Maternal and Child Health Population Health Improvement Fund

Program Year One – FY 2022

Annual Report

December 2022

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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 was not selected until later in 2020. In fall of 2020, the State formally selected maternal and child health (MCH) as the third population health priority under SIHIS. 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 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 the large potential for improvement.

The U.S. faces higher maternal and infant mortality rates compared to other industrialized countries, with large racial/ethnic disparities for each outcome; Maryland's maternal mortality rate from 2013 to 2017 (24.8 maternal deaths per 100,000 live births) ranks 22nd among states, with the rate for African Americans almost four times that of Whites (44.7 maternal deaths vs. 11.3 per 100,000 live births).

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:

- Severe maternal morbidity rate in overall reduction and stratified goals by race and ethnicity, and
- Asthma-related emergency department (ED) visit rates for ages 2-17 in overall reduction and stratified goals by race and ethnicity

Table 1. SMM Rates per 10,000 delivery hospitalizations, disaggregated by race and ethnicity

Population	Baseline (2018)	2023	2026	Absolute change	Relative Percentage Change
Total	**242.5**	**219.3**	**197.1**	**45.4**	**19%**
White NH	183.6	169.8	156.1	27.5	15%
Black NH	328.5	295.7	262.8	65.7	20%
Asian NH	241.9	217.7	193.5	48.4	20%
Hispanic	236.9	213.2	189.5	47.4	20%
Other	227.3	204.6	181.8	45.5	20%

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

Population	Baseline (2018)	2023	2026	Absolute change	Relative Percentage Change
Total	**9.2**	**7.2**	**5.3**	**3.9**	**42%**
White	4.1	3.5	3.0	1.1	26%
Black	19.1	14.36	9.6	9.6	50%
Asian	2.7	2.6	2.5	0.2	9%
Hispanic	5.4	4.7	4.0	1.4	25%
Other	10.6	7.30	5.5	5.1	48%

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 or the Department), in conjunction with the Medicaid HealthChoice Managed Care Organizations (MCOs). This funding will scale existing statewide evidence-based programs and promising practices and support the expansion of new services for mothers and children. Additionally, using the funding in this manner also creates an opportunity for the State to receive federal match funding to nearly double the investment.

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 (MCH) Population Health Improvement Fund (or "Fund"). The MCH Population Health Improvement 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 MCH Population Health Improvement 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. 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
- 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:

- Medicaid's asthma home visiting program
- Community-based asthma home visiting initiatives (all-payer)
- Community-based home-visiting services and CenteringPregnancy implementation (all-payer)

The Memorandum of Agreement (MOA) between the HSCRC and MDH that governs the MCH Population Health Improvement 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 first year of funding and details the implementation process for the five Medicaid programs and the initiatives under Public Health Services. This first report contains mostly implementation measures; outcome measures will be incorporated into future reports as data become available. The report culminates with a report on FY 2022 expenditures and spending plans for upcoming years.

Medicaid Programs

Program Implementation

The Department created a monthly office hours meeting dedicated to the five MCH initiatives described below. These calls provided opportunities for MCOs to ask questions and for Medicaid to provide any programmatic updates. In addition, the Department created an MCH-specific email address to facilitate communications with external stakeholders.

Home Visiting Services Expansion

Program Overview

In 2017, the Department 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 childhood 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.

On an individual level, Medicaid participants must meet the following eligibility criteria to receive HVS: receive services through a HealthChoice MCO or be enrolled in Fee-For-Service (FFS) Medicaid; and be pregnant, or infant must be younger than 90 days old at the time of enrollment and comply with requirements from the HFA and NFP programs. Harford County and Garrett County participated in the original demonstration; the MCH Population Health Improvement Fund allowed for statewide expansion of the benefit.

Implementation Update

With the approval of the Fund in May 2021, the Department dedicated FY 2022 to building the infrastructure to transition the pilot program into a full Medicaid benefit.

The Department established a new provider type, Home Visiting Services (HVS), within the electronic Provider Revalidation and Enrollment Portal (ePREP) for this new service. These providers are instructed to use 99600 as a billing code for all home visits. To accompany the billing code, the Department recommends use of the diagnosis code, Z34.902 for home visits prior to delivery and Z76.23 for any home visit that occurs after delivery. All qualifying home visits will be reimbursed at a fee-for-service rate of $188 per home visit.

Effective January 13, 2022, Maryland promulgated regulations that provided coverage for both models as a new statewide benefit for Medicaid beneficiaries. Additionally, the Department submitted, and CMS approved, a State Plan Amendment (SPA) covering home visiting under the innovative preventative service authority.

To enroll as a Medicaid provider, eligible home visiting programs must acquire a Type 2 Organizational NPI number under the taxonomy of a “Health Educator.” Once accomplished, each site is eligible to apply for enrollment as a Medicaid HVS provider and subsequently to contract with the appropriate MCOs for their region. The Department provided extensive outreach and technical support to home visiting program sites, stakeholder groups, MCOs and participants to successfully implement this new service. These resources including program materials, webinars and FAQs remain available on the Department’s MCH Medicaid Initiatives website.

As of September 2022, there are nine sites enrolled as Medicaid providers for home visiting services. These sites represent 37 percent of the county jurisdictions within Maryland. The Department continues to serve as a resource for home visiting programs as they make the transition to become Medicaid

providers and increase their comfort with the billing process. It can be expected that claims will increase in months and years ahead.

Doula Reimbursement

Program Overview

Effective February 21, 2022, the Department 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.

The reimbursement model is straightforward – doulas provide three kinds of services: prenatal visits, attendance at labor and delivery, and postpartum visits. Medicaid provides coverage for up to eight perinatal 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. All doulas must be trained by one of nine Medicaid-approved doula certifying organizations.

Program Implementation

To create the reimbursement model, the Department reviewed the development and implementation of doula coverage by other state Medicaid agencies, including Minnesota, New Jersey, New York, Oregon, Rhode Island and Virginia. In addition, the Department reached out to local stakeholders, especially members of Maryland's Doula Technical Advisory Assistance Group (DTAAG).

Through this research, regulations were drafted and published for public notice. After making some adjustments due to comment received, regulations were promulgated to establish the new provider type, the conditions of participation and reimbursement model. The Department also submitted and CMS approved a SPA, which covered doula services as a preventative service.

The Department established a new provider type, doula (DL), within ePREP for this new service. In addition, three new codes were opened in MMIS for billing prenatal and postpartum visits (W3701 and W3702, respectively), as well as attendance at labor and delivery (W3700). As there are no established HCPCS codes for these doula services, the Department also submitted a request to CMS to designate them. These requests are currently being reviewed by CMS.

The Department created a number of resources for this new provider type, including an FAQ document explaining the basics of Medicaid for those who might be unfamiliar. This FAQ was and will be regularly updated with questions from providers. Additionally, the Department hosted live webinars, which were recorded, on how to enroll as a Medicaid provider specific to both individual doulas and group practices, as well as written guides to accompany them. All of these resources are available on the newly created

Doula webpages for providers and beneficiaries, respectively. The Department will continue to update these resources and support doulas who are interested in becoming Medicaid approved.

The Department also held regular meetings with the MCOs to review the doula benefit and provide technical assistance as the services came online. This included creating and updating a program manual, as well as a FAQ based on MCOs questions.

As of September 30, 2022, there are six doulas enrolled as Medicaid providers. At the suggestion of the stakeholder community, the Department conducted a review of the approved certification organizations, putting out a call for nominations for additional organizations. Three new trainings were selected, and as of the start of FY 2023, regulations were being updated to include them as approved certifications. The Department has also been in communication with colleagues at Public Health to work collaboratively to expand the pool of Medicaid-approved doula providers.

CenteringPregnancy and HealthySteps

Program Overview

The Department is utilizing 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. The Department 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.

The Department is updating 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, the Department will reimburse 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

The Department received technical assistance and subject-matter expertise from the national parent organization, the Centering Healthcare Institute (CHI), to develop and design the CenteringPregnancy benefit. Effective January 1, 2023, the Department will pay an enhanced rate to CenteringPregnancy providers. The enhanced payment is meant to support the overall operations of CenteringPregnancy practices and will 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).

The Department identified code 99078, defined as "group ed services by physician," for the enhanced rate for services. The Department created a new category of service and activated code 99078 for billing within the MMIS and ePREP systems. CenteringPregnancy providers will be required to update their Medicaid provider accounts with a letter from CHI attesting that they are an accredited site or pending accreditation. This will allow providers to add the category of service "CP" to their accounts, enabling them to bill for the code 99078.

There are seven active CenteringPregnancy practices in Maryland. Eligible practices will be able to update their Medicaid provider accounts starting in early FY 2023. Medicaid anticipates additional providers will work towards the CenteringPregnancy model implementation due to the partnership and grants from the Department'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

Effective January 1, 2023, the Department will reimburse an enhanced payment for evaluation and management services provided by providers at an accredited or pending accreditation HealthySteps site.

Similar to CenteringPregnancy, the enhanced payment will support the overall operations of HealthySteps practices, including the salary of the HealthySteps Specialist. HealthySteps providers will

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[1]https://centeringhealthcare.org/why-centering/payment: Centering Saves Lives & Money

bill the code H0025, defined as a behavioral health prevention education service. The Department created a new category of service and activated code H0025 for billing within the MMIS and ePREP systems. This code reimburses the practice for overall support of the benefit and will be billed alongside a typical pediatric visit code (either a well-child visit or an appropriate evaluation and management code). This benefit is limited to outpatient offices and outpatient hospital clinics.

HealthySteps providers will need to update their ePREP provider accounts with a letter from ZERO TO THREE attesting that they are an accredited site or pending accreditation. This will allow providers to add the category of service “HS” to their accounts, enabling them to bill code H0025. Eligible practices will be able to update their Medicaid provider accounts starting in early FY 2023. The Department will provide further guidance for providers on the Medicaid website.

The Department received technical assistance and subject-matter expertise from the national parent organization, ZERO TO THREE, to develop and design the HealthySteps benefit. The Department also worked with Maryland-based HealthySteps providers to alert them of the new funding mechanism for these services.

There are two anticipated 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.

MCO Incentive Program

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

The first milestone requires MCOs to draft and submit a detailed work plan outlining how their organization will implement the two benefits in jurisdictions where they are active. The work plan was to address assigned roles, claims configuration, contracting and participant enrollment, among other topics. The Medicaid program reviewed the submitted work plans and inquired further with MCOs if there were specific questions to be addressed.

The second milestone requires MCOs to contract with at least two CenteringPregnancy and HealthySteps providers. While Medicaid regulations will only require MCOs to contract with one CenteringPregnancy provider and one HealthySteps provider, the incentive milestone sets a higher target. MCOs are required to provide documentation to Medicaid indicating that they have contracted with two providers in each provider type to receive these incentive monies.

The final milestone requires MCOs to have at least one member receive benefit services for CenteringPregnancy and HealthySteps, respectively, and to alert Medicaid when this has been

completed. This milestone indicates that the MCO has successfully set up the CenteringPregnancy and HealthySteps benefits.

In addition to the monthly office hours meetings, the Department provided additional technical assistance meetings specific to CenteringPregnancy and HealthySteps and utilized the MCH inbox to respond to questions and feedback.

Medicaid will host a webinar for providers explaining how to update their Medicaid provider accounts to designate that they are a CenteringPregnancy or HealthySteps provider.

Eight out of nine Medicaid MCOs are participating in the incentive program. Once the new regulations are effective on January 1, 2023, all MCOs will be required to cover CenteringPregnancy and HealthySteps benefits and pay the enhanced rate to providers. In addition, the CY 2023 MCO contract will require that MCOs contract with at least one CenteringPregnancy and one HealthySteps provider.

Maternal Opioid Misuse (MOM) Model

Program Overview

The MOM model 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 the social determinants of health.

As part of a CMMI demonstration, the MOM model 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 MCH Population Health Improvement Fund, with federal matching dollars authorized under the §1115 HealthChoice demonstration. As of January 1, 2023, Maryland will cease its participation in the federal CMMI demonstration, although it will continue to offer MOM case management services and screenings to members.

Program Implementation

MOM model services started on July 1, 2021 as a pilot in St. Mary's County, continuing for one year. Starting in FY 2023, after the culmination of the pilot, the model expanded into Baltimore City, in addition to the following counties: Anne Arundel, Baltimore, Cecil, Garrett and Harford. Starting January 1, 2023, the MOM model will expand to be completely statewide, available to all eligible HealthChoice members. The MOM model was added to the §1115 HealthChoice demonstration waiver renewal in 2021, ensuring that the benefit will continue to be available to all eligible members after the culmination of the CMMI demonstration period on December 31, 2024. Starting FY 2023, the PMPM payments will be built into MCO capitation rates.

As of the end of October 2022, there have been six participants in the MOM model. Model 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. As the model expands to be available statewide, the Department anticipates a corresponding increase in enrollment.

With complementary CMMI funds, the MOM model has partnered with outside organizations, the Maryland Addiction Consultation Service (MACS) and Bowie State University, to augment its positive effects. 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 model by making it more attractive to communities of color, the Department 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.

Public Health Programs

The Public Health Services/Prevention and Health Promotion Administration administers funds to improve maternal and child health. Specifically, for the MCH Population Health Improvement 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.[2] The State currently funds 10 sites and 19 programs that meet federal evidence-based criteria across Maryland to implement home visiting through the Maternal, Infant Early Childhood Home Visiting Program (MIECHV). Through the MCH Population Health Improvement Fund, the Department plans to award a total of $2.26 million over three years (August 15, 2022 through June 30, 2025).

[2] https://www.socialworkers.org/LinkClick.aspx?fileticket=7mhUWCPtNL4%3D&portalid=0

Implementation Update

During the summer and fall of 2021, the Bureau prepared a Request for Applications. The process involved consulting with the Office of Minority Health and Health Disparities and the MIECHV Home Visiting 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.

On November 23, 2021, the Department issued a request for applications (RFA) to solicit applications for up to four awards for the expansion of statewide infant and early childhood home visiting services. Due to procurement challenges within the Department, the RFA was reposted on March 24, 2022. In September 2022, the Department announced more than $865,000 in grant funding for FY 2023 to four organizations to expand evidenced home visiting service in high-priority areas. The selected organizations include Montgomery County Health Department, Washington County Health Department, Baltimore Healthy Start and The Family Tree.

Montgomery County Health Department will expand the Babies Born Healthy (BBH) program using the March of Dimes Becoming Mom (BAM) curriculum. BAM improves maternal knowledge through a community-based collaborative model of care, prenatal education and quality prenatal care. BBH will serve approximately 40 high-risk pregnant people beginning at any stage in their pregnancy and follow the mother and infant until the child turns six months of age. The program will place priority and focus on providing services to the following high-risk zip codes in Montgomery County: 20903, 20904, 20906 and 20912.

Washington County Health Department will expand existing home visiting services through the local program affiliate of Healthy Families America (HFA). The program will offer services to 50 additional families starting prenatally over the course of three years and continuing through the child's fifth birthday. Participating families have the option to graduate early when the focus child turns three years old and has met the criteria set for graduation by HFA.

Baltimore Healthy Start (BHS) will partner with Chase Brexton Glen Burnie Health Center to expand home visiting services to postpartum women in Anne Arundel County, in the following zip codes: 20724, 21060, 21061, 212225 and 21226. The program will use the Great Kids curriculum, designed for home visits beginning in the gestational stage of pregnancy. Families will be offered standard BHS case management and care coordination services through the Chase Brexton-based Medication Assisted Treatment for Substance Use Disorder Program. The program intends to provide services to 40 additional families annually.

The Family Tree will expand home visiting services in Baltimore City through the Parents as Teachers (PAT) model. Home visitors make regular visits from prenatal through kindergarten age. The PAT curriculum focuses on mental health, nutrition, maternal depression, substance use and domestic violence. The program intends to provide home visiting services to 20 additional families annually.

Coordination and Collaboration

To ensure coordination, the Department is currently preparing to conduct an introductory meeting amongst the birthing hospitals, the Maryland Hospital Association (MHA) and the home visiting sites. This introductory meeting will help to increase referrals and strengthen relationships and collaborations among stakeholders.

Increasing Access to CenteringPregnancy Sites

Program Overview

The effectiveness of CenteringPregnancy is shown most dramatically among populations of color, who disproportionately experience adverse maternal outcomes. In response to the disproportionate SMM rates affecting Black birthing persons in Maryland, the Department has reserved a total of $429,197 for a period of three years (from FY 2022 to FY 2025) to fund the implementation CenteringPregnancy in five additional sites across Maryland. In alignment, participating practices may be eligible for Medicaid's CenteringPregnancy benefit, outlined above.

Implementation Update

At the beginning of 2022, the Department issued a RFA for grantees to develop and implement a two-year demonstration project utilizing the CenteringPregnancy model in prenatal clinical sites in Maryland. **Mercy Medical Center** (Mercy Medical) was awarded funds in the fourth quarter of FY 2022 and in FY 2023 to implement CenteringPregnancy in Baltimore City. During the fourth quarter Mercy Medical prepared and planned for the implementation of CenteringPregnancy: completion of CHI's CenteringPregnancy training and hiring of staff. On December 8th, 2022 Mercy Medical will be launching CenteringPregnancy. Mercy Medical wil have eight to ten pregnant people from the same gestational age and eight (8) to ten (10) group sessions.

The program will serve patients from their downtown Metropolitan OB/GYN practice, which serves a high number of individuals that are disproportionately affected by SMM.

In June 2022, the Department issued a second RFA for one grant recipient to successfully recruit, implement and administer up to four CenteringPregnancy sites in priority jurisdictions in Maryland. This decision was based on feedback from stakeholders, who recommended the need for more direct recruitment and outreach to clinics due to impacts of the COVID-19 pandemic, lack of resources and challenges of the State's RFA process. Currently, this award is being processed and the Department expects to start in November 2022.

While not funded directly by MCH Population Health Improvement Fund, the Department has also funded **Greater Baden Medical Services** (GBMS) to implement CenteringPregnancy in April of 2022. This site is funded via the Babies Born Healthy Program.

Improving Childhood Asthma Initiatives

Asthma Home Visiting Program

Program Overview

Home visiting programs have been shown to improve asthma, including adolescent asthma, as it offers tailored services to address a family's specific needs. Below is a description of the efforts of the Department to improve childhood asthma outcomes.

Implementation Update

The Department has utilized funds to support the Asthma Home Visiting Program (The Asthma HV Program) that operates in eleven jurisdictions (Anne Arundel, Baltimore, Charles, Dorchester, Frederick, Harford, Montgomery, Prince George's, St. Mary's and Wicomico Counties and Baltimore City). The Asthma HV Program provides up to six home visits for children with moderate to severe asthma by a Local Health Department (LHD) community health worker (CHW) and/or supervising case manager. These visits include an evaluation of environmental triggers, parent education and provision of supplies shown to reduce asthma severity, including a HEPA vacuum cleaner and other interventions demonstrated to improve outcomes for children with moderate to severe asthma. The Asthma HV Program also ensures care coordination amongst all providers who interact with the child through the use of asthma action plans. In FY 2022, more than 600 children with lead poisoning or asthma received services through this program. In support of the SIHIS and Departmental goal of addressing health disparities, 80.3% of the children with asthma served in the program were Black or African American.

COVID-19 continued to limit the ability of LHDs to conduct home visits in 2021 and much of 2022, but LHDs have persisted in their efforts to improve childhood asthma outcomes. In FY22, 353 children with asthma were enrolled at some point for home visiting by local health departments – 201 of those children were newly enrolled in that fiscal year (the others enrolled in a different fiscal year but were in the program at some point in FY 2022).

Improving Referrals to Local Health Department Asthma Home Visiting Programs

One of the most significant challenges to the asthma home visiting programs has been the challenge of recruiting families into the program. The Department has 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
- Incorporation of information about the LHD home visiting program
- 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 Population Health Improvement Fund used to strengthen the LHD home visiting program, the Department 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. These funds will allow GHHI to address 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 most recent GHHI interim report for Prince George's County summarizes the performance measures and progress to date:

> 210 children in total will be enrolled in the Program over 42 months (3.5 years). In the initial 6 months, GHHI was planned to enroll and serve 30 asthma diagnosed children and their households. After the initial 6 months concludes, GHHI will enroll and provide services to 60 clients annually thereafter for the next 36 months (3 years). In total, 210 Children will 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 the Amerigroup client referrals and other referrals from GHHI marketing and outreach and healthcare and other partner referrals. 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), as noted in its update for the

> 280 children in total will be enrolled in the Program over 42 months (3.5 years). In the initial 6 months, GHHI was planned to enroll and serve 40 asthma diagnosed children and their households. After the initial 6 months concludes, GHHI will enroll and provide services to 80 clients annually thereafter for the next 36 months (3 years). In total, 280 children will 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 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 Amerigroup client referrals and other referrals from GHHI marketing and outreach and

healthcare and other partner referrals. GHHI fully 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 the Prevention and Health Promotion Administration (PHPA)/ Environmental Health Bureau (EHB) with the vision that all people and families living with asthma in the State of 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.

The first Asthma CoP meeting was held on March 31, 2022. Attendees included LHDs and asthma stakeholders across the state, including the Green & Healthy Homes Initiative, Johns Hopkins School of Medicine Department of Pediatrics, local community organizations and insurers. Items discussed in the first meeting included the purpose of Asthma CoP, asthma management in Maryland and practices and strategies to address populations with the greatest need. The Asthma CoP met again on July 13, 2021; Tere H. Dickson, MD, MPH (Physician Advisor for Medicaid's Medical Benefits Management Administration), presented a model for Improving Asthma Outcomes in New York City. The final CoP meeting was held on November 2, 2022, and included presentations by the ImpactDC asthma program based at National Children's Hospital, and a discussion about how to improve the design and use of Asthma Action Plans used across Maryland. EHB plans to conduct three Asthma CoP Meetings annually.

SIHIS Measure Performance

As per the terms of the MOA between the HSCRC and MDH, continued funding is contingent upon successful achievement of the interim 2023 SIHIS targets. MDH staff closely monitor performance on the SMM and childhood asthma goals as part of their ongoing implementation responsibilities under SIHIS. COVID-19 has had an undeniable impact on SMM and childhood asthma goals.

Concerning childhood asthma, there has been an association between pandemic lockdowns with fewer ED visits for asthma exacerbation, that is likely due to reduced exposure to viral infections and environmental allergens, decreased availability of primary physicians and families reluctance to arrive to the ED. Early in the pandemic, the CDC identified patients with moderate to severe asthma as a high risk group that may experience greater morbidity from COVID-19 and thus encouraged avoiding asthma

triggers, using prescribed asthma medications and following a personalized asthma action plan.[3] MDH will continue to monitor the childhood asthma rates pre-pandemic, pandemic and post pandemic to work towards a continual improvement in asthma and child health.

The majority of first year activities focused on building infrastructure, launching procurements, and issuing awards to community-based organizations to implement evidence-based-interventions. The new and enhanced benefits through Medicaid, as well as community interventions funded by PHPA, need additional time to mature to demonstrate impact on maternal and child health in the State.

Severe Maternal Morbidity Performance

Statewide Performance

As a result of COVID-19, the State's SMM rate has increased since 2018 and is currently above the State's 2018 baseline. Based on conversations with stakeholders such as providers and hospital administrators, the effects of COVID and other respiratory viral illnesses have contributed to the SMM rate increase. There are similar performance trends nationally. A cohort analysis of 1.6 million pregnant patients across 463 US hospitals published by the Journal American Medical Association (JAMA) indicated a small but significant increase in pregnancy-related complications and maternal deaths during delivery hospitalization.[4] The rate of pregnancy complications included hypertensive disorders and hemorrhage. Prior to the pandemic, 15.3 percent of patients had a pregnancy-related hypertensive disorder compared with 16.6 percent during the pandemic; 5.1 percent of patients experienced hemorrhage, compared with 5.5 percent during the pandemic.

In addition, previous internal analysis from 2021 Maryland data demonstrated that there was an increase in respiratory conditions contributing to SMM, particularly in cases requiring ventilation. The rate of SMM requiring ventilation among COVID-19 positive SMM cases was 43 percent higher than among COVID-19 negative SMM cases. Although COVID-19 vaccination rates have increased in the State, the SMM rates remain elevated. These are most likely due to the long-lasting impact of COVID-19 that is beyond the acute infections but also has affected stress, access to health care, employment, transportation, childcare, and other social determinants of health. MDH will continue to monitor performance throughout 2023 and communicate with CMMI regarding trends.

SMM indicators were recently updated by federal partners to exclude blood transfusions, due to lack of specificity. Given these updates, the State is examining the impact of updating the SMM indicators to align with the national SMM calculations.

MDH will continue to monitor performance throughout 2023. As previously mentioned there has been a small but significant increase in SMM at the national level. Despite the influence of COVID-19 on SMM

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[3] 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.

[4] Molina RL, Tsai TC, Dai D, et al. Comparison of Pregnancy and Birth Outcomes Before vs During the COVID-19 Pandemic. *JAMA Netw Open.* 2022;5(8):e2226531. doi:10.1001/jamanetworkopen.2022.26531

outcomes, staff is working diligently to expand and implement the funded interventions to improve maternal health and reduce SMM in Maryland.

Based on data through August 2022, Maryland had 287.8 SMM-related hospitalizations per 10,000 delivery discharges over the prior 12 months. This rate is 68.5 hospitalizations per 10,000 higher than the 2023 target (219.3) and 45 hospitalizations per 10,000 higher than the 2018 baseline (243.1).

Figure 1. SMM Rate for Rolling 12-Months (2018 - August 2022)

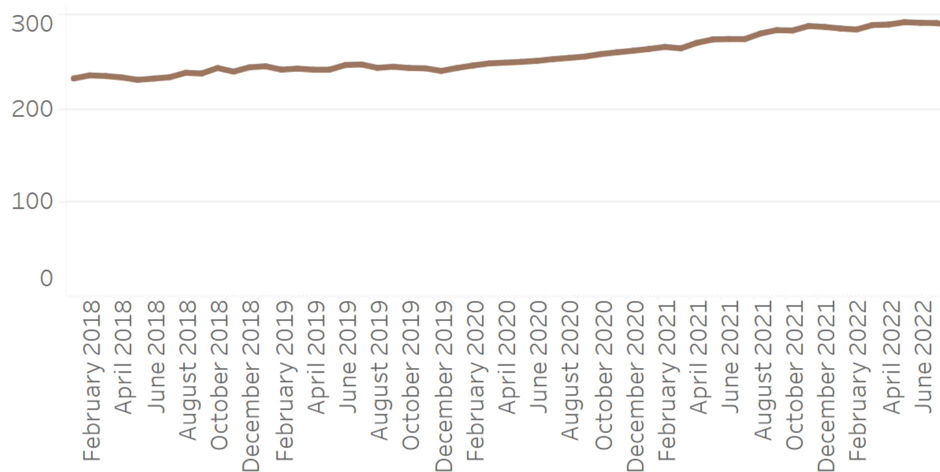

Table 1. SMM Hospitalizations Compared to 2023 Target

	2018 Baseline	Most Recent 12 Months	2023 Target	Difference - Most Recent 12 months to Target
Rates per 10K	243.1	287.8	219.3	68.47
SMM Events	1,585	1,815		
Eligible Deliveries	65,199	63,071		

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 2. SMM Hospitalizations for Rolling 12-Months by Race/Ethnicity, 2018-August 2022

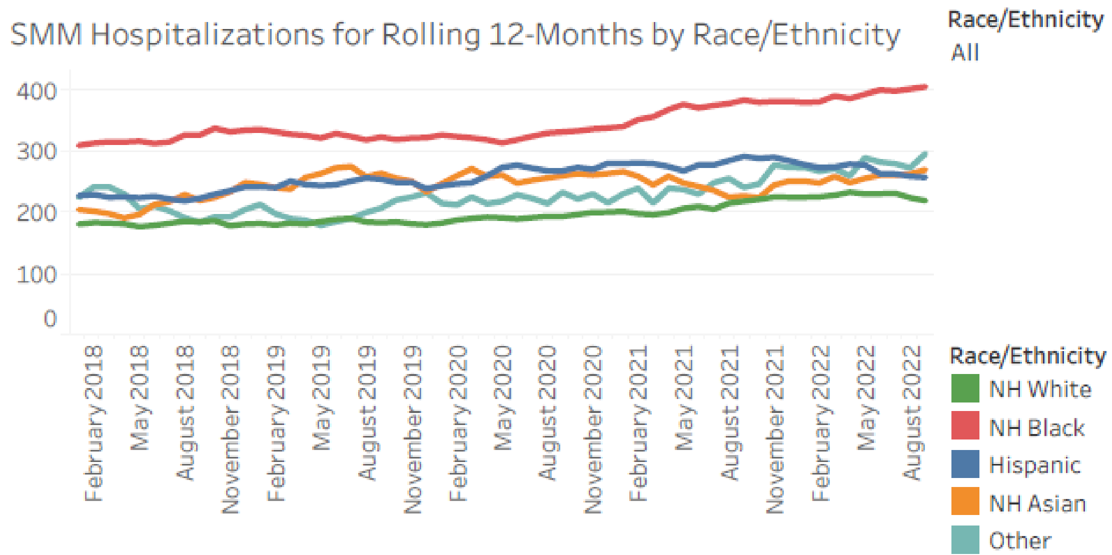

Table 3 . SMM Hospitalizations Rates by Race/Ethnicity, 2018-August 2022

SMM Hospitalization Rates per 10K Compared to 2023 Target: Race/Ethnicity & Disparity Index

Race/Ethnicity	2018 Baseline	Most Recent 12 Months	2023 Target	Difference - Most Recent 12 months to Target	Disparity Index
NH White	181.4	219.3	169.8	49.5	1.0
NH Black	334.2	404.7	295.7	109.0	1.8
Hispanic	242.0	257.7	213.2	44.5	1.2
NH Asian	249.0	269.9	217.7	52.2	1.2
Other	205.2	296.2	204.6	91.6	1.4
Statewide Total	243.1	287.7	219.3	68.4	1.3

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 3. SMM Rate by Payer, 2018- September 2022

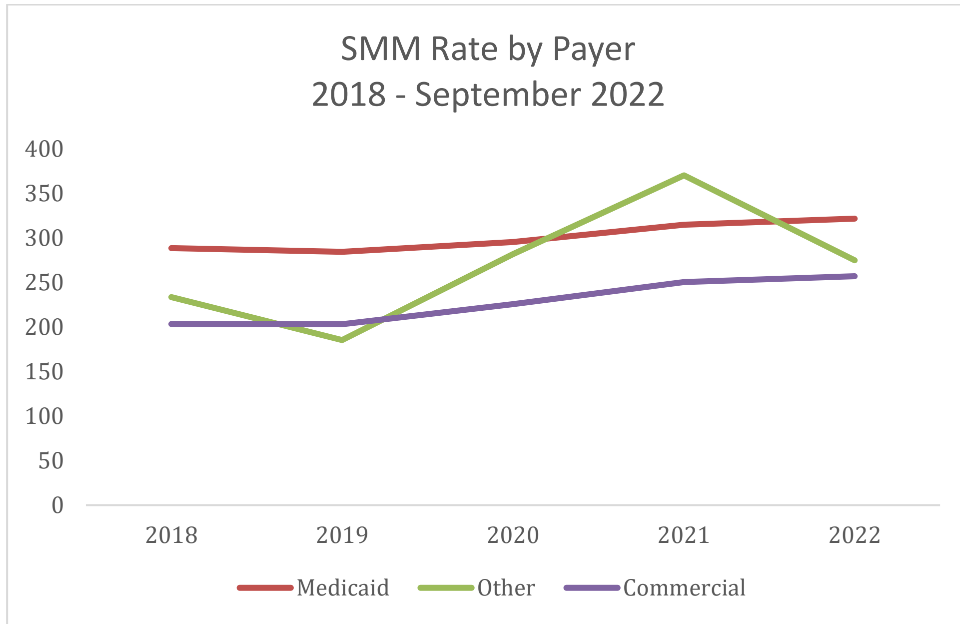

Table 4 . SMM Rate by Payer, 2019 – September 2022

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 4. Childhood Asthma-Related ED Visits for Rolling 12-Months

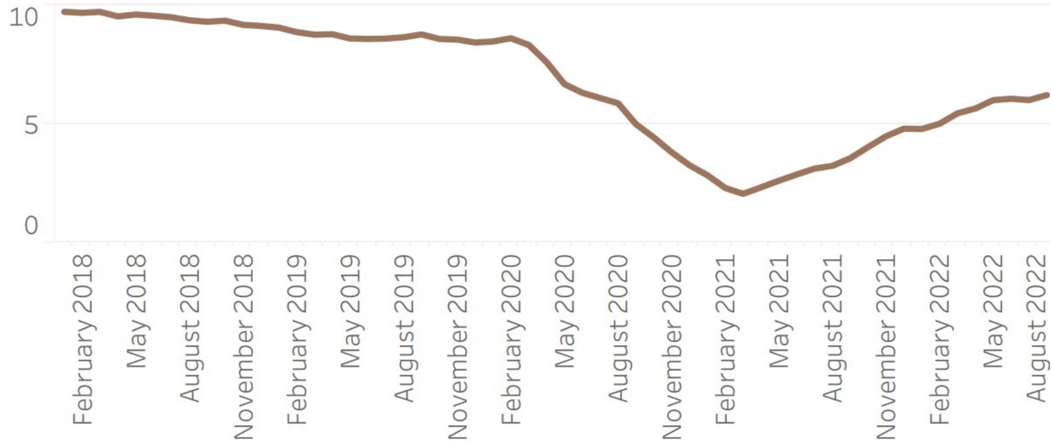

Table 5. Childhood Asthma-Related ED Visits Compared to 2023 Target

	2018 Baseline	Most Recent 12 Months	2023 Target	Difference - Most Recent 12 months to Target
Rates per 1K	9.2	6.2	7.2	-1.0
Total Count	10,974	7,457		

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 5 . Childhood Asthma-Related ED Visit Rates by Race/Ethnicity, 2018-August 2022

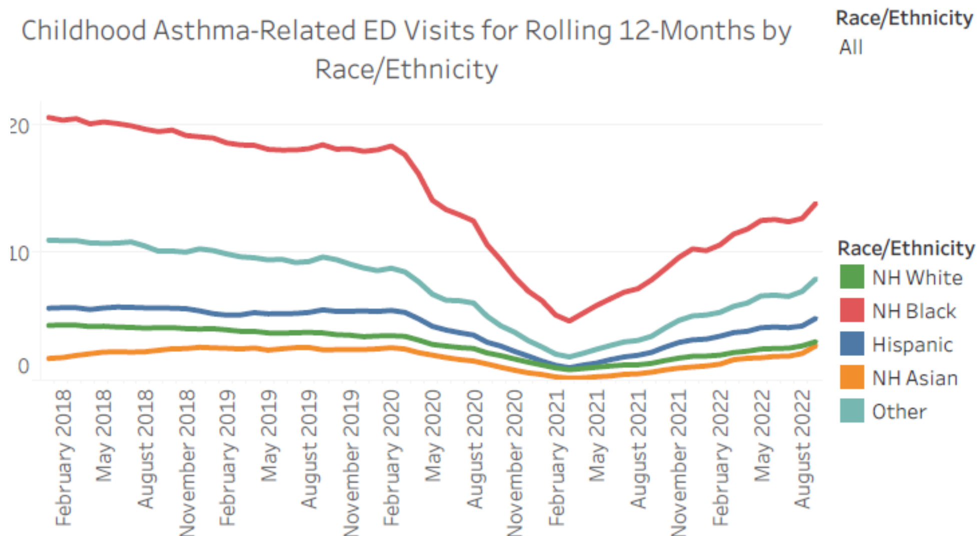

Table 6 . Childhood Asthma-Related ED Visit Rates by Race/Ethnicity, 2018-August 2022

Childhood Asthma-Related ED Visit Rates per 1K Compared to 2023 Target: Race/Ethnicity & Disparity Index

Race/Ethnicity	2018 Baseline	Most Recent 12 Months	2023 Target	Difference - Most Recent 12 months to Target	Disparity Index
NH White	4.1	3.1	3.50	-0.4	1.0
NH Black	19.1	13.9	14.36	-0.5	4.5
Hispanic	5.5	4.9	4.70	0.2	1.6
NH Asian	2.6	2.7	2.60	0.1	0.9
Other	10.3	8.0	7.30	0.7	2.6
Statewide Total	9.2	6.9	7.2	-0.3	2.3

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

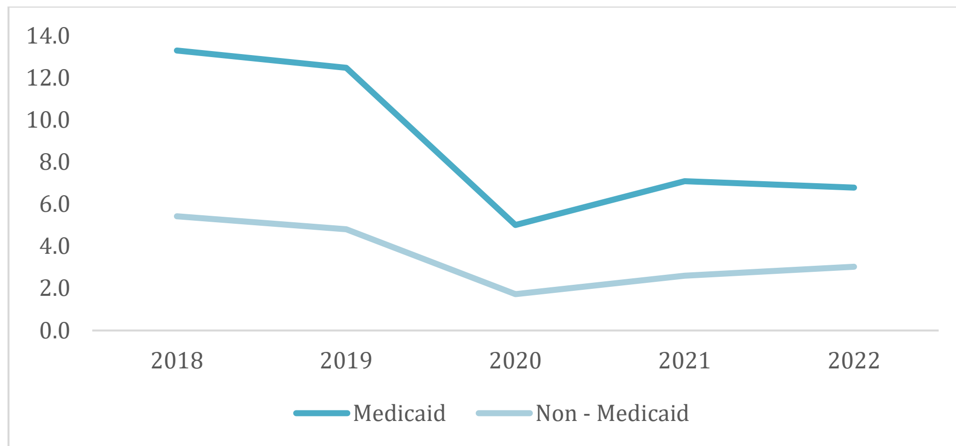

Table 7 . Childhood Asthma-Related ED Visit Rate per 1K by Payer, 2018-September 2022

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 One Spending

The Medicaid program devoted its efforts in FY 2022 to establishing the infrastructure to launch the new and enhanced benefits supported by 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 maximize the Fund's contribution by pulling down federal matching funds, which relies on service implementation. Because the first year focused on infrastructure development, the Medicaid program did not have any expenditures under the Fund in FY 2022.

The Medicaid program is building the full $16 million into its budget for CY 2023 and expects service delivery to increase as provider networks continue to grow. Medicaid is considering additional program enhancements that may increase service uptake and spending in FY2023 which may include:

- Supporting the Maryland Addiction Consultation Service (MACS) at the University of Maryland School of Medicine to continue leading capacity-building activities for maternal health providers who serve patients with OUD;
- Funding Bowie State University–an HBCU–to research and provide recommendations on increasing the attractiveness of and engagement with the MOM model to communities of color;
- Standing up a doula training scholarship program, in coordination with PHS/PHPA;
- Supporting marketing activities to increase public awareness and uptake of the new and expanded services; and
- Supporting the conversion of Maryland Prenatal Risk Assessments - a major referral source for MCH programs - from paper to electronic.

PHS/PHPA dedicated FY 2022 to planning and preparing the Requests for Applications. Overall, 39 percent of funding was spent on Year 1 for funding allocated to PHPA.

Table 8. PHPA Grant Funds Expenditures - FY 2022

Initiative	FY 2022 Spending
Asthma Home Visiting Program[5]	$640,633
Community-Based Asthma Programs[6]	$100,035
Maternal Home Visiting	$28,258
CenteringPregnancy	$17,926
Program Total	$786,852

Due to procurement challenges and time spent on developing the grant applications, there were initial delays. Because the funds will be able to be rolled over, PHPA intends to use the carryover funds in

[5] This is an estimate. Final spending will be available in early 2023.

[6] These are estimates. Final spending will be available in early 2023.

following years. The rollover funds have already been incorporated into budget planning for the home visiting expansion grant funds and the CenteringPregnancy grant funds.

Conclusion

In FY 2023, the State will continue to invest towards the projects described above that have been strategically designed to provide services to underserved populations and those who are at greater risk of being affected by SMM and severe asthma. The State will continue to monitor and provide support to the home visiting sites and community-based asthma programs by developing tools and resources to increase awareness of services, provide opportunities for collaboration between home visiting cites, local health departments and health organizations. The State will continue strengthening networks both internally and externally to advance maternal and child health.