Maternal and Child Health Population Health Improvement Fund

Program Year Two – FY 2023

Annual Report

November 2023

Table of Contents

Background

In 2019, the State of Maryland collaborated with the Center for Medicare and Medicaid Innovation (CMMI) to establish the domains of healthcare quality and delivery that the State could impact under the Total Cost of Care (TCOC) Model. The collaboration also included an agreed upon process and timeline by which the State would submit proposed goals, measures, milestones, and targets to CMMI. In December 2020, the State submitted its proposal for a Statewide Integrated Health Improvement Strategy (SIHIS), which aligns statewide efforts across three domains: hospital quality, care transformation across the system, and total population health. Under the third domain, total population health, the State identified three key health priority areas for improvement: diabetes, opioid use, and maternal and child health. CMMI approved the State's proposal on March 17, 2021.

While the State identified diabetes and opioid use as key population health priority areas in the first year of the TCOC Model, the third priority area—maternal and child health (MCH)—was not selected until fall 2020. Consistent with the State's guiding principle to select goals, measures, and targets that are all- payer in nature, maternal and child health was deliberately considered as a priority area even though it is not primarily Medicare-focused. The selection of maternal and child health as a priority area reflects its importance in the State and acknowledges both the longstanding history of disparities, as well as potential for improvement.

The U.S. faces higher maternal and infant mortality rates[1] compared to other industrialized countries, with large racial/ethnic disparities for each outcome. In the U.S. in 2018, Black non-Hispanic women had a maternal mortality ratio (MMR) 2.5 times greater than White non-Hispanic women, a disparity that has persisted since the 1940s. In Maryland, while the 2014-2018 Black non-Hispanic MMR was 4.0 times the White non-Hispanic MMR.

In addition, pediatric asthma contributes to increased healthcare utilization and spending, missed school days, and sub-optimal overall health and well-being in Maryland children. Pediatric asthma also has a significant impact on parental productivity. In Maryland, approximately 9.7 percent of children have asthma.

As part of the SIHIS proposal, the State identified two areas to improve maternal and child health, as measured by both overall reduction as well as stratified by race and ethnicity:

- Severe maternal morbidity rate; and
- Asthma-related emergency department (ED) visit rates for ages 2-17.

[1] A maternal death is defined by the WHO as "the death of a female from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy." Source: https://www.who.int/data/gho/indicator-metadata-registry/imr-details/4622

Table 1. Race/ Ethnicity Disparities in Maryland SMM Tate 2018 Baseline and SIHIS Targets

Race	2018[2],[3]	2023 Year 5 Target	2026 Year 8 Target
NH White	181.4	7.5% decrease	15% decrease
NH Black	334.2	10% decrease	20% decrease
Hispanic	242.0	10% decrease	20% decrease
NH Asian	249.0	10% decrease	20% decrease
Other	205.2	10% decrease	20% decrease
Total	243.1	9.6% decrease	18.7% decrease

Table 2. Childhood Asthma-ED Visit Rates per 1,000, disaggregated by race and ethnicity

Race	Baseline 2018[2,3]	2023	2026	Absolute change	Relative Percentage Change
NH White	4.1	3.5	3.0	1.1	26% decrease
NH Black	19.1	14.36	9.6	9.6	50% decrease
Hispanic	5.4	4.7	4.0	1.4	25% decrease
NH Asian	2.7	2.6	2.5	0.2	9% decrease
Other	10.6	7.3	5.5	5.1	48% decrease
Total	9.2	7.2	5.3	3.9	42% decrease

In 2021, the Health Services Cost Review Commission (HSCRC) approved cumulative funding of $40 million across four years (FY 2022 – FY 2025) to support MCH investments led by Medicaid and the Prevention and Public Health Administration (PHPA) under the Maryland Department of Health (MDH), in conjunction with the Medicaid HealthChoice managed care organizations (MCOs). This funding has supported the scaling of existing statewide evidence-based programs and promising practices, as well as the expansion of new services for mothers and children. Additionally, using the funding in this manner

[2] There is a slight variation from what was presented in 2021, because the SMM analysis was analyzed by CRISP with an updated CASE mix file and with code/analysis that is updated by AIM/HRSA and the CDC.

[3] Chesapeake Regional Information System for our Patients Inc. (CRISP) analysis of Health Services Cost Review Commission (HSCRC) data, including blood transfusions. Accessed 3 November 2023.

creates an opportunity for the State to receive federal match funding to nearly double the investment, specifically for the Medicaid programs.

Funds are added to hospital annual rates as temporary adjustments through a uniform, broad-based assessment. Hospitals transfer funds to the Maternal and Child Health Population Health Improvement Fund (Fund). The Fund, created through the 2021 Budget Reconciliation and Financing Act (BRFA), will receive funding from hospital rates to invest in maternal and child health initiatives, as approved by Commissioners. The Fund sunsets in 2025.

The Fund committed $8 million in annual funding from fiscal year (FY) 2022 through FY 2025 to support Medicaid initiatives to address severe maternal morbidity, in alignment with the inclusion of MCH as a population health priority area under SIHIS. As noted earlier, these monies are eligible for federal matching dollars, bringing the combined total to $16 million annually. An additional $2 million in annual funding is directed to PHPA to support childhood asthma initiatives and additional interventions to address severe maternal morbidity.

Funding supports the following MCH initiatives within Maryland Medicaid:

- Home Visiting Services pilot expansion;
- Reimbursement for doula services;
- CenteringPregnancy, a clinic-based group prenatal care model;
- HealthySteps, a clinic-based intensive prenatal and postpartum case management framework; and
- MOM Program (formerly the Maternal Opioid Misuse (MOM) Model) expansion/intensive case management for high-risk pregnancies.

Funding to PHPA supports the expansion and/or implementation of mutually reinforcing programs:

- Asthma home visiting program (Medicaid partnership);
- Community-based asthma home visiting initiatives (all-payer); and
- Community-based home-visiting services and CenteringPregnancy implementation (all-payer).

The Memorandum of Agreement (MOA) between the HSCRC and MDH that governs the Fund requires MDH to submit an annual report that will outline progress toward the Fund's goals.

This document serves as the annual report for the second year of funding and details the progress of the five Medicaid programs and the initiatives under Public Health Services; further outcome measures will be incorporated into future reports as data become available. The report culminates with a report on FY 2023 expenditures and spending plans for upcoming years.

Medicaid Programs

This section presents an overview and implementation update for each of the Medicaid programs

supported by the Fund, followed by a synopsis of preliminary data from calendar year (CY) 2022, due to claims run-out.

Home Visiting Services Expansion

Program Overview

In 2017, MDH established a Medicaid Home Visiting Services (HVS) Pilot under the authority of the §1115 HealthChoice demonstration to test a service expansion initiative in Maryland aimed to improve both maternal and child health. This pilot included reimbursement for two evidence-based home visiting models, Healthy Families America (HFA) and Nurse Family Partnership (NFP). Both models employ specific developmental and health screenings, and have an established track record of improving the health and well-being of both the birthing parent and the child. Sites requesting coverage for this service must maintain certification of accreditation or fidelity by the national HFA or NFP organization. Effective January 13, 2022, Maryland promulgated regulations that provided coverage for both models as a new statewide benefit for Medicaid beneficiaries.

Implementation Update-PY2

As of September 2023, there are 12 sites enrolled as Medicaid providers for home visiting services, covering 14 of 24 Maryland counties. MDH continues to serve as a resource for home visiting programs as they enroll as Medicaid providers and implement Medicaid billing mechanisms. Following the benefit's launch in February 2022, 89 Medicaid participants utilized HVS services in CY 2022, for a total of 717 home visits and an average of 8.1 visits per participant.

Doula Reimbursement

Program Overview

Effective February 21, 2022, MDH began Medicaid coverage for doula/birth worker services to Medicaid participants. A doula, or birth worker, is a trained professional who provides continuous physical, emotional and informational support to birthing parents before, during and after birth. Certified doulas serving Medicaid participants provide person-centered, culturally-competent care that supports the racial, ethnic and cultural diversity of members while adhering to evidence-based best practices.

Under Maryland Medicaid's reimbursement model, doulas provide three kinds of services: prenatal visits, attendance at labor and delivery, and postpartum visits. Medicaid provides coverage for up to eight perinatal (*i.e.,* prenatal and postpartum) visits, as well as attendance at labor and delivery, known as the 8:1 model. The 8:1 model allows for any combination of prenatal and postpartum visits that equals eight or fewer visits per birthing parent. Doulas can enroll as individual providers or be affiliated with a doula practice that bills for provided services on their behalf. To recruit more doula providers and in line with other states' rates, Maryland Medicaid increased the reimbursement rate for attendance at labor and delivery in July 2023. All doulas must be trained by one of nine Medicaid-approved doula certifying organizations. MDH is in the process of expanding this list to increase the number of enrolled doulas, as detailed below.

Doula Implementation - PY2 Update

Following the benefit's launch in February 2022, MDH did see individuals utilizing doula services under Medicaid; however, the results do not meet the threshold for CMS cell suppression guidelines. This section details MDH's efforts to increase its Medicaid-enrolled doula provider network as well as facilitate access to services for Medicaid participants.

As of September 2023, there are nine doulas enrolled as Medicaid providers. During the year, MDH monitored doula provider enrollment, and implemented several measures to build out the network. First, MDH permitted MCOs to use single case agreements with doulas until network adequacy requirements are reached. Second, MDH updated its regulations, estimated as effective February 2024, to: 1) facilitate quicker expansion of the number of approved doula certification organizations; and 2) make the doula benefit self-referral until 2025. These two measures, in combination with the request for nominations process to add additional certification programs that started in October 2023, will increase the number of doulas who are eligible to become Medicaid providers. Third, as noted earlier, MDH increased the rate for attendance at labor and delivery from $350 to $800 on July 1, 2023.

Lastly, the Medicaid program worked with colleagues at MDH's Maternal and Child Health Bureau on a Doula Hub request for applications (RFA), released September 2023. The Doula Hub will identify a contractor, who will administer grant money for scholarships and technical assistance for doulas who want to become Medicaid approved.

CenteringPregnancy and HealthySteps

Program Overview

Starting in 2022, MDH utilized the Fund to expand access to innovative approaches to prenatal care and early childhood well-being through CenteringPregnancy and HealthySteps, respectively. Because prenatal care and child health visits are already covered services, the Fund provides an enhanced payment to support practices that have undertaken these programs. MDH combined implementation efforts for these two programs, which included developing infrastructure for Medicaid reimbursement, technical assistance for the MCOs and ongoing communication with the CenteringPregnancy and HealthySteps national organizations and their respective providers in the State.

MDH updated the Maryland Provider Services Manual to reflect the new CenteringPregnancy and HealthySteps benefits and define the reimbursement guidelines for the enhanced payment of these services. The Provider Services Manual is incorporated by reference into the Code of Maryland Regulations (COMAR). Effective January 1, 2023, MDH reimburses CenteringPregnancy and HealthySteps providers an enhanced payment for services consistent with the models of care provided at an accredited site or a site pending accreditation by their respective parent organizations.

CenteringPregnancy

CenteringPregnancy is an evidence-based group prenatal care model for low-risk pregnancies. The model focuses on three core components: health assessment, interactive learning and community building. Facilitators support a cohort of eight to ten individuals of similar gestational age through a

curriculum of ten 90- to 120-minute interactive group prenatal care visits that largely consist of discussion sessions. Discussion topics include medical and non-medical aspects of pregnancy, such as nutrition, common discomforts, stress management, labor and birth, breastfeeding and infant care. Studies[1] have shown that CenteringPregnancy improves health outcomes, such as decreased risk of preterm birth, as well as improves patient satisfaction.

CenteringPregnancy Implementation - PY2 Update
Following an MCO infrastructure support program in CY 2022, effective January 1, 2023, MDH began paying an enhanced rate to CenteringPregnancy providers. The enhanced payment supports the overall operations of CenteringPregnancy practices and may be billed alongside the typical group prenatal care procedure code for up to 10 perinatal care visits per pregnancy (*i.e.,* the period from conception to 60 days postpartum).

There are seven active CenteringPregnancy practices in Maryland as of September 30, 2023 and 17 Medicaid-enrolled CenteringPregnancy providers. Medicaid anticipates additional providers will work towards the CenteringPregnancy model implementation due to the partnership and grants from MDH's Maternal and Child Health Bureau (additional detail under 'Public Health Programs,' below).

HealthySteps
HealthySteps, a program of the national accrediting body ZERO TO THREE, is a pediatric primary care model that promotes positive parenting and healthy development for babies and toddlers. Under the model, all children ages zero to three and their families are screened and placed into a tiered model of services of risk-stratified supports, including care coordination and on-site intervention at accredited, or pending accreditation HealthySteps sites. The HealthySteps Specialist, a child development expert, joins the pediatric primary care team to ensure universal screening, provide referrals to external services and follow-up to the whole family.

HealthySteps Implementation - PY2 Update
Similar to CenteringPregnancy, MDH began providing an enhanced payment for evaluation and management services provided by providers at an accredited or pending accreditation HealthySteps site on January 1, 2023, following an MCO infrastructure support program. Like CenteringPregnancy, the enhanced payment supports the overall operations of HealthySteps practices, including the salary of the HealthySteps Specialist.

There are two eligible providers in Maryland (University of Maryland Pediatrics Associates) and three in DC (MedStar Georgetown - MedStar Medical Group at Fort Lincoln, Children's National - Children's Health Center at THEARC and Anacostia locations). In addition, Kaiser Permanente is transforming its practices in South Baltimore and Woodlawn into HealthySteps sites, to comply with the new Medicaid requirement. As of August 2023, there were 66 Medicaid-enrolled HealthySteps providers. Maryland's implementation of the HealthySteps program, including the enhanced Medicaid payment, was recently recognized by the Prenatal-to-3 Policy Impact Center at Vanderbilt University.[4]

[4] Prental-to-3 Policy Impact Center. 2023 Maryland Roadmap Summary. https://pn3policy.org/pn-3-state-policy-roadmap-2023/md/

MCO Incentive Program

To support MDH's MCOs in building the infrastructure and successfully implementing CenteringPregnancy and HealthySteps, the Fund established a voluntary milestone-based incentive program for MCOs in 2022. MCOs had the opportunity to earn a total of $50,000 for each program for meeting three milestone categories: work plan, contracting and service implementation.

Eight of the nine Medicaid MCOs participated in the incentive program. Regulations are being promulgated that will require MCOs to contract with at least one HealthySteps provider and one CenteringPregnancy provider and to pay the enhanced rate for rendered services.

MOM Case Management Services (MOM Program)

Program Overview

The MOM program addresses fragmentation in the care of pregnant and postpartum Medicaid participants with opioid use disorder (OUD) through enhanced case management services, with an emphasis on increasing health service utilization, as well as screening and referral for social determinants of health.

Initially funded as part of a CMMI demonstration, the MOM program has supported efforts in increasing provider capacity to treat the maternal OUD population; in addition, in FY 2022, the demonstration funded a per member, per month (PMPM) payment to MCOs for the enhanced case management services. Starting July 1, 2022, the payments transitioned to the Fund, with federal matching dollars authorized under the §1115 HealthChoice demonstration. As of January 1, 2023, Maryland has ceased its participation in the federal CMMI demonstration; implementation of MOM case management services continued seamlessly.

MOM Program Implementation - PY2 Update

MOM program services started on July 1, 2021 as a pilot in St. Mary's County, continuing for one year before expanding to select counties starting FY 2023. Starting January 1, 2023, the MOM program became available statewide, open to all eligible HealthChoice members. Starting FY 2023, the PMPM payments have been built into MCO capitation rates. As of the end of September 2023, there have been 44 participants in the MOM program. Program participants to date have demonstrated an interest in engaging in treatment for their OUD, as well as efforts to change life circumstances, including enrolling in educational courses, learning to drive and securing stable housing. The program experienced a sharp increase in enrollment following the statewide expansion.

With CMMI funds, and subsequently with support from the Fund, the MOM program has partnered with outside organizations, the Maryland Addiction Consultation Service (MACS) and Bowie State University, to augment the model's impact. Through the partnership, MACS launched the MACS for MOMs program to build provider capacity to better treat the maternal OUD population. The program includes teleECHO clinics, a warmline for phone consultations, and a variety of trainings, including those for receiving a DATA 2000 Waiver which allows providers to prescribe buprenorphine. To strengthen the MOM program

by making it more attractive to communities of color, MDH partnered with Historically Black Colleges and Universities (HBCUs), led by Bowie State, to tailor the program to be more culturally responsive to Maryland's Black population.

PY2 Performance

To assess the outcomes of the Maryland Medicaid MCH Initiatives, the Hilltop Institute from the University of Maryland, Baltimore County analyzed the claims data from the program participants, comparing them with several relevant HEDIS measures. For the purposes of the analysis, all program participants were identified based on FFS claims and MCO encounters that include the program-specific procedure codes, provider types, and/or ICD10 diagnosis codes designated by MDH.

To meet the inclusion criteria for the evaluation, HVS, HealthySteps, doula, and CenteringPregnancy participants were required to have at least three visits, and MOM program participants had to be enrolled in the program for at least three months. All enrollees who met the inclusion criteria and were enrolled after their respective programs' start dates were flagged as evaluation-eligible.

All records were deduplicated so that each enrollee had one record that contained their enrollment start date, the number of program visits or number of months enrolled, and the evaluation eligibility flag. Each enrollee was then sorted into a cohort by calendar year according to the enrollment start date. Thereafter, the demographic variables birth data, sex, and region were obtained and merged from Hilltop Medicaid data sets. The 1184 newborn data set was used to merge infants to their mothers and mothers to their infants where possible, keeping the infants' birth weight, sex, and date of birth.

Separately, Hilltop used the diagnoses and the revenue and procedure codes provided by MDH to identify claims and encounters for cesarean section deliveries, severe maternal morbidity, and birth complications. August 31, 2023, was selected as a cutoff date for 2023 claims and encounters; 2023 data is preliminary due to claims lag. Identified claims and encounters were then collapsed so that there was only one record per enrollee with flags indicating if they experienced the above medical conditions. HEDIS software was used to provide the flags indicating whether enrollees had postpartum care, prenatal visits, and well care visits for CY 2021 and CY 2022. Medical and procedure flags were then merged with the cohort data sets to create a data set of mother and infant pairs with enrollee demographics and evaluation and measure flags.

Aggregate Measures

To be able to share as much of the data as possible, MDH has elected to show measures as aggregate results from participants in HVS, doula services, CenteringPregnancy, the MOM program, and HealthySteps, rather than reporting them at a program level. When combined, the sample is sufficient for the data to be reported, something not possible for the programs with lower enrollment. The tables (Appendix A – H) present the results for enrollees who had at least one qualifying visit as well as enrollees who met the minimum evaluation inclusion criteria.[5] Due to the evaluation inclusion criteria, the aggregate sample size is small for certain measures. Therefore, care should be used when interpreting some of the results.

[5] HVS, CenteringPregnancy, Doula services: At least 3 visits. MOM Program: 3 months of enrollment

Although the number of participants in the MCH programs was relatively low during the evaluation period, the data did show some positive trends. Several maternal health outcomes were extremely positive; during the evaluation period, none of the participants had cesarean deliveries nor did any of the participants experience severe maternal morbidity during their pregnancies.

The data showed improvements in other outcomes as well, with a marked decrease in birth complications between CY 2022 and CY 2023; with the latter year not having a single birth complication. The data also showed a clear improvement in infant birth weight when comparing participants with those who met evaluation inclusion criteria in both CY 2022 and CY 2023.

The data identified two areas that would benefit from continued monitoring by MDH: the timely initiation of prenatal care and the completion of a postpartum visit. It should be noted that CY 2023 data is not yet available for these measures; other outcomes showed clear improvements between CY 2022 and CY 2023. It may be premature to draw firm conclusions about either of these measures.

An overview of the results is listed below. Additional information can be found in Appendices A – H.

- Zero pregnancies with cesarean deliveries during the evaluation period
- Zero pregnancies with severe maternal morbidity
- Zero deliveries with birth complications by participants who met evaluation inclusion criteria
- Zero deliveries with birth complications in CY 2023
- A reduction in low birth weight infants between CY 2022 and CY 2023
- A lower rate of low birth weight infants born to pregnant participants who met evaluation inclusion criteria than those who had any participation
- 33.3 percent of deliveries where to a participant who initiated timely prenatal care
- 20.2 percent of deliveries were to a participant who had a postpartum care visit

Public Health Programs

The Public Health Services/Prevention and Health Promotion Administration administers funds to improve maternal and child health. Specifically, for the Fund, the Maternal and Child Health Bureau (MCHB) implements the maternal health initiatives, and the Environmental Health Bureau (EHB) implements initiatives related to asthma.

Maternal Health Initiatives

Home Visiting Expansion

Program Overview

Home visiting programs can impact maternal morbidity in different ways, including: 1) creating human-to-human relationships that enable home visitors to provide tailored support based on the specific needs

of each family; 2) reducing pregnancy induced hypertensive disorders, preterm birth and maternal depression; 3) creating connections between mothers and health practitioners in the community, breaking down barriers to care and strengthening the link between healthcare resources and the families who need them; 4) providing screening in maternal depression both prenatal and postpartum and connecting mothers in need with the appropriate community-based behavioral health care; 5) providing referrals for mothers when certain risk factors, including trauma or domestic violence, are present in the home; and 6) targeting social determinants of health (SDOH) affecting families, such as social support, parental stress, access to health care, income and poverty status and environmental conditions.[62]

The Maternal, Infant and Early Childhood Home Visiting Program (MIECHV) funds 10 jurisdictions and 15 programs that meet federal evidence-based criteria across Maryland. As part of MDH's efforts to improve maternal and population health MDH plans to award a total of $2.26 million over three years (August 15, 2022 through June 30, 2025) to four sites through the Fund.

Implementation Update

In 2021, through a competitive bid process that was developed in partnership with the Maryland Office of Minority Health and Health Disparities (MHHD) and the MIECHV Program to ensure there was alignment with existing home visiting programs as well as to ensure the grantees would reach out to the population in need. In fall 2022, four sites were selected through the competitive procurement process and MDH announced more than $865,000 in grant funding for FY 2023 to the following organizations: Montgomery County Health Department, Washington County Health Department, Baltimore Healthy Start and The Family Tree.

> **Montgomery County Health Department** utilizes funding to expand its Babies Born Healthy (BBH) program, a prenatal care coordination initiative that connects its participants to home visiting services and offers the March of Dimes Becoming Mom (BAM) curriculum for all BBH participants who wish to participate through group classes or individual sessions. This program enhances maternal understanding through a collaborative community-based model of care, offering prenatal education and ensuring access to quality prenatal care. The program focuses on providing services to the following high-risk zip codes in Montgomery County: 20903, 20904, 20906 and 20912. At baseline, the Montgomery County BBH program enrolls approximately 125 families, with the expansion of the program 31 additional families successfully enrolled with support from the Fund. Throughout FY 2023, the program struggled with staff recruitment challenges and internal delays in the release of funding further heightened the program's operational difficulties. However, despite these hurdles, the program initiated the expansion of its home visiting services with the existing staff.
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> **Washington County Health Department** began the expansion of their existing home visiting

[6] American Academy of Pediatrics. Home visiting to Reduce Maternal Mortality and Morbidity Act. https://www.socialworkers.org/LinkClick.aspx?fileticket=7mhUWCPtNL4%3D&portalid=0

services via the local program affiliate of Healthy Families America (HFA), which is currently funded by MIECHV. The program enrolled a total of 26 new families from both streams of funding (Fund & MIECHV), with 15% (4) of those families being attributed to the home visiting expansion. The program successfully organized and conducted three virtual family groups, with an average monthly attendance of 18 families. The virtual family groups have proven invaluable, facilitating meaningful connections among families, providing essential parenting insights, and creating a platform for the sharing of experiences. Throughout FY 2023, the county encountered obstacles in recruiting staff and with their referral processes. The Prevention and Health Promotion Administration/MCHB met with the program to gain a comprehensive understanding of the challenges with enrollment and requested a strategic plan outlining their initiatives to improve enrollment rates and will collaborate with Washington County to facilitate peer learning video calls. The Washington County Health Department is a Medicaid-enrolled HVS provider, meaning that the expansion will further benefit the Fund's Medicaid investments as well.

Baltimore Healthy Start (BHS) collaborated with Chase Brexton Glen Burnie Health Center and with the Administrative Care Coordination Unit (ACCU) of the Anne Arundel County Department of Health to expand home visiting services to postpartum women in the following zip codes: 20724, 21060, 21061, 21225 and 21226. This initiative utilizes the Great Kids curriculum, designed for home visits to commence from prenatal to when a child reaches 36 months of age. In addition to the home visits, families who are in need of the services are offered the standard BHS case management and care coordination services through the Chase Brexton-based Medication Assisted Treatment for Substance Use Disorder Program. Enrollment of families into the home visiting program commenced in the fourth quarter of FY 2023, successfully enrolling a total of 17 families with support from the Fund.

The Family Tree facilitated the expansion of home visiting services in Baltimore City through the Parents as Teachers (PAT) model. Home visitors conduct regular visits, supporting families from pregnancy through their child's kindergarten year. The PAT curriculum addresses critical areas including mental health, nutrition, maternal depression, substance use and domestic violence. In FY 2023, the program received certification to operate as a PAT-affiliated site from the Parents as Teachers National Center, successfully recruited and onboarded staff to empower the growth of the PAT home visiting initiative. The program's collaborative efforts extended to partnerships with the following organizations: Health Care Access Maryland (HCAM), Urban Strategies and The Parent Helpline. During FY 2023, the program successfully enrolled 26 families into the PAT program for home visiting, marking a significant accomplishment.

Collectively in FY 2023, Fund-supported Home Visiting Expansion Initiatives enrolled over 75 families to home visiting programs in priority jurisdictions. Table 3 indicates the number of those enrolled by race and ethnicity and Table 4. indicates the number of enrolled by insurance provider. As stated above the home visiting sites experienced challenges with recruitment of staff for the expansion of their programs. MDH will continue to provide technical support to its Fund grantees in FY 2024 to enhance the enrollment of all home visiting sites to improve SMM rates in the state.

Table 3: Number of Enrolled in Fund-Supported Home Visiting Expansion by Race/Ethnicity

Race/Ethnicity	Number Enrolled
non-Hispanic White	*
non-Hispanic Black	57
Hispanic	13
Asian	*
Native American/ Alaska Native	*
Multiracial NOT Hispanic	*
Multiracial and Hispanic	*

Table 4: Number of Enrolled in Fund-Supported Home Visiting Expansion by Insurance

Insurance Type	Enrolled
Enrolled in Medicaid	66
Enrolled Private	*
Enrolled Uninsured	*
Enrolled Other	*

Coordination and Collaboration

To enhance alignment among the Fund-supported home visiting sites and birthing hospital representatives, the Maryland Hospital Association (MHA) and the home visiting sites organized an introductory in-person meeting. The primary goal was to boost referrals and cultivate stronger partnerships and collaboration among stakeholders. Subsequently, MDH developed a one-pager to facilitate the exchange of information regarding the expansion of home visiting programs in a hospital setting. Collaboration with MHA will continue in FY 2024, and MDH is actively exploring methods to promote peer learning among sites and enhance connections.

Increasing Access to CenteringPregnancy Sites

Program Overview

The effectiveness of CenteringPregnancy is shown most dramatically among Black birthing persons in

Maryland, who disproportionately experience adverse maternal outcomes. In response to the disproportionate (SMM) severe maternal morbidity rates affecting Black birthing persons in Maryland, MDH has reserved a total of $429,197 for a period of three years (from FY 2022 to FY 2025) to fund the implementation of CenteringPregnancy in seven additional sites across Maryland. In alignment, participating practices may be eligible for Medicaid's CenteringPregnancy enhanced reimbursement benefit, outlined above.

Implementation Update

During FY 2022 to FY 2025, funding was allocated to expand CenteringPregnancy in eight new sites across Maryland. This expansion aimed to enhance maternal healthcare, particularly for at-risk populations.

Mercy Health Foundation received funding in late State FY 2022 and in 2024, launching CenteringPregnancy at one of their OB/GYN practices in downtown Metropolitan Baltimore. In FY 2023, 15 cohorts and 78 centering classes were conducted, benefitting women at risk of severe maternal morbidity. In June 2022, MDH partnered with the **Centering Healthcare Institute (CHI)**, resulting in a successful recruitment drive and provision of start-up funds for implementing the CenteringPregnancy model in four prenatal clinics, strategically located in Baltimore County, Montgomery County, and Prince George's County. The names of the four clinics are:

- Kaiser Gaithersburg in Montgomery County
- Mary's Center Silver Spring in Montgomery County
- University of Maryland St. Joseph's Women's Health Associates in Towson Baltimore County
- Luminis Health Greenbelt in Prince George's County

All four of the sites are in their Centering Implementation Plan (CIP), which incorporates processes and tools to help sites identify and address barriers. The CIP aims to position the site to successfully complete the accreditation process. Over four to six months, CHI collaborates with each site on the following areas:

1. Creating the Steering Committee
2. Engaging Leadership
3. Building a Shared Vision
4. Goal Setting and Evaluation
5. Creating a Centering Schedule
6. Creating your Centering Space
7. Patient Enrollment
8. Provider Productivity
9. Financing and Budgeting
10. Billing and Reimbursement

For FY 2024, PHPA/MCHB braided additional public health funding from the Babies Born Healthy Program that is aimed to decrease infant mortality and disparities to provide funds for an additional three sites for a total of seven sites. In October 2023, CHI will convene a second *Centering Consortium of Maryland* to increase awareness to health organizations about the opportunity of the three public health grants

available to implement CenteringPregnancy model group for prenatal care. Once accredited or pending accreditation, Maryland Medicaid provides enhanced reimbursement to CenteringPregnancy-certified providers and MCOs that are enrolled in the CenteringPregnancy Model, thus allowing for sustainability.

Improving Childhood Asthma Initiatives

Program Overview

Environmental home visiting programs have been shown to improve asthma outcomes, including adolescent asthma, by addressing asthma triggers in the home and other related environments. Below is a description of the efforts of MDH to improve childhood asthma outcomes.

Implementation Update

MDH has utilized funds from Maryland Medicaid's CHIP Health Services Initiative (HSI) to support the Childhood Lead Poisoning & Asthma Prevention and Environmental Case Management Program operating in eleven jurisdictions: Anne Arundel, Baltimore, Charles, Dorchester, Frederick, Harford, Montgomery, Prince George's, St. Mary's and Wicomico Counties, as well as Baltimore City. The Asthma Home Visiting Program benefits children suffering from moderate to severe asthma. Through up to six home visits, facilitated by a Local Health Department (LHD) community health worker (CHW) and/or supervising case manager, critical objectives are reached.

These visits include an evaluation of environmental triggers, parent education and provision of supplies shown to reduce asthma severity, including a high efficiency particulate air (HEPA) vacuum cleaner and other interventions demonstrated to improve outcomes for children with moderate to severe asthma. The program also ensures care coordination amongst providers who interact with the child through the use of asthma action plans. In FY 2023, 680 children with asthma received services through this program. In support of the SIHIS and MDH goal of addressing health disparities, 80.3 percent of the children with asthma served in the program were Black or African American.

Improving Referrals to Local Health Department Asthma Home Visiting Programs

One of the most significant challenges to the Asthma Home Visiting Program has been recruiting families into the program. MDH developed several strategies to improve the referral process, including:

- Care alerts to health care providers through the state's health information exchange, Chesapeake Regional Information System for our Patients (CRISP)
- Direct electronic referrals to LHDs of children recently discharged from emergency departments or inpatient admissions for asthma exacerbations through CRISP
- Direct referrals from hospitals and managed care organizations to LHD home visiting programs

Taken together, these strategies have significantly increased referrals to LHD home visiting programs and improved the recruitment of families into the program. In particular, on September 8, 2022, the first direct electronic referrals of children with recent emergency department visits or hospitalizations

due to asthma were from CRISP to LHDs, and have continued at the rate of 10 children per LHD per week.

Community-Based and Other Programs Focused on Asthma

In addition to the $1 million from the Fund used to strengthen the LHD-operated Asthma Home Visiting Program, MDH released a $250,000 competitive request for applications for community-based programs to address pediatric asthma. The Green and Healthy Homes Initiative, Inc. (GHHI) received funding for two programs, one in Baltimore City, the other in Prince George's County, two jurisdictions with high numbers of children with more severe asthma. With these funds, GHHI is addressing asthma through both educational interventions and home-based interventions and will also expand the number of children and families in the state who may be eligible for services.

The GHHI program is using a tiered intervention approach to conduct interventions to reduce exposures to home-based environmental asthma triggers such as dust-borne antigens, mold and other asthma triggers. All properties approved to participate in the program receive a resident education, an environmental assessment and an asthma trigger reduction prevention supplies kit (cleaning supplies to control dust and other triggers). Based on the home environment and the severity of the child's asthma, additional supplies and services may also be provided, including air purifiers, dehumidifiers, or air conditioners, mold remediation, or as well (as well as Tier I Plus services by GHHI Environmental Health Educators, Environmental Assessors and Hazard Reduction Workers. Those receiving Tier II services will receive Tier I Plus services as well.

Tier I Asthma Trigger Reduction Interventions include:

- HEPA Vacuum
- Simple Green
- Buckets (2)
- Gloves
- Sponges
- Mop
- Mop Refill
- Pillowcases (2)
- Mattress cover
- Smoke Detector
- Carbon Monoxide Detector
- Basic IPM—Integrated Pest Management

Tier II Higher Level Asthma Trigger Reduction Interventions include:

- Air purifying machine installation
- Dehumidifier installation

- Air conditioner installation
- Intermediate to Severe IPM--Integrated Pest Management
- Mold remediation
- Plumbing repair
- CO/smoke detector installation
- Door replacement
- Gutter replacement
- Stabilization of baseboards
- Air filter replacement
- Caulk building corners
- R-9 Fiberglass
- Dryer vent install
- Drain cleaning

The most recent GHHI interim report for Prince George's County summarizes the performance measures and progress to date.

> Objectives: 210 children in total will be enrolled in the Program over 42 months (3.5 years). In the initial six months, GHHI planned to enroll and serve 30 asthma diagnosed children and their households. After the conclusion of the initial six months, GHHI would enroll and provide services to 60 clients annually thereafter for the next 36 months. In total, 210 children would receive full services including in-home asthma prevention resident education and case management, asthma trigger environmental assessment, and Tier I Plus and Tier II asthma trigger reduction housing interventions.
>
> Interim Report Update: GHHI received 2,300 referrals of Prince George's County children ages 2-17 who are diagnosed with asthma and whose asthma is deemed to be uncontrolled. GHHI has commenced the scheduling of asthma resident educations and environmental assessments with client referrals from a large managed care organization, and other referrals from GHHI marketing and outreach and healthcare and other partner referrals. GHHI conducted marketing events and Partner Learning Collaborative Trainings with stakeholders in the healthcare, education, and social services area as well as community-based events with parents and stakeholders to increase asthma awareness and decrease hospitalizations and ED visit rates for children ages 2-17 during the grant period. GHHI fully expects to complete all services for 90 asthma resident educations and environmental assessments for asthma triggers as well as asthma trigger reduction housing interventions for higher level intervention (where applicable) client units by June 30, 2023, in meeting the performance measures for the first 18 months of the Program.

In Baltimore City, GHHI has also had some challenges in receiving referrals from its primary source (a large managed care organization).

Objectives: 280 children in total will be enrolled in the Program over 42 months. In the initial six months, GHHI planned to enroll and serve 40 asthma diagnosed children and their households. After the conclusion of the initial six months, GHHI would enroll and provide services to 80 clients annually thereafter for the next 36 months. In total, 280 children would receive full services including in-home asthma prevention resident education and case management, asthma trigger environmental assessment, and asthma trigger reduction housing interventions.

Interim Report Update: GHHI received 1,900 referrals of Baltimore City children ages 2-17 who are diagnosed with asthma and whose asthma is deemed to be uncontrolled. GHHI has commenced the scheduling of asthma resident educations and environmental assessments with the Wellpoint client referrals and other referrals from GHHI marketing and outreach and healthcare and other partner referrals. GHHI expects to complete all services for 120 asthma resident educations and environmental assessments for asthma triggers as well as asthma trigger reduction housing interventions for higher level intervention (where applicable) client units by June 30, 2023 in meeting the performance measures for the first 18 months of the Program.

Asthma Community of Practice (CoP) and Provider Education

The Asthma Community of Practice (CoP) was created by EHB with the vision that all people and families living with asthma in Maryland receive the best possible care so that asthma does not affect their quality of life, and with the mission of improving practice through information and resource sharing. The purpose of the Asthma CoP is to:

1. Serve as a forum to exchange best practices and information regarding asthma treatment, management and prevention;
2. Improve collaboration among stakeholders involved in asthma care; and
3. Ensure that Marylanders with asthma get the best possible care and access to prevention services.

In FY 2023 the EHB successfully held two Asthma CoP meetings in which attendees included LHDs and asthma stakeholders across the state, representing GHHI, Johns Hopkins School of Medicine Department of Pediatrics, local community organizations and insurers.

The first meeting was held virtually via Google Meets on March 31, 2022. Amber Grabowski, Clinical Manager from Margaret Brent Middle School and Spring Ridge Middle School School-Based Health Centers), presented the services they provide to the St. Mary's community and their efforts to improve the care of children living with asthma. The Asthma CoP met again on August 18, 2023. Emmanuel Asenso, DO, MPH, delivered an overview of the proposed physician detailing project for Baltimore City. The project focuses on providers and those who serve patients with the highest burden of asthma in Baltimore City, and: 1) promotes initiatives to close the gap (*e.g.,* usage of primary care at the forefront, improving treatment plans, and removing environmental triggers); 2) increases knowledge and utilization of the latest asthma guidelines; and 3) promotes community asthma programs and other asthma

resources to educate clients on how to implement action steps to improve asthma. In addition, EHB provided the findings of the Evaluation of Asthma Home Visiting Program, which examines the impact of the program on improving asthma control and reducing asthma severity for the program participants since 2018. The EHB held the final Asthma CoP meeting on November 16, 2023.

Public Health Program Performance

MDH staff closely monitor performance on the SMM and childhood asthma goals as part of their ongoing implementation responsibilities under SIHIS and the Fund. COVID-19 has had an undeniable impact on SMM and childhood asthma goals.

Pandemic lockdowns led to a notable decrease in emergency department (ED) visits for asthma exacerbation. This decline can be attributed to reduced exposure to viral infections, environmental allergens, limited access to primary physicians, and families being hesitant to seek ED Care. At the onset of the pandemic, the CDC categorizes individuals with moderate to severe asthma as a high-risk group vulnerable to severe COVID-19 outcomes.[7] Consequently they advocated for strategies to mitigate asthma exacerbation risks, including avoiding triggers, adhering to prescribed medications, following personalized asthma action plans.

MDH remains committed to closely monitoring childhood asthma rates across pre- pandemic, pandemic, post pandemic periods to ensure optimal improvement in asthma management and child health, while improving overall well-being and reducing asthma related issues.

Severe Maternal Morbidity Performance

Statewide Performance

The State's SMM rate has increased since 2018 and is currently above the State's 2018 baseline. In FY 2023, an SMM literature review was conducted to better understand the continued rise in SMM cases. The literature review suggested that transfusions alone may inflate the prevalence of SMM and in 2021 Federal partners (Health Resources and Services Administration) updated the SMM indicators to exclude blood transfusions alone, due to lack of specificity.[8] Other significant contributors of elevated SMM rates revealed in the literature review included: COVID-19, comorbidities, hypertension, mental health, racial disparities, clinical level and patient factors.

COVID-19

Based on conversations with stakeholders such as medical professionals, clinic providers and hospital

[7] Moore WC, Ledford DK, Carstens DD, Ambrose CS. Impact of the COVID-19 Pandemic on Incidence of Asthma Exacerbations and Hospitalizations in US Subspecialist-Treated Patients with Severe Asthma: Results from the CHRONICLE Study. J Asthma Allergy. 2022 Aug 31;15:1195-1203. doi: 10.2147/JAA.S363217. PMID: 36068863; PMCID: PMC9441176.

[8] Federally Available Data (FAD) Resource Document

administrators, and the literature available we believe that the effects of COVID-19 and other respiratory viral illnesses have contributed to the SMM rate increase. According to an article published by the *Journal of the American Medical Association* (JAMA), researchers found that pregnant patients with COVID-19 infection at delivery were more likely to develop SMM compared with those without.[9] The study examined a population of 2,578,095 hospital deliveries across 2,691 centers between April and December 2020.[10] Among the individual morbidity indicators, COVID-19 infection was associated with the following outcomes: increased risk of tracheostomy, respiratory distress syndrome, ventilation, acute myocardial infarction, sepsis, shock, cardiac arrest, and coagulopathy. Additionally, the COVID-19 pandemic has brought on a long-lasting impact that disrupted health care services, increased maternal stress, potential delay in prenatal care and social determinants of health.

Comorbidities, Hypertension, Mental Health and Racial Disparities

The findings of the literature review indicated that the existence of pre-existing medical conditions was strongly associated with the risk for SMM. One study reported that 75 percent of those in their study that experienced SMM had significant medical history, which included conditions such as obesity, asthma, a mental health disorder and hypertension.[11] There are known racial disparities in SMM and maternal mortality rates between different race and ethnicity groups. Six out of the 14 studies demonstrated a higher rate of SMM in non-Hispanic Black women compared with non-Hispanic White women. Two studies reported an increased risk for Hispanic women, and two studies indicated an increased risk of SMM for Native American women. One article discussed the differences in underlying health conditions that may contribute to different rates of SMM. They demonstrated that Black women had more medical comorbidities than any other racial or ethnic group. The higher prevalence of medical comorbidities may be one reason why Black women experience higher rates of SMM.[12]

Clinical Level and Patient Factors

In conclusion, when examining the factors contributing to SMM, it becomes evident that many SMM events are preventable. According to a recent article published in the *Journal of the American Medical Association* (JAMA), a hospital review committee in Maryland determined that nearly one-third (n= 61,

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[9] Matsuo K, Green JM, Herrman SA, Mandelbaum RS, Ouzounian JG. Severe Maternal Morbidity and Mortality of Pregnant Patients With COVID-19 Infection During the Early Pandemic Period in the US. JAMA Network Open. 2023;6(4):e237149. doi:10.1001/jamanetworkopen.2023.7149

[10] Matsuo K, Green JM, Herrman SA, Mandelbaum RS, Ouzounian JG. Severe Maternal Morbidity and Mortality of Pregnant Patients With COVID-19 Infection During the Early Pandemic Period in the US. JAMA Network Open. 2023;6(4):e237149. doi:10.1001/jamanetworkopen.2023.7149

[11] Wolfson C, Qian J, Chin P, Downey C, Mattingly KJ, Jones-Beatty K, Olaku J, Qureshi S, Rhule J, Silldorff D, Atlas R, Banfield A, Johnson CT, Neale D, Sheffield JS, Silverman D, McLaughlin K, Koru G, Creanga AA. Findings From Severe Maternal Morbidity Surveillance and Review in Maryland. JAMA Network Open. 2022 Nov 1;5(11):e2244077. doi: 10.1001/jamanetworkopen.2022.44077. PMID: 36445707; PMCID: PMC9709651.

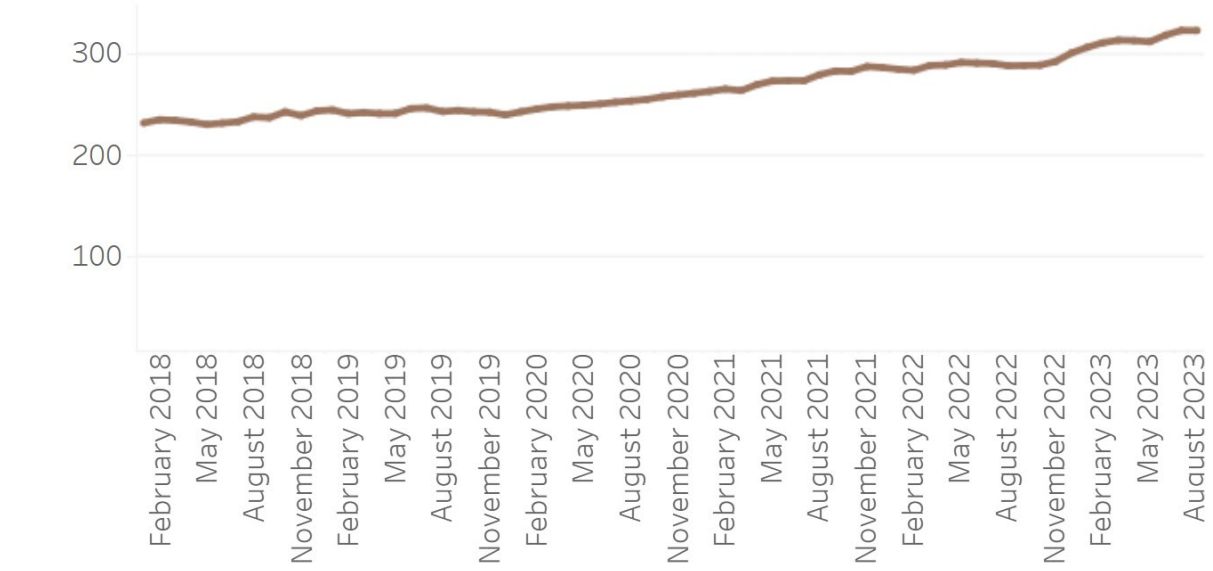
[12] Brown CC, Adams CE, George KE, Moore JE. Associations Between Comorbidities and Severe Maternal Morbidity. Obstet Gynecol. 2020 Nov;136(5):892-901. doi: 10.1097/AOG.0000000000004057. PMID: 33030867; PMCID: PMC8006182.

31.8%) of SMM events were preventable with changes to clinician, system, and/or patient factors (without COVID-19 cases, the preventability rate was similar at 32.8%). The authors stated that, "clinical level factors had the potential to alter the outcome in 60 of the 61 SMM events deemed preventable (31.3% of overall events), system-level factors in 19 events (9.9% overall), and patient-level factors in 24 events (12.5% overall)."[13] Understanding these factors and their interactions is essential in MDH's efforts to reduce SMM rates and improve maternal health outcomes. Fostering collaborations among health care professionals, implementing evidence-based protocols and raising awareness of the different level factors can further enhance preventive measures that would reduce SMM events.

MDH carefully chose to expand Home Visiting and CenteringPregnancy because these initiatives address the significant contributing factors of elevated SMM rates. The initiatives reduce pregnancy induced hypertension disorders, provide screening in maternal depression both prenatal and postpartum and connect mothers to the appropriate resources. MDH is working diligently to expand and implement the funded interventions to improve maternal health and reduce SMM in Maryland. Moving forward, MDH will partner with CRISP to update the SIHIS Dashboard to show SMM Rates with blood transfusion and without blood transfusions. MDH will also collaborate with HSCRC in regard to the likely missed 2023 milestones and will develop a mitigation plan to submit to HSCRC in Spring 2024.

Based on data through June 2023, Maryland had 317.9 SMM-related hospitalizations per 10,000 delivery discharges over the prior 12 months. This rate is 98.6 hospitalizations per 10,000 higher than the 2023 target (219.3) and 75 hospitalizations per 10,000 higher than the 2018 baseline (243.1).

Figure 5. SMM Hospitalizations for Rolling 12- Months, 2018 - August 2023



[13] Wolfson C, Qian J, Chin P, Downey C, Mattingly KJ, Jones-Beatty K, Olaku J, Qureshi S, Rhule J, Silldorff D, Atlas R, Banfield A, Johnson CT, Neale D, Sheffield JS, Silverman D, McLaughlin K, Koru G, Creanga AA. Findings From Severe Maternal Morbidity Surveillance and Review in Maryland. JAMA Network Open. 2022 Nov 1;5(11):e2244077. doi: 10.1001/jamanetworkopen.2022.44077. PMID: 36445707; PMCID: PMC9709651.

Table 6. SMM Hospitalizations Compared to 2023 Target, 2018 - August 2023

	2018 Baseline	Most Recent 12 Months	2023 Target	Difference- Most Recent 12 Months to Target
Rate per 10K	243.1	322.8	219.8	103.0
SMM Events	1,585	1,978		
Eligible Deliverables	65,199	61,279		

Health disparities are also increasing due to challenges discussed earlier in this report, further illustrating the critical need to invest in evidence-based interventions dedicated to addressing maternal health.

Figure 7. SMM Hospitalizations for Rolling 12-Months by Race/Ethnicity, 2018-August 2023

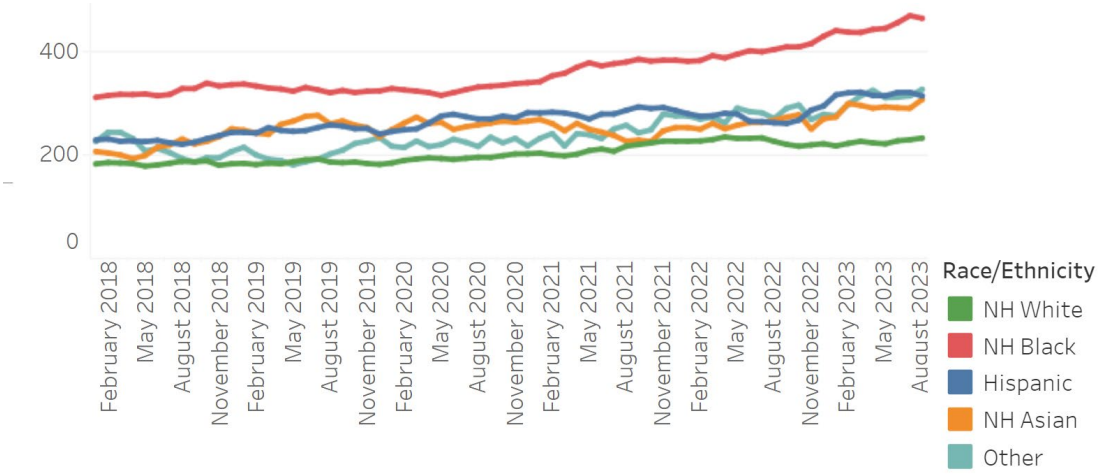


Table 8. SMM Hospitalizations Rates by Race/Ethnicity, 2018-August 2023

Race/Ethnicity	2018 Baseline	Months Recent 12 Months	2023 Target	Difference– Most Recent 12 Months to Target	Disparity Index
NH White	181.4	231.2	167.8	63.4	1.0
NH Black	334.2	462.2	300.8	161.4	2.0
Hispanic	242.0	312.2	217.8	94.4	1.4
NH Asian	249.0	305.3	224.1	81.7	1.3
Other	205.2	325.3	184.7	140.6	1.4
Statewide Total	243.1	322.8	219.8	103.0	1.4

Performance by Payer

Staff is also monitoring SMM performance by payer. Both Medicaid and commercial payers are trending upward, in line with Statewide performance. However, while Medicaid performance has been higher than other payers since 2018, it has grown at a slower pace than commercial (11 percent versus 26 percent). The graph and table below show performance between the 2018 SIHIS baseline and data through September 2022.

Figure 9. SMM Rate by Payer, 2018- September 2022

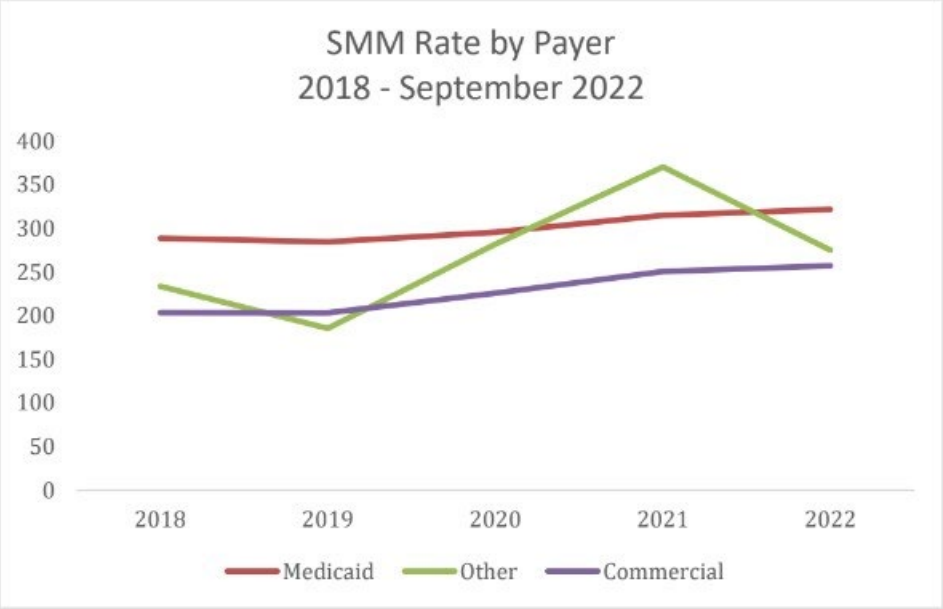


Table 10. SMM Rate by Payer, 2019 – September 2022

Payer	2018	2019	2020	2021	2022 YTD	% Change Since 2018
Medicaid	289	285	296	315	322	11%
Medicare	687	634	842	954	764	11%
Other	234	185	282	370	275	18%
Commercial	203	203	226	251	257	26%

Childhood Asthma Emergency Department (ED) Visit Rate

As is true for hospitals nationally, Maryland hospitals saw sharp declines in ED volumes in 2020 and early 2021 due to COVID-19. Understandably, Maryland's asthma-related ED visit rate for ages 2-17 declined during this period. While 2022 volumes are trending back to 2018 baselines, they are still artificially low. Despite lower ED volumes, staff believes that the underlying dynamics of childhood asthma in Maryland did not change and is working in earnest to implement interventions that will reduce childhood asthma and health disparities.

Statewide Performance

Based on data through August 2022, Maryland had 6.2 asthma-related emergency department visits per 1,000 children over the prior 12 months. This rate is 1.0 visits per 1,000 children lower than the 2023 target.

Figure 11. Childhood Asthma-Related ED Visits for Rolling 12-Months

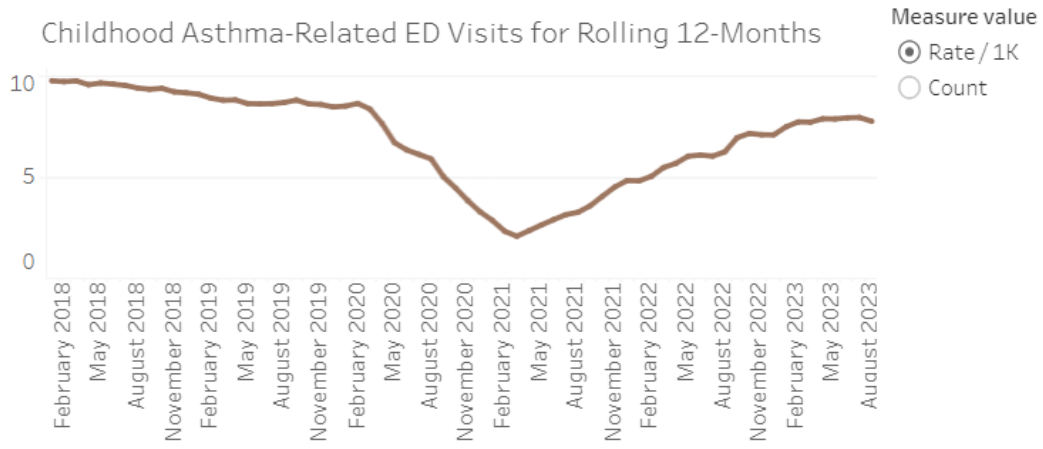


Table 12. Childhood Asthma-Related ED Visits Compared to 2023 Target

	2018 Baseline	Most Recent 12 Months	2023 Target	Different - Most Recent 12 months to Target
Rates per 1K	9.2	7.8	7.2	0.6
Total Count	10,974	9,258		

As with the SMM rate, the impacts of COVID-19 have had a deleterious impact on health disparities, most notably with the non-Hispanic Black population. Continued investment in initiatives and programs to address childhood asthma is critical to eliminating these disparities and putting Maryland back on a path to reach the improvement goals set under SIHIS.

Figure 13. Childhood Asthma-Related ED Visit Rates by Race/Ethnicity, 2018-August 2023

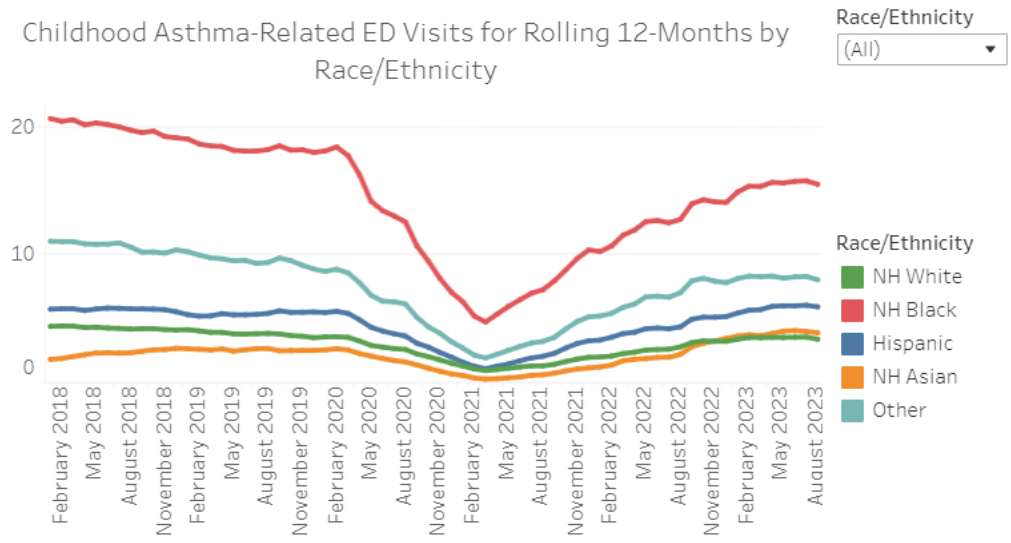


Table 14. Childhood Asthma-Related ED Visit Rates by Race/Ethnicity, 2018-August 2023

Race	2018	2023 Year 5 Target	2026 Year 8 Target	Absolute Change	Relative Percentage Change
Total	9.2	7.2	5.3	3.9	42%
NH White	4.1	3.5	3.0	1.1	26%
NH Black	19.1	14.36	9.6	9.6	50%
Hispanic	5.4	4.7	4.0	1.4	25%

NH Asian	2.7	2.6	2.5	0.2	9%
Other	10.6	7.30	5.5	5.1	48%

Performance by Payer

The State is also monitoring performance by payer. As stated earlier in the report, the State believes these declines in the asthma-related ED visit rate in Maryland mirror both State and national reductions in overall ED visits due to COVID-19. Continued and expanded interventions to address childhood asthma are critical to preventing further growth in health disparities resulting from patients potentially not seeking care during the pandemic.

Figure 15. Childhood Asthma-Related ED Visit Rate per 1K, 2018-September 2022

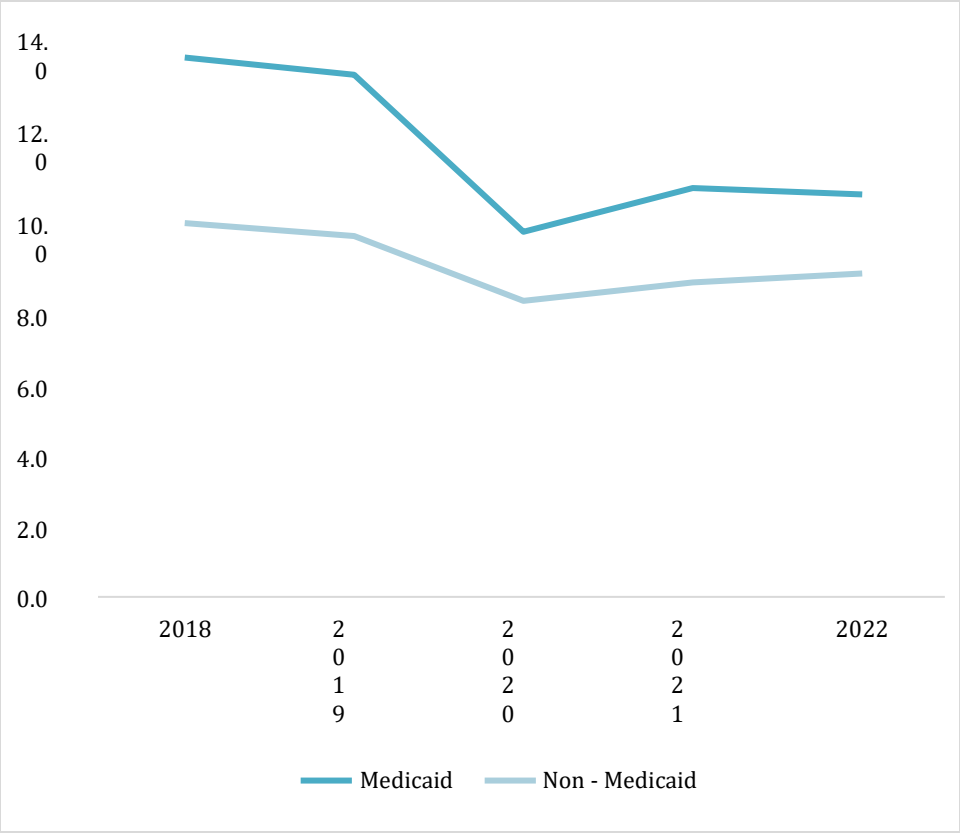


Table 16. Childhood Asthma-Related ED Visit Rate per 1K by Payer, 2018-September 2022

Payer	2018	2019	2020	2021	2022	% Change since 2018
Medicaid	13.3	12.5	5.0	7.1	6.8	-49%
Non - Medicaid	5.4	4.8	1.7	2.6	3.0	-44%

Year Two Spending

The Medicaid program devoted its efforts in FY 2023 to continuing to establish new enhanced benefits in addition to expanding those previously launched with the support of the Fund. As detailed above, implementation efforts spanned benefit design, systems changes for both payment and provider enrollment and development and approval of regulations (state authority) and Medicaid State Plan Amendments (federal authority), in addition to provider enrollment and education. The Medicaid program intends to continue to maximize the Fund's contribution by pulling down federal matching funds, which relies on service implementation.

The Medicaid program is building the full $16 million into its budget for CY 2024 and expects service delivery to increase as provider networks continue to grow and additional participants become aware of the new benefits. Medicaid is considering additional program enhancements that may increase service uptake and spending in FY2024 which may include:

- Standing up a doula training scholarship program, in coordination with MCHB;
- Outreaching providers and relevant stakeholders about the importance of the Maryland Prenatal Risk Assessment (MPRA) in an effort to increase completion of the form; and
- Supporting the conversion of MPRA - a major referral source for MCH programs - from paper to electronic.

PHPA dedicated FY 2023 to providing technical support to grantees beginning implementation of the asthma and maternal health initiatives.

Table 17. PHPA Grant Funds Expenditures - FY 2023

Initiative	FY 2023 Spending
Asthma Home Visiting Program[14]	$640,633.00
Community-Based Asthma Programs	$100,035.00
Maternal Home Visiting	$419,305.57
CenteringPregnancy	$157,114.81
Program Total	$897,782.81

Due to staffing challenges that the home visiting sites experienced and programmatic challenges most sites were unable to spend their full award. However, because the funds can be rolled over, MDH awarded the carryover funds to sites in following years. The rollover of funds have already been incorporated into the budget planning for the home visiting expansion and CenteringPregnancy FY 2024 grant funds.

Conclusion

In FY 2024, the MDH remains committed to strategically invest in the outlined projects, with a specific focus on extended services to underserved populations and those at elevated risk of SMM, as well as moderate to severe asthma. A pivotal aspect of this commitment involves an ongoing dedication to data-driven approaches and programmatic oversight to optimize care. Preliminary data shows positive outcomes for several key measures, in addition to identifying some measures in need of further observation; MDH will actively utilize data to fine-tune interventions and tailor strategies effectively, ensuring that resources reach those who need them most. Additionally, MDH will facilitate seamless coordination and collaboration among various stakeholders. This will involve fostering peer-to-peer learning calls to offer guidance and support to home visiting sites and community-based asthma programs. Moreover, the MDH will encourage collaboration opportunities between home visiting sites, LHDs, and community-based health organizations, focused on maternal and child health, ultimately leading to improved outcomes and better care.

[14] This is an estimate. Final spending will be available in early 2024.

Appendix A: Cesarean Deliveries

Percentage of Cesarean Deliveries among MCH Program Participants, January 2021 – August 2023

	At Least One Qualifying Visit			Meets Eval. Inclusion Criteria		
	CY 2021	CY 2022	CY 2023	CY 2021	CY 2022	CY 2023
MCH Programs	*	0%	0%	*	0%	0%

Appendix B: Severe Maternal Morbidity

Percentage of Pregnancies Associated with Severe Maternal Morbidity among MCH Participants, January 2021 – August 2023

	At Least One Qualifying Visit			Meets Eval. Inclusion Criteria		
	CY 2021	CY 2022	CY 2023	CY 2021	CY 2022	CY 2023
MCH Programs	*	0%	0%	*	0%	0%

Appendix C: Birth Complications

Percentage of Deliveries that had Birth Complications among MCH Participants, January 2021 – August 2023

	At Least One Qualifying Visit			Meets Eval. Inclusion Criteria		
	CY 2021	CY 2022	CY 2023	CY 2021	CY 2022	CY 2023
MCH Programs	*	4.2%	0%	*	0%	0%

Appendix D: Newborn Birth Weight

Percentage of Newborns who are Normal, Low, or Very Low Birth Weight for all Pregnant Participants Enrolled before Delivery, January 2021 – August 2023

	CY 2021			CY 2022			CY 2023		
	Very Low Birth Weight	Low Birth Weight	Normal Birth Weight	Very Low Birth Weight	Low Birth Weight	Normal Birth Weight	Very Low Birth Weight	Low Birth Weight	Normal Birth Weight
MCH Programs	*	*	*	0%	16.7%	83.3%	1.8%	3.6%	94.5%

Percentage of Newborns who are Normal, Low, or Very Low Birth Weight for all Pregnant Participants Enrolled before Delivery and who Meet the Inclusion Criteria, January 2021 – August 2023

	CY 2021			CY 2022			CY 2023		
	Very Low Birth Weight	Low Birth Weight	Normal Birth Weight	Very Low Birth Weight	Low Birth Weight	Normal Birth Weight	Very Low Birth Weight	Low Birth Weight	Normal Birth Weight
MCH Programs	*	*	*	0.0%	8.3%	91.7%	0.0%	2.8%	97.2%

Appendix E: Timeliness of Prenatal Care

Percentage of Deliveries where the Participant had a Prenatal Visit in the First Trimester, on or before the Enrollment Start Date or within 42 Days of Enrollment in the organization, CY 2021 – CY 2022

	At Least One Qualifying Visit		Meets Eval. Inclusion Criteria	
	CY 2021	CY 2022	CY 2021	CY 2022
MCH Programs	*	33.3%	*	16.7%

Appendix F: Postpartum Care

Percentage of deliveries where a participant had a Postpartum Care Visit on or between 7 and 84 days After Delivery

	At Least One Qualifying Visit		Meets Eval. Inclusion Criteria	
	CY 2021	CY 2022	CY 2021	CY 2022
MCH Programs	*	20.8%	*	0.0%

Appendix G: Procedure Codes

Program Start Dates and Procedure Codes to Identify Maternal and Child Health Programs

Program	Procedure Code	Program Start Date
HVS	99600	January 13, 2022
HealthySteps	H0025	January 1, 2023
Doula Services	W3700, W3701, W3702, T1032, T1033,	February 21, 2022
CenteringPregnancy	99078	January 1, 2023
MOM Program	*Medicaid ID supplied by MDH*	July 1, 2021

Appendix H: Program Utilization

Program Utilization among Maternal & Child Health Program Participants, CY 2021-CY 2023

Programs	CY 2021			CY 2022			CY 2023**		
	Unique Number of Participants	Total Number of Visit	Average Visits per Participant	Unique Number of Participants	Total Number of Visit	Average Visits per Participant	Unique Number of Participants	Total Number of Visit	Average Visits per Participant
HVS	-	-	-	119	764	6.4	130	1064	8.2
Doulas	-	-	-	14	46	3.3	14	37	2.6
CenteringPregnancy	-	-	-	-	-	-	43	167	3.9
HealthySteps	-	-	-	-	-	-	773	1298	1.7
MOM*	*	*	7.5	*	*	4.2	-	-	-

*For MOM, months enrolled

**Year to date, data may be incomplete due to data lag. MCOs have six months to bill and FFS claims have 12 months to bill.

Program Utilization among Maternal & Child Health Program Participants who met Evaluation Inclusion Criteria, CY 2021-CY 2023

Programs	CY 2021			CY 2022			CY 2023		
	Unique Number of Participants	Total Number of Visit	Average Visits per Participant	Unique Number of Participants	Total Number of Visit	Average Visits per Participant	Unique Number of Participants	Total Number of Visit	Average Visits per Participant
HVS	-	-	-	89	717	8.1	101	1025	10.1
Doulas	-	-	-	*	*	4.2	*	*	3.9
CenteringPregnancy	-	-	-	-	-	-	25	146	5.8
HealthySteps	-	-	-	-	-	-	132	465	3.5
MOM*	*	*	7.5	*	*	5.5	-	-	-

*For MOM, months enrolled

**Year to date, data may be incomplete due to data lag. MCOs have six months to bill and FFS claims have 12 months to bill.