared to $565 for individual ESHI coverage. Of these costs, on average 32.0 percent of the family plan premium was the employee's responsibility, while under an individual plan a smaller share of cost, 23.8 percent, was passed to the employee.

Issues, Concerns, and Accomplishments

FAMIS MOMS and 12 Months Postpartum Continuous Coverage

FAMIS MOMS enrollment has continued to grow during the COVID-19 pandemic, demonstrating the importance of the FAMIS MOMS program as a key component of Virginia's health care safety net.

As described above, DMAS was directed by the Virginia General Assembly and the Governor to seek approval from the federal government for a waiver amendment to extend coverage for FAMIS MOMS to 12 months postpartum. On November 18, 2021, CMS approved Virginia's request, and effective July 1, 2022, DMAS implemented extended postpartum coverage for covered populations. DMAS aims to leverage this new extended coverage to smooth transitions post-PHE and ultimately to improve the health of mothers and infants in Virginia.

Additional recent accomplishments include the launch of Virginia's Medicaid doula benefit, a 15 percent increase in OB-Gyn provider rates, and the launch of the Partnership for Petersburg initiative.

FAMIS Select

Access to and affordability of employer-sponsored health insurance continues to decline; as a result, FAMIS Select participation has shown a declining trend. A cost-versus-benefit comparison of FAMIS with the individual applicant's private or employer-sponsored insurance is not required in order for a family to enroll their child in FAMIS Select. Currently, DMAS does not request or receive information about FAMIS Select participants' private or employer-sponsored health insurance benefits, coverage, or cost-sharing. DMAS does not gather complete information regarding household members who may receive incidental coverage under the private or employer-sponsored plan. In addition, DMAS has no method in place to identify instances where an individual may have access to lower cost and/or better coverage through a parent or guardian's employer or private plan.

As part of the revised evaluation plan for FAMIS Select, DMAS will conduct

focus groups with participating families to gather qualitative data and feedback to help improve the program.

Evaluation Update

The goals of Virginia's Section 1115 Demonstration outlined in the FAMIS MOMS and FAMIS Select Evaluation Plan approved November 3, 2021, are as follows:

For FAMIS MOMS:

- Facilitate access to prenatal care for FAMIS MOMS participants.
- Improve selected birth outcomes of FAMIS MOMS participants and their newborns.

For FAMIS Select:

- Facilitate access to affordable private and employer-sponsored health insurance for low-income families through premium assistance.
- Monitor and ensure member satisfaction with FAMIS Select program.
- Assure the aggregate cost-effectiveness of the FAMIS Select program.

In compliance with the updated terms of the approved amendment, in May 2022 Virginia submitted a revised Evaluation Plan (appended below) describing additional objectives, measures, and evaluation activities to reflect the new 12 months postpartum coverage component. DMAS is awaiting feedback from CMS on the Evaluation Plan.

Performance Metrics

FAMIS MOMS

The most recent data on prenatal and birth outcomes is from calendar year 2020, reported in detail in the *2020-2021 Prenatal Care and Birth Outcomes Focused Study*, completed in January 2022 by Health Services Advisory Group (HSAG). The next annual study, which will cover calendar year 2021 data, is underway and is scheduled for publication in early 2023. The full *2020- 21 Prenatal Care and Birth Outcomes Focused Study* is submitted as an attachment to this report.

The two demonstration goals for the FAMIS MOMS population and the reporting period's results for the three related measures are described below.

Demonstration Goal I: *Facilitate access to prenatal care for FAMIS MOMS participants.*

Research Question: *Is enrollment in FAMIS MOMS enabling pregnant women to obtain better access to adequate prenatal care?*

Hypothesis I: The proportion of pregnant women enrolled in FAMIS MOMS who are receiving adequate or better prenatal care will be maintained or will increase from SFY 2019 to SFY 2029.

Measure I: Births with Early and Adequate Prenatal Care—The percentage of births with an Adequacy of Prenatal Care Utilization (APNCU) Index score greater than or equal to 80 percent (i.e., births scoring in the "Adequate" or "Adequate Plus" categories)

CY 2020 Outcomes for Measure I:

	FAMIS MOMS CY2020	Benchmark (Healthy People 2030)
Births with Early and Adequate Prenatal Care	77.8%	76.4%

FAMIS MOMS outcomes for Measure I during calendar year 2020 demonstrate progress toward demonstration Goal I. The HSAG study found that 77.8% of FAMIS MOMS participants in the study population giving birth in 2020 received early and adequate prenatal care. Among the Medicaid pregnant women study population, the rate was 74.3%, and among the study population overall, 71.9%.

This outcome compared favorably with the identified benchmark, "Births with Early and Adequate Prenatal Care -- Healthy People 2030 Baseline," which was 76.4%.[4] FAMIS MOMS outcomes for calendar year 2020 also compared favorably with the "Births with Early and Adequate Prenatal Care -- Healthy People 2030 Most Recent Data from 2019" metric, which was 76.7%.

Demonstration Goal II: *Improve selected birth outcomes of FAMIS MOMS participants and their newborns.*

Research Question: *Is enrollment in FAMIS MOMS improving birth outcomes of participants?*

Hypothesis II: The proportion of individuals enrolled in the FAMIS MOMS program with preterm births (less than 37 weeks gestation) will remain the same or will decrease from SFY 2019 to SFY 2029.

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

Measure II: Preterm Births (< 37 Weeks Gestation)—The percentage of births that occurred before 37 completed weeks of gestation

CY 2020 Outcomes for Measure II:

	FAMIS MOMS CY2020	Benchmark (Healthy People 2030)
Preterm Births (< 37 Weeks Gestation)	7.4%	9.4%

FAMIS MOMS outcomes for Measure II during calendar year 2020 demonstrate progress toward Demonstration Goal II. Preterm births (< 37 weeks completed gestation) occurred in 7.4% of the FAMIS MOMS study population according to the HSAG study, compared to 8.6% of the Medicaid pregnant women study population, and 9.8% of the study population overall.

This outcome compared favorably with the identified benchmark, "Preterm births – Healthy People 2030 Target" which was 9.4%.[5] FAMIS MOMS outcomes for calendar year 2020 also compared favorably with the "Births with Early and Adequate Prenatal Care -- Healthy People 2030 Most Recent Data from 2019" metric, which was 10.2%.

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Hypothesis III: The rate of low birth weight births (birth weight less than 5 pounds, 8 ounces (2,500 grams)) among FAMIS MOMS will decline or remain the same over the demonstration period.

Measure III: Newborns with Low Birth Weight (<2,500 grams)—The percentage of newborns weighing less than 2,500 grams at birth. This includes birth weights in the very low birth weight category (birth weights less than 1,500 grams) and the low birth weight category (birth weights between 1,500 and 2,499 grams).

CY 2020 Outcomes for Measure III:

	FAMIS MOMS CY2020	Benchmark (Core Set 2020)
Low Birth Weight (< 2,500 grams)	6.8%	9.7%

FAMIS MOMS outcomes for Measure III during calendar year 2020 demonstrate progress toward Demonstration Goal II. The HSAG study found that **low birth weight (<2,500 grams) affected 6.8% of infants in the FAMIS MOMS study population**, as

[5] Healthy People 2030. "Reduce preterm births— MICH-07." U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Available at https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/reduce-preterm-births-mich-07.

compared to 8.4% in the Medicaid pregnant women study group, and 9.2% in the study population overall.

This outcome compared favorably with the identified benchmark, "Low birth weight – FFY2020 Core Set" which was 9.7%.[6]

Summary of FAMIS MOMS Performance

Women who enter prenatal care late or who deliver prematurely are at higher risk for delivering an infant with low birth weight. The data demonstrate that, on all three measures, birth outcomes for women enrolled in FAMIS MOMS for a substantial length of time during their pregnancy were better than for women enrolled in Medicaid or in the study population overall.

Compared to the identified benchmarks, the FAMIS MOMS population's outcomes were favorable for all three measures. For early and adequate prenatal care, FAMIS MOMS' rates were 1.4 percentage points higher than the Healthy People 2030 Baseline and 1.1 points higher than the most recent data. On rates of preterm births, the FAMIS MOMS population compared favorably to the Healthy People 2030 Target, at 2.0 percentage points lower, and most recent data, at 2.8 percentage points lower. The FAMIS MOMS population's rate of low birth weight births was lower than the Core Set benchmark by 3.1 percentage points.

FAMIS Select

The revised evaluation plan for FAMIS Select primarily involves analysis of qualitative data gathered through focus groups with participating families. These focus groups will help Virginia evaluate progress toward the following Demonstration Goals for the FAMIS Select program:

Demonstration Goal III: *Facilitate access to affordable private and employer-sponsored health insurance for low-income families through premium assistance.*

Demonstration Goal IV: *Monitor and ensure member satisfaction with FAMIS Select program.*

DMAS' timeline for conducting FAMIS Select focus groups has shifted due to the departure of key agency staff and subject matter experts. However, the agency is preparing to conduct in-person focus groups starting in spring 2023. In future reports,

[6] "Quality of Care for Children in Medicaid and CHIP: Findings from the 2020 Child Core Set (Chart Pack)." Centers of Medicare & Medicaid Services, Nov. 2021. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2021-child-chart-pack.pdf.

DMAS will report on this data and describe how we plan to use this feedback to improve the program.

Cost-Benefit of FAMIS Select

The final Demonstration goal identified in Virginia's approved evaluation plan relates to the cost-effectiveness of the FAMIS Select program.

Demonstration Goal V: *Assure the aggregate cost-effectiveness of the FAMIS Select program*

Research Question: *Is the FAMIS Select program cost-effective?*

Hypothesis VI: The FAMIS Select program will be cost-effective as compared to the FAMIS program over the course of the demonstration year (state fiscal year)

Measure VI: Cost-effectiveness analysis (FAMIS Select-FAMIS comparison)

Measure VI Description: Data for Measure VI will come from fee-for-service claims, managed care encounters and capitation payments, and enrollment records.

Outcomes for Measure VI:

As required by the Demonstration terms and consistent with 2105(c)(3) of the Social Security Act, DMAS monitors FAMIS Select program expenditures to ensure cost effectiveness. Specifically, DMAS compares the agency's cost to subsidize the purchase of employer-sponsored insurance to the amount of expenditures, including administrative expenditures, that the state would have made to provide comparable coverage to the targeted low-income child or family involved under the state child health plan, FAMIS.

Despite declining participation, FAMIS Select continues to be a cost-effective alternative. The table below presents an analysis of FAMIS Select expenses and offsetting savings based on FAMIS expenses for the most recent state fiscal year (SFY22). The average per enrollee, per month cost under FAMIS was $248.66. The maximum monthly FAMIS Select premium subsidy was $100 per enrollee, while the average subsidy per enrollee was $98.64. Factoring in administrative expenses, the average monthly cost associated with a FAMIS Select enrollee was $102.34. This resulted in a savings per FAMIS Select enrollee of $146.32, which translates to an annual estimated savings of $80,768.64.

Cost Analysis of the FAMIS Select program (State Fiscal Year 2022)	
Program Expense Categories	**Costs**
Premium Subsidies	$54,451
Administration	$2,044
Total	**$56,495**
Cost Effectiveness Comparison	
Average per Enrollee per Month Cost for FAMIS	$248.66
Maximum FAMIS Select Premium Assistance Subsidy Per Enrollee	$100.00
Actual Average Monthly Premium Subsidy Per Enrollee	$98.64
Actual Average Monthly Cost for FAMIS Select Enrollee with administrative and other costs	$102.34
Savings Per FAMIS Select Enrollee	**$146.32**
Estimated Average Annual Savings	***$80,768.64***

Budget and Expenditures

The following table summarizes financial information for the Demonstration for the most recent completed demonstration years. Costs represent actual expenditures during the demonstration year, as required by STC 29(c). Additionally, an allotment neutrality worksheet is included as an attachment to this report.

COST OF DEMONSTRATION (CHIP SECTION 1115)	SFY 2021 (DY2)	SFY 2022 (DY3)
Benefit Costs for FAMIS Select Demonstration Population		
Insurance Payments	$54,582	$54,451
Per member/per month rate @ # of eligibles	$89.19 @51 avg elig/mo	$93.21 @46 avg elig/mo
Total Benefit Costs for FAMIS Select	***$54,582***	***$54,451***
Benefit Costs for FAMIS MOMS Demonstration Population		
Managed care	$18,620,945	$17,844,129
Per member/per month rate @ # of eligibles	$931.98 @1,665	$710.47 @2,093
Fee for Service	$2,030,083	$2,026,316
Total Benefit Costs for FAMIS MOMS	***$20,651,028***	***$19,870,445***
Total Benefit Costs	***$20,705,610***	***$19,924,896***
Total Administration Costs	***$1,323,312***	***$968,170***
Federal Title XXI Share	**$15,909,287**	**$14,487,252**
State Share	**$6,119,634**	**$6,405,814**
TOTAL COSTS OF DEMONSTRATION	***$22,028,922***	***$20,893,066***

Conclusion

FAMIS MOMS and FAMIS Select continue to help meet health coverage needs in Virginia by providing options that would otherwise not exist for two vulnerable populations: uninsured pregnant women and children in low-income families not eligible for Medicaid. Although serving comparatively small numbers, these programs are an important part of the health care safety net for residents of the Commonwealth. DMAS looks forward to building on these established programs as we incorporate into the Demonstration the recently approved amendment offering 12 months extended postpartum coverage for Medicaid and CHIP members.

Commonwealth of Virginia Department of Medical Assistance Services

2020–2021 Prenatal Care and Birth Outcomes Focus Study

Table of Contents

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 2020–21, providing quantitative information about prenatal care and associated birth outcomes among women with births paid by Title XIX or Title XXI, which include the Medicaid, Family Access to Medical Insurance Security (FAMIS), FAMIS MOMS, Medicaid Expansion, and Low Income Families with Children (LIFC) programs. The Contract Year 2020–21 Birth Outcomes Focus Study addressed the following questions:

- To what extent do women with births paid by Medicaid receive early and adequate prenatal care?
- What clinical outcomes are associated with Medicaid-paid births?

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) 2020. 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 2020 paid by Virginia Medicaid regardless of whether the births occurred in Virginia. Births paid by Virginia Medicaid were assigned to one of four Medicaid program categories based on the mother's program at the time of delivery:

- The FAMIS MOMS program uses Title XXI (Children's Health Insurance Program [CHIP] Demonstration Waiver) funding to serve pregnant women with incomes up to 200 percent[1-2] of the federal poverty level (FPL) and provides benefits similar to Medicaid through the duration of pregnancy and for 60 days postpartum.
- The Medicaid for Pregnant Women program uses Title XIX (Medicaid State Plan) funding to serve pregnant women with incomes up to 143 percent of the FPL.
- The Medicaid Expansion program uses Title XIX funding to serve women 19 years of age and older with incomes up to 138 percent of the FPL.
- The LIFC program uses Title XIX funding to serve low-income adults with children under the age of 18 who are eligible for the Temporary Assistance for Needy Families (TANF) program based on their monthly income at the time of enrollment.

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. October 2019.

1-2 A standard disregard of 5 percent FPL is applied if the woman's income is slightly above the FPL.

- The "Other Medicaid" programs include births paid by Medicaid that do not fall within the FAMIS MOMS, Medicaid for Pregnant Women, Medicaid Expansion, or LIFC programs. Please note, births to women in Plan First and the Department of Corrections (DOC) are excluded.[1-3]

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

- Study Population: women enrolled in FAMIS MOMS, Medicaid for Pregnant Women, Medicaid Expansion, LIFC, or Other Medicaid programs 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, LIFC, or Other Medicaid) 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).

Births covered by emergency only benefits were also included in the eligible population for this study. However, because women covered by emergency-only benefits were enrolled in Medicaid on the day before or the day of the delivery, these births are evaluated separately.

HSAG calculated the following study indicators to assess the study questions for all singleton, live births paid by Virginia Medicaid during CY 2020:

- *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 inadequate prenatal care is also presented to demonstrate the percentage of births with an APNCU Index score of less than 50 percent (i.e., women who received less than 50 percent of expected prenatal care visits).
  - *Births with No Prenatal Care*—The percentage of births with no prenatal care is also presented.
- *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 at less than 1,500 grams) and the low birth weight category (i.e., birth weights between 1,500 and 2,499 grams).

Within Section 3 of this report, HSAG presents the study indicators stratified by key maternal demographic characteristics (i.e., race/ethnicity and managed care region of maternal residence) and

[1-3] Prior to the 2020–21 Birth Outcomes Focus Study, births to women in the LIFC program, Plan First, and DOC were included in the Other Medicaid program. Therefore, HSAG re-calculated historical (i.e., CY 2018 and CY 2019) Other Medicaid program rates to exclude births to women in LIFC, Plan First, and DOC. While births to women in LIFC are reported separately in this report, births to women Plan First and DOC are excluded from this report.

Medicaid program characteristics (i.e., Medicaid delivery system, managed care program, managed care organizations [MCOs], and Medicaid program). Further, HSAG presents the CY 2020 study indicators stratified by length of continuous enrollment and the trimester women initiated prenatal care. Where applicable, HSAG also presents comparisons to national benchmarks for the study indicators. For national benchmark comparisons, HSAG used the Healthy People 2030 goals, which uses 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.[1-4] HSAG used the Federal Fiscal Year (FFY) 2020 CMS Core Set benchmarks for the *Newborns with Low Birth Weight (<2,500 grams)* study indicator.[1-5] 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 2018–CY 2020

Overall Births	CY 2018		CY 2019		CY 2020	
	Number	Percent	Number	Percent	Number	Percent
Overall Births						
Total Births	34,403	100.0%	38,317	100.0%	37,316	100.0%
Multiple Gestation Births	1,248	3.6%	1,350	3.5%	1,255	3.4%
Singleton Births	33,155	96.4%	36,967	96.5%	36,061	96.6%
Medicaid Births*						
Total Births	31,922	100.0%	33,679	100.0%	33,401	100.0%
Multiple Gestation Births	1,176	3.7%	1,235	3.7%	1,171	3.5%
Singleton Births	30,746	96.3%	32,444	96.3%	32,230	96.5%
Emergency Only Births						
Total Births	2,481	100.0%	4,638	100.0%	3,915	100.0%
Multiple Gestation Births	72	2.9%	115	2.5%	84	2.1%
Singleton Births	2,409	97.1%	4,523	97.5%	3,831	97.9%

**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 slightly declined in CY 2020, which is primarily attributed to the decline in the number of identified emergency-only benefit births in CY 2020.

1-4 U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2030: Pregnancy and childbirth. Available at: https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth. Accessed on: Dec 9, 2021.

1-5 Centers for Medicare & Medicaid Services. 2020 child and adult health care quality measures quality. Available at: 2020 child and adult health quality measures. Accessed on: Dec 9, 2021.

Births in each measurement period were stratified into five Medicaid programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, LIFC, and Other Medicaid) and two Medicaid 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 Medicaid Delivery System, CY 2018–CY 2020

Overall Births	CY 2018		CY 2019		CY 2020	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births	30,746	100.0%	32,444	100.0%	32,230	100.0%
Medicaid Program						
Medicaid for Pregnant Women	23,607	76.8%	22,978	70.8%	19,772	61.3%
Medicaid Expansion	—	—	2,152	6.6%	4,576	14.2%
FAMIS MOMS	1,771	5.8%	2,193	6.8%	2,091	6.5%
LIFC	2,566	8.3%	2,500	7.7%	2,989	9.3%
Other Medicaid†	2,802	9.1%	2,621	8.1%	2,802	8.7%
Medicaid Delivery System						
FFS	5,888	19.2%	3,827	11.8%	3,025	9.4%
Managed Care	24,858	80.8%	28,617	88.2%	29,205	90.6%

—indicates that Medicaid Expansion was not implemented until January 1, 2019; therefore, there were no births covered by the Medicaid Expansion program during CY 2018.
† Other Medicaid includes births paid by Medicaid, but that do not fall into the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and LIFC programs.

While the majority of Medicaid program births across all three measurement periods were to women in the Medicaid for Pregnant Women program, there was a decline in births for this program for CY 2020. This decrease is expected due to the implementation of Medicaid Expansion on January 1, 2019, which provided coverage to women who were previously only eligible for Medicaid if they became pregnant. As a result, the number of births to women in Medicaid Expansion more than doubled between CY 2019 and CY 2020.

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

Table 1-3—Overall Study Indicator Findings Among Singleton Births, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Births with Early and Adequate Prenatal Care	76.4%	20,976	71.5%	22,392	72.3%	22,245	71.9%
*Births with Inadequate Prenatal Care**	*NA*	*4,830*	*16.5%*	*5,043*	*16.3%*	*4,651*	*15.0%*

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with No Prenatal Care**	*NA*	*558*	*1.9%*	*688*	*2.2%*	*534*	*1.7%*
Preterm Births (<37 Weeks Gestation)*	9.4%	2,942	9.6%	3,263	10.1%	3,168	9.8%
Newborns with Low Birth Weight (<2,500g)*	9.7%	2,901	9.4%	3,070	9.5%	2,979	9.2%

**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 2020 *Births with Early and Adequate Prenatal Care* was consistent with prior years and continues to fall below the national benchmark. The rates for the *Newborns with Low Birth Weight (<2,500g)* indicator outperformed the national benchmark for all three measurement periods, demonstrating strength for Virginia Medicaid. While the rates of *Births with Early and Adequate Prenatal Care* is consistent across all years, it should be noted that the coronavirus disease 2019 (COVID-19) may have impacted CY 2020 study indicator results due to the public health 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.[1-6,1-7] 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 interpreting CY 2020 study indicator results.

To facilitate DMAS' program evaluation efforts, Table 1-4, on the next page, presents the CY 2020 study indicator results for the five Medicaid Programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, LIFC, and Other Medicaid) 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).

1-6 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: Dec 9, 2021.

1-7 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: Dec 9, 2021.

Table 1-4—Overall Medicaid Program Study Indicator Findings Among Singleton Births by Comparison Group and Study Population, CY 2020

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%	2,663	1,629	61.2%	16,305	12,108	74.3%^
*Births with Inadequate Prenatal Care**	*NA*	2,663	627	23.5%	16,305	2,212	13.6%^
*Births with No Prenatal Care**	*NA*	2,663	87	3.3%	16,305	154	0.9%^
Preterm Births (<37 Weeks Gestation)*	9.4%	2,775	292	10.5%	16,995	1,458	8.6%^
Newborns with Low Birth Weight (<2,500g)*	9.7%	2,775	267	9.6%	16,989	1,432	8.4%^
Medicaid Expansion							
Births with Early and Adequate Prenatal Care	76.4%	250	172	68.8%	4,150	3,077	74.1%
*Births with Inadequate Prenatal Care**	*NA*	250	40	16.0%	4,150	538	13.0%
*Births with No Prenatal Care**	*NA*	250	*S*	*S*	4,150	80	1.9%^
Preterm Births (<37 Weeks Gestation)*	9.4%	262	40	15.3%	4,314	504	11.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	262	28	10.7%	4,313	435	10.1%
FAMIS MOMS							
Births with Early and Adequate Prenatal Care	76.4%	431	315	73.1%	1,606	1,249	77.8%^
*Births with Inadequate Prenatal Care**	*NA*	431	74	17.2%	1,606	187	11.6%^
*Births with No Prenatal Care**	*NA*	431	*S*	*S*	1,606	*S*	*S*

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	446	41	9.2%	1,645	122	7.4%
Newborns with Low Birth Weight (<2,500g)*	9.7%	446	38	8.5%	1,645	112	6.8%
LIFC							
Births with Early and Adequate Prenatal Care	76.4%	132	79	59.8%	2,725	1,829	67.1%
*Births with Inadequate Prenatal Care**	*NA*	132	24	18.2%	2,725	457	16.8%
*Births with No Prenatal Care**	*NA*	132	15	11.4%	2,725	94	3.4%^
Preterm Births (<37 Weeks Gestation)*	9.4%	150	30	20.0%	2,839	363	12.8%^
Newborns with Low Birth Weight (<2,500g)*	9.7%	150	16	10.7%	2,837	320	11.3%
Other Medicaid†							
Births with Early and Adequate Prenatal Care	76.4%	208	114	54.8%	2,461	1,673	68.0%^
*Births with Inadequate Prenatal Care**	*NA*	208	60	28.8%	2,461	432	17.6%^
*Births with No Prenatal Care**	*NA*	208	*S*	*S*	2,461	75	3.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	217	33	15.2%	2,585	285	11.0%
Newborns with Low Birth Weight (<2,500g)*	9.7%	216	32	14.8%	2,584	299	11.6%

**a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.
† Other Medicaid includes births paid by Medicaid, but that do not fall into the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and LIFC 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 in CY 2020, with the study population surpassing the applicable national benchmark for the three study indicators that could be compared to national benchmarks. Similarly, the study population for the Medicaid for Pregnant Women program outperformed the applicable national benchmarks for the *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)* study indicators. The Medicaid Expansion, LIFC, and Other Medicaid study population rates fell below the national benchmark for all three study indicators that could be compared to national benchmarks, with the LIFC study population having the highest rate for the *Preterm Births (<37 Weeks Gestation)* study indicator and one of the highest rates for the *Newborns with Low Birth Weight (<2,500g)* study indicator. Studies indicate that timely prenatal care is associated with fewer preterm births in the United States.[1-8] Given this, the women in the LIFC program may not have received all the necessary prenatal care as evidenced by the lower *Births with Early and Adequate Prenatal Care* study indicator rate, which likely contributed to the high rates of preterm births.

Conclusions and Recommendations

Conclusions

This study considered five quantitative indicators related to prenatal care and associated birth outcomes among births paid by Virginia Medicaid. Between the CY 2018 and CY 2020 measurement periods, study indicators related to prenatal care, preterm birth, and low birthweight 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. Rates for the *Newborns with Low Birth Weight (<2,500g)* indicator outperformed the national benchmark for all three measurement periods, demonstrating strength for Virginia Medicaid.

During CY 2020, more than 70 percent of women with preterm births or newborns with low birth weight received at least adequate prenatal care, with more than 50 percent of these women receiving "adequate plus" prenatal care.[1-9] However, approximately 23 percent of women who received inadequate prenatal care, no prenatal care, or had missing prenatal care had a preterm birth or newborn with low birth weight, suggesting opportunities for the MCOs to improve access to timely and frequent prenatal care for these women.

The CY 2020 study indicator results also show regional differences in care with women residing in Central and Tidewater receiving higher rates of early and adequate prenatal care compared to women in other regions; however, these women still had some of the highest rates of preterm births and newborns with low birth weight. There has been a steady decline in the percentage of women with early and adequate prenatal care within the Southwest region, suggesting access to prenatal care may be a barrier within this rural region. Within all regions, racial disparities exist with Black, Non-Hispanic

[1-8] Centers for Disease Control and Prevention. Preterm birth. Available at: https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm. Accessed on: Dec 9, 2021.

[1-9] "Adequate plus" prenatal care refers to the percentage of births with an APNCU Index (i.e., the Kotelchuck Index) score greater than or equal to 110 percent (i.e., women who received at least 110 percent of expected prenatal visits).

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.

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. Research has shown that Medicaid Expansion programs have helped women get better health coverage before and after pregnancy, which leads to improved prenatal and postpartum care. Further, Medicaid Expansion programs also decrease the likelihood of women experiencing intermittent healthcare coverage, which is important for improving health outcomes for moms and babies.[1-10] The study indicator results for the Medicaid Expansion program for CY 2020 demonstrated improvement from CY 2019; however, all three study indicators continue to fall below national benchmarks. Therefore, DMAS should continue to monitor this population to assess that outcomes continue to improve over time. Of note, there was a large decline in CY 2020 in the number of women not continuously enrolled prior to delivery from CY 2019. This change is attributable to Medicaid Expansion as well as to the maintenance of effort (MOE) requirement of the Families First Coronavirus Response Act (FFCRA), enacted in March 2020, which required states to maintain enrollment for Medicaid members for the duration of the federal public health emergency (PHE). This ensured continuous Medicaid coverage for most Virginia Medicaid members throughout CY 2020, increasing the likelihood of continuous enrollment before, during, and after pregnancies.[1-11]

The FAMIS MOMS program continued to outperform other Medicaid programs, 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 205 percent of the FPL). 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 among women in other Medicaid programs based on income-based eligibility requirements. Though limited in number, births to women enrolled in FAMIS MOMS, especially those with continuous enrollment greater than 120 days prior to delivery, had the highest rate of *Births with Early and Adequate Prenatal Care*, and the lowest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)*. While these rates remained stable over time, the promising results from this program suggest that it could offer a valuable starting point for assessing beneficiaries' satisfaction with care and underlying social determinants of health (SDoH) that may distinguish these women from other Medicaid beneficiaries.

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:

[1-10] Searing A, Ross DC. Medicaid Expansion Fills Gaps in Maternal Health Coverage Leading to Healthier Mothers and Babies. Georgetown University Health Policy Institute Center for Children and Families. May 2019. Available at: https://ccf.georgetown.edu/wp-content/uploads/2019/05/Maternal-Health_FINAL-1.pdf. Accessed on: Dec 9, 2021.

[1-11] Commonwealth of Virginia, Division of Legislative Automated Systems. 12VAC30-30-10. Mandatory coverage: categorically needy and other required special groups. Available at: https://law.lis.virginia.gov/admincode/title12/agency30/chapter30/section10/. Accessed on: Dec 9, 2021.

- 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.[1-12]
- 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. Use caution when comparing study results to national benchmarks, as the benchmarks were derived from birth records covered by all payor 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, allows 10 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 covered by 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 beneficiaries 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®) *Timeliness of Prenatal Care* indicator results.[1-13] 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.
- Medicaid Expansion started on January 1, 2019; therefore, Medicaid Expansion program results should be monitored over time to assess changes as more women eligible for the program start receiving services.

[1-12] Dietz PM, Bombard JM, Hutchings YL, et. al. Validation of obstetric estimate of gestational age on US birth certificates. AM J Obstet Gynecol. Apr 2014; 2010(4): 335.e1-335.e5. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4560346/. Accessed on: Dec 9, 2021.

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

- COVID-19 may have impacted 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.[1-14,1-15] 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 interpreting CY 2020 study indicator results.

Recommendations

HSAG collaborated with DMAS to ensure that this study contributes to existing quality improvement 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:

- Based on the 2016–2020 Virginia Pregnancy Risk Assessment Monitoring System (PRAMS) data, Virginia Medicaid women are more likely to be obese prior to pregnancy (44.1 percent), smoke during pregnancy (8.1 percent), and have a prior preterm birth (9.5 percent), and are less likely to receive prenatal care early (81.3 percent) or take a vitamin (e.g., folic acid, prenatal) every day in the month prior to pregnancy (36.1 percent) when compared to women with private insurance.[1-16]
  - Given that obesity is associated with several pregnancy risk factors (e.g., preeclampsia, gestational diabetes) that can also increase the risk of preterm delivery, opportunities exist for DMAS to ensure women of childbearing age are seeing their primary care provider prior to pregnancy to discuss steps that can be taken (e.g., taking prenatal vitamins, using services [registered dietician, community support groups] that can help women reach a healthy weight before pregnancy).[1-17,1-18]
  - The 2016–2020 Virginia PRAMS data showed that the percentage of Medicaid women who smoked during pregnancy declined by nearly 17 percentage points from the 2009–2013 Virginia PRAMS data. Given that smoking during pregnancy is a risk factor for preterm births and low birthweight infants, DMAS should continue to ensure women of childbearing age and pregnant women are receiving tobacco cessation services.[1-19]

[1-14] 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: Dec 9, 2021.

[1-15] 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: Dec 9, 2021.

[1-16] Virginia Department of Health. Pregnancy Risk Assessment Monitoring System Data. Available at: https://www.vdh.virginia.gov/prams/data-2020/. Accessed on: Dec 9, 2021.

[1-17] Cnattingius S, Villamor E, Johansson S, et al. Maternal obesity and risk of preterm delivery. JAMA. 2013;309(22). doi:10.1001/jama.2013.6295

[1-18] Mayo Clinic. Pregnancy and obesity: Know the risks. Available at: https://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/pregnancy-and-obesity/art-20044409. Accessed on: Dec 9, 2021.

[1-19] Medicaid.gov. Pregnancy. Available at: https://www.medicaid.gov/medicaid/quality-of-care/quality-improvement-initiatives/tobacco-cessation/pregnancy/index.html. Accessed on: Dec 9, 2021.

- Overall, approximately 72 percent of births in CY 2020 received early and adequate prenatal care and approximately 17 percent of births in CY 2020 received inadequate or no prenatal care. The 2019–20 secret shopper survey that assessed appointment availability for prenatal care providers who accept Medicaid in Virginia found that 59.5 percent of cases were offered a first trimester appointment date and 46.0 percent of cases were offered a second trimester appointment date. The results of both studies suggest that DMAS and 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 all women of childbearing age establish a primary care provider or gynecologist 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 ensure better outcomes for both the mom and baby.[1-20]
- Unplanned pregnancies are associated with higher rates of preterm births and newborns with low birthweight.[1-21] Therefore, as part of ensuring all women of childbearing have an established gynecologist prior to pregnancy, DMAS and the MCOs should assess if providers are offering family planning services (e.g., contraception) to women. Given that Medicaid members can now receive a 12-month supply of contraceptives,[1-22] DMAS and the MCOs should monitor contraceptive prescription rates for Medicaid women over time. DMAS should consider having the MCOs report the Centers for Medicare & Medicaid Services (CMS) Adult and Child Core Set measures related to contraceptives (i.e., *Contraceptive Care—All Women* and *Contraceptive Care—Postpartum Women*) to understand better how this policy change impacts the use of contraceptives over time.
  - Long-acting reversible contraceptives (LARCs) are an effective contraceptive method that can help reduce unplanned and short-interval pregnancies.[1-23] MCOs should assess if providers are discussing the effectiveness of LARCs as part of the postpartum visit or even prior to the woman leaving the hospital after delivery. MCOs should work to educate their providers, and DMAS should continue to work with hospitals to institute protocols that allow physicians to leverage the Virginia Postpartum LARC toolkit.[1-24]
- 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), mother's substance use before and during pregnancy (smoking, alcohol, and drug use), and mother's body mass index (BMI) before pregnancy and at delivery.

[1-20] March of Dimes. Before or Between Pregnancies. Available at: https://www.marchofdimes.org/pregnancy/before-pregnancy.aspx#. Accessed on: Dec 9, 2021.

[1-21] 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: Dec 9, 2021.

[1-22] Virginia Department of Medical Assistance Services. 12-month supply of contraceptives now available to Virginia Medicaid members. Available at: https://www.dmas.virginia.gov/media/3779/press-release-virginia-medicaid-announces-12-month-supply-of-contraceptives.pdf. Accessed on: Dec 9, 2021.

[1-23] The American College of Obstetricians and Gynecologists. Immediate postpartum long-acting reversible contraception. 2017. Available at: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2016/08/immediate-postpartum-long-acting-reversible-contraception. Accessed on: Dec 9, 2021.

[1-24] Virginia Department of Medical Assistance Services, Virginia Department of Health, and the Virginia chapter of the American College of Obstetricians and Gynecologists. Virginia postpartum LARC toolkit. Available at: https://www.vdh.virginia.gov/content/uploads/sites/28/2016/07/VA_Postpartum_LARC_Toolkit_final.pdf. Accessed on: Dec 9, 2021.

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' Input on Prior Focused Study Recommendations

In addition to the recommendations noted above, DMAS provided the following detailed feedback to HSAG regarding quality improvement actions and initiatives.

DMAS is committed to providing access to comprehensive care for pregnant and postpartum women and their babies enrolled in any one of Virginia Medicaid's health coverage programs. In order to address this goal and address maternal disparities as it relates to Governor Northam's 2025 initiative and the 2021 Virginia Maternal Health Strategic Plan,[1-25] DMAS revamped the Healthy Birthday Virginia initiative to Baby Steps VA.

Through Baby Steps VA, DMAS has enhanced maternal health awareness utilizing five core teams (eligibility and enrollment, outreach and information, connections, new and improved services, and program oversight) to educate and address health disparities for Medicaid and FAMIS members. Each of these five focus areas have collaborated jointly to serve our members, health plans and providers. The contracted MCOs have undertaken a variety of initiatives aimed at improving quality outcomes in maternal health, a primary goal of the DMAS Quality Strategy. The support and partnership from the MCOs has helped to strengthen data sharing, reporting of performance measures, and improve health outcomes for members.

Thank you to all of the agencies, stakeholders, managed care organizations, community partners, and members who made this possible. We will continue to aim for "Wellness, One Step at a Time."

Past and Current Activities

In 2020, DMAS drafted the first Baby Steps VA annual report, detailing our accomplishments in improving maternity care. The report is available on the DMAS website at: https://www.dmas.virginia.gov/for-providers/maternal-and-child-health/

- Eligibility and Enrollment: Increasing maternity enrollment and streamlining newborn enrollment
  - In March of 2020, the federal government declared a PHE in response to the COVID-19 pandemic. Since the onset of the PHE in early 2020, DMAS has developed policy flexibilities in response to members' changing needs and challenges and has worked to ensure continued access to care. The FFCRA established a MOE requirement applicable to most Medicaid populations, which meant that most members, including pregnant and postpartum women, maintained continuous eligibility throughout CY 2020 and beyond, regardless of income and other changes that under normal circumstances would have affected eligibility determinations.
  - Partnered with Virginia Department of Social Services (VDSS) to begin discussion on ways to streamline the enrollment process and give pregnant women near real time eligibility determinations so they are connected with doctors and other medical care without delay.

[1-25] Secretary of Health and Human Resources, Office of the Governor of Virginia. Maternal health strategic plan. Available at: https://www.governor.virginia.gov/media/governorvirginiagov/secretary-of-health-and-human-resources/pdf/Virginia's-Maternal-Health-Strategic-Plan.pdf. Accessed on: Nov 19, 2021.

- Investigated with the Virginia Hospital and Healthcare Association (VHHA) ways to quickly enroll newborns before the mother is discharged from the hospital.
- Initiated organizational changes with the DMAS Eligibility and Enrollment Services Division to provide better customer service to moms, their babies and the providers who serve them by consolidating all processes related to newborn enrollment into one place.
- Launched a new coverage program for pregnant women, FAMIS Prenatal Coverage, on July 1, 2021. FAMIS Prenatal is comprehensive coverage for uninsured pregnant individuals who do not qualify for other full-benefit coverage groups because of their immigration status. These Virginians, including those who are undocumented or DACA recipients (Deferred Action for Childhood Arrivals, also known as DREAMers), are now eligible for the FAMIS MOMS benefit package during their pregnancy through 60 days postpartum.
- Working closely with representatives from U.S. Health and Human Services, the State Department, leads at three military bases, and the Crowne Plaza Hotel near Dulles to obtain applications for health care coverage for Afghanistan evacuees beginning in August 2021. An expedited process allows us to enroll pregnant individuals, new mothers, and medically frail individuals in Medicaid so they have access to health coverage. DMAS is scheduling application events to assist with expediting access to full health coverage.
- On November 18, 2021, DMAS received federal approval of Virginia's application to provide 12 months continuous postpartum health coverage for all members. Prior to this change some members, including FAMIS MOMS, lost access to care at 60 days postpartum. This continued postpartum care, to be implemented over the coming year, is an important step in improving health outcomes for both parents and babies.

- <u>Outreach and Information: Engaging with internal and external stakeholders and sharing information with members</u>
  - Contacted pregnant members who receive their benefits through FFS and shared information on Medicaid benefits and other resources essential for their health.
  - Developed efforts to bring awareness to postpartum services currently available for Medicaid pregnant and parenting women during and after the public health emergency (PHE). Information was shared with DMAS' dental benefit administrator, MCOs, American College of Obstetricians and Gynecologists (ACOG) Virginia, and the Medical Society of Virginia.
  - Launched a targeted outreach initiative to educate pregnant women about coverage and benefits through radio spots, and digital and social media platforms. Increased utilization of social media platforms to share photos and videos that will raise awareness about various initiatives and campaigns related to maternal and infant health.
- <u>Connections: Engaging with providers, community stakeholders, hospitals, and state agencies</u>
  - Collaborated with stakeholders on a variety of projects supporting pregnant and parenting people. Collaboration was geared towards furthering maternity program quality outcomes and engagement with a variety of partners such as Virginia Department of Health (VDH), VDSS, Virginia Department of Behavioral Health and Developmental Services (DBHDS), VHHA, and Virginia Neonatal Perinatal Collaborative (VNPC).
  - Met with VDH to discuss outreach measures to increase Women, Infants, and Children (WIC) utilization for members.
  - Presented during the Fifth Annual VNPC Summit: Fostering Community Relationships to Improve Maternal and Infant Health Outcomes on "Baby Steps VA- Where are we now! During

the presentations, speakers shared information on Medicaid 101, Baby Steps VA, Policy Changes, Postpartum services, Doulas, and Dental Coverage.

- Hosted bi-monthly Baby Steps VA meetings with external speakers to learn about programs available, send a weekly informational email, and developed a monthly Baby Steps VA newsletter to keep the agency and external partners abreast of activities.

- <u>New and Improved Services: Collaborating with Virginia projects to enhance services</u>
  - Addressed COVID-19 and the impacts on our Medicaid members. DMAS and the MCOs expanded telehealth options for services, including several flexibilities for medical and behavioral health services utilized by pregnant members during the state of emergency.
  - Finalized the directed payments process for providers during the public health emergency.
  - Implemented General Assembly directive to allow Medicaid members to receive up to 12 months prescription for birth control, increasing access to contraception.
  - Awarded a SUPPORT Act grant to continue to increase substance use disorder (SUD) provider capacity in Virginia. Grant activities focused on the screening and treatment needs of pregnant and postpartum individuals.
  - Established a workgroup to explore Medicaid reimbursement for doula support services by reviewing federal requirements and permissibility, commonwealth regulations, and determining estimated cost to the commonwealth for the next six years. DMAS submitted the report in December 2020.
  - Received federal approval to implement a doula benefit for pregnant women in Virginia Medicaid. Virginia will be the fourth state in the nation to implement community doula services to its Medicaid population. This benefit, to be launched in 2022, will provide a culturally centered focus on our members through shared experiences and comprehensive training. DMAS is collaborating with VDH and the MCOs on the certification and enrollment processes.
  - Established a workgroup to assess home visiting models to determine which to recommend for a Medicaid home-visiting benefit to support members' health, access to care and health equity. Over several months, the workgroup reviewed home visiting strategies and benefits in other state Medicaid programs and corresponding federal and state regulations. In addition, the workgroup reviewed funding mechanisms for existing home visiting programs in Virginia and funding approaches utilized across the nation. The workgroup's report to the General Assembly will be completed in December 2021.

- <u>Program Oversight: Utilizing data and reports to monitor and improve programs</u>
  - Partnered with Virginia Commonwealth University (VCU) to launch both a report (Diagnosis and Treatment of Substance Use Disorders among Pregnant Women Covered by Medicaid) and study (Opioid Treatment For Pregnant Women Has Increased But Racial Inequities Exist) centered around care for pregnant members with substance use disorders.
  - Continuing participation in the National Academy for State Health Policy (NASHP) Maternal and Child Health Policy Innovation Program (MCH PIP) policy academy that will help to identify, develop, and implement policy changes to address maternal mortality for Medicaid eligible pregnant and parenting persons, with the goal to improve access to quality care. The project will focus on two areas of care: Postpartum Communication and Doula Implementation. In both projects DMAS will focus on engaging community systems, improving timeliness of care, and improving access to care.

2. Overview and Methodology

Overview

As an optional activity under the CMS EQR Protocols,[2-1] DMAS contracted with HSAG to conduct a focus study in contract year 2020–21 to provide quantitative information about prenatal care and associated birth outcomes among women with births paid by Title XIX or Title XXI, which include the Medicaid, FAMIS, FAMIS MOMS, Medicaid Expansion, and LIFC programs. The Contract Year 2020–21 Birth Outcomes Focus Study addressed the following questions:

- To what extent do women with births paid by Medicaid receive early and adequate prenatal care?
- What clinical outcomes are associated with Medicaid-paid births?

Methodology

The study included all singleton births paid by Virginia Medicaid during CY 2020. 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 2020 who were eligible for the focus study. This list was submitted to DMAS for linkage to the Virginia Department of Health (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.

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]

2-1 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. October 2019.

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 social security number (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.

2-4 HSAG provided standard instructions for probabilistically linking data during each study period. However, different individuals from DMAS and VDH conducted the probabilistic linkages for the 2018–19, 2019–20, and 2020–21 studies, resulting in a variable percentage of probable birth record linkages that were manually reviewed for each measurement period.

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

- The FAMIS MOMS program uses Title XXI (CHIP Demonstration Waiver) funding to serve pregnant women with incomes up to 200 percent[2-5] of the FPL and provides benefits similar to Medicaid through the duration of pregnancy and for 60 days postpartum.
- The Medicaid for Pregnant Women program uses Title XIX (Medicaid State Plan) funding to serve pregnant women with incomes up to 143 percent of the FPL.
- The Medicaid Expansion program uses Title XIX funding to serve women 19 years of age and older with incomes up to 138 percent of the FPL.
- The LIFC program uses Title XIX funding to serve low-income adults with children under the age of 18 who are eligible for the TANF program based on their monthly income at the time of enrollment.
- The "Other Medicaid" programs include births paid by Medicaid that do not fall within the FAMIS MOMS, Medicaid for Pregnant Women, Medicaid Expansion, or LIFC programs. Please note, births to women in Plan First and DOC are excluded.

While the term "Medicaid" is used throughout the report, this term refers to all programs included in the Birth Outcomes 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, LIFC, and Other Medicaid) at delivery were further categorized into a study population and a comparison group depending on the timing and length of enrollment. The study population included women with continuous enrollment in any Medicaid program or combination of programs for 120 or more days (counting the date of delivery).The comparison group consisted of women with continuous enrollment in any Medicaid program or combination of programs for fewer than 120 days (counting the date of delivery).

Where applicable, HSAG compared the study indicators to national benchmarks. HSAG used the Healthy People 2030 goals,[2-6] which uses 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.

HSAG also compared the CY 2020 study indicator results to historical results, when applicable. Please note, HSAG recalculated historical study indicator results to exclude births covered by emergency-only benefits, Plan First, and DOC that were previously included in the CY 2018 and CY 2019 results. Additionally, HSAG calculated the LIFC program results separately from the Other Medicaid program results for all three measurement periods. As a result, the CY 2018 and CY 2019 results presented in this report do not match results presented in the 2018–19 and 2019–20 Birth Outcomes Focus Study reports. While births to women in Plan First and DOC are completely excluded from this report, the births covered by emergency-only benefits are reported separately within this report.

2-5 A standard disregard of 5 percent FPL is applied if the woman's income is slightly above the FPL.

2-6 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: Dec 9, 2021.

Study Indicators

HSAG calculated the following five study indicators for singleton, live births during CY 2020 paid by Virginia Medicaid:

- 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.

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.[2-7] 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.[2-8] 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 percent of expected visits
Inadequate Prenatal Care	Less than 50% of expected visits
Intermediate Prenatal Care	50–79% of expected visits

[2-7] Krueger PM, Scholl TO. Adequacy of prenatal care and pregnancy outcome. *The Journal of the American Osteopathic Association*. 2000; 100(8):485–492.

[2-8] 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.

APNCU Index Category	Number of Prenatal Care 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.[2-9] 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.[2-10] DMAS opted to compare study indicator findings to the Healthy People 2030 baseline goal of 76.4 percent and will assess the benchmark value on an annual basis. Note that this goal is assessed nationally using NVSS data that do not consistently report birth statistics by payor.

Preterm Births

The percentage of births occurring before 37 completed weeks of gestation

In 2019, preterm delivery affected approximately one in 10 infants born in the United States. Preterm delivery (births prior to 37 weeks of gestation) is a leading cause of infant mortality, and 17 percent of United States infant deaths in 2018 were attributable to causes related to preterm birth and low birth weight (LBW). Additionally, in 2019, preterm birth rates in the United States were 50 percent higher among African American women than White or Hispanic or Latino women. 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.[2-11]

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

[2-9] March of Dimes Perinatal Data Center. Prenatal Care. Available at: https://www.marchofdimes.org/peristats/popup.aspx?width=50%&height=40%&s=calc&reg=&top=&id=23. Accessed on: Dec 9, 2021.

[2-10] Healthy People 2030. Increase the proportion of pregnant women who receive early and adequate prenatal care – MICH-08. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Available at: https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/increase-proportion-pregnant-women-who-receive-early-and-adequate-prenatal-care-mich-08. Accessed on: Dec 9, 2021.

[2-11] 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: Dec 9, 2021.

due to the increasing prevalence of assisted reproductive technology.[2-12] 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.[2-13]

Although clinical intervention cannot completely mitigate demographic and genetic factors associated with preterm deliveries, preconception care (i.e., care prior to the start of a pregnancy) and prenatal care may provide clinicians opportunities to monitor and address potential causes of preterm deliveries.[2-14]

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.[2-15] 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 payor.

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 LBW infants and, compared to normal weight infants, may be at a higher risk for health problems. Common health complications that LBW infants may experience include underdeveloped lungs and respiratory problems, an inability to maintain body temperature, difficulty feeding and gaining weight, and infection. Additionally, these LBW 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

[2-12] 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: Dec 9, 2021.

[2-13] 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.

[2-14] Dean SV, Mason E, Howson CP, et al. Born too soon: care before and between pregnancy to prevent preterm births: from evidence to action. Reprod Health. 2013; 10 Suppl 1 (Supple 1):S3.

[2-15] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2030. Increase the proportion of pregnant women who receive early and adequate prenatal care – MICH-08. 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: Dec 9, 2021.

diabetes and high blood pressure, later in life.[2-16] LBW affects approximately one in 12 babies born in the United States.[2-17]

Infants weighing less than 1,500 grams (3 pounds, 5 ounces) are considered to be very low birth weight (VLBW) 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).[2-18] Nearly all infants born with VLBW 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 VLBW 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.[2-19]

The CMS Core Set benchmarks for the *Newborns with Low Birth Weight (<2,500 grams)* study indicator is released annually and includes data for all 50 states and Washington, D.C. for a Medicaid/CHIP population.[2-20] DMAS opted to use the FFY 2020 benchmark of 9.7 percent for the *Newborns with Low Birth Weight (<2,500 grams)* study indicator.[2-21]

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 2020 measurement period. HSAG used Chi-square tests to assess statistically significant differences between the CY 2020 study population and comparison group for each indicator within the Medicaid Programs.

[2-16] National Center for Environmental Health, Environmental Health Tracking Branch. Centers for Disease Control and Prevention. Low birthweight and the environment. Available at: https://ephtracking.cdc.gov/showRbLBWGrowthRetardationEnv. Accessed on: Dec 9, 2021.

[2-17] March of Dimes. Low birthweight. Available at: http://www.marchofdimes.org/baby/low-birthweight.aspx. Accessed on: Dec 9, 2021.

[2-18] 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.

[2-19] 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.

[2-20] Centers for Medicare & Medicaid Services. 2020 child and adult health care quality measures quality. Available at: 2020 child and adult health quality measures. Accessed on: Dec 9, 2021.

[2-21] Ibid.

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 2018, CY 2019, and CY 2020 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 and emergency only births, as well as the number and percentage of multiple gestation and singleton births.

Table 3-1—Overall Births Paid by Virginia Medicaid, CY 2018–2020

Overall Births	CY 2018		CY 2019		CY 2020	
	Number	Percent	Number	Percent	Number	Percent
Overall Births						
Total Births	34,403	100.0%	38,317	100.0%	37,316	100.0%
Multiple Gestation Births	1,248	3.6%	1,350	3.5%	1,255	3.4%
Singleton Births	33,155	96.4%	36,967	96.5%	36,061	96.6%
Medicaid Births*						
Total Births	31,922	100.0%	33,679	100.0%	33,401	100.0%
Multiple Gestation Births	1,176	3.7%	1,235	3.7%	1,171	3.5%
Singleton Births	30,746	96.3%	32,444	96.3%	32,230	96.5%
Emergency Only Births						
Total Births	2,481	100.0%	4,638	100.0%	3,915	100.0%
Multiple Gestation Births	72	2.9%	115	2.5%	84	2.1%
Singleton Births	2,409	97.1%	4,523	97.5%	3,831	97.9%

**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 slightly declined in CY 2020, which is primarily attributed to the decline in the number of identified emergency only benefit births in CY 2020.

Overall Singleton Births Paid by Virginia Medicaid

Table 3-2, on the next page, 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, Medicaid managed care program, and Medicaid delivery system.

Table 3-2—Singleton Births by Medicaid Program, Medicaid Managed Care Program, and Medicaid Delivery System, CY 2018–CY 2020

Overall Births	CY 2018		CY 2019		CY 2020	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births	30,746	100.0%	32,444	100.0%	32,230	100.0%
Medicaid Program						
Medicaid for Pregnant Women	23,607	76.8%	22,978	70.8%	19,772	61.3%
Medicaid Expansion	—	—	2,152	6.6%	4,576	14.2%
FAMIS MOMS	1,771	5.8%	2,193	6.8%	2,091	6.5%
LIFC	2,566	8.3%	2,500	7.7%	2,989	9.3%
Other Medicaid†	2,802	9.1%	2,621	8.1%	2,802	8.7%
Medicaid Managed Care Program*						
FAMIS (FAMIS MOMS and FAMIS Children)	1,456	4.7%	1,859	5.7%	1,868	5.8%
CCC Plus	846	2.8%	909	2.8%	887	2.8%
Medallion 4.0	22,556	73.4%	25,849	79.7%	26,450	82.1%
Medicaid Delivery System						
FFS	5,888	19.2%	3,827	11.8%	3,025	9.4%
Managed Care	24,858	80.8%	28,617	88.2%	29,205	90.6%

**Because not all births were to women in Medicaid managed care programs, the percentage of births for the FAMIS, CCC Plus, and Medallion 4.0 managed care programs do not sum to 100 percent.*
—indicates that Medicaid Expansion was not implemented until January 1, 2019; therefore, there were no births covered by the Medicaid Expansion program during CY 2018.
†Other Medicaid includes births paid by Medicaid, but that do not fall into the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and LIFC programs.

While the majority of Medicaid program births across all three measurement periods were to women in the Medicaid for Pregnant Women program, there was a decline in births for this program for CY 2020. This decrease is expected due to the implementation of Medicaid Expansion on January 1, 2019, which provided coverage to women who were previously only eligible for Medicaid if they became pregnant. As a result, the number of births to women in Medicaid Expansion more than doubled between CY 2019 and CY 2020.

Table 3-3, on the next page, 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

Overall Births	CY 2018		CY 2019		CY 2020	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births†	30,746	100.0%	32,444	100.0%	32,230	100.0%
Maternal Age at Delivery						
≤15 Years	90	0.3%	81	0.2%	94	0.3%
16–17 Years	479	1.6%	492	1.5%	469	1.5%
18–20 Years	3,622	11.8%	3,702	11.4%	3,460	10.7%
21–24 Years	7,760	25.2%	7,936	24.5%	7,618	23.6%
25–29 Years	9,646	31.4%	10,050	31.0%	9,835	30.5%
30–34 Years	5,887	19.1%	6,550	20.2%	6,801	21.1%
35–39 Years	2,643	8.6%	2,948	9.1%	3,119	9.7%
40–44 Years	580	1.9%	614	1.9%	733	2.3%
≥45 Years	24	0.1%	43	0.1%	41	0.1%
Unknown	15	0.0%	28	0.1%	60	0.2%
Maternal Race/Ethnicity						
White, Non-Hispanic	13,738	44.7%	14,069	43.4%	13,953	43.3%
Black, Non-Hispanic	12,110	39.4%	12,691	39.1%	12,439	38.6%
Asian, Non-Hispanic	1,224	4.0%	1,224	3.8%	1,199	3.7%
Hispanic, Any Race	3,375	11.0%	3,970	12.2%	4,177	13.0%
Other/Unknown	299	1.0%	490	1.5%	462	1.4%
Managed Care Region of Residence						
Central	7,912	25.7%	8,184	25.2%	8,153	25.3%
Charlottesville/Western	4,101	13.3%	4,111	12.7%	4,086	12.7%
Northern & Winchester	6,436	20.9%	7,207	22.2%	7,113	22.1%
Roanoke/Alleghany	2,771	9.0%	3,155	9.7%	3,135	9.7%
Southwest	1,923	6.3%	1,860	5.7%	1,915	5.9%
Tidewater	7,601	24.7%	7,875	24.3%	7,821	24.3%

Note: Due to rounding, the percentages in each column may not sum to 100 percent.
†Unknown managed care regions of residence are included in the Singleton Births totals.

The majority of CY 2020 births paid by Virginia Medicaid were to women 21 to 34 years of age (75.2 percent) who were White, Non-Hispanic (43.3 percent) or Black, Non-Hispanic (38.6 percent). Consistent with prior years, the majority (71.7 percent) of CY 2020 births were to women who resided in the Central, Northern & Winchester, or Tidewater regions.

Study Indicator Results and Trending

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

Table 3-4—Overall Study Indicator Findings Among Singleton Births, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Births with Early and Adequate Prenatal Care	76.4%	20,976	71.5%	22,392	72.3%	22,245	71.9%
*Births with Inadequate Prenatal Care**	*NA*	*4,830*	*16.5%*	*5,043*	*16.3%*	*4,651*	*15.0%*
*Births with No Prenatal Care**	*NA*	*558*	*1.9%*	*688*	*2.2%*	*534*	*1.7%*
Preterm Births (<37 Weeks Gestation)*	9.4%	2,942	9.6%	3,263	10.1%	3,168	9.8%
Newborns with Low Birth Weight (<2,500g)*	9.7%	2,901	9.4%	3,070	9.5%	2,979	9.2%

**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 2020 *Births with Early and Adequate Prenatal Care* was consistent with prior years and continues to fall below the national benchmark. The rates for the *Newborns with Low Birth Weight (<2,500g)* indicator outperformed the national benchmark for all three measurement periods, demonstrating strength for Virginia Medicaid.

Study Indicators Stratified by Select Demographic Characteristics

Table 3-5 and Table 3-6 present the study indicator results stratified by race/ethnicity and geographic managed care region, respectively, for each measurement period.

Table 3-5—Overall Study Indicator Findings Among Singleton Births by Race/Ethnicity, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic							
Births with Early and Adequate Prenatal Care	76.4%	9,413	74.0%	9,811	74.7%	9,572	73.7%
*Births with Inadequate Prenatal Care**	*NA*	1,912	15.0%	1,939	14.8%	1,783	13.7%
*Births with No Prenatal Care**	*NA*	213	1.7%	257	2.0%	192	1.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	1,146	8.4%	1,232	8.8%	1,296	9.3%
Newborns with Low Birth Weight (<2,500g)*	9.7%	1,058	7.7%	1,052	7.5%	1,079	7.7%
Black, Non-Hispanic							
Births with Early and Adequate Prenatal Care	76.4%	8,234	69.5%	8,791	71.0%	8,821	72.0%
*Births with Inadequate Prenatal Care**	*NA*	2,045	17.3%	2,056	16.6%	1,827	14.9%
*Births with No Prenatal Care**	*NA*	251	2.1%	307	2.5%	240	2.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	1,396	11.5%	1,539	12.1%	1,382	11.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	1,498	12.4%	1,609	12.7%	1,508	12.1%
Hispanic, Any Race							
Births with Early and Adequate Prenatal Care	76.4%	2,278	69.0%	2,639	68.8%	2,752	67.5%
*Births with Inadequate Prenatal Care**	*NA*	604	18.3%	745	19.4%	771	18.9%
*Births with No Prenatal Care**	*NA*	76	2.3%	102	2.7%	83	2.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	271	8.0%	334	8.4%	351	8.4%
Newborns with Low Birth Weight (<2,500g)*	9.7%	215	6.4%	259	6.5%	261	6.2%
Other/Unknown							
Births with Early and Adequate Prenatal Care	76.4%	1,051	70.9%	1,151	70.3%	1,100	67.9%
*Births with Inadequate Prenatal Care**	*NA*	269	18.1%	303	18.5%	270	16.7%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with No Prenatal Care**	*NA*	18	1.2%	22	1.3%	19	1.2%
Preterm Births (<37 Weeks Gestation)*	9.4%	129	8.5%	158	9.2%	139	8.4%
Newborns with Low Birth Weight (<2,500g)*	9.7%	130	8.5%	150	8.8%	131	7.9%

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

Consistent with the national birth data,[3-1] study indicator results showed poor outcomes for Black, Non-Hispanic women, with the highest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500 grams)* compared to women of other race/ethnicities. White, Non-Hispanic women had the highest rate of *Early and Adequate Prenatal Care* compared to women of other races/ethnicities but continued to fall below the national benchmark. For Hispanic women of any race, rates for both *Preterm Births (<37 Weeks)* and *Newborns with Low Birth Weight (<2,500g)* outperformed national benchmarks, despite having the lowest rate of *Early and Adequate Prenatal Care.*

Table 3-6—Overall Study Indicator Findings Among Singleton Births by Managed Care Region of Maternal Residence, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Central							
Births with Early and Adequate Prenatal Care	76.4%	5,502	70.3%	5,848	72.8%	5,886	72.9%
*Births with Inadequate Prenatal Care**	*NA*	1,079	13.8%	1,125	14.0%	1,047	13.0%
*Births with No Prenatal Care**	*NA*	126	1.6%	176	2.2%	159	2.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	779	9.9%	866	10.6%	798	9.8%
Newborns with Low Birth Weight (<2,500g)*	9.7%	748	9.5%	846	10.3%	820	10.1%
Charlottesville/Western							
Births with Early and Adequate Prenatal Care	76.4%	3,075	76.2%	3,188	78.8%	3,106	77.0%

[3-1] Martin JA, Hamilton BE, Osterman MJK. Births in the United States, 2020. National Center for Health Statistics Data Brief, No. 418. 2021. Available at: https://www.cdc.gov/nchs/data/databriefs/db418.pdf. Accessed on: Dec 9, 2021.

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with Inadequate Prenatal Care**	*NA*	638	15.8%	585	14.5%	602	14.9%
*Births with No Prenatal Care**	*NA*	65	1.6%	52	1.3%	40	1.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	361	8.8%	355	8.6%	352	8.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	387	9.4%	358	8.7%	352	8.6%
Northern & Winchester							
Births with Early and Adequate Prenatal Care	76.4%	4,151	66.6%	4,600	66.8%	4,502	65.0%
*Births with Inadequate Prenatal Care**	*NA*	1,312	21.1%	1,482	21.5%	1,342	19.4%
*Births with No Prenatal Care**	*NA*	153	2.5%	197	2.9%	136	2.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	514	8.0%	654	9.1%	607	8.5%
Newborns with Low Birth Weight (<2,500g)*	9.7%	490	7.6%	551	7.6%	535	7.5%
Roanoke/Alleghany							
Births with Early and Adequate Prenatal Care	76.4%	1,811	72.2%	2,203	72.9%	2,223	74.0%
*Births with Inadequate Prenatal Care**	*NA*	400	16.0%	420	13.9%	359	12.0%
*Births with No Prenatal Care**	*NA*	31	1.2%	52	1.7%	37	1.2%
Preterm Births (<37 Weeks Gestation)*	9.4%	243	8.8%	268	8.5%	313	10.0%
Newborns with Low Birth Weight (<2,500g)*	9.7%	235	8.5%	263	8.3%	292	9.3%
Southwest							
Births with Early and Adequate Prenatal Care	76.4%	924	74.6%	828	70.1%	772	67.8%
*Births with Inadequate Prenatal Care**	*NA*	175	14.1%	197	16.7%	175	15.4%
*Births with No Prenatal Care**	*NA*	12	1.0%	14	1.2%	25	2.2%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	174	9.1%	168	9.0%	192	10.0%
Newborns with Low Birth Weight (<2,500g)*	9.7%	180	9.4%	166	8.9%	174	9.1%
Tidewater							
Births with Early and Adequate Prenatal Care	76.4%	5,512	73.4%	5,693	73.3%	5,750	74.1%
*Births with Inadequate Prenatal Care**	*NA*	1,225	16.3%	1,226	15.8%	1,126	14.5%
*Births with No Prenatal Care**	*NA*	171	2.3%	197	2.5%	137	1.8%
Preterm Births (<37 Weeks Gestation)*	9.4%	871	11.5%	949	12.1%	904	11.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	861	11.3%	883	11.2%	804	10.3%

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

In CY 2020, Charlottesville/Western was the only region to exceed the national benchmarks for all study indicators where benchmarks were available. This may be attributed to the fact that approximately 58 percent of births in Charlottesville/Western were to White, Non-Hispanic women, which as Table 3-5 shows, White, Non-Hispanic women typically have more favorable birth outcomes compared to all other race/ethnicities. Despite having the lowest rates of *Births with Early and Adequate Prenatal Care*, women in the Northern & Winchester region had the lowest rates of *Preterm Births (<37 Weeks)* and *Newborns with Low Birth Weight (<2,500g)*, exceeding the national benchmarks for both indicators for all three measurement periods. Tidewater had the highest rates of *Preterm Births (<37 Weeks)* and *Newborns with Low Birth Weight (<2,500g)* and had the highest percentage of women of Black, Non-Hispanic race (approximately 59 percent). As shown in Table 3-5, women of Black, Non-Hispanic race have the highest rates of *Preterm Births (<37 Weeks)* and *Newborns with Low Birth Weight (<2,500g)* at 11.1 percent and 12.1 percent, respectively.

Study Indicator Findings by Medicaid Characteristics

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

Table 3-7—Overall Study Indicator Findings Among Singleton Births by Medicaid Program, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Medicaid for Pregnant Women							
Births with Early and Adequate Prenatal Care	76.4%	16,249	72.2%	16,028	73.1%	13,737	72.4%
*Births with Inadequate Prenatal Care**	*NA*	3,637	16.2%	3,451	15.7%	2,839	15.0%
*Births with No Prenatal Care**	*NA*	368	1.6%	393	1.8%	241	1.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	2,124	9.0%	2,173	9.5%	1,750	8.9%
Newborns with Low Birth Weight (<2,500g)*	9.7%	2,103	8.9%	2,062	9.0%	1,699	8.6%
Medicaid Expansion							
Births with Early and Adequate Prenatal Care	76.4%	—	—	1,462	70.9%	3,249	73.8%
*Births with Inadequate Prenatal Care**	*NA*	—	—	330	16.0%	578	13.1%
*Births with No Prenatal Care**	*NA*	—	—	74	3.6%	90	2.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	—	—	261	12.1%	544	11.9%
Newborns with Low Birth Weight (<2,500g)*	9.7%	—	—	235	10.9%	463	10.1%
FAMIS MOMS							
Births with Early and Adequate Prenatal Care	76.4%	1,311	76.8%	1,626	77.2%	1,564	76.8%
*Births with Inadequate Prenatal Care**	*NA*	228	13.4%	292	13.9%	261	12.8%
*Births with No Prenatal Care**	*NA*	14	0.8%	28	1.3%	11	0.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	136	7.7%	168	7.7%	163	7.8%
Newborns with Low Birth Weight (<2,500g)*	9.7%	131	7.4%	158	7.2%	150	7.2%
LIFC							
Births with Early and Adequate Prenatal Care	76.4%	1,637	66.2%	1,576	66.1%	1,908	66.8%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with Inadequate Prenatal Care**	*NA*	459	18.6%	487	20.4%	481	16.8%
*Births with No Prenatal Care**	*NA*	95	3.8%	105	4.4%	109	3.8%
Preterm Births (<37 Weeks Gestation)*	9.4%	354	13.8%	347	13.9%	393	13.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	348	13.6%	300	12.0%	336	11.2%
Other Medicaid							
Births with Early and Adequate Prenatal Care	76.4%	1,779	67.0%	1,700	67.7%	1,787	67.0%
*Births with Inadequate Prenatal Care**	*NA*	506	19.0%	483	19.2%	492	18.4%
*Births with No Prenatal Care**	*NA*	81	3.0%	88	3.5%	83	3.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	328	11.7%	314	12.0%	318	11.3%
Newborns with Low Birth Weight (<2,500g)*	9.7%	319	11.4%	315	12.0%	331	11.8%

**a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.
—indicates Medicaid Expansion was not implemented until January 1, 2019; therefore, there were no births covered by the Medicaid Expansion program during CY 2018.

Births to women in the FAMIS MOMS 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 (<2,500g*) for all three measurement periods. Of note, the rates for the FAMIS MOMS program met or exceeded the national benchmarks for all study indicators with applicable benchmarks for all three measurement periods, demonstrating strength for the FAMIS MOMS program. Additionally, the Medicaid for Pregnant Women program outperformed the national benchmarks for the *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g*) indicators for CY 2020. While the Medicaid for Expansion rates did not meet the national benchmarks in CY 2020, improvements were seen from CY 2019 to CY 2020, especially for the *Births with Early and Adequate Prenatal Care* and *Newborns with Low Birth Weight (<2,500g*) study indicators. The LIFC and Other Medicaid program rates demonstrate an opportunity for improvement given women in these two programs have the lowest rates of *Early and Adequate Prenatal Care* and some of the highest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g*).

Table 3-8, on the next page, presents the study indicator results stratified by Medicaid managed care program for each measurement period.

Table 3-8—Overall Study Indicator Findings Among Singleton Births by Medicaid Managed Care Program, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
FAMIS (includes FAMIS MOMS and FAMIS Children)							
Births with Early and Adequate Prenatal Care	76.4%	1,083	77.3%	1,394	77.9%	1,404	77.2%
*Births with Inadequate Prenatal Care**	*NA*	187	13.3%	241	13.5%	226	12.4%
*Births with No Prenatal Care**	*NA*	11	0.8%	24	1.3%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	107	7.4%	135	7.3%	141	7.5%
Newborns with Low Birth Weight (<2,500g)*	9.7%	103	7.1%	125	6.7%	140	7.5%
CCC Plus							
Births with Early and Adequate Prenatal Care	76.4%	550	68.8%	597	69.6%	587	68.7%
*Births with Inadequate Prenatal Care**	*NA*	128	16.0%	151	17.6%	142	16.6%
*Births with No Prenatal Care**	*NA*	24	3.0%	30	3.5%	29	3.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	126	14.9%	138	15.2%	140	15.8%
Newborns with Low Birth Weight (<2,500g)*	9.7%	124	14.7%	139	15.3%	138	15.6%
Medallion 4.0							
Births with Early and Adequate Prenatal Care	76.4%	15,487	71.8%	18,044	73.0%	18,373	72.5%
*Births with Inadequate Prenatal Care**	*NA*	3,538	16.4%	3,958	16.0%	3,721	14.7%
*Births with No Prenatal Care**	*NA*	304	1.4%	441	1.8%	378	1.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	2,083	9.2%	2,502	9.7%	2,553	9.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	2,080	9.2%	2,349	9.1%	2,421	9.2%

**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).

Births to women in the FAMIS managed care program (FAMIS MOMS and FAMIS Children) had the highest rates of *Early and Adequate Prenatal Care* and the lowest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g*), with rates exceeding the national benchmarks for the applicable study indicators for all three measurement periods. Of note, the *Newborns with Low Birth Weight (<2,500g*) rate for the Medallion 4.0 managed care program outperformed the national benchmark for all three measurement periods. Given the low rates of *Births with Early and Adequate Prenatal Care* and higher rates of *Births with Inadequate Prenatal Care* and *Births with No Prenatal Care* for CCC Plus women, opportunities exist to ensure CCC Plus women receive timely and necessary prenatal care.

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

Table 3-9—Overall Study Indicator Findings Among Singleton Births by Medicaid Delivery System, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
FFS							
Births with Early and Adequate Prenatal Care	76.4%	3,856	68.9%	2,357	65.0%	1,881	64.8%
*Births with Inadequate Prenatal Care**	*NA*	977	17.5%	693	19.1%	562	19.4%
*Births with No Prenatal Care**	*NA*	219	3.9%	193	5.3%	117	4.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	626	10.7%	488	12.8%	334	11.0%
Newborns with Low Birth Weight (<2,500g)*	9.7%	594	10.1%	457	12.0%	280	9.3%
Managed Care							
Births with Early and Adequate Prenatal Care	76.4%	17,120	72.1%	20,035	73.2%	20,364	72.7%
*Births with Inadequate Prenatal Care**	*NA*	3,853	16.2%	4,350	15.9%	4,089	14.6%
*Births with No Prenatal Care**	*NA*	339	1.4%	495	1.8%	417	1.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	2,316	9.3%	2,775	9.7%	2,834	9.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	2,307	9.3%	2,613	9.1%	2,699	9.2%

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

Women enrolled in managed care had better outcomes than women in the FFS population in CY 2020. The CY 2020 rate for women in managed care exceeded the national benchmark for the *Newborns with Low Birth Weight (<2,500 grams)* indicator but continued to fall below the national benchmark for the *Births with Early and Adequate Prenatal Care* and *Preterm Births (<37 Weeks Gestation)* indicators. Of note, the CY 2020 rate for women in FFS improved from prior measurement periods to outperform the national benchmark for *Newborns with Low Birth Weight (<2,500 grams).*

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

Table 3-10—Overall Study Indicator Findings Among Singleton Births by Trimester of Prenatal Care Initiation, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
First Trimester							
Births with Early and Adequate Prenatal Care	76.4%	18,502	85.8%	19,961	87.0%	20,033	84.8%
*Births with Inadequate Prenatal Care**	*NA*	472	2.2%	535	2.3%	585	2.5%
*Births with No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	1,981	9.2%	2,192	9.6%	2,256	9.5%
Newborns with Low Birth Weight (<2,500g)*	9.7%	1,936	9.0%	2,075	9.0%	2,114	9.0%
Second Trimester							
Births with Early and Adequate Prenatal Care	76.4%	2,474	43.0%	2,431	42.6%	2,212	41.1%
*Births with Inadequate Prenatal Care**	*NA*	2,873	49.9%	2,856	50.0%	2,678	49.8%
*Births with No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	470	8.2%	512	9.0%	458	8.5%
Newborns with Low Birth Weight (<2,500g)*	9.7%	508	8.8%	523	9.2%	472	8.8%
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*	1,485	100.0%	1,652	100.0%	1,388	100.0%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	131	8.6%	150	9.0%	131	9.3%
Newborns with Low Birth Weight (<2,500g)*	9.7%	126	8.3%	134	8.0%	130	9.3%
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*	558	100.0%	688	100.0%	534	100.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	161	29.8%	195	28.4%	140	26.2%
Newborns with Low Birth Weight (<2,500g)*	9.7%	140	25.2%	157	22.9%	105	19.7%

Women who initiated prenatal care in their first, second, or third trimesters surpassed the national benchmark for the *Newborns with Low Birth Weight (<2,500 grams)* study indicator in CY 2020. However, only women who initiated prenatal care in their second or third trimesters outperformed the national benchmark for the *Preterm Births (<37 Weeks Gestation)* study indicator. Nearly 85 percent of women initiated prenatal care in their first trimester yet had a higher rate of preterm births compared to national benchmarks. Approximately 72 percent of the preterm births to women who initiated prenatal care in the first trimester received 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—Overall Study Indicator Findings Among Singleton Births by Length of Continuous Enrollment, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
≤30 Days							
Births with Early and Adequate Prenatal Care	76.4%	700	65.1%	812	66.6%	632	65.2%
*Births with Inadequate Prenatal Care**	*NA*	199	18.5%	221	18.1%	173	17.8%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with No Prenatal Care**	*NA*	62	5.8%	55	4.5%	43	4.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	147	13.1%	153	11.9%	103	10.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	128	11.3%	143	11.1%	91	8.9%
31–90 Days							
Births with Early and Adequate Prenatal Care	76.4%	1,079	61.4%	1,216	62.8%	1,002	62.8%
*Births with Inadequate Prenatal Care**	*NA*	412	23.4%	460	23.7%	360	22.6%
*Births with No Prenatal Care**	*NA*	65	3.7%	87	4.5%	50	3.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	197	10.7%	219	10.7%	198	11.9%
Newborns with Low Birth Weight (<2,500g)*	9.7%	185	10.0%	204	9.9%	161	9.7%
91–180 Days							
Births with Early and Adequate Prenatal Care	76.4%	2,267	60.3%	2,341	60.4%	2,165	62.5%
*Births with Inadequate Prenatal Care**	*NA*	1,035	27.5%	1,061	27.4%	844	24.4%
*Births with No Prenatal Care**	*NA*	97	2.6%	106	2.7%	66	1.9%
Preterm Births (<37 Weeks Gestation)*	9.4%	439	11.2%	508	12.5%	388	10.8%
Newborns with Low Birth Weight (<2,500g)*	9.7%	408	10.4%	481	11.9%	368	10.2%
>180 Days							
Births with Early and Adequate Prenatal Care	76.4%	16,889	74.4%	17,964	75.3%	18,424	74.1%
*Births with Inadequate Prenatal Care**	*NA*	3,173	14.0%	3,289	13.8%	3,256	13.1%
*Births with No Prenatal Care**	*NA*	329	1.4%	434	1.8%	373	1.5%
Preterm Births (<37 Weeks Gestation)*	9.4%	2,152	9.1%	2,371	9.5%	2,474	9.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	2,174	9.1%	2,230	8.9%	2,355	9.1%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Not Continuously Enrolled Prior to Delivery							
Births with Early and Adequate Prenatal Care	76.4%	41	63.1%	59	64.8%	22	48.9%
*Births with Inadequate Prenatal Care**	*NA*	11	16.9%	12	13.2%	18	40.0%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*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).

Women who were continously enrolled for less than 30 days and more than 180 days had *Newborns with Low Birth Weight (<2,500 grams)* rates that outperformed national benchmarks in CY 2020. Despite not meeting the national benchmark in CY 2020 for *Births with Early and Adequate Prenatal Care*, women who were continuously enrolled for more than 180 days had the highest rate compared to women 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. Of note, the CY 2020 *Births with Early and Adequate Prenatal Care* rate for women not continuously enrolled prior to delivery declined from CY 2019 by nearly 16 percentage points. The decrease in the rate is related to the decline in the number of women not continuously enrolled prior to delivery in CY 2020, which may be attributed to the implementation of Medicaid Expansion in 2019 and the MOE in response to COVID-19 that ensured continuous coverage to pregnant women during CY 2020. Women not continuously enrolled prior to delivery in CY 2020 were predominantly Hispanic women of any race, immigrants, and resided in the Northern & Winchester region.

MCO Study Indicator Results

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

Table 3-12—Overall Study Indicator Findings Among Singleton Births by MCO, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Aetna							
Births with Early and Adequate Prenatal Care	76.4%	1,176	75.1%	2,363	72.7%	2,703	73.5%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with Inadequate Prenatal Care**	*NA*	201	12.8%	522	16.1%	519	14.1%
*Births with No Prenatal Care**	*NA*	18	1.2%	63	1.9%	46	1.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	164	10.0%	337	9.8%	373	9.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	146	8.9%	343	10.0%	322	8.4%
HealthKeepers							
Births with Early and Adequate Prenatal Care	76.4%	6,176	71.8%	6,174	73.5%	6,357	72.6%
*Births with Inadequate Prenatal Care**	*NA*	1,402	16.3%	1,290	15.4%	1,271	14.5%
*Births with No Prenatal Care**	*NA*	126	1.5%	170	2.0%	121	1.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	806	9.1%	875	10.0%	836	9.3%
Newborns with Low Birth Weight (<2,500g)*	9.7%	787	8.9%	755	8.6%	785	8.7%
Magellan							
Births with Early and Adequate Prenatal Care	76.4%	202	64.3%	1,330	70.4%	1,454	72.4%
*Births with Inadequate Prenatal Care**	*NA*	69	22.0%	344	18.2%	317	15.8%
*Births with No Prenatal Care**	*NA*	*S*	*S*	31	1.6%	43	2.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	23	7.0%	186	9.4%	229	11.0%
Newborns with Low Birth Weight (<2,500g)*	9.7%	25	7.6%	189	9.6%	242	11.7%
Optima							
Births with Early and Adequate Prenatal Care	76.4%	4,011	74.0%	4,438	75.6%	4,380	74.4%
*Births with Inadequate Prenatal Care**	*NA*	801	14.8%	855	14.6%	828	14.1%
*Births with No Prenatal Care**	*NA*	89	1.6%	100	1.7%	85	1.4%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	532	9.6%	609	10.1%	627	10.4%
Newborns with Low Birth Weight (<2,500g)*	9.7%	531	9.5%	598	9.9%	595	9.9%
UnitedHealthcare							
Births with Early and Adequate Prenatal Care	76.4%	328	66.9%	1,778	70.2%	1,816	71.3%
*Births with Inadequate Prenatal Care**	*NA*	91	18.6%	447	17.7%	373	14.6%
*Births with No Prenatal Care**	*NA*	*S*	*S*	57	2.3%	40	1.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	49	9.7%	231	8.7%	234	8.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	41	8.1%	234	8.8%	238	8.9%
VA Premier							
Births with Early and Adequate Prenatal Care	76.4%	3,705	73.0%	3,952	72.9%	3,654	71.0%
*Births with Inadequate Prenatal Care**	*NA*	810	16.0%	892	16.5%	781	15.2%
*Births with No Prenatal Care**	*NA*	54	1.1%	74	1.4%	82	1.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	506	9.2%	537	9.3%	535	9.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	531	9.6%	494	8.6%	517	9.3%

**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).

HealthKeepers and UnitedHealthcare were the only two MCOs to exceed the national benchmarks for both the *Preterm Births (<37 Weeks Gestation*) and *Newborns with Low Birth Weight (<2,500 grams)* indicators in CY 2020. Of note, Aetna and VA Premier also exceeded the national benchmark for the *Newborns with Low Birth Weight (<2,500 grams)* indicator for CY 2020. Magellan had the highest rates of *Preterm Births (<37 Weeks Gestation*) and *Newborns with Low Birth Weight (<2,500 grams)* in CY 2020, demonstrating opportunities for improvement.

Table 3-13, on the next page, presents the overall study indicators for each MCO stratified by race/ethnicity for CY 2020.

Table 3-13—Overall Study Indicator Findings Among Singleton Births by MCO and Race/Ethnicity, CY 2020

Study Indicator	National Benchmark	Aetna	Health Keepers	Magellan	Optima	United	VA Premier
White, Non-Hispanic							
Births with Early and Adequate Prenatal Care	76.4%	75.4%	75.1%	74.0%	74.3%	72.8%	72.6%
*Births with Inadequate Prenatal Care**	*NA*	12.7%	12.7%	14.3%	14.2%	12.9%	14.3%
*Births with No Prenatal Care**	*NA*	1.0%	1.2%	1.6%	1.4%	*S*	1.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	9.8%	8.2%	10.4%	8.8%	9.0%	9.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	7.4%	7.2%	10.5%	6.3%	7.6%	8.7%
Black, Non-Hispanic							
Births with Early and Adequate Prenatal Care	76.4%	73.1%	72.1%	72.0%	74.8%	70.5%	71.2%
*Births with Inadequate Prenatal Care**	*NA*	14.4%	14.9%	15.3%	13.2%	16.8%	15.1%
*Births with No Prenatal Care**	*NA*	1.2%	1.6%	3.0%	1.6%	2.5%	1.8%
Preterm Births (<37 Weeks Gestation)*	9.4%	10.0%	11.0%	12.3%	11.9%	10.6%	10.2%
Newborns with Low Birth Weight (<2,500g)*	9.7%	10.5%	11.5%	15.2%	13.3%	12.5%	11.5%
Hispanic, Any Race							
Births with Early and Adequate Prenatal Care	76.4%	68.2%	69.7%	67.1%	74.3%	68.2%	66.1%
*Births with Inadequate Prenatal Care**	*NA*	18.8%	17.3%	22.7%	16.9%	16.1%	19.2%
*Births with No Prenatal Care**	*NA*	*S*	1.5%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	9.0%	8.5%	10.4%	9.2%	4.6%	6.4%
Newborns with Low Birth Weight (<2,500g)*	9.7%	6.2%	6.0%	7.1%	7.3%	4.8%	4.8%
Other/Unknown							
Births with Early and Adequate Prenatal Care	76.4%	69.4%	68.1%	70.9%	68.6%	72.5%	64.8%

Study Indicator	National Benchmark	Aetna	Health Keepers	Magellan	Optima	United	VA Premier
*Births with Inadequate Prenatal Care**	*NA*	15.0%	16.2%	20.3%	18.9%	11.6%	16.8%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	0.0%	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	9.0%	6.3%	*S*	11.3%	7.2%	11.2%
Newborns with Low Birth Weight (<2,500g)*	9.7%	6.2%	6.3%	*S*	10.6%	9.2%	8.5%

**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).

None of the MCOs exceeded the national benchmark for the *Births with Early and Adequate Prenatal Care* indicator during CY 2020 for any race/ethnicity, demonstrating opportunities for improvement for all MCOs. Additionally, across all MCOs, Hispanic women of any race and women of Other/Unknown race had the lowest rates of *Births with Early and Adequate Prenatal Care*. All MCOs, except Magellan, had *Preterm Births (<37 Weeks Gestation*) and *Newborns with Low Birth Weight (<2,500 grams)* rates for Hispanic women of any race that outperformed the national benchmarks in CY 2020. None of the MCOs exceeded the national benchmarks for any study indicators with applicable benchmarks for Black, Non-Hispanic women. Of note, Magellan had some of the highest rates of *Preterm Births (<37 Weeks Gestation*) and *Newborns with Low Birth Weight (<2,500 grams)* for all known races/ethnicities (White, Non-Hispanic; Black, Non-Hispanic, Hispanic, Any Race), suggesting opportunities for Magellan to improve care for all women.

Table 3-14 presents the overall study indicators for each MCO stratified by geographic managed care region for CY 2020.

Table 3-14—Overall Study Indicator Findings Among Singleton Births by MCO and Geographic Managed Care Region, CY 2020

Study Indicator	National Benchmark	Aetna	Health Keepers	Magellan	Optima	United	VA Premier
Central							
Births with Early and Adequate Prenatal Care	76.4%	75.2%	75.6%	70.4%	73.1%	75.4%	68.6%
*Births with Inadequate Prenatal Care**	*NA*	12.1%	11.0%	13.7%	13.7%	12.4%	15.0%
*Births with No Prenatal Care**	*NA*	1.2%	1.5%	3.4%	1.6%	*S*	2.2%
Preterm Births (<37 Weeks Gestation)*	9.4%	9.8%	9.4%	11.4%	9.2%	8.9%	9.2%

Study Indicator	National Benchmark	Aetna	Health Keepers	Magellan	Optima	United	VA Premier
Newborns with Low Birth Weight (<2,500g)*	9.7%	9.0%	9.8%	12.1%	9.6%	9.7%	10.9%
Charlottesville/Western							
Births with Early and Adequate Prenatal Care	76.4%	80.8%	75.6%	78.8%	77.5%	73.2%	78.2%
*Births with Inadequate Prenatal Care**	*NA*	13.6%	15.5%	16.3%	14.3%	15.3%	13.9%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	1.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	9.8%	7.1%	10.9%	9.3%	9.6%	8.4%
Newborns with Low Birth Weight (<2,500g)*	9.7%	8.1%	7.2%	12.1%	9.7%	7.6%	8.3%
Northern & Winchester							
Births with Early and Adequate Prenatal Care	76.4%	66.4%	66.5%	68.1%	66.7%	67.5%	61.8%
*Births with Inadequate Prenatal Care**	*NA*	19.2%	18.4%	18.8%	19.0%	17.6%	21.5%
*Births with No Prenatal Care**	*NA*	2.1%	1.5%	*S*	*S*	1.4%	1.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	8.9%	8.2%	10.5%	10.6%	6.5%	8.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	6.5%	7.6%	9.1%	9.1%	6.3%	7.2%
Roanoke/Alleghany							
Births with Early and Adequate Prenatal Care	76.4%	73.6%	77.3%	74.2%	73.4%	72.4%	73.9%
*Births with Inadequate Prenatal Care**	*NA*	12.5%	9.8%	13.1%	14.5%	10.4%	11.4%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	1.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	8.4%	9.5%	10.3%	9.0%	6.8%	10.9%
Newborns with Low Birth Weight (<2,500g)*	9.7%	7.6%	8.0%	13.7%	8.5%	8.9%	10.0%
Southwest							
Births with Early and Adequate Prenatal Care	76.4%	68.5%	72.0%	64.0%	70.9%	63.0%	67.9%

Study Indicator	National Benchmark	Aetna	Health Keepers	Magellan	Optima	United	VA Premier
*Births with Inadequate Prenatal Care**	NA	14.5%	9.9%	19.3%	15.7%	20.2%	15.3%
*Births with No Prenatal Care**	NA	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	11.3%	9.0%	8.3%	7.5%	13.6%	9.9%
Newborns with Low Birth Weight (<2,500g)*	9.7%	10.4%	8.7%	9.0%	5.2%	13.6%	8.8%
Tidewater							
Births with Early and Adequate Prenatal Care	76.4%	73.4%	75.0%	74.9%	75.1%	75.2%	75.0%
*Births with Inadequate Prenatal Care**	NA	14.6%	14.5%	17.2%	13.2%	12.5%	13.4%
*Births with No Prenatal Care**	NA	*S*	1.2%	2.3%	1.7%	3.2%	2.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	10.6%	11.0%	12.3%	11.9%	13.3%	11.9%
Newborns with Low Birth Weight (<2,500g)*	9.7%	9.0%	9.5%	12.1%	10.8%	13.0%	10.2%

**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 CY 2020, four of the six MCOs in the Charlottesville/Western region exceeded the national benchmark for the *Births with Early and Adequate Prenatal Care* indicator. Despite women in the Charlottesville/Western region having the highest rates of *Births with Early and Adequate Prenatal Care*, only three of six MCOs and four of six MCOs exceeded the national benchmarks for the *Preterm Births (<37 Weeks Gestation)* and the *Newborns with Low Birth Weight (<2,500 grams)* study indicators, respectively. None of the MCOs in the Central, Northern & Winchester, Southwest, or Tidewater regions exceeded the national benchmark for the *Births with Early and Adequate Prenatal Care* indicator. All MCOs in the Northern & Winchester region exceeded the national benchmark for the *Newborns with Low Birth Weight (<2,500 grams)* indicator, while none of the MCOs in the Tidewater region exceeded the national benchmark for the *Preterm Births (<37 Weeks Gestation)* indicator.

Table 3-15, on the next page, presents the CY 2020 cross-measure analysis results that shows 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 3-15—Distribution of Adequacy of Prenatal Care by Birth Outcomes (Preterm Births and Low Birth Weight) and MCO, CY 2020

MCO	Study Indicator	Missing Information	No PNC	Inadequate PNC	Intermediate PNC	Adequate PNC	Adequate Plus PNC
Aetna	Preterm Births (<37 Weeks Gestation)*	16.4%	32.6%	8.1%	6.3%	3.1%	18.5%
	Newborns with Low Birth Weight (<2,500g)*	13.2%	23.9%	8.5%	5.1%	4.1%	13.9%
HealthKeepers	Preterm Births (<37 Weeks Gestation)*	15.6%	19.8%	8.1%	5.9%	3.3%	18.0%
	Newborns with Low Birth Weight (<2,500g)*	13.7%	15.7%	8.2%	6.4%	4.4%	14.7%
Magellan	Preterm Births (<37 Weeks Gestation)*	18.2%	*S*	9.1%	6.7%	4.5%	19.7%
	Newborns with Low Birth Weight (<2,500g)*	*S*	*S*	11.4%	8.7%	7.0%	17.4%
Optima	Preterm Births (<37 Weeks Gestation)*	12.1%	28.2%	9.3%	7.0%	3.8%	18.0%
	Newborns with Low Birth Weight (<2,500g)*	8.1%	22.4%	8.3%	5.5%	5.4%	16.1%
UnitedHealthcare	Preterm Births (<37 Weeks Gestation)*	19.1%	*S*	7.8%	*S*	2.3%	18.9%
	Newborns with Low Birth Weight (<2,500g)*	17.6%	*S*	7.8%	3.4%	4.1%	16.9%
VA Premier	Preterm Births (<37 Weeks Gestation)*	13.9%	29.3%	6.4%	7.8%	4.4%	15.7%
	Newborns with Low Birth Weight (<2,500g)*	12.0%	20.7%	9.0%	9.1%	4.9%	13.3%

PNC=prenatal care
**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).

As shown in Table 3-12 above, HealthKeepers and UnitedHealthcare were the only two MCOs to exceed the national benchmarks for both the *Preterm Births (<37 Weeks Gestation*) and *Newborns with Low Birth Weight (<2,500 grams)* indicators for CY 2020. Of note, Aetna and VA Premier also exceeded the national benchmark for the *Newborns with Low Birth Weight (<2,500 grams)* indicators for CY 2020. Despite that none of the MCOs exceeded the national benchmark for *Early and Adequate Prenatal Care,* Table 3-15 shows that ensuring women receive adequate prenatal care reduces the rates of *Preterm Births (<37 Weeks Gestation*) and *Newborns with Low Birth Weight (<2,500 grams),* with all MCOs having rates below national benchmarks when adequate prenatal care is received. Of note, Aetna and UnitedHealthcare had the lowest rates of *Preterm Births (<37 Weeks Gestation*) and *Newborns with Low Birth Weight (<2,500 grams)* when women received adequate prenatal care. Conversely, Magellan had the highest rate of *Newborns with Low Birth Weight (<2,500 grams)* when women received adequate prenatal care, and both Magellan and VA Premier had the highest rates of *Preterm Births (<37 Weeks Gestation*) when women received adequate prenatal care.

All MCOs had similar rates of *Preterm Births (<37 Weeks Gestation*) and *Newborns with Low Birth Weight (<2,500 grams)* for women with adequate plus prenatal care. This finding suggests that women

who were at high risk for preterm birth or having a baby with low birth weight were receiving more than 110 percent of expected prenatal visits; however, these women still had poor birth outcomes. Aetna, Optima, and VA Premier had some of the highest rates of *Preterm Births (<37 Weeks Gestation*) to women who had no prenatal care.

Comparative Analysis

To facilitate DMAS' program evaluation efforts, Table 3-16 presents the CY 2020 study indicator results for the five Medicaid Programs (i.e., Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, LIFC, and Other Medicaid) 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 3-16—Overall Study Indicator Findings Among Singleton Births by Comparison Group and Study Population, CY 2020

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%	2,663	1,629	61.2%	16,305	12,108	74.3%^
*Births with Inadequate Prenatal Care**	*NA*	2,663	627	23.5%	16,305	2,212	13.6%^
*Births with No Prenatal Care**	*NA*	2,663	87	3.3%	16,305	154	0.9%^
Preterm Births (<37 Weeks Gestation)*	9.4%	2,775	292	10.5%	16,995	1,458	8.6%^
Newborns with Low Birth Weight (<2,500g)*	9.7%	2,775	267	9.6%	16,989	1,432	8.4%^
Medicaid Expansion							
Births with Early and Adequate Prenatal Care	76.4%	250	172	68.8%	4,150	3,077	74.1%
*Births with Inadequate Prenatal Care**	*NA*	250	40	16.0%	4,150	538	13.0%
*Births with No Prenatal Care**	*NA*	*250*	*S*	*S*	4,150	80	1.9%^

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	262	40	15.3%	4,314	504	11.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	262	28	10.7%	4,313	435	10.1%
FAMIS MOMS							
Births with Early and Adequate Prenatal Care	76.4%	431	315	73.1%	1,606	1,249	77.8%^
*Births with Inadequate Prenatal Care**	*NA*	431	74	17.2%	1,606	187	11.6%^
*Births with No Prenatal Care**	*NA*	431	*S*	*S*	1,606	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	446	41	9.2%	1,645	122	7.4%
Newborns with Low Birth Weight (<2,500g)*	9.7%	446	38	8.5%	1,645	112	6.8%
LIFC							
Births with Early and Adequate Prenatal Care	76.4%	132	79	59.8%	2,725	1,829	67.1%
*Births with Inadequate Prenatal Care**	*NA*	132	24	18.2%	2,725	457	16.8%
*Births with No Prenatal Care**	*NA*	132	15	11.4%	2,725	94	3.4%^
Preterm Births (<37 Weeks Gestation)*	9.4%	150	30	20.0%	2,839	363	12.8%^
Newborns with Low Birth Weight (<2,500g)*	9.7%	150	16	10.7%	2,837	320	11.3%
Other Medicaid†							
Births with Early and Adequate Prenatal Care	76.4%	208	114	54.8%	2,461	1,673	68.0%^

Study Indicator	National Benchmark	Comparison Group			Study Population		
		Denom	Number	Percent	Denom	Number	Percent
*Births with Inadequate Prenatal Care**	*NA*	208	60	28.8%	2,461	432	17.6%^
*Births with No Prenatal Care**	*NA*	208	*S*	*S*	2,461	75	3.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	217	33	15.2%	2,585	285	11.0%
Newborns with Low Birth Weight (<2,500g)*	9.7%	216	32	14.8%	2,584	299	11.6%

**a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator.
†Other Medicaid includes births paid by Medicaid, but that do not fall into the Medicaid for Pregnant Women, Medicaid Expansion, FAMIS MOMS, and LIFC programs.
^indicates the study population rate is statistically different from 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 in CY 2020 with the study population exceeding the applicable national benchmark for the three study indicators that could be compared to national benchmarks. Similarly, the study population for the Medicaid for Pregnant Women program exceeded the applicable national benchmarks for the *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)* study indicators. The Medicaid Expansion, LIFC, and Other Medicaid study population rates fell below the national benchmark for all three study indicators that could be compared to national benchmarks, with the LIFC study population having the highest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)*. Women in the LIFC program may not have received all the necessary prenatal care as evidenced by the lower *Births with Early and Adequate Prenatal Care* study indicator rates, which likely contributed to the high rates of preterm births given that studies have shown that timely prenatal care is associated with fewer preterm births in the United States.[3-2]

Additional Population-Specific Stratifications

FAMIS MOMS

Table 3-17, on the next page, provides the FAMIS MOMS singleton births characteristics, stratified by Medicaid delivery system, maternal age at delivery, maternal race/ethnicity, and managed care region of residence.

[3-2] Centers for Disease Control and Prevention. Preterm birth. Available at: https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm. Accessed on: Dec 9, 2021.

Table 3-17—FAMIS MOMS Singleton Births Characteristics

Overall Births	CY 2018		CY 2019		CY 2020	
	Number	Percent	Number	Percent	Number	Percent
Singleton Births†	1,771	100.0%	2,193	100.0%	2,091	100.0%
Medicaid Delivery System						
FFS	353	19.9%	375	17.1%	264	12.6%
Managed Care	1,418	80.1%	1,818	82.9%	1,827	87.4%
Maternal Age at Delivery						
≤15 Years	0	0.0%	*S*	*S*	*S*	*S*
16–17 Years	12	0.7%	12	0.5%	*S*	*S*
18–20 Years	90	5.1%	106	4.8%	99	4.7%
21–24 Years	375	21.2%	460	21.0%	383	18.3%
25–29 Years	648	36.6%	740	33.7%	747	35.7%
30–34 Years	389	22.0%	556	25.4%	521	24.9%
35–39 Years	208	11.7%	246	11.2%	267	12.8%
40–44 Years	47	2.7%	66	3.0%	55	2.6%
≥45 Years	*S*	*S*	*S*	*S*	*S*	*S*
Unknown	*S*	*S*	0	0.0%	*S*	*S*
Maternal Race/Ethnicity						
White, Non-Hispanic	552	31.2%	687	31.3%	621	29.7%
Black, Non-Hispanic	128	7.2%	166	7.6%	172	8.2%
Asian, Non-Hispanic	271	15.3%	343	15.6%	344	16.5%
Hispanic, Any Race	27	1.5%	48	2.2%	40	1.9%
Other/Unknown	552	31.2%	687	31.3%	621	29.7%
Managed Care Region of Residence						
Central	409	23.1%	527	24.0%	475	22.7%
Charlottesville/Western	206	11.6%	238	10.9%	206	9.9%
Northern & Winchester	600	33.9%	736	33.6%	740	35.4%
Roanoke/Alleghany	113	6.4%	175	8.0%	161	7.7%
Southwest	73	4.1%	88	4.0%	63	3.0%
Tidewater	370	20.9%	427	19.5%	446	21.3%

†Unknown managed care regions of residence are included in the Singleton Births totals.
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Table 3-18, on the next page, presents the FAMIS MOMS study indicator results stratified by Medicaid delivery system for each measurement period.

Table 3-18—Overall Study Indicator Findings Among FAMIS MOMS Singleton Births by Medicaid Delivery System, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
FFS							
Births with Early and Adequate Prenatal Care	76.4%	251	73.4%	260	73.0%	183	71.5%
*Births with Inadequate Prenatal Care**	*NA*	48	14.0%	60	16.9%	42	16.4%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	32	9.1%	39	10.4%	24	9.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	32	9.1%	41	10.9%	17	6.4%
Managed Care							
Births with Early and Adequate Prenatal Care	76.4%	1,060	77.7%	1,366	78.1%	1,381	77.5%
*Births with Inadequate Prenatal Care**	*NA*	180	13.2%	232	13.3%	219	12.3%
*Births with No Prenatal Care**	*NA*	*S*	*S*	22	1.3%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	104	7.3%	129	7.1%	139	7.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	99	7.0%	117	6.4%	133	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).

Study indicator rates for women in managed care and FFS FAMIS MOMS exceeded the national benchmarks for the *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)* indicators for CY 2020, demonstrating strength. Despite this, the CY 2020 *Births with Early and Adequate Prenatal Care* indicator rate for women in FFS FAMIS MOMS fell below the national benchmark and has declined since CY 2018. This may be attributed to the shorter period of enrollment for FFS women (i.e., these women are likely enrolled shortly before delivery). It is expected that women in managed care FAMIS MOMS have higher rates of *Births with Early and Adequate Prenatal Care* as MCOs are expected to conduct outreach to pregnant women enrolled in managed care regarding the importance of prenatal visits.

Table 3-19, on the next page, presents the FAMIS MOMS study indicator results stratified by race/ethnicity for each measurement period.

Table 3-19—Study Indicator Findings Among FAMIS MOMS Singleton Births by Race/Ethnicity, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic							
Births with Early and Adequate Prenatal Care	76.4%	606	81.0%	727	80.9%	693	79.0%
*Births with Inadequate Prenatal Care**	*NA*	73	9.8%	104	11.6%	107	12.2%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	42	5.3%	58	6.1%	61	6.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	43	5.4%	42	4.4%	55	6.0%
Black, Non-Hispanic							
Births with Early and Adequate Prenatal Care	76.4%	410	76.4%	520	77.7%	481	78.7%
*Births with Inadequate Prenatal Care**	*NA*	76	14.2%	95	14.2%	67	11.0%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	68	12.3%	65	9.5%	60	9.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	59	10.7%	73	10.6%	64	10.3%
Hispanic, Any Race							
Births with Early and Adequate Prenatal Care	76.4%	195	72.5%	229	68.6%	236	69.2%
*Births with Inadequate Prenatal Care**	*NA*	46	17.1%	62	18.6%	66	19.4%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	15	5.5%	29	8.5%	26	7.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	12	4.4%	25	7.3%	17	4.9%
Other/Unknown							
Births with Early and Adequate Prenatal Care	76.4%	100	65.8%	150	73.9%	154	74.0%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with Inadequate Prenatal Care**	*NA*	33	21.7%	31	15.3%	21	10.1%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	—	—
Preterm Births (<37 Weeks Gestation)*	9.4%	11	7.1%	16	7.5%	16	7.5%
Newborns with Low Birth Weight (<2,500g)*	9.7%	17	11.0%	18	8.4%	14	6.6%

**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).

Although the CY 2020 *Births with Early and Adequate Prenatal Care* rate for Black, Non-Hispanic women enrolled in FAMIS MOMS exceeded the national benchmark, Black, Non-Hispanic women had the highest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)* compared to other race/ethnicities. In CY 2020, White, Non-Hispanic women had the highest rates of *Births with Early and Adequate Prenatal Care* and lowest rates of *Preterm Births (<37 Weeks Gestation),* exceeding the national benchmarks for both study indicators. Despite Hispanic women of any race having the lowest rate of *Births with Early and Adequate Prenatal Care*, they had the lowest rate of *Newborns with Low Birth Weight (<2,500g)*, and their rates for *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)* outperformed national benchmarks.

Table 3-20 presents the FAMIS MOMS study indicator results stratified by geographic managed care region for each measurement period.

Table 3-20—Study Indicator Findings Among FAMIS MOMS Singleton Births by Managed Care Region of Maternal Residence, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Central							
Births with Early and Adequate Prenatal Care	76.4%	327	80.5%	421	81.0%	379	80.3%
*Births with Inadequate Prenatal Care**	*NA*	29	7.1%	55	10.6%	49	10.4%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	38	9.3%	41	7.8%	35	7.4%
Newborns with Low Birth Weight (<2,500g)*	9.7%	32	7.8%	39	7.4%	34	7.2%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Charlottesville/Western							
Births with Early and Adequate Prenatal Care	76.4%	174	85.7%	193	82.1%	170	82.5%
*Births with Inadequate Prenatal Care**	*NA*	15	7.4%	31	13.2%	23	11.2%
*Births with No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	17	7.1%	16	7.8%
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	18	7.6%	12	5.8%
Northern & Winchester							
Births with Early and Adequate Prenatal Care	76.4%	398	67.9%	486	69.1%	502	69.2%
*Births with Inadequate Prenatal Care**	*NA*	129	22.0%	134	19.1%	122	16.8%
*Births with No Prenatal Care**	*NA*	*S*	*S*	15	2.1%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	37	6.2%	62	8.4%	46	6.2%
Newborns with Low Birth Weight (<2,500g)*	9.7%	38	6.3%	55	7.5%	42	5.7%
Roanoke/Alleghany							
Births with Early and Adequate Prenatal Care	76.4%	83	80.6%	131	78.4%	127	80.4%
*Births with Inadequate Prenatal Care**	*NA*	*S*	*S*	18	10.8%	15	9.5%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	*S*	*S*	*S*	*S*
Southwest							
Births with Early and Adequate Prenatal Care	76.4%	34	81.0%	48	90.6%	25	75.8%
*Births with Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	*S*	*S*	*S*	*S*
Tidewater							
Births with Early and Adequate Prenatal Care	76.4%	295	80.6%	345	81.2%	361	81.5%
*Births with Inadequate Prenatal Care**	*NA*	40	10.9%	53	12.5%	50	11.3%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	42	11.4%	35	8.2%	48	10.8%
Newborns with Low Birth Weight (<2,500g)*	9.7%	42	11.4%	37	8.7%	44	9.9%

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

In CY 2020, the rates for FAMIS MOMS women residing in the Northern & Winchester and Southwest regions did not meet the national benchmark for *Births with Early and Adequate Prenatal Care*. Despite Northern & Winchester having the lowest rate of *Births with Early and Adequate Prenatal Care*, the rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)* were among the lowest compared to all other regions. Conversely, women residing in the Tidewater region had one of the highest rates of *Births with Adequate and Prenatal Care* compared to all other regions; however, women in this region also had some of the highest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)*.

Table 3-21, on the next page, presents the FAMIS MOMS study indicator results stratified by length of continuous enrollment for each measurement period.

Table 3-21—Study Indicator Findings Among FAMIS MOMS Singleton Births by Length of Continuous Enrollment, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
≤30 Days							
Births with Early and Adequate Prenatal Care	76.4%	76	64.40%	141	73.8%	99	73.9%
*Births with Inadequate Prenatal Care**	*NA*	22	18.60%	27	14.1%	19	14.2%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	14	11.60%	20	10.0%	14	10.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	13	10.70%	19	9.5%	14	10.1%
31–90 Days							
Births with Early and Adequate Prenatal Care	76.4%	95	64.6%	151	72.6%	124	75.2%
*Births with Inadequate Prenatal Care**	*NA*	31	21.1%	40	19.2%	24	14.5%
*Births with No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	16	10.6%	16	7.3%	14	8.2%
Newborns with Low Birth Weight (<2,500g)*	9.7%	16	10.6%	17	7.8%	11	6.5%
91–180 Days							
Births with Early and Adequate Prenatal Care	76.4%	232	69.9%	295	69.2%	320	73.2%
*Births with Inadequate Prenatal Care**	*NA*	68	20.5%	94	22.1%	73	16.7%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	32	9.2%	46	10.4%	40	8.9%
Newborns with Low Birth Weight (<2,500g)*	9.7%	33	9.5%	44	9.9%	46	10.2%
>180 Days							
Births with Early and Adequate Prenatal Care	76.4%	906	81.9%	1,032	81.1%	1,018	78.7%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with Inadequate Prenatal Care**	*NA*	106	9.6%	131	10.3%	142	11.0%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	74	6.4%	86	6.5%	94	7.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	69	6.0%	77	5.8%	79	6.0%
Not Continuously Enrolled Prior to Delivery							
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*
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*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 data were suppressed due to numerator or denominator (i.e., fewer than 11).

Women continuously enrolled in FAMIS MOMS for more than 180 days during CY 2020 had the highest rates of *Births with Early and Adequate Prenatal Care* and some of the lowest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g).* Of note, women continuously enrolled in FAMIS MOMS between 91 and 180 days had lower rates of *Births with Early and Adequate Prenatal Care* and higher rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)* compared to women continuously enrolled between 31 to 90 days, suggesting that women enrolled for a shorter period of time were enrolled after or near the end of their first trimester.

Table 3-22, on the next page, presents the FAMIS MOMS study indicator results stratified by trimester of prenatal care initiation for each measurement period.

Table 3-22—Study Indicator Findings Among FAMIS MOMS Singleton Births by Trimester of Prenatal Care Initiation, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
First Trimester							
Births with Early and Adequate Prenatal Care	76.4%	1,133	88.4%	1,452	90.1%	1,400	88.3%
*Births with Inadequate Prenatal Care**	*NA*	17	1.3%	22	1.4%	24	1.5%
*Births with No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	88	6.9%	119	7.4%	122	7.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	79	6.2%	104	6.5%	102	6.4%
Second Trimester							
Births with Early and Adequate Prenatal Care	76.4%	178	53.1%	174	46.0%	164	43.4%
*Births with Inadequate Prenatal Care**	*NA*	136	40.6%	183	48.4%	175	46.3%
*Births with No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	26	7.8%	28	7.4%	25	6.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	30	9.0%	32	8.5%	28	7.4%
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*	75	100.0%	87	100.0%	62	100.0%
*Births with No Prenatal Care**	*NA*	0	0.0%	0	0.0%	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	*S*	*S*	*S*	*S*
No Prenatal Care							
Births with Early and Adequate Prenatal Care	76.4%	0	0.0%	0	0.0%	0	0.0%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		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*	14	100.0%	28	100.0%	11	100.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*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 value for the second smallest population was also suppressed, even if the value was 11 or more.

In CY 2020, the majority of women enrolled in FAMIS MOMS (approximately 76 percent) initiated prenatal care in the first trimester and exceeded the national benchmarks for all three study indicators with an applicable benchmark. Of note, women in enrolled in FAMIS MOMS during the second trimester still had rates for *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)* that exceeded national benchmarks.

Emergency Only Benefits

Table 3-23 presents the study indicator results for women who received emergency-only benefits for each measurement period.

Table 3-23—Overall Study Indicator Findings Among Emergency-Only Singleton Births, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Births with Early and Adequate Prenatal Care	76.4%	1,477	62.6%	2,644	59.4%	2,042	53.8%
*Births with Inadequate Prenatal Care**	*NA*	484	20.5%	1,124	25.3%	1,112	29.3%
*Births with No Prenatal Care**	*NA*	88	3.7%	183	4.1%	143	3.8%
Preterm Births (<37 Weeks Gestation)*	9.4%	176	7.3%	355	7.8%	287	7.5%
Newborns with Low Birth Weight (<2,500g)*	9.7%	136	5.6%	242	5.4%	211	5.5%

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

Given that women who receive emergency-only benefits are only enrolled the day prior to or the day of delivery, it is expected that these women have low rates of *Births with Early and Adequate Prenatal Care*. Despite the low rates of early and adequate prenatal care, the rates of *Preterm Births (<37 Weeks Gestion)* and *Newborns with Low Birth Weight (<2,500g)* exceeded the national benchmarks across all three measurement periods.

Table 3-24 presents the emergency-only study indicator results stratified by race/ethnicity.

Table 3-24—Study Indicator Findings Among Emergency-Only Singleton Births by Race/Ethnicity, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic							
Births with Early and Adequate Prenatal Care	76.4%	37	68.5%	56	62.9%	37	51.4%
*Births with Inadequate Prenatal Care**	*NA*	*S*	*S*	17	19.1%	21	29.2%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	*S*	*S*	*S*	*S*
Black, Non-Hispanic							
Births with Early and Adequate Prenatal Care	76.4%	20	50.0%	24	42.9%	19	52.8%
*Births with Inadequate Prenatal Care**	*NA*	15	37.5%	17	30.4%	11	30.6%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	0	0.0%	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	0	0.0%	*S*	*S*
Hispanic, Any Race							
Births with Early and Adequate Prenatal Care	76.4%	1,388	62.6%	2,509	59.8%	1,941	53.9%
*Births with Inadequate Prenatal Care**	*NA*	453	20.4%	1,055	25.1%	1,054	29.3%
*Births with No Prenatal Care**	*NA*	80	3.6%	171	4.1%	136	3.8%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	172	7.6%	337	7.9%	272	7.5%
Newborns with Low Birth Weight (<2,500g)*	9.7%	132	5.8%	230	5.4%	200	5.5%
Other/Unknown							
Births with Early and Adequate Prenatal Care	76.4%	32	64.0%	55	51.9%	45	51.7%
*Births with Inadequate Prenatal Care**	*NA*	*S*	*S*	35	33.0%	26	29.9%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*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).

The majority of emergency-only births (approximately 95 percent) across all three measurement periods were to Hispanic women of any race. These women had the highest rate of *Births with Early and Adequate Prenatal Care* in CY 2020 compared to emergency-only births for other races/ethnicities, but this indicator still fell below the national benchmark.

Table 3-25 presents the emergency-only study indicator results stratified by managed care region of residence for each measurement period.

Table 3-25—Study Indicator Findings Among Emergency-Only Singleton Births by Managed Care Region of Maternal Residence, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Central							
Births with Early and Adequate Prenatal Care	76.4%	197	51.3%	454	58.3%	319	48.3%
*Births with Inadequate Prenatal Care**	*NA*	34	8.9%	143	18.4%	189	28.6%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	22	3.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	20	5.2%	47	6.0%	61	9.2%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Newborns with Low Birth Weight (<2,500g)*	9.7%	22	5.7%	29	3.7%	51	7.7%
Charlottesville/Western							
Births with Early and Adequate Prenatal Care	76.4%	86	60.6%	171	67.1%	146	65.5%
*Births with Inadequate Prenatal Care**	*NA*	40	28.2%	71	27.8%	55	24.7%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	14	9.5%	*S*	*S*	16	7.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	13	5.1%	11	4.9%
Northern & Winchester							
Births with Early and Adequate Prenatal Care	76.4%	1,054	66.4%	1,736	60.2%	1,376	55.4%
*Births with Inadequate Prenatal Care**	*NA*	353	22.2%	782	27.1%	743	29.9%
*Births with No Prenatal Care**	*NA*	71	4.5%	145	5.0%	99	4.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	117	7.2%	255	8.7%	173	6.9%
Newborns with Low Birth Weight (<2,500g)*	9.7%	93	5.7%	174	5.9%	123	4.9%
Roanoke/Alleghany							
Births with Early and Adequate Prenatal Care	76.4%	50	61.7%	101	70.1%	82	60.3%
*Births with Inadequate Prenatal Care**	*NA*	16	19.8%	*S*	*S*	21	15.4%
*Births with No Prenatal Care**	*NA*	0	0.0%	*S*	*S*	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	15	10.3%	11	8.0%
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	*S*	*S*	*S*	*S*
Southwest							
Births with Early and Adequate Prenatal Care	76.4%	*S*	*S*	12	57.1%	11	50.0%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	*S*	*S*	*S*	*S*
Tidewater							
Births with Early and Adequate Prenatal Care	76.4%	84	53.8%	169	46.7%	108	40.0%
*Births with Inadequate Prenatal Care**	*NA*	39	25.0%	97	26.8%	94	34.8%
*Births with No Prenatal Care**	*NA*	*S*	*S*	23	6.4%	17	6.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	20	12.7%	23	6.2%	25	9.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	14	3.8%	15	5.5%

**a lower rate indicates better performance for this indicator.*
NA indicates there is not an applicable national benchmark for this indicator. In instances where only one stratification was suppressed, the value for the second smallest population was also suppressed, even if the value was 11 or more.

The majority of emergency-only women (approximately 65 percent) resided in Northern & Winchester during CY 2020, and women residing in this region had the lowest rate of *Newborns with Low Birth Weight (<2,500g)* and lowest rates of *Preterm Births (<37 Weeks Gestation).* Of note, a large proportion of women in this region are Hispanic of any race, which aligns with the findings presented in Table 3-23 that shows Hispanic women of any race had the lowest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g).* Emergency-only women residing in the Central and Tidewater regions had the highest rates of *Preterm Births (<37 Weeks Gestation)* compared to other regions, demonstrating an opportunity for improvement.

4. Conclusions and Recommendations

Conclusions

This study considered five quantitative indicators related to prenatal care and associated birth outcomes among births paid by Virginia Medicaid. Between the CY 2018 and CY 2020 measurement periods, study indicators related to prenatal care, preterm birth, and low birthweight 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. Rates for the *Newborns with Low Birth Weight (<2,500g)* indicator outperformed the national benchmark for all three measurement periods, demonstrating strength for Virginia Medicaid.

During CY 2020, more than 70 percent of women with preterm births or newborns with low birth weight received at least adequate prenatal care, with more than 50 percent of these women receiving adequate plus prenatal care.[4-1] However, approximately 23 percent of women who received inadequate prenatal care, no prenatal care, or had missing prenatal care had a preterm birth or newborn with low birth weight, suggesting opportunities for the MCOs to improve access to timely and frequent prenatal care for these women.

The CY 2020 study indicator results also show regional differences in care with women residing in Central and Tidewater receiving higher rates of early and adequate prenatal care compared to women in other regions; however, these women still had some of the highest rates of preterm births and newborns with low birth weight. There has been a steady decline in the percentage of women with early and adequate prenatal care within the Southwest region, suggesting access to prenatal care may be a barrier within this rural region. Within all regions, racial 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.

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. Research has shown that Medicaid Expansion programs have helped women get better health coverage before and after pregnancy, which leads to improved prenatal and postpartum care. Further, Medicaid Expansion programs also decrease the likelihood of women experiencing intermittent healthcare coverage, which is important for improving health outcomes for moms and babies.[4-2] The study indicator results for the Medicaid Expansion program for CY 2020 demonstrated improvement from CY 2019; however, all three study indicators continue to fall below national benchmarks. Therefore, DMAS should continue to monitor this population to assess that outcomes continue to improve over time. Of note, there was a large decline in CY 2020 in the number

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4-1 "Adequate plus" prenatal care refers to the percentage of births with an APNCU Index (i.e., the Kotelchuck Index) score greater than or equal to 110 percent (i.e., women who received at least 110 percent of expected prenatal visits).

4-2 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: Nov 18, 2021.

of women not continuously enrolled prior to delivery from CY 2019. This change is attributable to Medicaid Expansion as well as to the MOE requirements associated with the FFCRA, enacted in March 2020, which required states to maintain enrollment for Medicaid members for the duration of the federal PHE. This ensured continuous Medicaid coverage for most Virginia Medicaid members throughout CY 2020, increasing the likelihood of continuous enrollment before, during, and after pregnancies.[4-3]

The FAMIS MOMS program continued to outperform other Medicaid programs, 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 205 percent of the FPL). 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 among women in other Medicaid programs based on income-based eligibility requirements. Though limited in number, births to women enrolled in FAMIS MOMS, especially those with continuous enrollment greater than 120 days prior to delivery, had the highest rate of *Births with Early and Adequate Prenatal Care*, and the lowest rates of *Preterm Births (<37 Weeks Gestation)* and *Newborns with Low Birth Weight (<2,500g)*. While these rates remained stable over time, the promising results from this program suggest that it could offer a valuable starting point for assessing beneficiaries' satisfaction with care and underlying SDoH that may distinguish these women from other Medicaid beneficiaries.

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.[4-4]
- 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. Use caution when comparing study results to national benchmarks, as the benchmarks were derived from birth records covered by all payor 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

[4-3] Commonwealth of Virginia, Division of Legislative Automated Systems. 12VAC30-30-10. Mandatory coverage: categorically needy and other required special groups. Available at: https://law.lis.virginia.gov/admincode/title12/agency30/chapter30/section10/. Accessed on: Nov 19, 2021.

[4-4] Dietz PM, Bombard JM, Hutchings YL, et. al. Validation of obstetric estimate of gestational age on US birth certificates. AM J Obstet Gynecol. Apr 2014; 2010(4): 335.e1-335.e5. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4560346/. Accessed on: Dec 9, 2021.

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, allows 10 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 covered by 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 beneficiaries 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®) *Timeliness of Prenatal Care* indicator results.[4-5] 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.
- Medicaid Expansion started on January 1, 2019; therefore, Medicaid Expansion program results should be monitored over time to assess changes as more women eligible for the program start receiving services.
- COVID-19 may have impacted 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.[4-6,4-7] 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 interpreting CY 2020 study indicator results.

4-5 HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

4-6 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: Dec 9, 2021.

4-7 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: Dec 9, 2021.

Recommendations

HSAG collaborated with DMAS to ensure that this study contributes to existing quality improvement 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:

- Based on the 2016–2020 Virginia PRAMS data, Virginia Medicaid women are more likely to be obese prior to pregnancy (44.1 percent), smoke during pregnancy (8.1 percent), and have a prior preterm birth (9.5 percent), and are less likely to receive prenatal care early (81.3 percent) or take a vitamin (e.g., folic acid, prenatal) every day in the month prior to pregnancy (36.1 percent) when compared to women with private insurance.[4-8]
  - Given that obesity is associated with several pregnancy risk factors (e.g., preeclampsia, gestational diabetes) that can also increase the risk of preterm delivery, opportunities exists for DMAS to ensure women of childbearing age are seeing their primary care provider prior to pregnancy to discuss steps that can be taken (e.g., taking prenatal vitamins, using services [registered dietician, community support groups] that can help women reach a healthy weight before pregnancy).[4-9,4-10]
  - The 2016–2020 Virginia PRAMS data showed that the percentage of Medicaid women who smoked during pregnancy declined by nearly 17 percentage points from the 2009–2013 Virginia PRAMS data. Given that smoking during pregnancy is a risk factor for preterm births and low birthweight infants, DMAS should continue to ensure women of childbearing age and pregnant women are receiving tobacco cessation services.[4-11]
- Overall, approximately 72 percent of births in CY 2020 received early and adequate prenatal care and approximately 17 percent of births in CY 2020 received inadequate or no prenatal care. The 2019–20 secret shopper survey that assessed appointment availability for prenatal care providers who accept Medicaid in Virginia found that 59.5 percent of cases were offered a first trimester appointment date and 46.0 percent of cases were offered a second trimester appointment date. The results of both studies suggest that DMAS and 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 all women of childbearing age establish a primary care provider or gynecologist 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 ensure better outcomes for both the mom and baby.[4-12]

4-8 Virginia Department of Health. Pregnancy Risk Assessment Monitoring System Data. Available at: https://www.vdh.virginia.gov/prams/data-2020/. Accessed on: Dec 9, 2021.

4-9 Cnattingius S, Villamor E, Johansson S, et al. Maternal obesity and risk of preterm delivery. JAMA. 2013;309(22). doi:10.1001/jama.2013.6295

4-10 Mayo Clinic. Pregnancy and obesity: Know the risks. Available at: https://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/pregnancy-and-obesity/art-20044409. Accessed on: Dec 9, 2021.

4-11 Medicaid.gov. Pregnancy. Available at: https://www.medicaid.gov/medicaid/quality-of-care/quality-improvement-initiatives/tobacco-cessation/pregnancy/index.html. Accessed on: Dec 9, 2021.

4-12 March of Dimes. Before or Between Pregnancies. Available at: https://www.marchofdimes.org/pregnancy/before-pregnancy.aspx#. Accessed on: Dec 9, 2021.

- Unplanned pregnancies are associated with higher rates of preterm births and newborns with low birthweight.[4-13] Therefore, as part of ensuring all women of childbearing have an established gynecologist prior to pregnancy, DMAS and the MCOs should assess if providers are offering family planning services (e.g., contraception) to women. Given that Medicaid members can now receive a 12-month supply of contraceptives,[4-14] DMAS and the MCOs should monitor contraceptive prescription rates for Medicaid women over time. DMAS should consider having the MCOs report the CMS Adult and Child Core Set measures related to contraceptives (i.e., *Contraceptive Care—All Women* and *Contraceptive Care—Postpartum Women*) to understand better how this policy change impacts the use of contraceptives over time
  - LARCs are an effective contraceptive method that can help reduce unplanned and short-interval pregnancies.[4-15] MCOs should assess if providers are discussing the effectiveness of LARCs as part of the postpartum visit or even prior to the woman leaving the hospital after delivery. MCOs should work to educate their providers, and DMAS should continue to work with hospitals to institute protocols that allow physicians to leverage the Virginia Postpartum LARC toolkit.[4-16]
- 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), mother's substance use before and during pregnancy (smoking, alcohol, and drug use), and 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' Input on Prior Focused Study Recommendations

In addition to the recommendations noted above, DMAS provided the following detailed feedback to HSAG regarding quality improvement actions and initiatives.

DMAS is committed to providing access to comprehensive care for pregnant and postpartum women and their babies enrolled in any one of Virginia Medicaid's health coverage programs. In order to address this goal and address maternal disparities as it relates to Governor Northam's 2025 initiative

4-13 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: Dec 9, 2021.

4-14 Virginia Department of Medical Assistance Services. 12-month supply of contraceptive now available to Virginia Medicaid members. Available at: https://www.dmas.virginia.gov/media/3779/press-release-virginia-medicaid-announces-12-month-supply-of-contraceptives.pdf. Accessed on: Dec 9, 2021.

4-15 The American College of Obstetricians and Gynecologists. Immediate postpartum long-acting reversible contraception. 2017. Available at: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2016/08/immediate-postpartum-long-acting-reversible-contraception. Accessed on: Dec 9, 2021.

4-16 Virginia Department of Medical Assistance Services, Virginia Department of Health, and the Virginia chapter of the American College of Obstetricians and Gynecologists. Virginia postpartum LARC toolkit. Available at: https://www.vdh.virginia.gov/content/uploads/sites/28/2016/07/VA_Postpartum_LARC_Toolkit_final.pdf. Accessed on: Dec 9, 2021.

and the 2021 Virginia Maternal Health Strategic Plan,[4-17] DMAS revamped the Healthy Birthday Virginia initiative to Baby Steps VA.

Through Baby Steps VA, DMAS has enhanced maternal health awareness utilizing five core teams (eligibility and enrollment, outreach and information, connections, new and improved services, and program oversight) to educate and address health disparities for Medicaid and FAMIS members. Each of these five focus areas have collaborated jointly to serve our members, health plans and providers. The contracted MCOs have undertaken a variety of initiatives aimed at improving quality outcomes in maternal health, a primary goal of the DMAS Quality Strategy. The support and partnership from the MCOs has helped to strengthen data sharing, reporting of performance measures, and improve health outcomes for members.

Thank you to all of the agencies, stakeholders, managed care organizations, community partners and members who made this possible. We will continue to aim for "Wellness, One Steps at a Time."

Past and Current Activities

In 2020, DMAS drafted the first Baby Steps VA annual report, detailing our accomplishments in improving maternity care. The report is available on the DMAS website at: https://www.dmas.virginia.gov/for-providers/maternal-and-child-health/

- Eligibility and Enrollment: Increasing maternity enrollment and streamlining newborn enrollment
  - In March of 2020, the federal government declared a PHE in response to the COVID-19 pandemic. Since the onset of the PHE in early 2020, DMAS has developed policy flexibilities in response to members' changing needs and challenges and has worked to ensure continued access to care. The FFCRA established a MOE requirement applicable to most Medicaid populations, which meant that most members, including pregnant and postpartum women, maintained continuous eligibility throughout CY 2020 and beyond, regardless of income and other changes that under normal circumstances would have affected eligibility determinations.
  - Partnered with VDSS to begin discussion on ways to streamline the enrollment process and give pregnant women near real time eligibility determinations so they are connected with doctors and other medical care without delay.
  - Investigated with the VHHA ways to quickly enroll newborns before the mother is discharged from the hospital.
  - Initiated organizational changes with the DMAS Eligibility and Enrollment Services Division to provide better customer service to moms, their babies and the providers who serve them by consolidating all processes related to newborn enrollment into one place.
  - Launched a new coverage program for pregnant women, FAMIS Prenatal Coverage, on July 1, 2021. FAMIS Prenatal is comprehensive coverage for uninsured pregnant individuals who do not qualify for other full-benefit coverage groups because of their immigration status. These Virginians, including those who are undocumented or DACA recipients (DREAMers), are now

[4-17] Secretary of Health and Human Resources, Office of the Governor of Virginia. Maternal health strategic plan. Available at: https://www.governor.virginia.gov/media/governorvirginiagov/secretary-of-health-and-human-resources/pdf/Virginia's-Maternal-Health-Strategic-Plan.pdf. Accessed on: Dec 9, 2021.

eligible for the FAMIS MOMS benefit package during their pregnancy through 60 days postpartum.

- Working closely with representatives from U.S. Health and Human Services, the State Department, leads at three military bases, and the Crowne Plaza Hotel near Dulles to obtain applications for health care coverage for Afghanistan evacuees. An expedited process allows us to enroll pregnant individuals, new mothers, and medically frail individuals in Medicaid so they have access to health coverage. DMAS is scheduling application events to assist with expediting access to full health coverage.
- On November 18, 2021, DMAS received federal approval of Virginia's application to provide 12 months continuous postpartum health coverage for all members. Prior to this change, some members, including FAMIS MOMS, lost access to care at 60 days postpartum. This continued postpartum care, to be implemented over the coming year, is an important step in improving health outcomes for both parents and babies.

- Outreach and Information: Engaging with internal and external stakeholders and sharing information with members
  - Contacted pregnant members who receive their benefits through FFS and shared information on Medicaid benefits and other resources essential for their health.
  - Developed efforts to bring awareness to postpartum services, currently available for Medicaid pregnant and parenting women during and after the PHE. Information was shared with DMAS' dental benefit administrator, MCOs, ACOG Virginia, and the Medical Society of Virginia.
  - Launched a targeted outreach initiative to educate pregnant women about coverage and benefits through radio spots, and digital and social media platforms. Increased utilization of social media platforms to share photos and videos that will raise awareness about various initiatives and campaigns related to maternal and infant health.
- Connections: Engaging with providers, community stakeholders, hospitals, and state agencies
  - Collaborated with stakeholders on a variety of projects supporting pregnant and parenting people. Collaboration was geared towards furthering maternity program quality outcomes and engagement with a variety of partners such as VDH, VDSS, DBHDS, VHHA, and VNPC.
  - Met with VDH to discuss outreach measures to increase WIC utilization for members.
  - Presented during the Fifth Annual VNPC Summit: Fostering Community Relationships to Improve Maternal and Infant Health Outcomes on "Baby Steps VA- Where are we now! During the presentations, speakers shared information on Medicaid 101, Baby Steps VA, Policy Changes, Postpartum services, Doulas, and Dental Coverage.
  - Hosted bi-monthly Baby Steps VA meetings with external speakers to learn about programs available, send a weekly informational email, and developed a monthly Baby Steps VA newsletter to keep the agency and external partners abreast of activities.
- New and Improved Services: Collaborating with Virginia projects to enhance services
  - Addressed COVID-19 and the impacts on our Medicaid members. DMAS and the MCOs expanded telehealth options for services, including several flexibilities for medical and behavioral health services utilized by pregnant members during the state of emergency.
  - Finalized the directed payments process for providers during the public health emergency.
  - Implemented General Assembly directive to allow Medicaid members to receive up to 12 months prescription for birth control, increasing access to contraception.

- Awarded a SUPPORT Act grant to continue to increase SUD provider capacity in Virginia. Grant activities that focused on the screening and treatment needs of pregnant and postpartum individuals.
- Established a workgroup to explore Medicaid reimbursement for doula support services by reviewing federal requirements and permissibility, commonwealth regulations, and determining estimated cost to the commonwealth for the next six years. DMAS submitted the report in December 2020.
- Received federal approval to implement a doula benefit for pregnant women in Virginia Medicaid. Virginia will be the fourth state in the nation to implement community doula services to its Medicaid population. This benefit, to be launched in 2022, will provide a culturally centered focus on our members through shared experiences and comprehensive training. DMAS is collaborating with VDH and the MCOs on the certification and enrollment processes.
- Established a workgroup to assess home visiting models to determine which to recommend for a Medicaid home-visiting benefit to support member's health, access to care and health equity. Over several months, the workgroup reviewed home visiting strategies and benefits in other state Medicaid programs and corresponding federal and state regulations. In addition, the workgroup reviewed funding mechanisms for existing home visiting programs in Virginia and funding approaches utilized across the nation. The workgroup's report to the General Assembly will be completed in December 2021.

- <u>Program Oversight: Utilizing data and reports to monitor and improve programs</u>
  - Partnered with VCU to launch both a report (Diagnosis and Treatment of Substance Use Disorders among Pregnant Women Covered by Medicaid) and study (Opioid Treatment For Pregnant Women Has Increased But Racial Inequities Exist) centered around care for pregnant members with substance use disorders.
  - Continuing participation in the NASHP MCH PIP policy academy that will help to identify, develop, and implement policy changes to address maternal mortality for Medicaid eligible pregnant and parenting persons, with the goal to improve access to quality care. The project will focus on two areas of care Postpartum Communication and Doula Implementation. In both projects DMAS will focus on engaging community systems, improving timeliness of care, and improving access to care.

Appendix A: Additional Stratifications for Study Indicators

Table A-1 presents the study indicator findings among FAMIS MOMS singleton births by maternal age at the time of delivery for CY 2018 through CY 2020.

Table A-1—Study Indicator Findings Among FAMIS MOMS Singleton Births by Maternal Age at Delivery, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
≤15 Years							
Births with Early and Adequate Prenatal Care	76.4%	—	—	*S*	*S*	—	—
*Births with Inadequate Prenatal Care**	*NA*	—	—	*S*	*S*	—	—
*Births with No Prenatal Care**	*NA*	—	—	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	—	—	*S*	*S*	—	—
Newborns with Low Birth Weight (<2,500g)*	9.7%	—	—	*S*	*S*	*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*
*Births with No Prenatal Care**	*NA*	0	0.0%	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	0	0.0%	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	0	0.0%	*S*	*S*	*S*	*S*

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
18–20 Years							
Births with Early and Adequate Prenatal Care	76.4%	60	74.1%	78	78.0%	71	75.5%
*Births with Inadequate Prenatal Care**	*NA*	12	14.8%	17	17.0%	12	12.8%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	13	12.3%	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	13	14.4%	*S*	*S*	*S*	*S*
21–24 Years							
Births with Early and Adequate Prenatal Care	76.4%	285	79.4%	353	79.9%	292	78.3%
*Births with Inadequate Prenatal Care**	*NA*	40	11.1%	53	12.0%	48	12.9%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	26	6.9%	27	5.9%	29	7.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	23	6.1%	30	6.5%	33	8.6%
25–29 Years							
Births with Early and Adequate Prenatal Care	76.4%	474	76.1%	558	77.6%	563	76.7%
*Births with Inadequate Prenatal Care**	*NA*	92	14.8%	88	12.2%	92	12.5%
*Births with No Prenatal Care**	*NA*	*S*	*S*	15	2.1%	*S*	*S*

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
Preterm Births (<37 Weeks Gestation)*	9.4%	51	7.9%	48	6.5%	55	7.4%
Newborns with Low Birth Weight (<2,500g)*	9.7%	46	7.1%	51	6.9%	57	7.6%
30–34 Years							
Births with Early and Adequate Prenatal Care	76.4%	303	79.1%	389	73.8%	381	75.4%
*Births with Inadequate Prenatal Care**	*NA*	42	11.0%	84	15.9%	64	12.7%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	25	6.4%	39	7.0%	32	6.1%
Newborns with Low Birth Weight (<2,500g)*	9.7%	32	8.2%	33	5.9%	29	5.6%
35–39 Years							
Births with Early and Adequate Prenatal Care	76.4%	146	72.6%	189	79.7%	200	77.8%
*Births with Inadequate Prenatal Care**	*NA*	32	15.9%	34	14.3%	34	13.2%
*Births with No Prenatal Care**	*NA*	*S*	*S*	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	19	9.1%	29	11.8%	30	11.2%
Newborns with Low Birth Weight (<2,500g)*	9.7%	15	7.2%	25	10.2%	18	6.7%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
40–44 Years							
Births with Early and Adequate Prenatal Care	76.4%	35	77.8%	48	78.7%	47	85.5%
*Births with Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	0	0.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	*S*	*S*	*S*	*S*
≥45 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*
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*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).

Table A-2 the study indicator findings among Emergency-Only singleton births by maternal age at the time of delivery for CY 2018 through CY 2020.

Table A-2—Study Indicator Findings Among Emergency-Only Singleton Births by Maternal Age at Delivery, CY 2018–CY 2020

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
≤15 Years							
Births with Early and Adequate Prenatal Care	76.4%	*S*	*S*	13	68.4%	*S*	*S*
*Births with Inadequate Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
*Births with No Prenatal Care**	*NA*	*S*	*S*	0	0.0%	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	*S*	*S*	*S*	*S*
16–17 Years							
Births with Early and Adequate Prenatal Care	76.4%	13	36.1%	32	45.7%	29	41.4%
*Births with Inadequate Prenatal Care**	*NA*	11	30.6%	32	45.7%	31	44.3%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*S*	*S*	*S*	*S*	*S*	*S*
18–20 Years							
Births with Early and Adequate Prenatal Care	76.4%	102	51.8%	199	48.9%	166	48.3%
*Births with Inadequate Prenatal Care**	*NA*	56	28.4%	120	29.5%	114	33.1%
*Births with No Prenatal Care**	*NA*	13	6.6%	34	8.4%	15	4.4%
Preterm Births (<37 Weeks Gestation)*	9.4%	13	6.3%	24	5.9%	23	6.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	11	5.4%	26	6.3%	19	5.4%
21–24 Years							
Births with Early and Adequate Prenatal Care	76.4%	223	59.0%	378	49.9%	298	47.7%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with Inadequate Prenatal Care**	*NA*	92	24.3%	247	32.6%	201	32.2%
*Births with No Prenatal Care**	*NA*	12	3.2%	36	4.7%	31	5.0%
Preterm Births (<37 Weeks Gestation)*	9.4%	21	5.4%	45	5.8%	35	5.6%
Newborns with Low Birth Weight (<2,500g)*	9.7%	20	5.2%	43	5.5%	33	5.3%
25–29 Years							
Births with Early and Adequate Prenatal Care	76.4%	364	63.0%	646	58.3%	527	54.8%
*Births with Inadequate Prenatal Care**	*NA*	110	19.0%	258	23.3%	280	29.1%
*Births with No Prenatal Care**	*NA*	20	3.5%	53	4.8%	35	3.6%
Preterm Births (<37 Weeks Gestation)*	9.4%	41	7.0%	76	6.7%	65	6.7%
Newborns with Low Birth Weight (<2,500g)*	9.7%	33	5.6%	46	4.1%	45	4.6%
30–34 Years							
Births with Early and Adequate Prenatal Care	76.4%	413	63.4%	727	64.0%	526	55.4%
*Births with Inadequate Prenatal Care**	*NA*	125	19.2%	260	22.9%	268	28.2%
*Births with No Prenatal Care**	*NA*	28	4.3%	30	2.6%	29	3.1%
Preterm Births (<37 Weeks Gestation)*	9.4%	44	6.7%	100	8.7%	75	7.8%
Newborns with Low Birth Weight (<2,500g)*	9.7%	31	4.7%	56	4.9%	47	4.9%
35–39 Years							
Births with Early and Adequate Prenatal Care	76.4%	283	69.4%	511	69.8%	369	58.7%
*Births with Inadequate Prenatal Care**	*NA*	69	16.9%	145	19.8%	163	25.9%
*Births with No Prenatal Care**	*NA*	*S*	*S*	20	2.7%	21	3.3%
Preterm Births (<37 Weeks Gestation)*	9.4%	34	8.2%	65	8.7%	51	8.0%
Newborns with Low Birth Weight (<2,500g)*	9.7%	25	6.0%	43	5.8%	48	7.5%
40–44 Years							
Births with Early and Adequate Prenatal Care	76.4%	69	70.4%	132	63.8%	118	61.8%

Study Indicator	National Benchmark	CY 2018		CY 2019		CY 2020	
		Number	Percent	Number	Percent	Number	Percent
*Births with Inadequate Prenatal Care**	*NA*	17	17.3%	52	25.1%	48	25.1%
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	15	15.0%	34	16.1%	30	15.5%
Newborns with Low Birth Weight (<2,500g)*	9.7%	11	11.0%	21	10.0%	15	7.7%
≥45 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*
*Births with No Prenatal Care**	*NA*	*S*	*S*	*S*	*S*	*S*	*S*
Preterm Births (<37 Weeks Gestation)*	9.4%	*S*	*S*	*S*	*S*	*S*	*S*
Newborns with Low Birth Weight (<2,500g)*	9.7%	*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).

Table A-3 presents the CY 2020 study indicator results stratified by MCO and managed care program

Table A-3—Study Indicators Stratified by MCO and Managed Care Program, CY 2020

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 (<2,500g)*	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Aetna	CCC Plus	90	70.9%	13	10.2%	*S*	*S*	21	16.0%	18	13.7%
	Medallion 4.0	2,420	73.2%	477	14.4%	39	1.2%	333	9.7%	288	8.4%
	FAMIS	193	79.1%	29	11.9%	*S*	*S*	19	7.6%	16	6.4%
	Total	2,703	73.5%	519	14.1%	46	1.3%	373	9.7%	322	8.4%

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 (<2,500g)*	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
HealthKeepers	CCC Plus	140	71.4%	33	16.8%	*S*	*S*	28	13.8%	30	14.8%
	Medallion 4.0	5,694	72.4%	1,143	14.5%	110	1.4%	761	9.4%	702	8.7%
	FAMIS	523	75.4%	95	13.7%	*S*	*S*	47	6.6%	53	7.5%
	Total	6,357	72.6%	1,271	14.5%	121	1.4%	836	9.3%	785	8.7%
Magellan	CCC Plus	63	70.8%	*S*	*S*	*S*	*S*	17	18.9%	16	17.8%
	Medallion 4.0	1,283	71.6%	294	16.4%	40	2.2%	196	10.6%	214	11.5%
	FAMIS	108	84.4%	*S*	*S*	*S*	*S*	16	12.3%	12	9.2%
	Total	1,454	72.4%	317	15.8%	43	2.1%	229	11.0%	242	11.7%
Optima	CCC Plus	123	62.1%	42	21.2%	*S*	*S*	36	17.9%	32	15.9%
	Medallion 4.0	4,011	74.4%	759	14.1%	77	1.4%	569	10.3%	542	9.8%
	FAMIS	246	81.5%	27	8.9%	*S*	*S*	22	7.2%	21	6.9%
	Total	4,380	74.4%	828	14.1%	85	1.4%	627	10.4%	595	9.9%
UnitedHealthcare	CCC Plus	60	60.6%	19	19.2%	*S*	*S*	*S*	*S*	14	13.6%
	Medallion 4.0	1,618	71.7%	328	14.5%	34	1.5%	213	9.0%	213	9.0%
	FAMIS	138	71.9%	26	13.5%	*S*	*S*	*S*	*S*	11	5.5%
	Total	1,816	71.3%	373	14.6%	40	1.6%	234	8.7%	238	8.9%

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 (<2,500g)*	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
VA Premier	CCC Plus	111	76.0%	21	14.4%	*S*	*S*	31	19.5%	28	17.6%
	Medallion 4.0	3,347	70.6%	720	15.2%	78	1.6%	481	9.4%	462	9.0%
	FAMIS	196	75.7%	40	15.4%	*S*	*S*	23	8.4%	27	9.9%
	Total	3,654	71.0%	781	15.2%	82	1.6%	535	9.6%	517	9.3%
Total	**CCC Plus**	**587**	**68.7%**	**142**	**16.6%**	***S***	***S***	**140**	**15.8%**	**138**	**15.6%**
	Medallion 4.0	**18,373**	**72.5%**	**3,721**	**14.7%**	**378**	**1.5%**	**2,553**	**9.7%**	**2,421**	**9.2%**
	FAMIS	**1,404**	**77.2%**	**226**	**12.4%**	***S***	***S***	**141**	**7.5%**	**140**	**7.5%**
	Total	**20,364**	**72.7%**	**4,089**	**14.6%**	**417**	**1.5%**	**2,834**	**9.7%**	**2,699**	**9.2%**

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 value for the second smallest population was also suppressed, even if the value was 11 or more.

Table A-4 through Table A-9 present the CY 2020 indictor results stratified by MCO and race/ethnicity for each managed care region of maternal residence.

Table A-4—Central Region Study Indicators Stratified by MCO and Race/Ethnicity, CY 2020

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic										
Aetna	354	77.1%	52	11.3%	*S*	*S*	40	8.6%	27	5.8%
HealthKeepers	699	77.4%	91	10.1%	*S*	*S*	77	8.5%	68	7.5%
Magellan	154	71.6%	22	10.2%	*S*	*S*	26	12.0%	17	7.9%
Optima	385	75.2%	58	11.3%	*S*	*S*	48	9.3%	30	5.8%
UnitedHealthcare	156	76.1%	24	11.7%	*S*	*S*	21	10.1%	14	6.8%
VA Premier	276	69.5%	57	14.4%	*S*	*S*	36	8.9%	40	9.9%
Black, Non-Hispanic										
Aetna	484	73.7%	86	13.1%	*S*	*S*	73	11.1%	80	12.2%
HealthKeepers	949	74.2%	152	11.9%	26	2.0%	132	10.2%	157	12.1%
Magellan	221	70.4%	48	15.3%	13	4.1%	37	11.7%	53	16.8%
Optima	498	72.3%	99	14.4%	11	1.6%	68	9.7%	90	12.9%
UnitedHealthcare	185	72.3%	41	16.0%	*S*	*S*	26	10.1%	34	13.2%
VA Premier	433	67.6%	95	14.8%	19	3.0%	63	9.7%	84	13.0%
Hispanic, Any Race										
Aetna	95	77.2%	14	11.4%	0	0.0%	11	8.8%	*S*	*S*
HealthKeepers	166	75.8%	22	10.0%	*S*	*S*	18	8.2%	13	5.9%
Magellan	31	66.0%	9	19.1%	0	0.0%	*S*	*S*	*S*	*S*
Optima	71	69.6%	19	18.6%	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	50	80.6%	3	4.8%	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	95	70.4%	24	17.8%	*S*	*S*	11	8.0%	*S*	*S*
Other/Unknown										
Aetna	27	73.0%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
HealthKeepers	52	76.5%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Magellan	11	68.8%	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%
Optima	23	69.7%	*S*	*S*	0	0.0%	0	0.0%	*S*	*S*
UnitedHealthcare	28	84.8%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
VA Premier	26	70.3%	*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 value for the second smallest population was also suppressed, even if the value was 11 or more.

Table A-5—Charlottesville/Western Region Study Indicators Stratified by MCO and Race/Ethnicity, CY 2020

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic										
Aetna	210	81.7%	33	12.8%	*S*	*S*	23	8.9%	18	6.9%
HealthKeepers	313	75.2%	62	14.9%	*S*	*S*	31	7.4%	18	4.3%
Magellan	132	80.0%	25	15.2%	*S*	*S*	13	7.8%	19	11.4%
Optima	450	75.4%	98	16.4%	*S*	*S*	48	7.9%	40	6.6%
UnitedHealthcare	112	75.2%	18	12.1%	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	470	77.6%	89	14.7%	*S*	*S*	56	9.2%	49	8.0%
Black, Non-Hispanic										
Aetna	113	81.9%	18	13.0%	*S*	*S*	14	10.1%	15	10.8%
HealthKeepers	149	78.0%	27	14.1%	*S*	*S*	15	7.7%	27	13.8%
Magellan	47	82.5%	*S*	*S*	*S*	*S*	*S*	*S*	10	17.5%
Optima	332	79.0%	47	11.2%	*S*	*S*	44	10.3%	60	14.1%

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
UnitedHealthcare	49	67.1%	17	23.3%	*S*	*S*	12	16.0%	11	14.9%
VA Premier	274	80.4%	39	11.4%	*S*	*S*	25	7.3%	34	9.9%
Hispanic, Any Race										
Aetna	12	63.2%	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%
HealthKeepers	34	70.8%	12	25.0%	0	0.0%	*S*	*S*	*S*	*S*
Magellan	11	64.7%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Optima	71	86.6%	11	13.4%	0	0.0%	11	12.9%	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	49	77.8%	12	19.0%	0	0.0%	*S*	*S*	*S*	*S*
Other/Unknown										
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Magellan	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	12	70.6%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	*S*	*S*	*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).

Table A-6—Northern & Winchester Region Study Indicators Stratified by MCO and Race/Ethnicity, CY 2020

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic										
Aetna	146	70.9%	28	13.6%	*S*	*S*	23	10.8%	13	6.1%
HealthKeepers	537	68.8%	130	16.6%	11	1.4%	64	8.0%	70	8.7%
Magellan	78	70.9%	18	16.4%	*S*	*S*	14	12.5%	14	12.5%
Optima	105	63.3%	33	19.9%	*S*	*S*	16	9.6%	14	8.4%
UnitedHealthcare	200	71.2%	37	13.2%	*S*	*S*	25	8.7%	21	7.3%
VA Premier	237	65.7%	64	17.7%	*S*	*S*	31	8.4%	26	7.0%
Black, Non-Hispanic										
Aetna	98	66.2%	29	19.6%	*S*	*S*	11	7.1%	12	7.8%
HealthKeepers	447	64.6%	135	19.5%	*S*	*S*	67	9.3%	61	8.5%
Magellan	38	67.9%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	71	73.2%	14	14.4%	*S*	*S*	12	12.1%	11	11.1%
UnitedHealthcare	153	64.3%	53	22.3%	*S*	*S*	14	5.7%	13	5.3%
VA Premier	157	61.6%	66	25.9%	*S*	*S*	25	9.7%	21	8.2%
Hispanic, Any Race										
Aetna	105	61.0%	46	26.7%	*S*	*S*	16	9.1%	12	6.9%
HealthKeepers	580	66.7%	167	19.2%	18	2.1%	76	8.6%	56	6.3%
Magellan	55	62.5%	22	25.0%	*S*	*S*	*S*	*S*	*S*	*S*
Optima	57	63.3%	20	22.2%	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	184	65.2%	55	19.5%	*S*	*S*	16	5.5%	13	4.4%
VA Premier	103	55.1%	47	25.1%	*S*	*S*	*S*	*S*	*S*	*S*
Other/Unknown										
Aetna	56	66.7%	14	16.7%	*S*	*S*	*S*	*S*	*S*	*S*

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
HealthKeepers	272	65.1%	75	17.9%	*S*	*S*	26	6.0%	28	6.5%
Magellan	25	73.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	19	76.0%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
UnitedHealthcare	89	70.1%	18	14.2%	0	0.0%	*S*	*S*	13	10.0%
VA Premier	96	61.1%	29	18.5%	0	0.0%	14	8.9%	14	8.9%

**a lower rate indicates better performance for this indicator.*
S indicates that the data were suppressed due to a small numerator or denominator (i.e., fewer than 11).

Table A-7—Roanoke/Alleghany Region Study Indicators Stratified by MCO and Race/Ethnicity, CY 2020

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic										
Aetna	272	74.7%	47	12.9%	*S*	*S*	30	8.1%	27	7.3%
HealthKeepers	225	78.1%	30	10.4%	*S*	*S*	23	7.7%	18	6.0%
Magellan	151	77.8%	23	11.9%	*S*	*S*	22	11.0%	25	12.5%
Optima	211	73.5%	41	14.3%	*S*	*S*	25	8.5%	21	7.2%
UnitedHealthcare	177	72.5%	26	10.7%	*S*	*S*	14	5.5%	14	5.5%
VA Premier	445	74.4%	72	12.0%	*S*	*S*	68	10.4%	63	9.6%
Black, Non-Hispanic										
Aetna	67	74.4%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	54	72.0%	*S*	*S*	0	0.0%	14	17.9%	12	15.4%
Magellan	57	69.5%	*S*	*S*	*S*	*S*	*S*	*S*	13	15.3%
Optima	53	71.6%	11	14.9%	0	0.0%	*S*	*S*	12	15.6%
UnitedHealthcare	69	73.4%	*S*	*S*	*S*	*S*	*S*	*S*	18	18.4%

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
VA Premier	120	73.2%	17	10.4%	*S*	*S*	19	11.3%	22	13.1%
Hispanic, Any Race										
Aetna	12	60.0%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Magellan	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Optima	13	86.7%	*S*	*S*	0	0.0%	0	0.0%	0	0.0%
UnitedHealthcare	13	68.4%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
VA Premier	22	68.8%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Other/Unknown										
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	11	100.0%	0	0.0%	0	0.0%	0	0.0%	*S*	*S*
Magellan	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%

**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-8—Southwest Region Study Indicators Stratified by MCO and Race/Ethnicity, CY 2020

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic										
Aetna	129	68.6%	27	14.4%	*S*	*S*	35	11.9%	32	10.8%
HealthKeepers	125	73.1%	17	9.9%	*S*	*S*	26	9.2%	25	8.8%

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Magellan	69	62.7%	22	20.0%	*S*	*S*	11	7.4%	13	8.7%
Optima	92	71.9%	20	15.6%	*S*	*S*	16	7.8%	11	5.4%
UnitedHealthcare	69	61.6%	24	21.4%	*S*	*S*	27	14.6%	26	14.1%
VA Premier	213	68.5%	47	15.1%	*S*	*S*	59	9.8%	54	9.0%
Black, Non-Hispanic										
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Magellan	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%
Hispanic, Any Race										
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	0	0.0%	0	0.0%
Magellan	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Other/Unknown										
Aetna	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Magellan	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
VA Premier	*S*	*S*	*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-9—Tidewater Region Study Indicators Stratified by MCO and Race/Ethnicity, CY 2020

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White, Non-Hispanic										
Aetna	152	76.0%	25	12.5%	*S*	*S*	25	12.4%	17	8.4%
HealthKeepers	544	78.3%	82	11.8%	*S*	*S*	60	8.5%	46	6.6%
Magellan	126	75.9%	27	16.3%	*S*	*S*	19	11.4%	18	10.8%
Optima	540	75.9%	91	12.8%	12	1.7%	67	9.4%	42	5.9%
UnitedHealthcare	80	80.0%	12	12.0%	*S*	*S*	11	11.0%	*S*	*S*
VA Premier	155	76.7%	24	11.9%	*S*	*S*	24	11.8%	15	7.4%
Black, Non-Hispanic										
Aetna	291	71.5%	66	16.2%	*S*	*S*	40	9.8%	38	9.3%
HealthKeepers	989	73.3%	214	15.9%	22	1.6%	172	12.7%	161	11.9%
Magellan	184	73.0%	45	17.9%	*S*	*S*	35	13.8%	35	13.8%
Optima	1,193	75.0%	209	13.1%	29	1.8%	212	13.2%	213	13.3%
UnitedHealthcare	152	75.6%	26	12.9%	*S*	*S*	32	15.8%	34	16.7%
VA Premier	373	73.9%	71	14.1%	12	2.4%	65	12.8%	61	12.1%
Hispanic, Any Race										
Aetna	37	75.5%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
HealthKeepers	134	76.1%	27	15.3%	0	0.0%	18	10.2%	*S*	*S*

	Early and Adequate Prenatal Care		Inadequate Prenatal Care*		No Prenatal Care*		Preterm Births (<37 Weeks of Gestation)*		Newborns with Low Birth Weight (<2,500g)*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Magellan	33	82.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Optima	126	75.9%	25	15.1%	*S*	*S*	16	9.6%	11	6.6%
UnitedHealthcare	16	61.5%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
VA Premier	58	75.3%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Other/Unknown										
Aetna	22	78.6%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
HealthKeepers	53	72.6%	*S*	*S*	*S*	*S*	*S*	*S*	*S*	*S*
Magellan	15	75.0%	*S*	*S*	0	0.0%	*S*	*S*	*S*	*S*
Optima	53	67.1%	12	15.2%	*S*	*S*	11	13.9%	*S*	*S*
UnitedHealthcare	*S*	*S*	*S*	*S*	0	0.0%	*S*	*S*	0	0.0%
VA Premier	22	81.5%	*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-10 presents the distribution or 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-10—Distribution of Prenatal Care by MCO and Whether a Birth Outcome Occurred, CY 2020

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	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Aetna	*Preterm Births (<37 Weeks Gestation)**	No	963	27.86%	1,475	42.68%	383	11.08%	477	13.80%	31	0.90%	127	3.67%
		Yes	217	58.33%	47	12.63%	26	6.99%	42	11.29%	15	4.03%	25	6.72%
	*Newborns with Low Birth Weight (<2,500g)**	No	1,016	28.98%	1,460	41.64%	388	11.07%	475	13.55%	35	1.00%	132	3.76%
		Yes	164	50.93%	62	19.25%	21	6.52%	44	13.66%	11	3.42%	20	6.21%
HealthKeepers	*Preterm Births (<37 Weeks Gestation)**	No	2,228	27.22%	3,521	43.02%	950	11.61%	1,167	14.26%	97	1.19%	221	2.70%
		Yes	488	58.44%	119	14.25%	60	7.19%	103	12.34%	24	2.87%	41	4.91%
	*Newborns with Low Birth Weight (<2,500g)**	No	2,316	28.13%	3,479	42.25%	945	11.48%	1,166	14.16%	102	1.24%	226	2.74%
		Yes	400	50.96%	161	20.51%	65	8.28%	104	13.25%	19	2.42%	36	4.59%

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	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Magellan	*Preterm Births (<37 Weeks Gestation)**	No	526	28.49%	763	41.33%	182	9.86%	288	15.60%	33	1.79%	54	2.93%
		Yes	129	56.33%	36	15.72%	13	5.68%	29	12.66%	*S*	*S*	12	5.24%
	*Newborns with Low Birth Weight (<2,500g)**	No	541	29.51%	743	40.53%	178	9.71%	281	15.33%	34	1.85%	56	3.06%
		Yes	114	47.11%	56	23.14%	17	7.02%	36	14.88%	*S*	*S*	*S*	*S*
Optima	*Preterm Births (<37 Weeks Gestation)**	No	1,737	32.10%	2,176	40.21%	556	10.28%	750	13.86%	61	1.13%	131	2.42%
		Yes	381	60.77%	85	13.56%	42	6.70%	77	12.28%	24	3.83%	18	2.87%
	*Newborns with Low Birth Weight (<2,500g)**	No	1,777	32.65%	2,140	39.32%	565	10.38%	758	13.93%	66	1.21%	137	2.52%
		Yes	341	57.31%	121	20.34%	33	5.55%	69	11.60%	19	3.19%	12	2.02%

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	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
UnitedHealthcare	*Preterm Births (<37 Weeks Gestation)**	No	595	24.34%	1,057	43.23%	312	12.76%	344	14.07%	31	1.27%	106	4.34%
		Yes	138	59.23%	25	10.73%	*S*	*S*	29	12.45%	*S*	*S*	25	10.73%
	*Newborns with Low Birth Weight (<2,500g)**	No	609	24.96%	1,038	42.54%	308	12.62%	344	14.10%	33	1.35%	108	4.43%
		Yes	124	52.10%	44	18.49%	11	4.62%	29	12.18%	*S*	*S*	23	9.66%
VA Premier	*Preterm Births (<37 Weeks Gestation)**	No	1,443	28.73%	1,857	36.97%	576	11.47%	731	14.55%	58	1.15%	358	7.13%
		Yes	268	50.09%	86	16.07%	49	9.16%	50	9.35%	24	4.49%	58	10.84%
	*Newborns with Low Birth Weight (<2,500g)**	No	1,484	29.44%	1,847	36.64%	568	11.27%	711	14.10%	65	1.29%	366	7.26%
		Yes	227	43.91%	96	18.57%	57	11.03%	70	13.54%	17	3.29%	50	9.67%

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	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
FFS	*Preterm Births (<37 Weeks Gestation)**	No	591	21.99%	1,081	40.22%	322	11.98%	511	19.01%	83	3.09%	100	3.72%
		Yes	155	46.55%	52	15.62%	19	5.71%	51	15.32%	34	10.21%	22	6.61%
	*Newborns with Low Birth Weight (<2,500g)**	No	630	22.98%	1,079	39.37%	323	11.78%	514	18.75%	94	3.43%	101	3.68%
		Yes	116	41.43%	54	19.29%	18	6.43%	48	17.14%	23	8.21%	21	7.50%

**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)

Demonstration Waiver Budget Template for States Using CHIP Funds - Budget Neutrality Report *(From 2022 12 01 FAMIS MOMS_FAMIS Select Waiver Ann Rpt in Waiver Ann Rpt folder)*

Updated 12/7/22

VIRGINIA

	FFY 2019	FFY2020	FFY2021	FFY2022	FFY2023	FFY2024	FFY2025	FFY2026	FFY2027	FFY2028	FFY2029
State's Allotment	$378,405,500	$399,647,474	$378,056,844	$389,398,549	$408,868,477	$429,311,901	$450,777,496	$473,316,370	$496,982,189	$521,831,298	$547,922,863
Funds Carried Over From Prior Year(s)	$32,832,053	$33,298,885	$74,119,249	$121,763,587	$115,264,808	$81,805,085	$67,080,917	$71,563,206	$74,886,492	$80,056,688	$83,059,400
SUBTOTAL (Allotment + Funds Carried Over)	$411,237,553	$432,946,359	$452,176,093	$511,162,137	$524,133,284	$511,116,985	$517,858,413	$544,879,576	$571,868,681	$601,887,986	$630,982,264
Reallocated Funds (Redistributed or Retained that are Currently Available)											
TOTAL (Subtotal + Reallocated funds)	$411,237,553	$432,946,359	$452,176,093	$511,162,137	$524,133,284	$511,116,985	$517,858,413	$544,879,576	$571,868,681	$601,887,986	$630,982,264
State's Enhanced FMAP Rate	88.00%	79.76%	69.34%	69.34%	68.72%	65.85%	66.25%	66.25%	66.25%	66.25%	66.25%
COST PROJECTIONS OF APPROVED SCHIP PLAN											
Benefit Costs											
Insurance payments											
Managed care	$306,436,127	$348,555,127	$356,544,506	$401,158,280	$430,603,354	$448,366,728	$442,522,513	$471,160,801	$499,874,270	$534,116,960	$568,685,112
per member/per month rate @ # of eligibles	$186.97 @ 136,581 avg elig/mo	$196.26 @ 147,999 avg elig/mo	$185.34 @ 160,310 avg elig/mo	$192.40 @ 173,756 avg elig/mo	$191.50 @ 187,383 avg elig/mo	$198.10 @ 188,608 avg elig/mo	$194.26 @ 189,833 avg elig/mo	$205.51 @ 191,058 avg elig/mo	$216.64 @ 192,283 avg elig/mo	$230.02 @ 193,508 avg elig/mo	$243.36 @ 194,733 avg elig/mo
Fee for Service	$82,068,811	$71,635,616	$67,925,674	$73,960,821	$87,610,603	$90,097,853	$93,633,658	$98,995,595	$101,394,431	$106,004,849	$111,792,796
Total Benefit Costs	**$388,504,938**	**$420,190,743**	**$424,470,180**	**$475,119,101**	**$518,213,957**	**$538,464,581**	**$536,156,172**	**$570,156,396**	**$601,268,701**	**$640,121,809**	**$680,477,909**
(Offsetting beneficiary cost sharing payments)											
Net Benefit Costs	**388,504,938**	**420,190,743**	**424,470,180**	**475,119,101**	**518,213,957**	**538,464,581**	**536,156,172**	**570,156,396**	**601,268,701**	**640,121,809**	**680,477,909**
Administration Costs											
Personnel	$3,163,931	$2,739,481	$4,440,623	$3,306,500	$3,501,939	$3,277,210	$3,481,655	$3,698,459	$3,928,368	$4,172,169	$4,430,701
General administration	$421,596	$606,758	$142,522	$106,122	$112,395	$105,182	$111,744	$118,702	$126,081	$133,906	$142,203
Contractors/Brokers (e.g., enrollment contractors)	$16,239,385	$19,083,873	$20,304,676	$15,118,915	$16,012,558	$14,984,989	$15,919,808	$16,911,142	$17,962,395	$19,077,174	$20,259,304
Claims Processing	$1,349,365	$5,955,863	$3,366,280	$2,506,541	$2,654,697	$2,484,338	$2,639,320	$2,803,671	$2,977,957	$3,162,774	$3,358,758
Outreach/marketing costs	$585,016	$495,445	$553,301	$411,989	$436,341	$408,340	$433,814	$460,828	$489,474	$519,852	$552,065
Other	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Administration Costs	**$21,759,294**	**$28,881,420**	**$28,807,403**	**$21,450,067**	**$22,717,930**	**$21,260,059**	**$22,586,340**	**$23,992,803**	**$25,484,275**	**$27,065,875**	**$28,743,030**
10% Administrative Cap	$43,167,215	$46,687,860	$47,163,353	$52,791,011	$57,579,329	$59,829,398	$59,572,908	$63,350,711	$66,807,633	$71,124,645	$75,608,657
Federal Title XXI Share	$361,032,524	$358,827,110	$314,302,676	$344,321,061	$371,728,393	$368,578,676	$370,166,914	$393,623,844	$415,223,846	$442,011,841	$469,858,872
State Share	$49,231,708	$90,892,206	$138,974,907	$152,248,107	$169,203,494	$191,145,965	$188,575,598	$200,525,355	$211,529,129	$225,175,843	$239,362,067
TOTAL COSTS OF APPROVED SCHIP PLAN	**$410,264,232**	**$449,719,316**	**$453,277,583**	**$496,569,168**	**$540,931,887**	**$559,724,640**	**$558,742,512**	**$594,149,199**	**$626,752,976**	**$667,187,684**	**$709,220,939**
COST PROJECTIONS OF DEMONSTRATION											
Benefit Costs for Demonstration Population #1 (pregnant women < 200% FPL)											
Insurance payments											
Managed care	$13,333,221	$20,515,655	$17,328,917	$56,411,212	$81,165,270	$93,422,228	$93,422,228	$93,422,228	$93,422,228	$93,422,228	$93,422,228
per member/per month rate @ # of eligibles	$932.91 @ 1191 avg elig/mo	$1084.11 @ 1577 avg elig/mo	$867.31 @ 1665 avg elig/mo	$945.86 @ 4970 avg elig/mo	$1037.07 @ 6522 avg elig/mo	$1130.25 @ 6888 avg elig/mo	$1130.25 @ 6888 avg elig/mo	$1130.25 @ 6888 avg elig/mo	$1130.25 @ 6888 avg elig/mo	$1130.25 @ 6888 avg elig/mo	$1130.25 @ 6888 avg elig/mo
Fee for Service	$2,863,191	$2,813,502	$4,553,528	$17,070,404	$14,430,538	$13,796,041	$13,796,041	$13,796,041	$13,796,041	$13,796,041	$13,796,041
Total Benefit Costs for Waiver Population #1	**$16,196,412**	**$23,329,157**	**$21,882,445**	**$73,481,616**	**$95,595,808**	**$107,218,269**	**$107,218,269**	**$107,218,269**	**$107,218,269**	**$107,218,269**	**$107,218,269**
Benefit Costs for Demonstration Population #2 (children in premium assistance)											
Insurance payments	$58,149	$55,574	$54,867	$50,291	$47,776	$47,776	$47,776	$47,776	$47,776	$47,776	$47,776
Managed care											
per member/per month rate @ # of eligibles	$95.01 @ 51 avg elig/mo	$87.22 @ 53 avg elig/mo	$89.65 @ 51 avg elig/mo	$85.53 @ 49 avg elig/mo	$84.71 @ 47 avg elig/mo	$84.71 @ 47 avg elig/mo	$84.71 @ 47 avg elig/mo	$84.71 @ 47 avg elig/mo	$84.71 @ 47 avg elig/mo	$84.71 @ 47 avg elig/mo	$84.71 @ 47 avg elig/mo
Fee for Service	$0	$0			$0	$0	$0	$0	$0	$0	$0
Total Benefit Costs for Waiver Population #2	**$58,149**	**$55,574**	**$54,867**	**$50,291**	**$47,776**	**$47,776**	**$47,776**	**$47,776**	**$47,776**	**$47,776**	**$47,776**
Cost of Demonstration Population #3 (Postpartum - FAMIS MOMS only)											
Insurance payments											
Managed care					$6,167,977	$6,427,874	$6,741,660	$7,098,267	$7,421,551	$7,759,406	$8,112,380
Per Member / Per Month Avg					$426.43 @ 1205 avg elig/mo	$439.24 @ 1220 avg elig/mo	$452.43 @ 1242 avg elig/mo	$466.00 @ 1269 avg elig/mo	$479.98 @ 1289 avg elig/mo	$494.38 @ 1308 avg elig/mo	$509.21 @ 1328 avg elig/mo
Total Member Months					14,464	14,634	14,901	15,232	15,462	15,695	15,931
Total Benefit Costs for Waiver Population #3					**$6,167,977**	**$6,427,874**	**$6,741,660**	**$7,098,267**	**$7,421,551**	**$7,759,406**	**$8,112,380**
Total Benefit Costs	**$16,254,561**	**$23,384,731**	**$21,937,312**	**$73,531,907**	**$101,811,561**	**$113,693,919**	**$114,007,705**	**$114,364,312**	**$114,687,596**	**$115,025,451**	**$115,378,425**
(Offsetting beneficiary cost sharing payments) * Premium Payments will be net of cost sharing											
Net Benefit Costs	**$16,254,561**	**$23,384,731**	**$21,937,312**	**$73,531,907**	**$101,811,561**	**$113,693,919**	**$114,007,705**	**$114,364,312**	**$114,687,596**	**$115,025,451**	**$115,378,425**
Administration Costs											
Personnel	$82,670	$248,586	$199,744	$130,994	$142,418	$138,101	$139,185	$140,277	$141,378	$142,488	$143,606
General administration	$18,310	$7,978	$6,411	$4,204	$4,571	$4,432	$4,467	$4,502	$4,538	$4,573	$4,609
Contractors/Brokers (e.g., enrollment contractors)	$575,900	$1,136,656	$913,324	$598,967	$651,202	$631,465	$636,420	$641,415	$646,449	$651,523	$656,636
Claims Processing	$179,732	$188,444	$151,419	$99,302	$107,962	$104,689	$105,511	$106,339	$107,174	$108,015	$108,863
Outreach/marketing costs	$14,951	$30,974	$24,888	$16,322	$17,745	$17,207	$17,342	$17,479	$17,616	$17,754	$17,893
Other (specify)											
Total Administration Costs	**$871,563**	**$1,612,639**	**$1,295,785**	**$849,789**	**$923,898**	**$895,895**	**$902,926**	**$910,013**	**$917,155**	**$924,353**	**$931,608**
10% Administrative Cap											
Federal Title XXI Share	$15,070,990	$19,937,902	$16,109,830	$51,576,268	$70,599,807	$75,457,392	$76,128,293	$76,369,240	$76,588,147	$76,816,745	$77,055,397
State Share	$2,055,135	$5,059,468	$7,123,268	$22,805,428	$32,135,651	$39,132,421	$38,782,338	$38,905,085	$39,016,603	$39,133,059	$39,254,636
TOTAL COSTS FOR DEMONSTRATION	**$17,126,124**	**$24,997,370**	**$23,233,097**	**$74,381,696**	**$102,735,459**	**$114,589,814**	**$114,910,631**	**$115,274,325**	**$115,604,751**	**$115,949,804**	**$116,310,033**
TOTAL PROGRAM COSTS (State Plan + Demonstration	**$427,390,356**	**$474,716,686**	**$476,510,680**	**$570,950,864**	**$643,667,346**	**$674,314,454**	**$673,653,143**	**$709,423,523**	**$742,357,726**	**$783,137,488**	**$825,530,971**
Total Federal Title XXI Funding Currently Available (Allotme	$411,237,553	$432,946,359	$452,176,093	$511,162,137	$524,133,284	$511,116,985	$517,858,413	$544,879,576	$571,868,681	$601,887,986	$630,982,264
Total Federal Title XXI Program Costs (State Plan + Demor	$376,103,513	$378,765,012	$330,412,506	$395,897,329	$442,328,200	$444,036,068	$446,295,207	$469,993,084	$491,811,994	$518,828,586	$546,914,269
Unused Title XXI Funds Expiring (Allotment or Reallocated)											
Remaining Title XXI Funds to be Carried Over (Equals Avai	$35,134,039	$54,181,347	$121,763,587	$115,264,808	$81,805,085	$67,080,917	$71,563,206	$74,886,492	$80,056,688	$83,059,400	$84,067,995
									105%	105%	105%