Maternal and Child Health Services Title V Block Grant

Maryland

FY 2023 Application/ FY 2021 Annual Report

Created on 8/11/2022 at 8:37 PM

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I. General Requirements

I.A. Letter of Transmittal

DEPARTMENT OF HEALTH

Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Dennis R. Schrader, Secretary

August 10, 2022

Maternal and Child Health Bureau
Health Resources and Services Administration
5600 Fishers Lane, 18th Floor
Rockville, MD 20857

To Whom It May Concern:

As the Director for the Maternal and Child Health Bureau at the Maryland Department of Health, I hereby submit this application letter for the Title V Maternal and Child Health Block Grant to State Program funding for Federal Fiscal Year (FFY) 2023. The online application has been completed in accordance with the published guidance (OMB 0915-0172) for this year's application and annual report

Should you have any questions or need additional information, please contact me via email at shelly.choo@maryland.gov.

Thank you for your consideration and review of the Maryland Title V Maternal and Child Health Block Grant Application for FFY 2023 and Annual Report for FFY 2021.

Sincerely,

Shelly Choo, MD, MPH
Director, Maternal and Child Health Bureau
Maryland Department of Health

cc: Donna Gugel, MHS
Courtney McFadden, MPH
Stacy Taylor, JD

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I.B. Face Sheet

The Face Sheet (Form SF424) is submitted electronically in the HRSA Electronic Handbooks (EHBs).

I.C. Assurances and Certifications

The State certifies assurances and certifications, as specified in Appendix F of the 2021 Title V Application/Annual Report Guidance, are maintained on file in the States' MCH program central office, and will be able to provide them at HRSA's request.

I.D. Table of Contents

This report follows the outline of the Table of Contents provided in the *"Title V Maternal and Child Health Services Block Grant To States Program Guidance and Forms,"* OMB NO: 0915-0172; Expires: January 31, 2024.

II. Logic Model

Please refer to figure 4 in the "Title V Maternal and Child Health Services Block Grant To States Program Guidance and Forms," OMB No: 0915-0172; Expires: January31, 2024.

III. Components of the Application/Annual Report

III.A. Executive Summary

III.A.1. Program Overview

Maternal and Child Health in Maryland: Maryland Department of Health is committed to ensure lifelong health and wellness for all Marylanders. This vision can be achieved through disease prevention, access to care, quality management, and community engagement.

Maryland has a history of strong funding for health and social service programs including Maternal and Child Health programs. During FY 2021, the federal Title V award was $11,872,645 and the state match was $10,999,716 meeting the required match of $3 for every $4 federal. In FY 2021, Title V provided direct, enabling, and public health systems services to approximately 228,412 pregnant people, infants, children, including children with special health care needs, and adolescents.

The Role of Title V: The mission of Maryland Title V is to protect, promote, and improve the health and well-being of women, infants, children, and adolescents, including those with special health care needs. Maryland Title V strengthens the Maternal and Child Health (MCH) infrastructure within the state to ensure the availability, accessibility and quality of primary and specialty care services for women, infants, children, including those with special health care needs, and adolescents.

As Maryland's Title V Maternal and Child Health Block Grant agency, the Maryland Department of Health's Maternal and Child Health Bureau (MCHB) provides the leadership infrastructure to implement strategies focused on improving the health and well-being of MCH populations across the state. MCHB staff partners across other Bureaus and Offices within the Department and collaborates with other state agencies to fulfill Title V's mission.

Through Title V, MCHB addresses ongoing and emerging health care priorities across the five MCH population domains: women/maternal health, perinatal health, child health, children with special health care needs, and adolescent health. Title V staff continued to respond to the COVID-19 pandemic in FY21 by conducting surveillance and outreach activities, permitting flexibility with partners in funding, developing guidance for programs, rapidly providing resources and information to partners, and addressing the emergent needs of families.

Maryland Title V implements evidence-informed strategies to support the state's identified priorities and selected National Performance Measures (NPMs), as well as State Performance Measures (SPMs) that align with other health improvement initiatives in the state. These Title V priorities and performance measures provide a centralized framework and unifying plan for MCH initiatives.

Maryland Title V funds support direct, enabling, and public health systems services at the state health department, all twenty-four of the state's local health departments, higher educational institutions, community-based organizations, and health care systems. Partnerships are key to the success of Title V to expand reach to the MCH population and address their needs. Maryland Title V also serves as the central connector amongst various maternal and child health initiatives. Finally, Title V funding supports critical public health infrastructure such as epidemiology, surveillance, program managers and other initiatives which are not covered by state funding.

This annual report and application provides an overview of Maryland Title V activities and accomplishments across the five domains, as well as continued progress towards the selected NPMs and SPMs.

Program Framework: The three guiding frameworks for Maryland Title V are the Life Course Model, Socio-Ecological Framework, and the Health Equity Framework. The life course model recognizes that structurally patterned exposures during critical and sensitive periods of the life course results in shifts in health trajectories that may endure despite later interventions.[1] The Socio-Ecological Model considers the impact of and interplay between individual factors, relationships, community factors and societal factors such as policies on health and health outcomes. The Health Equity Framework brings together the Life Course and Socio-Ecological Model to look at class, race/ethnicity, gender, sexual orientation, and immigration status and recognizes how institutional and structural inequities can create unequal living conditions. The unequal living conditions can then shape the health behaviors and health outcomes.

Needs Assessment and State Action Plan: Title V completed an updated Needs Assessment and State Action plan in FY 2020. Through a ten-month process that included both primary and secondary data collection and analysis, nine National Performance Measures were identified. Title V has also identified the need for four additional State Performance Measures to align with statewide health improvement plans.

Title V Population Domains:

Women/ Maternal Health: Maryland has identified "ensuring all birthing people are in optimal health before, during, after birth" as a priority need in Women/Maternal Health. To this end, the National Performance Measures selected include NPM 13.1 Percent of women who have a preventive dental visit during pregnancy, and NPM 14.1 Percent of women who smoke during pregnancy. There are two State Performance Measures: SPM 1: Overdose Mortality Rate for Women, ages 15-49 in Maryland per 100,000 population and SPM2: Excess Rate of Black Non-Hispanic Severe Maternal Morbidity Rate to White Non-Hispanic Severe Maternal Morbidity rate. Both SPMs align with Maryland's Statewide Integrated Health Improvement Strategy (SIHIS) that focuses on maternal and child health and decreasing overdose fatalities.

- **NPM 13.1: Percent of women who have a preventive dental visit during pregnancy:** Title V continues to work with the Office of Oral Health (OOH) to update and disseminate the "Oral Health Care During Pregnancy: Practice Guidance for Maryland's Prenatal and Dental Providers and Oral Health During Pregnancy – a health literacy/social marketing campaign.
- **NPM 14.1: Percent of women who smoke during pregnancy:** Title V funds programs at the local health department who provide services to prenatal/postpartum people through home visiting, home birth certification, early intervention, and family planning clinics, routinely screen women for tobacco use and offer referrals to the state's QuitLine. The local health departments report the number of women referred on a quarterly basis. Additionally, in partnership with the Center for Tobacco Control and Prevention, Title V is able to track the total number of pregnant people who are referred by all providers throughout the state. The Maryland Family Planning Program has also worked to implement SBIRT (Screening, Brief Intervention, Referral to Treatment) into their clinic sites.
- **SPM 1: Number of Overdose Mortalities for Women, ages 15-49 in Maryland per 100,000 population.** Title V has added a State Performance Measure related to Overdose Mortality Rate for women, ages 15-49 to reflect the urgent need to address the increasing number of overdose deaths in the state and align with the Statewide Integrated Health Improvement Strategy (SIHIS). SIHIS is designed to engage State agencies and private sector partners to collaborate and invest in improving health, addressing disparities, and reducing overall health care costs. The strategy has identified opioid overdose fatalities as a population health priority as well as maternal health. In Maryland, overdose deaths are the leading cause of maternal mortality. Strategies to prevent overdose fatalities include facilitating linkages to substance use disorder treatment using the prenatal risk assessment tool with State Medicaid and Centers for Disease Control and Prevention Overdose Data to Action partners, updating the postpartum infant maternal referral form, developing a linkage to care toolkit for providers of birthing people, and understanding opioid use through PRAMS surveillance. In addition, Maryland is a recipient of the Centers for Medicare and Medicaid Innovation Maternal Opioid Misuse Model to partner with Managed Care Organizations for robust case management for treatment and addressing social needs.
- **SPM 2: Excess Rate of Black Non-Hispanic Severe Maternal Morbidity Rate to White Non-Hispanic Severe Maternal Morbidity rate:** In order to address maternal disparities, Title V is aligning with the Statewide Integrated Health Improvement Strategy goals to reduce the disparity gaps within the severe maternal morbidity rate. Overall, work towards addressing disparities will improve health for all Maryland birthing people. Title V supports activities and efforts with federal and matching funds to improve maternal health and decrease disparities through the Perinatal Support Program, Perinatal Neonatal Quality Collaborative, Maternal Mortality Review Program, home visiting and care coordination through the local health departments, and collaboration with the State Maternal Health Innovation Program.

Perinatal/Infant Health: Maryland has identified the following priority needs in Perinatal/Infant Health as "ensuring that all babies are born healthy and prosper in their first year" by addressing the racial disparities in infant outcomes. The National

Performance Measures selected for this population domain include NPM 3: Percent of Very Low Birth Weight (VLBW) and Low Birth Weight (LBW) infants delivered at appropriate level hospitals; NPM 4: Percent of infants ever breastfed; and NPM 5: Percent of infants placed on their back to sleep.

- **NPM 3: Percent of VLBW and LBW infants born at appropriate level hospitals:** Title V supports several initiatives that focus on improving perinatal/infant health including the Maryland Perinatal System Standards that provides standards for all Maryland birthing hospitals. Compliance to these standards are assessed by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) and the Morbidity, Mortality, Quality, Review Committee. Other initiatives include the Maryland Perinatal Support Program, and the Maryland Perinatal Quality Collaborative.
- **NPM 4: Percent of infants ever breastfed:** Recognizing the importance of breastfeeding for optimal health in childhood and across the life course, Title V supports activities that promote breastfeeding. Local health departments provide breastfeeding information/education through home visiting and care coordination programs. Title V also collaborates with the Maryland WIC program on the Breastfeeding Policy Committee that provides support to hospitals across the state to become certified "Breastfeeding Friendly," through maternity staff training modules and physician webinars.
- **NPM 5: Percent of infants placed on their back to sleep:** Maryland's infant health domain NPM is the placement of infants on their back to sleep, as sleep-related infant deaths are the third leading cause of overall infant mortality and the leading cause of post-neonatal deaths in Maryland. Through Title V funding, local health departments and Babies Born Healthy Initiative, infant safe sleep education and portable cribs are distributed. Title V supports local Fetal and Infant Mortality Review (FIMR) activities to investigate causes of infant death. Title V also supports infant mortality reduction activities in local health departments across the state through home visiting and care coordination services for high-risk women and infants that screen and refer for mental health and substance use, and provide education on prenatal nutrition support.

Children's Health: Maryland has identified the following priority needs for Child Health, "ensuring that all children have the opportunity to develop and reach their full potential." Title V efforts in Maryland continue to focus on children with Medicaid who receive a developmental screen (NPM 6). Title V has added a State Performance Measure (SPM) 3 on the receipt of primary care during early childhood as well as a State Performance Measure related to childhood asthma (SPM 4). In an effort to align with the Statewide Integrated Health Improvement Strategy (SIHIS), Maryland also has the SPM 4: Annual ED visit per 1,000 for ages 2-17 for the primary diagnosis of asthma.

- **NPM 6: Percent of children age 19-35 who have completed a developmental screen:** Through Title V funding, local health departments implement programs and services related to child development. Local health departments that choose to focus on child health services support programs such as lead case management, early intervention, and hearing and vision screening. Parents enrolled in home visiting programs (maternal health services) also receive information regarding the importance of child developmental screenings through their medical home.
- **SPM 3: Receipt of primary care during early childhood:** (Percent of children enrolled in Medicaid who reached 15 months who had 5 or more well care visits in their first 15 months of life) Title V will continue to monitor and track receipt of primary care in early childhood through Medicaid data. Title V staff at Local Health Departments provide essential services such as vaccinations and vision and hearing screenings. Title V also funds home visiting programs who help coordinate and promote primary care services. Finally, Title V will partner with the Maryland State Department of Education (MSDE) for school-based health centers and school health services.
- **SPM 4: Number of ED visits per 1,000 for children ages 2-17 with a primary diagnosis of asthma:** Beginning in FY 2022, local health departments will have the option to use Title V funds to support asthma programming/services. These programs/services will include asthma home visiting, asthma collaboratives, and/or regional partnerships. Title V will also partner with the Environmental Health Bureau to support existing asthma programs such as asthma home visiting through the State Plan Amendment (SPA) and the

Children's Health Insurance Program (CHIP) in the jurisdictions across the state that have high incidence of emergency department visits for asthmatic children.

Adolescent Health: Title V has identified as priority needs in adolescent health to "Ensure that adolescents ages 12-17 receive comprehensive well visits that address physical, reproductive, and behavioral health needs" and "ensure that adolescents with asthma and their families have the tools and support necessary to manage their conditions." There is one NPM, Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year (NPM 10) and SPM 4: Annual ED visit per 1,000 for ages 2-17 for the primary diagnosis of asthma. NPM 10 was selected since it informs the SPM.

- **NPM 10: Percent of adolescents ages 12 through 17, with a preventive medical visit in the past year:** Title V supports adolescent health through funding to local health departments for school-based health services. These services include physical health assessments as well as screening and referral for mental health and/or substance use. Additionally, Title V funds support an Adolescent Health Coordinator at the state level who manages the Sexual Risk Avoidance, Pregnancy Responsibility Education Program and Maryland Optimal Adolescent Health Program grants. Starting in FY2023, Title V will also oversee the Maryland School-Based Health Center Program.
- **SPM 4: Number Asthma ED visits per 1,000 for ages 2-17:** Beginning in FY 2022, local health departments will have the option to use Title V funds to support asthma programming/services. These programs/services will include asthma home visiting, asthma collaboratives, and/or regional partnerships. Title V will also partner with the Environmental Health Bureau to support existing asthma programs such as asthma home visiting through the State Plan Amendment (SPA) and the Children's Health Insurance Program (CHIP) in the jurisdictions across the state that have high incidents of emergency department visits for asthmatic children and adolescents.

Children with Special Health Care Needs (CSHCN): Maryland has identified, "ensure optimal health and quality of life for all children and youth with special health care needs and their families by providing all services within an effective system of care in alignment with the six core outcomes" as its priority area. These priorities focus on medical home access and transition support/services for children and youth with special health care needs (CYSHCN).

- **NPM 11: Percent of children with and without special health care needs, ages 0-17, who have a medical home:** Maryland recognizes that the medical home approach to providing comprehensive and high-quality primary care is the best practice for children with and without special health care needs. Despite the model's introduction fifty-plus years ago, more progress needs to be made for universal implementation. OGPSHCN will continue to explore challenges to medical home implementation in MD and strategize effective outreach and training opportunities.
- **NPM 12: Percent of adolescents with and without special health care needs, ages 12-17, who received services to prepare for the transition to adult health care:** Maryland continues the overarching goal of increasing the percent of adolescents with and without special health care needs who have received the services necessary to make transitions to adult health care but will be conducting a thorough analysis of current strategies and evaluating the need for revised strategies in SFY2023.

Cross Cutting: **SPM 5: Percentage of MCH Bureau committees/workgroups that include community members/persons with lived experience**

For FY 2023, Maryland Title V added a cross cutting state performance measure. Title V continues to shift towards achieving equity and reducing disparities. Title V will work on reviewing various committees and workgroups to include community members/persons with lived experience.

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[1] Jones NL, Gilman SE, Cheng TL, Drury SS, Hill CV, Geronimus AT. Life Course Approaches to the Causes of Health Disparities. Am J Public Health. 2019;109(S1):S48-S55. doi:10.2105/AJPH.2018.304738

III.A.2. How Federal Title V Funds Complement State-Supported MCH Efforts

Through the Title V Maternal and Child Health Services Block Grant, Maryland is able to provide core public health services funding to all 24 jurisdictions (23 counties and Baltimore City) in the state to advance vital maternal and child health services and initiatives that are specific to the needs of each community. Funding is used for direct, enabling, and public health systems services/initiatives for children, children and youth with special health care needs, and maternal health. Additionally, funds are used for population-based services through community education of emerging public health issues and through the continued development and advancement of public health infrastructure to ensure the health and well-being of Title V eligible populations. These services highlight the mission and vision of the Department of Health's Prevention and Health Promotion Administration, in which Maryland Title V resides.

Without critical Title V funding, the State would be unable to maintain the level of support necessary to continue to successfully improve the health outcomes of the State's women, infants, children, adolescents and children/youth with special health care needs. Title V funds State staff who serve essential roles for the MCH population such as epidemiology and surveillance, program management and coordination, policy development and analysis, partnership coordination, and outreach. Title V funding supports the efforts of local health departments to advance Title V priorities at the community level through the implementation of evidence-based and evidence-informed programs, activities, and initiatives.

Each fiscal year, Maryland receives approximately $11,800,000 in federal Title V funding for maternal and child health services. The state's FY 1989 required Maintenance of Effort (MOE) amount is $8,262,484. Historically, Maryland has matched federal Title V funds above the required MOE to ensure that services are adequately funded across all population and service domains. In FY 2021, the state match totalled $10,999,716 and supported services such as family planning/reproductive health clinics, care coordination services for pregnant women (Babies Born Healthy), Child Fatality Review (CFR), various perinatal infrastructure projects, and medical day care for children and youth with special health care needs.

III.A.3. MCH Success Story

The Title V Program works with and funds the network of Maryland Child Abuse Medical Providers (CHAMP). They are a group of medical professionals who are experts in the area of child maltreatment. CHAMP's goal is to develop medical expertise related to maltreatment in Maryland. CHAMP activities include: recruiting and training medical professionals in the area of child maltreatment, providing ongoing training and support for medical professionals working in the field, providing expert medical evaluations when concerns of child maltreatment arise, providing consultation to the Child Protective Services (CPS), law enforcement, state attorney's offices, pediatricians and other professionals.

One of the CHAMP initiatives includes the Forensic Nurse Examiner (FNE) Training Program at Frederick Health Hospital that provides technical assistance and guidance. The FNE Training program was recently commended by a Maryland regional medical center. Healthcare facilities not only are required to provide physical care for victims of abuse, but also have a program for the forensic exam and evidence collection for cases that involve law enforcement. Many facilities in the more rural parts of Maryland cannot afford to shoulder their own training program. The Regional Medical Center acknowledged and praised the FNE training for providing didactic and clinical simulation training experiences necessary for a nurse to meet the requirements of the Maryland Board of Nursing to obtain an FNE certification. The FNE program also provided information, material, updated references, and time to discuss programmatic changes. The Regional Medical Center called the training center a "beacon for the State of Maryland."

III.B. Overview of the State

Introduction

Maryland is a small but diverse state comprising 24 jurisdictions, including 23 counties and the city of Baltimore. According to the U.S. Census Bureau, Maryland had an estimated population of nearly 6.2 million in 2020, and ranked as the nation's 18th most populous state. However, Maryland ranks as the ninth smallest state according to land area. Although a small state in size and population, Maryland has great geographic diversity. The State is characterized by mountainous rural areas in the western part of the State, densely populated urban and suburban areas in the central and southern regions along the I-95 corridor between Baltimore and Washington DC, and flat rural areas on the eastern shore. Maryland is geographically unique with the Allegheny Mountains and Chesapeake Bay separating its western and eastern regions from the population centers of the state. These geographic "barriers" often create special challenges in the procurement of health care services due to lack of access (transportation and distance), lack of providers, and lack of specialty care.

The State's Maternal and Child Health (MCH) population includes an estimated 1.2 million women of childbearing age (ages 15-45), 1.5 million children and adolescents (ages 0-19), and 368,767 young adults (ages 20-24) in 2020. According to the National Survey of Children's Health in 2019-2020, an estimated 273,531 Maryland children and youth (ages 0-17) have special health care needs (NSCH 2019-2020 Survey).

Maryland's Health Care Environment

Maryland's health care system includes 24 local health departments (LHDs), 77 hospitals, 21 federally qualified health centers (FQHCs), the Medicaid Program, private insurers, regulatory agencies, provider groups, advocacy groups and countless health practitioners. MCH specific resources include 32 birthing hospitals, nearly 2,600 pediatricians and/or adolescent practitioners, over 1,200 obstetricians and/or gynecologists, and nearly 1,900 family/general practitioners. Maryland is home to Johns Hopkins University consistently ranked as one of the nation's top hospitals and several of the best diagnostic centers for developmental conditions in children, including Kennedy Krieger Institute, University of Maryland Division of Behavioral and Developmental Pediatrics, Sheppard Pratt and Mount Washington Pediatric Hospital.

Maryland was one of the initial six states approved to begin a Health Benefit Exchange under the Affordable Care Act (ACA). The Maryland Health Benefit Exchange, known as Maryland Health Connection (MHC), was launched in 2013 and has implemented ongoing efforts to increase knowledge among individuals and communities about the importance and availability of health insurance coverage. Within local health departments and through regional consumer assistance organizations, health navigators assist individuals with applying for health insurance options available through MHC. Maryland also expanded Medicaid eligibility through the ACA to cover income eligible adults ages 19-64 regardless of parental status.

The Maryland Medicaid Program serves as the major source of publicly sponsored health insurance coverage for children, adolescents, and pregnant women. According to Medicaid data (December 2021), there were 1,674,096 Marylanders who were enrolled in Medicaid. During calendar year 2020, 688,533 children and adolescents (ages 0-22) were enrolled in the Medicaid Program at some point during the year, representing a 4 percent increase from 2020 enrollment. Maryland has generally been supportive of expanding health insurance coverage for uninsured children and pregnant women. The Maryland Children's Health Program (MCHP) began operating as a Medicaid expansion program on July 1, 1998. The MCHP program expanded comprehensive health insurance coverage to children up to the age of 19 with family incomes at or below 200% of the federal poverty level (FPL). In 2001,

Maryland initiated a separate children's health insurance program expansion, MCHP Premium. MCHP also provides insurance coverage for pregnant women with incomes between 185% and 250% of the federal poverty level. In 2020, according to the National Vital Statistics System, Medicaid covered hospital delivery costs for 39.2 percent of Maryland births.

Health care workforce shortages/distribution affects many Maryland communities. There are federally designated health professional shortage areas and medically underserved areas/populations located throughout the State, particularly in urban and rural areas. This shortage is expected to be exacerbated by the COVID-19 Pandemic and the loss of health care workers due to fatigue and burnout. Data from the HRSA Data Warehouse indicates that 19 of Maryland's 24 jurisdictions are currently either entirely or partially federally designated as health professional shortage areas for primary care and/or dental services, and 18 are shortage areas for mental health. Twenty three of the State's 24 jurisdictions are currently either fully or partially designated as medically underserved areas. Federally qualified health centers are located in 22 jurisdictions in the State.

Maryland was ranked by the Census Bureau as the wealthiest state in the nation as measured by median household income in 2020. Its health care environment is also one of the most robust in the nation as measured by physician to population ratio and the availability of internationally recognized high quality health services. In spite of Maryland's relative affluence and significant health care assets, progress on health measures for the State is often mixed due to the geographic factors that limit access to care.

The 2021 Kids Count Data Book (Annie E. Casey Foundation), ranked Maryland 24 in overall child well-being, slipping three spots from its ranking in 2020. Despite the State's overall wealth, Maryland still faces many challenges related to maternal and child health outcomes. Poverty, which is a significant social determinant of health, measured 9.0% in 2020 according to the American Community Survey. The infant mortality rate in Maryland continues to see stable declines from 7.4 in 2005 to 5.7 in 2020, a 3% decline from 2019. However, in Maryland there remains persistent disparities in infant mortality rates by race/ethnicity. For example, in 2020 the infant mortality rate for Non-Hispanic Whites was 3.3 compared to 9.9 for Non-Hispanic Blacks. Additionally, 12.4% of the state's children (ages zero to five) live in poverty and 14% of children (age 0-18) do not have health insurance based on Census data. For children with special health care needs, successful transition to adult health care is often inconsistent due to the lack of adult specialty care providers for congenital and childhood onset conditions.

Maternal and Child Health Bureau and Title V

Maryland's lead public health agency is the Maryland Department of Health (MDH), led by Secretary Dennis Schraeder, who was appointed in 2021. Maryland Department of Health houses Title V in the Maternal and Child Health Bureau (MCHB) within the Prevention and Health Promotion Administration (PHPA). The Bureau's mission is to reduce health inequities and improve the health and wellbeing of all individuals, families, and communities in Maryland. The vision for the Bureau is that all individuals and families are valued, safe, and informed, with equitable access to resources and services. The tagline for the bureau is "Healthy pregnancies, healthy children, healthy families, healthier communities."

MCHB focuses on prevention across the lifespan for children and women of childbearing age and serves as MDH's primary prevention unit for unintended and adolescent pregnancy; infant mortality and low birth weight reduction; breastfeeding promotion, preventive and primary care for children and adolescents; and systems development for children and youth with special health care needs. MCHB also has the lead responsibility for reducing racial

disparities/inequities in perinatal health outcomes for women and children.

Key goals of the Maternal and Child Health Bureau, which intersect with Title V priorities, include improving pregnancy and birth outcomes, improving the health of children and adolescents, including those with special health care needs, assuring access to quality health care services, eliminating health disparities, and strengthening the MCH infrastructure. Title V programs and services are provided across the three levels of the MCH pyramid to protect and promote the health of all women, children, and families.

Title V funds support programs and activities in three of the four offices of the Maternal Child Health Bureau. These offices include the Office of Family and Community Health Services (OFCHS); the Office of Quality Initiatives (OQI); and the Office for Genetics and People with Special Health Care Needs (OGPSHCN). In addition, Title V funds support the Operations Unit for the Bureau and the Healthcare Systems Coordination and School-Based Health Centers Unit.

Title V and the Bureau collaborate with other MDH units as well as other State agencies to address access to prenatal care, breastfeeding promotion, childhood lead screening, access to family planning, screening and treatment of sexually transmitted infections, immunizations, postpartum depression, school based health, substance use screening and referral, and tobacco use prevention. A leading strategy is systems building through partnerships with Medicaid and Behavioral Health (also housed within MDH); other State agencies (e.g., Education, Juvenile Services); local health departments; academic institutions; health care systems, professional organizations (ACOG, AAP); private non-profits; FQHCs; and community based organizations.

Title V provides $4.4 million in funding to all 24 local health departments each year to drive improvements in the health of women, children, and families at the community level. Title V works with state and local agencies to ensure coordination of services for all women and children, but particularly those with limited access to care and children and youth with special health care needs (CYSHCN).

In addition to Title V, MCHB manages programs and budgets drawn from several different federal grants, including the Women's and Infants Program (WIC); Title X Family Planning; Maternal, Infant and Early Childhood Home Visiting Program (MIECHV); Abstinence Education / Title V Sexual Risk Avoidance Education (Section 510); Maryland Optimal Adolescent Health Program; and the Personal Responsibility Education Program (PREP).

MCHB's staff is multidisciplinary and includes physicians, nurses, social workers,epidemiologists, educators, community health outreach specialists, public health administrators, and administrative support staff. At any given time, there are also as many as four public health interns and two preventive medicine residents contributing to the work of MCHB.

Maternal and Child Health Needs

Perinatal Health:

In 2020, the Maryland infant mortality rate was 5.7 deaths per 1,000 live births, a decrease of three percent from the 2019 rate of 5.9 deaths per 1,000 live births. Although infant mortality has declined over the last few years, significant racial disparities still exist. Between 2019 and 2020, the non-Hispanic (NH) White infant mortality rate decreased by 20 percent from 4.1 to 3.3 deaths per 1,000 live births and the Hispanic infant mortality rate decreased by 10 percent, from 5.1 to 4.6 deaths per 1,000 live births. The NH Black rate increased by six percent from 9.3 to 9.9 deaths per 1,000 live births. Additionally, Maryland jurisdictions continue to experience regional disparities in infant mortality rates, including Dorchester County (13.3 per 1,000), Wicomico County (11.2 per 1,000) Baltimore City (10.3 per 1,000), and Allegany County (9.5 per 1,000).

Infant mortality reduction remains a State priority. While Maryland has made tremendous progress in reducing overall rates of infant deaths, racial/ethnic disparities continue and will thus remain a focus of Title V activities throughout the next budget year. Title V supported Fetal and Infant Mortality Review (FIMR) activities in all 24 jurisdictions from 1998-2020, and currently supports 8 regional FIMR teams as of FY 2021. FIMR not only provides important insight into opportunities for systems improvement, it also serves as a mechanism for local and regional communication, coordination, and collaboration on broader maternal and child health issues.

Babies Born Healthy, funded with Title V state match funds, was established in 2007 to reduce infant mortality, improve birth outcomes, and reduce racial disparities. Babies Born Healthy provides funds to eight sites located in the seven jurisdictions in Maryland with the highest infant mortality rates and highest racial disparities in infant mortality. Jurisdictions focus their resources on care coordination for tobacco cessation, substance use prevention and treatment, prenatal care, long acting reversible contraception, and other strategies driven by site-specific data to promote healthy maternal and infant outcomes.

Preventing child and adolescent deaths through Child Fatality Review (CFR) is another Title V priority. CFR was established in Maryland statute in 1999. Title V supports a 24 member State CFR Team whose purpose is to prevent child deaths by: (1) understanding the causes and incidence of child deaths; (2) implementing changes within the agencies represented on the State CFR Team to prevent child deaths; and (3) advising the State leadership on child death prevention. The State CFR Team also sponsors an all-day training for local CFR team members on select topics related to child fatality issues.

The State CFR Team oversees the efforts of local CFR teams operating in each jurisdiction. Each month the local CFR teams receive notice from the Office of the Chief Medical Examiner (OCME) of unexpected resident child (under age 18) deaths, and are required to review each of these deaths. Local teams meet at least quarterly to review cases and make recommendations for local level systems changes in statute, policy, or practice to prevent future child deaths, and work to implement these recommendations.

The OCME referred 157 child deaths to local CFR teams during CY2020, of which 156 were reviewed by local CFR teams. The leading manner of child fatalities in 2020 was undetermined, accounting for 30% of child deaths reviewed, followed by accidents at 25% of child deaths reviewed. Approximately 50 cases reviewed were Sudden Unexpected Infant Deaths (SUID). Infant safe sleep promotion continues to be a Title V priority.

Child and Adolescent Health:

OFCHS partners with Medicaid to monitor the percentage of children and adolescents who follow through with well visits. With lead support from OGPSHCN and in collaboration with MDH-PHPA, youth transition to adult health care remains an MCHB priority focus area. Strengthening systems of care for children and youth with special health care needs through the Medical Home model is another priority for OGPSHCN. The Medical Home and Health Care Transition efforts have expanded throughout the State of Maryland to include promotion, implementation, and evaluation of care within most statewide health systems. Developing “Best Practice Models" to improve and build strong infrastructures to support providers who serve CYSHCN while focusing on direct access, effective care coordination, and family involvement are all targeted efforts. Continued collaboration with existing programs and community-based organizations will remain a priority as well as developing new collaborations, both internally and externally.

Children and Youth with Special Health Care Needs:
In previous years, OGPSHCN has focused efforts around the “six core outcomes” for CYSHCN: Family-Professional Partnership; Medical Home; Adequate Insurance; Early and Continuous Screening; Easy-to-Use Services and Supports; and Youth Transition to Adult Health Care. These ‘core outcomes’ have been assessed and updated, with the most recent “Version 2.0 of the National Standards for CYSHCN” released in 2017 as a result of a partnership between The Association of Maternal & Child Health Programs (AMCHP) and the National Academy for State Health Policy (NASHP). Version 2.0 organizes the standards into eight core domains and introduces four Foundational Standards for Systems of Care for CYSHCN.[1]

Foundational Standards for Systems of Care for CYSHCN:

- Children and families of CYSHCN are active, core partners in decision making in all levels of care
- All services and supports for CYSHCN are implemented and delivered in a culturally competent, linguistically appropriate, and accessible manner
- Insurance coverage for CYSHCN is accessible, affordable, comprehensive, and continuous
- All care provided to CYSHCN and their families is evidence-based where possible

Core Domains for System Standards

- Identification, Screening, Assessment, and Referral
- Eligibility and Enrollment in Health Coverage
- Access to Care
- Medical Home
    - Pediatric Preventive and Primary Care
    - Medical Home Management
    - Care Coordination
    - Pediatric Specialty Care
- Community-Based Services and Supports
    - Respite Care
    - Palliative and Hospice Care
    - Home-Based Services
- Transition to Adulthood
- Health Information Technology
- Quality Assurance and Improvement

OGPSHCN reaches every child born in Maryland with the dual initial birth screenings for hearing and congenital metabolic disorders, as well as critical congenital heart disease and birth defects surveillance. Outreach and intervention continue for some children across the life course, with follow up for any out of range screening results, referral to early intervention services where warranted, continued information dissemination and education for certain diagnosed conditions, and ongoing efforts to effect transition to adult systems of care.

Through the varied programs housed under the office umbrella and through grant funding to LHDs, community-based organizations, and academic and clinical institutions, OGPSHCN endeavors to impact each of the Core Domains for System Standards, with a focus on the national performance measures of medical home and health care transition. Family-Professional Partnership (FPP) was previously categorized as an individual outcome, though OGPSHCN strived to incorporate FPP into all programs as an integral component of the workflow. With Version 2.0, FPP is no longer an individual outcome, but is a Foundational Standards for Systems of Care for CYSHCN. OGPSHCN will explore opportunities to impact each of the core domains while maintaining focus on the foundational standards.

COVID -19 Impact:
The COVID-19 pandemic continued to impact the State significantly in 2021. The State continued to focus on providing vaccinations, and on January 26, 2021, Governor Hogan announced the opening of mass vaccination sites in the state of Maryland. In addition, Maryland's COVID-19 Vaccination Support Center, a call-line, was set up to provide support to individuals needing additional assistance. By May 21, 2021, about 70 percent of adults in Maryland had received their COVID-19 vaccines. In addition to expanding vaccinations, the Maryland Department of Health with local health departments and partners continued to provide contact tracing operations, testing, and information about COVID-19 and vaccinations.

Activities that Maryland Department of Health have taken in response to the pandemic include:

- Developing COVID-19 data dashboards that present case rates by county, testing by county and zip code, Intensive Care Units (ICUs) and acute hospital beds, testing volume, testing per day, and percent positive rate over 7 days, school outbreak data, nursing home outbreak data, and COVIDLink Contact tracing data
- Updating public health partners including local health departments, schools, healthcare facilities, college and universities, and health emergency preparedness teams with the most up to date guidelines
- Established and leads Maryland's COVID-19 Vaccination Support Center, a call-line,
- Launched COVIDConnect, a free platform for individuals who have been affected by COVID to connect with other individuals who are recovering
- Developed public and private partnerships with pharmacies, health care facilities, community based organizations to launch mass testing and vaccination sites throughout Maryland
- Developed frequently asked questions for COVID-19
- Launched the GoVax Campaign, a communication campaign on the importance of COVID vaccinations
- Implemented MD Covid Alert that uses exposure notification technology to notify users who may have been exposed to an infected person

During 2021, many staff, including Title V staff at both the state and local level, were deployed to provide assistance related to the COVID-19 pandemic through providing testing, serving on outbreak and contact tracing teams, developing guidance for partners, or providing vaccinations. Title V staff developed COVID-19 Vaccine Facts for Pregnant and Breastfeeding Individuals in 2021.

[1] National Standards for Systems of Care for Children and Youth with Special Health Care Needs, Version 2.0 Informational website

III.C. Needs Assessment
FY 2023 Application/FY 2021 Annual Report Update

During Fiscal Year 2021, the Maternal and Child Health Bureau welcomed a new Director. Dr. Shelly Choo began with MCHB on July 15, 2020. Ms. Alena Troxel continued in her role as Deputy Director which she began in December 2019. Melissa Beasley served as the Director of the Office of Family and Community Health Services until the end of July 2020. Maisha Douyoncover served as the Director of the Office of Quality Initiatives until the end of May 2021. Dr. Jed Miller served as the Director for Children and People with Special HealthCare Needs, and Jennifer Wilson served as Director of the Maryland WIC program. Teresa Pfaff started as the Director of the Office of Quality Initiatives in September 2021. In addition, Paula Reynolds started as the Chief Operating Officer in September 2021.

During State Fiscal Year 2022 and 23, the Bureau aligned positions within Title V domains. A maternal health coordinator position was developed to focus on the maternal health workstreams. In addition, an infant and child health coordinator position was developed to focus on infant health workstreams. A child and adolescent health program manager position was developed to focus on child and adolescent health workstreams.

Data Updates
The following section provides an overview of population level data updates available during the reporting period.

Women's/Maternal Health:

Substance Use/Misuse/Disorder: Due to Maryland Department of Health's network security event, additional data are not available. However, in Maryland from January to September 2021, preliminary data show that there were 2,129 unintentional intoxication events compared to 2,076 from January to September 2020.

The Maryland Vital Statistics Administration (VSA) reported that in 2020, there were 2,773 unintentional intoxication deaths involving drugs and alcohol, a 16.6% increase from 2019. Ninety percent of these deaths were categorized as opioid-related, higher than at any other point during the opioid crisis. The number of opioid-related unintentional intoxication fatalities increased 18.7%, from 2,106 in 2019, to 2,499 in 2020. This is substantially less than the 70% increase between 2015 and 2016, which was the largest single year increase that has been recorded. Fentanyl-related deaths continue to rise, increasing 20.7% from 1,927 in 2019 to 2,326 in 2020. Maryland Vital Statistics data indicates that drug and alcohol intoxication deaths among women increased from 640 deaths in 2018 to 654 deaths in 2019, a two percent increase.

Mental Health: According to 2020 Pregnancy Risk Assessment Monitoring System (PRAMS) data, 18.1% of women reported depression three months before pregnancy and 14.3% of mothers reported symptoms of postpartum depression. During the three months before pregnancy, 25.2% of women reported they had anxiety.

Maternal Mortality and Morbidity: While the report for cases reviewed in FY2021 are still being finalized due to delays related to COVID-19 and the Department's network security incident, preliminary data demonstrate that there were 31 pregnancy-associated deaths in 2019, resulting in a pregnancy-associated mortality rate of 44.2 deaths per 100,000 live births in Maryland. The 2015-2019 maternal mortality rate (MMR) in Maryland is 17.2 maternal deaths per 100,000 live births, which is a 33 percent decrease from the 2010-2014 rate. The 2015-2019 MMR among Black women is 27.8 maternal deaths per 100,00 live births, which is 58 percent higher than the MMR of White women. The leading cause of pregnancy-related deaths were hemorrhage (29 percent of these deaths) and non-

cardiovascular medical conditions (24 percent of these deaths). The leading cause of pregnancy-associated deaths in 2019 was substance use with unintentional overdose, accounting for 50 percent of non-pregnancy-associated deaths.

Preventive Dental Visits in Pregnancy: According to preliminary 2020 PRAMS data, 47.0% of women reported having their teeth cleaned during pregnancy, a decrease from 54.1% in 2019. This number was most likely impacted by COVID.

Smoking in Pregnancy: According to preliminary 2020 PRAMS data, 10.6% of women reported that they smoked during the three months before pregnancy (down from 16.1% in 2013), 4.0% of women reported that they smoked during the last three months of pregnancy (down from 7.8% in 2013), and 5.4% reported that they smoked postpartum. Non-Hispanic White women reported the highest rates of smoking during the three months before pregnancy (14.0%), Black Non-Hispanic women reported the highest rates postpartum (8.4%), and non-Hispanic White women reported the highest rates of smoking during the last three months of pregnancy (5.7%). All smoking rates were highest among women under the age of 25. Prenatal smoking rates in Maryland are slightly higher than the Healthy People 2030 objective for smoking during pregnancy (4.3%).

Perinatal Health of Maryland Women and Infants:

Prenatal Care: The annual percentage of Maryland women who initiated prenatal care during the first trimester has risen to 86.0% in 2020, a 1.9% increase from 84.8% in 2019, according to preliminary PRAMS data. Among non-Hispanic White women, 94.4% initiated prenatal care during the first trimester, compared to 85.4% among non-Hispanic Black women, and 68.3% among Hispanic women.

Infant Mortality: Maryland VSA reported the infant mortality rate in Maryland in 2020 was 5.7 per 1,000 live births, a 3.0% decrease from 5.9 per 1,000 live births in 2019, and down from 8.5 per 1,000 live births in 2004. The leading causes of death were disorders related to short gestation and low birth weight, congenital abnormalities, maternal complications of pregnancy, SIDS, circulatory system disorders, infectious diseases, and complications of the placenta, cord, and membranes. Maternal complications of pregnancy include conditions such as premature rupture of membranes and cervical incompetence.

Low Birth Weight: Maryland VSA reported in 2020, 8.5% of live births in Maryland were low birth weight (LBW), weighing less than 2,500 grams at birth. Non-Hispanic Black mothers were nearly twice as likely to have a LBW infant (12.1%) than Non-Hispanic White mothers (6.4%).

Very Low Birth Weight: Maryland VSA reported in 2020, 1.6% of all live births in Maryland were very low birth weight (VLBW), weighing less than 1,500 grams at birth. Non-Hispanic Black mothers were over twice as likely as other races to have VLBW infants (2.7% Non-Hispanic Blacks, 1.0% Non-Hispanic Whites, and 1.3% for Hispanics).

Preterm Birth: Maryland VSA reported in 2020, 10.1% of live births occurred before 37 weeks of gestation in Maryland, a 2.0% decrease from 10.3% in 2019. Non-Hispanic Black mothers were more likely to have a preterm birth than other races at 12.6%, compared to 8.6% and 9.9% for Non-Hispanic White and Hispanic births, respectively.

Breastfeeding: In 2020, according to preliminary PRAMS data, 89.9% of Maryland mothers reported having ever breastfed their babies, a slight decrease from 91.4% in 2019. Rates of breastfeeding in Maryland were high across all races and ethnicities ranging from 84.8% for Non-Hispanic Black mothers to 93.9% among Hispanic mothers.

Infant Safe Sleep: In 2020, according to preliminary PRAMS data, 16.3% of mothers in Maryland reported not

placing their infants on their back to sleep and 37.8% of mothers reported that their baby slept with a blanket, 7.6% slept with toys, cushions or pillows, and 13.7% slept with bumper pads. Over 83 percent of mothers reported that their baby slept in the same room as the mother.

Child Health:
Mortality: According to Maryland VSA data, in 2020, there were 669 infants and child deaths ages 0 to 18 years old in Maryland. Most of these deaths occurred in infancy - 58 percent were under the age of one year. The 2019 child death rate decreased by 1.3% compared to 2019. Accidents were the leading cause of death for the 60 children ages 1 to 4 years. Neoplasms were the leading cause of death for the 82 children ages 5 to 14, followed by intentional self-harm.

Preventive Health Care: According to 2021 Medicaid data, 71.7% of Medicaid enrolled patients who turned 15 months old during 2021 had five or more well-child visits during their first 15 months of life.

Child Development Screenings: Data from the National Survey of Children's Health (NSCH), 2019-2020, showed that 40.3% of children ages 9 through 35 months received a developmental screening using a parent-completed screening tool in the past year, unchanged from 40.9% during the 2018-2019 survey period.

Asthma: Data from the Health Services Cost Review Commission (HSCRC) showed that emergency department visits for asthma among children ages 2 to 17 was 3.5 per 1,000 population in 2020.

Adolescent Health:
Mental Health and Suicide: According to Maryland VSA data, the rate of suicide deaths among youth ages 15-19 years was 7.4 per 100,000 population in 2020. This represented a 15% decrease from the 2019 rate of 8.7 per 100,000 population. The actual numbers of suicides in this age range decreased from 33 cases in 2019 to 28 cases in 2020. The suicide rate remained highest for non-Hispanic White male teens in 2020 at 10 cases, or 36 percent of suicide deaths.

Teen Pregnancy and Reproductive/Sexual Health: Maryland VSA data showed that the adolescent birth rate decreased 52.2% from 27.2 births per 1,000 adolescent females ages 15-19 years in 2010 to 13.0 births per 1,000 adolescent females in 2020. Hispanic females had the highest adolescent birth rate with 35.0 births per 1,000 adolescent females, which was more than double the adolescent birth rate for Black, non-Hispanic females (16.7 per 1,000 adolescent females) and more than five times the adolescent birth rate for White, non-Hispanic females (6.0 per 1,000 adolescent females).

Children and Youth with Special Health Care Needs:
Medical Home: According to the 2019-2020 National Survey of Children's Health, there are an estimated 273,531 children and youth ages 0 to 17 with special health care needs in the state. The survey estimated that 44.9% of these children have a medical home.

Transition to Adult Care: The 2019-2020 National Survey of Children's Health estimated that 23.8% of adolescents ages 12-17 with special health care needs received services necessary to make transitions to adult health care.

Program Capacity:
The Title V program is managed by the Maternal and Child Health Bureau (MCHB) in the Prevention and Health Promotion Administration (PHPA) at the Maryland Department of Health (MDH).

Maryland Department of Health's Prevention and Health Promotion Administration leadership includes:

- Donna Gugel, MHS, serves as the Director of PHPA. Ms. Gugel has been the Director since 2016 and previously served as Deputy Director.
- Courtney McFadden, MPH, serves as Deputy Director of PHPA. Ms. McFadden has been the Deputy Director since 2018 and previously served as the Director of the Maternal and Child Health Bureau.

Maryland Department of Health's Maternal and Child Health Bureau leadership includes:

- Shelly Choo, MD, MPH serves as the Director of the Maternal and Child Health Bureau.
- Alena Troxel, MPH serves as the Deputy Director of the Maternal and Child Health Bureau.
- Jed Miller, MD, MPH served as the Director of the Office of Genetics and People with Special Health Care Needs and as the State Title V CSHCN Director until February 2022.
- Stacy Taylor, JD serves as the Deputy Director of the Office of Genetics and People with Special Health Care Needs and as Acting Director since Dr. Miller's departure.
- Jennifer Wilson, MEd, RD, LDN, serves as the Director of the Maryland WIC Program.
- Samantha Ritter, MPH serves as the Director of the Office of Family and Community Health Services.
- Teresa Pfaff, MPH, MSN, RN, PHNA-BC, CPH serves as the Director of the Office of Quality Initiatives.
- Kristin Silcox, MS served as the Epidemiology Program Manager within the Office of Quality Initiatives. Ms. Silcox departed July 2022.
- Colleen S. Wilburn, MPA, served as the Title V Manager since 2019. Ms. Wilburn departed June 2022.

Click on the links below to view the previous years' needs assessment narrative content:

2022 Application/2020 Annual Report – Needs Assessment Update

2021 Application/2019 Annual Report – Needs Assessment Summary

III.D. Financial Narrative

	2019		2020	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	$11,673,326	$11,673,326	$11,673,326	$11,850,506
State Funds	$8,754,995	$8,754,995	$8,754,995	$8,887,880
Local Funds	$0	$0	$0	$0
Other Funds	$0	$0	$0	$0
Program Funds	$0	$0	$0	$0
SubTotal	$20,428,321	$20,428,321	$20,428,321	$20,738,386
Other Federal Funds	$128,630,107	$128,949,674	$117,178,515	$87,533,536
Total	$149,058,428	$149,377,995	$137,606,836	$108,271,922

	2021		2022	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	$11,673,326	$11,872,645	$11,850,506	
State Funds	$8,754,995	$10,999,716	$8,887,880	
Local Funds	$0	$0	$0	
Other Funds	$0	$0	$0	
Program Funds	$0	$0	$0	
SubTotal	$20,428,321	$22,872,361	$20,738,386	
Other Federal Funds	$118,199,750	$88,972,950	$111,489,625	
Total	$138,628,071	$111,845,311	$132,228,011	

	2023	
	Budgeted	Expended
Federal Allocation	$11,981,449	
State Funds	$9,023,964	
Local Funds	$0	
Other Funds	$0	
Program Funds	$0	
SubTotal	$21,005,413	
Other Federal Funds	$123,038,688	
Total	$144,044,101	

III.D.1. Expenditures

In FY 2021, the Maryland joint federal-state Title V program expended $22,872,361 for services and activities to promote the health of women, infants, and children including those with special health care needs. Federal expenditures amounted to $11,872,645 and included the required 30-30-10 funding obligation to primary and preventive services for children, children with special health care needs, and Title V administrative costs. The 30-30-10 requirement in FY 2021 was met with 33.3% of federal funds expended for preventive and primary care services for children, 44.5% expended for children with special health care needs. Less than ten percent of federal funds were used for Title V administrative costs.

With regards to the MCH pyramid, federal FY 2021 funds supported direct services ($4,607,864), enabling services ($4,517,481), and public health services and systems ($2,747,300).

The $4,607,864 in direct services represents direct medical care for CYSHCN including medical day care, Children's Medical Services, and genetic services. Additionally, direct services were provided to pregnant people, and people with infants up to one year through local health department reproductive health clinics.

Total Children's Medical Services expenditures for FY 2021 were greater than projected total expenditures for FY21 due to the extended eligibility secondary to the COVID-19 Pandemic State of Emergency. This resulted in the highest number of children enrolled in CMS since its inception. The range of diagnoses enrolled children have results in variable treatment plans and medication costs, making it challenging to predict annual allocation amounts even when not in a state of emergency. Nevertheless, strategies to contain CMS expenditures, all of which are for direct services, received a considerable level of internal discussion during FY 2021 and will continue in FY 2023.

Enabling service expenditures during FY 2021 included services for families, children, and pregnant people such as:

- Case management and care coordination services to pregnant people, high risk infants, children with elevated blood lead levels, children in the Infants and Toddlers Program, and children and youth with special health care needs
- Reproductive Health services
- Home Visiting services
- Referrals of adolescents and women of childbearing age to dental care, tobacco cessation, substance use treatment, and/or mental health care; and,
- Health education to parents and families around infant/child health topics including safe sleep, breastfeeding, primary care, developmental screening, oral health, tobacco and substance use, and exposure to secondhand smoke.

Enabling service expenditures also included services for CYSHCN, comprising the aforementioned case management services, linking families with state and local resources for their children, family support and education on navigating health systems, funding to health care institutions to enhance medical home services, and care coordination related to newborn screening results.

Public health services and systems expenditures primarily targeted supporting perinatal infrastructure projects such as the Perinatal Support Program, Perinatal Quality Collaborative, Perinatal Transport Services, and public health infrastructure activities such as Child Fatality Review and Maternal Mortality Review. In addition, expenditures were used for staff for epidemiology, program planning, policy analysis and planning.

Maryland expended $10,999,716 in matching funds in FY 2021 exceeding its required 1989 Maintenance of Effort

match of $8,262,484. Direct services ($5,826,159), enabling services ($3,452,784) and public health services and systems ($1,720,773) comprised the totality of matching fund expenditures. For the direct services it includes the $3,132,160 within preventive and primary care services for pregnant individuals, mothers, and infants as well services for CSHCN as well as the direct services through the family planning clinics that provides essential care for Maryland residents.

Direct service expenditures supported gap filling reproductive health services through state funded family planning clinics across the state.

Enabling expenditures included grants to local jurisdictions to provide home visiting for high-risk pregnant women and infants as well as asthma and immunization care coordination, state health department staff who provided care coordination for CYSHCN, and reproductive health services to women, adolescents and others.

Public health services and systems included local oversight of Fetal and Infant Mortality Review and Child Fatality Review activities in each jurisdiction, awards to organizations to implement policy changes to enhance systems of care for pregnant individuals and infants and state health department staff who provide epidemiology and data support, surveillance through the Pregnancy Risk Assessment Monitoring System (PRAMS), provide oversight to women's and infant health initiatives (Babies Born Healthy), coordinate specific adolescent health activities, and coordinate CYSHCN activities related to systems development.

III.D.2. Budget

Maryland's Maternal and Child Health Block Grant supports vital programs and services for women, children, including those with special health care needs, and adolescents throughout Maryland. The Title V Program is jointly administered by the Maternal and Child Health Bureau and the Office of Genetics and People with Special Health Care Needs. Funding is also provided to all 24 local health department programs to support MCH populations.

Maryland's projected Title V budget for FY 2023 is $21,005,413, including $11,981,449 in federal funds and $9,023,964 in state funds. This match amount exceeds the FY 1989 maintenance of effort requirement of Sec. 505 (a) (4) and represents the required match of $3 of state funds for every $4 of federal funds.

Throughout the funding period (state fiscal year), Title V funds are monitored to ensure that the funding levels adhere to the "30-30-10" Title V requirement. For FY 2023, it is proposed that federal funding will be distributed accordingly: 31.4% for preventive and primary care for children, 39.6% for CYSHCN, and 4% for administration. Remaining funds will support services for pregnant women and mothers with infants up to one year. By level of the MCH pyramid, it is proposed that the projected federal funding level of $11,981,449 will be distributed as follows: approximately $1,800,000 for direct services; approximately $6,300,000 for enabling services; and approximately $3,900,000 for public health services and systems.

For FY 2023, nearly $4.5 million in federal funding is budgeted for the 24 local health departments throughout the state to provide services in one of three domains: 1) pregnant women and mothers with infants up to one year; 2) child health services; and 3) children and youth with special health care needs. In addition, another $1.3 million in federal funding is budgeted to the local health department for primary and preventive child health services, and $85,000 specifically for asthma related activities. Allowable services under each domain include:

Title V Health Domains	Allowable Services
Primary and Preventive Child Health Services	• Hearing and Vision Screening • School Based Health Services including screening and referral for mental health and/or substance use • Immunizations • Childhood Asthma Related Programming/Services
Primary and Preventive Health Services for Pregnant Women, Mothers, and Infants up to one year	• Home Birth Certification • Home Visiting • Care Coordination for Pregnant or Recently Postpartum Individuals
Children and Youth with Special Health Care Needs	• Care Coordination for CYSHN • Infants and Toddlers • Lead Case Management

Funded services represent primarily enabling and public health systems services. During FY2022, family planning/reproductive health services were removed as there was funding available through Title X and state general funds. Shifting from direct services to care coordination has allowed funds to be shifted to enabling services.

In FY 2023, a total of $3,770,104 in federal funds is budgeted to support preventive and primary care programs and services for children and adolescents. These funds will support activities that promote and protect the health of Maryland's children and adolescents by assuring that comprehensive, quality preventive and primary services are accessible, and will include: hearing and vision screening, immunizations, promotion of child development screenings, asthma programming/services, and promotion of access to a medical home.

In FY 2023, a total of $4,747,066 in federal funds is budgeted for programs and services to address the needs of CYSHCN. Activities and strategies will include:

- Children's Medical Services Program which provides specialty care and related services for uninsured and underinsured children who meet the medical and financial eligibility criteria;
- Genetic Services which provides funds for a statewide system of clinical genetic services, including infrastructure support for genetics centers, Sickle Cell Disease clinics, and specialized biochemical genetics laboratory services;
- Birth Defects Reporting and Information System (BDRIS) which collects data on birth defects to conduct surveillance for changes in trends that could be related to environmental hazards, and provides families with information and referrals;
- Medical Day Care for CYSHCN which provides Medical day care programs for medically fragile infants and young children;
- Local Health Department Grants that support services for CYSHCN such as gap-filling care coordination, outreach, information/referral, dissemination of resource information, and needs assessment activities;
- Parent Involvement Activities; and,
- CYSHCN Systems-Building Activities including grants to specialty health care systems to support resource liaisons and policy/systems changes.

During FY 2023, the $9,023,964 proposed state match will be used to support direct services, enabling services, and public health services and systems across all three population domains. Matching funds will support the following activities and strategies:

- Surveillance and quality initiative grants in every jurisdiction to support local Child Fatality Review and Fetal and Infant Mortality Review teams working to review and prevent infant and child deaths;
- Babies Born Healthy grants to jurisdictions to reduce infant mortality and eliminate racial disparities in birth outcomes;
- Perinatal Care Coordination;
- Prenatal support groups through Babies Born Healthy grants;
- Child abuse and neglect education and support for health care providers;
- Medical Day Care for CYSHCN which provides funding for medical day care programs for medically fragile infants and young children;
- Family Planning grants to the Family Planning clinics across the state
- Additional maternal and child health initiatives through the Statewide Integrated Health Improvement Strategy.

III.E. Five-Year State Action Plan

III.E.1. Five-Year State Action Plan Table

State: Maryland

Please click the links below to download a PDF of the Entry View or Legal Size Paper View of the State Action Plan Table.

State Action Plan Table - Entry View

State Action Plan Table - Legal Size Paper View

III.E.2. State Action Plan Narrative Overview

III.E.2.a. State Title V Program Purpose and Design

The Title V program is administered by the **Maternal and Child Health Bureau** (MCHB)**, Prevention and Health Promotion Administration** (PHPA)**, Public Health Services** at the **Maryland Department of Health** (MDH). Current leadership includes:

Maternal and Child Health Bureau:
Shelly Choo, MD, MPH, Director and Title V State Director
Alena Troxel, MPH, Deputy Director

Prevention and Health Promotion Administration:
Donna Gugel, MHS, Director
Courtney McFadden, MPH, Deputy Director

Public Health Services:
Jinlene Chan, MD, MPH, FAAP, Deputy Secretary

Maryland Department of Health:
Dennis Schrader, Secretary

Title V which is located within the Maternal and Child Health Bureau is managed by Colleen S. Wilburn, MPA. The Title V Manager left June 2021.

Within the Maternal and Child Health Bureau, there are four offices:

The **Office for Genetics and People with Special Health Care Needs (OGPSHCN)** was directed by Jed Miller, MD, MPH, who also served as the State Title V Children with Special Health Care Needs Director until January 2022. The OGPSHCN manages the Children's Medical Services Program, the Early Hearing Detection Program, the Newborn Screening Follow-up Program, the Genetics Services Program and the Systems Development branch. These programs provide comprehensive support to individuals with special health care needs throughout the life course. Stacy Taylor serves as the Deputy Director and in FY22 served as the Acting Director and the State Title V Children with Special Health Care Needs Director.

The **Office of the Maryland WIC Program (OMWIC)** is directed by Jennifer Wilson, M.Ed. The OMWIC is the State's supplemental nutrition program for women, infants and children ages 0-5. This federally-funded program provides healthy supplemental foods and nutrition counseling and has served the State of Maryland for more than 40 years. Strong collaboration between WIC and Title V helps to ensure that comprehensive nutrition counseling and services are provided to eligible participants.

The **Office of Quality Initiatives (OQI)** was directed by Maisha DouyonCover, MPH until May of 2021. Teresa Pfaff started as the OQI Director September 2021. This office oversees Title V efforts regarding infant mortality, maternal mortality and morbidity, the Maryland Child Abuse Medical Provider Network, Fetal Infant Mortality Review, Child Fatality Review, PRAMS, and other special projects of statewide maternal and child health importance. Additionally, this office contains MCHB Epidemiologists and oversees the SSDI initiative. Such special projects provide support to ensure infrastructure and population based initiatives are targeted to Title V populations throughout the State.

The **Office of Family and Community Health Services (OFCHS)** was directed by Melissa Beasley until July 2021. Samantha Ritter started December 2021. This office is charged with the management and oversight of the State's Title X Family Planning program as well as the Maternal, Infant and Early Childhood Home Visiting (MIECHV) program, PREP, and SRAE, along with various other child and adolescent health initiatives. These programs provide both direct, enabling, and population-based services across the state to Title V eligible individuals with access to quality services aimed at improving health outcomes.

The **Operations** Unit is directed by a Chief Operating Officer, which is Paula Reynolds. She started September 2021. This office administers grants to the local health departments, federal grants to OFCHS, OQI, and OGPSHCN, and administers contracts and Memorandum of Understandings. The Office of Operations coordinates with the four other offices on Procurements and Inventories.

The Maternal and Child Health Bureau Medical Director is Dr. Benjamin Wormser. He is a board-certified Pediatrician and oversees the healthcare systems coordination work including the Perinatal Support Program, Morbidity, Mortality, and Quality Review Committee, the Perinatal Quality Collaborative as well as the Maryland School-Based Health Centers. He also has been overseeing the Maternal Mortality Review Committee.

The offices and units work in collaboration to improve the health and well-being of all Marylanders, including those eligible for Title V services through the life course. Using data from the most recent Title V Needs Assessment along with frequent data analysis, program evaluation and feedback from consumers as well as providers across the state, these offices work diligently to improve the health outcomes of women, infants, children, adolescents and children/youth with special health care needs.

In addition to the MCHB, Title V provides support, outreach and subject matter expertise on MCH populations and needs across all of PHPA's administrative bureaus: the Environmental Health Bureau, the Cancer and Chronic Disease Bureau, Infectious Disease Epidemiology and Outbreak Response Bureau and the Infectious Disease Prevention and Health Services Bureau. While these respective bureaus have a variety of programs and populations, ongoing collaborations with Title V ensure that their evidence-based and/or evidence-informed programs are well-versed in current maternal and child health care needs and are inclusive in their design and implementation in order to provide strong supports to Title V eligible populations. Examples of programs overseen by these bureaus include, but are not limited to: injury prevention, oral health, cancer screening and prevention, tobacco prevention and control, chronic disease prevention, immunizations, human immunodeficiency virus prevention and health services and sexually transmitted infection and prevention.

Title V has a strong presence in all 24 independent jurisdictions across the state. Funding from the Title V Block Grant, either with federal or state funds, are used by local health departments to develop and implement programming that not only meets the needs of the maternal and child health community, but also aligns with the priorities identified by MDH as part of the 2020 Needs Assessment. All of the maternal and child health efforts implemented at the local level are direct service, enabling services or public health system building initiatives. Regular, ongoing communication and technical assistance is available and provided to local health departments and funded entities by the Title V Program Manager.

Title V is well positioned within the state health department to ensure that the funding and the programs are strategically designed and implemented, as well as aligned with other state health initiatives, in order to have the broadest reach and maximum benefit to Title V eligible populations.

III.E.2.b. State MCH Capacity to Advance Effective Public Health Systems

III.E.2.b.i. MCH Workforce Development

In consideration of the number of existing and emerging health care and public health challenges, the MCH field calls for a workforce able to adapt and rise to many transformations in the public health, health care and health financing sectors. An adequately prepared public health workforce is essential to address MCH needs and to provide essential services to improve public health systems, community health care delivery, and ultimately the health of MCH populations.

At the state level, federal Title V funds supported approximately 23 FTE positions in the Maternal and Child Health Bureau during FY 2021. Supported staff include medical doctors, nurses, epidemiologists, public health professionals, public health administrators, business administrators, and health educators. At the local health department level, federal Title V funding is expected to support approximately 50 FTE positions in FY 2023 which includes community health nurses, hearing and vision technicians, community health workers, and administrative assistants implementing programs impacting women, infants and children, including those with special health care needs.

Key Title V staff attend both national and state-level conferences and trainings that provide opportunities to acquire new skills and strengthen existing ones as a part of federal funding requirements. Staff annually attend AMCHP, CityMatCH and required federal grantee meetings. State Title V disseminates webinars and professional development opportunities through staff mailing lists so that Title V State staff are aware of training opportunities.

Internal to MDH, Title V staff receive annual training on programmatic and fiscal operations such as contract monitoring, fiscal and budgetary management, and change management. Title V staff training needs are assessed regularly through twice-a year performance evaluations. During these performance evaluations, staff are to share their goals over the next six months as well as challenges they have encountered. Staff are also encouraged to use the MCH Navigator for training opportunities and resources on Title V, MCH key priorities and emerging issues, social determinants of health, health equity and anti-racism, public health strategies, best practices and evidence-based models and practices.

A few additional workforce development initiatives were started in FY2021. Bureau Month was started for State staff in the Bureau of Maternal and Child Health. These sessions were for professional development and team building sessions. There were four sessions organized by the Deputy Bureau Director with a small planning team. Staff members weighed in on topics for the Bureau Month plenary sessions. Each week, there was a ninety minute session with 30 minutes of team building and a 60 minute plenary session. The top three choices by staff were anti-racism and equity, incorporating community voice into programs, and collaboration and communication. Speakers included Dr. Eroll Bolden, Professor, Department of Social Work at Coppin State University, Ifetayo White, Founder and Director of CHOICES Birthing and Wellness Support and the Lowcountry School of Reiki, Kristina Wint, Program Manager, Women's Health and Jessica Stieger, Program Manager, Infant Health from AMCHP.

Title V also organized key workshops during Black Maternal Health Week that were open to Title V staff and partners. These workshops included: Intersectionality and Anti-Racism (Workshop #1) and Improving Maternal Health with Community Doulas (Workshop #2). There were 96 attendees for Workshop #1 and 92 attendees for Workshop #2. Attendees to the workshop reported that they will work to incorporate family voice into their work such as home visiting and care coordination.

The Bureau also started regular all-staff and program leads meetings to provide additional opportunities for training and professional development. During these meetings, staff presented on their programs or specific projects that

they had worked on. For example, Dr. Jed Miller, the Director of the Office for Genetics and People with Special Health Care Needs and the Title V CYSHCN Director presented on Respiratory Syncytial Virus (RSV) and the partnership with Medicaid to alert providers to atypical RSV activities and to encourage providers to consider palivizumab prophylaxis for eligible patients. In another all-staff meeting, programs that received American Rescue Act Funding discussed the funding that they received and how the funds would be spent. These opportunities allow for the entire MCHB to learn about other programs and innovative initiatives.

In addition, Title V staff regularly host interns and rotating residents. During FY2021, Title V staff hosted preventive medicine residents from University of Maryland and Johns Hopkins University.

Maryland's robust health care delivery system, top tier institutions of higher education, and its proximity to Washington, D.C., put it in an unfortunate position when it comes to staff retention within the State's Title V staff as well as staff in the local health departments. Although every effort is made to fill vacancies quickly, the state's hiring processes are an impediment that have been exacerbated due to COVID. During the pandemic, there had been hiring freezes, and there is a limit to the number of civil/merit positions that any state agency is allocated. The delay in hiring has further perpetuated retention challenges as existing staff need to undertake additional duties, further causing fatigue and wear down. In order to address these barriers, Title V continues to share vacancy announcements and job postings within peer networks and local health departments to assist with attracting qualified candidates.

Other issues about MCH workforces are the lack of adult clinical providers for adults with special healthcare needs, mental health care providers, and lack of specialty services in rural areas. In addition, there is a need for workforce training in intersectionality, anti-racism, implicit bias, and cultural humility to improve the capability to serve diverse and marginalized populations. During FY 2021, Johns Hopkins University provided implicit bias training from the March of Dimes to all hospital employed perinatal providers.

III.E.2.b.ii. Family Partnership

Maryland's Title V program focus on Family Partnership is addressed through grant funding to external community-based organizations and local health departments and through internal initiatives.

In FY2021, Maryland's CYSHCN Title V office continued to implement and operate "Strengthening Systems of Care for Maryland's Children and Youth with Special Health Care Needs," a three-year initiative to improve family partnerships and strengthen systems of care. This initiative was a result of a year-long planning process that included multiple "brainstorming" meetings with staff at all levels, consultation with the Administration's Office of Procurement and countless drafts and revisions. Through a competitive-bid process, applicants selected "focus areas," with Family Professional Partnership being an option, all applicants were required to propose projects ensuring that family members would have a meaningful role in grant-funded activities. Awarded projects not only serve CYSHCN and their families but include families in the planning and implementation of their projects.

The Parent Navigator Program from Children's National Medical Center (CNMC) built on existing community education programs and developed targeted educational programs for both community primary care pediatricians and staff and pediatric trainees through a partnership with Children's National clinically integrated network, the Pediatric Health Network (PHN). Parent Navigators are all parents of children being seen at CNMC and within its network. They work directly in the electronic medical record system, which allows for documentation of new referrals, early identification of issues, and easy monitoring of progress and updates on a given issue (which can be viewed by other navigators who may be covering for or assisting the family's primary navigator). The Parent Navigators are employed and trained by CNMC, with a primary requirement of employment being that they are a parent of a CYSHCN. Along with 11 other hospitals throughout the nation, CNMC is part of the Parent Mentor Learning Collaborative (PMLC) sponsored by Lucille Packard Children's Hospital Stanford, with a goal of creating a parent mentor program framework to permit implementation in diverse settings, while adhering to a general set of standards across sites.

The Coordinating Center (TCC) VIPKids Program convenes a "Medical Home Think Tank" as needed, which is coordinated by the VIPKids Outreach and Resource Specialist and includes interested parents along with the Program Director, the VIPKids Clinical Care Coordinator, pediatric providers, and other professionals at TCC with expertise in care coordination for CYSHCN. The think tank may also invite other subject matter experts as needed to help evolve and develop the program.

Rather than families, the National Alliance to Advance Adolescent Health solicits feedback directly from the pilot population (transitioning youth). The project conducts focus groups with members of the pilot population at each school - led by the University of Maryland's Prince George's School Mental Health Initiative (PGSMHI) transition improvement team - to elicit their feedback about the transition intervention, using Got Transition's customized Youth Transition Feedback Survey.

Local Health Departments (LHDs) funded through Title V to support CYSHCN are also partnering with families. The Calvert County LHD incorporated a peer mentor into its grant activities. Baltimore County LHD utilizes a client satisfaction survey as a continuous quality assurance tool, assessing client and family satisfaction, measuring program impact, and ensuring best practices are followed by the project. Baltimore County's overall focus is on family professional partnership, which they are advancing through care coordination, education of families, needs assessments through focus groups, education through provider toolkits and expansion of emergency preparedness efforts for CYSHCN - all reviewed by the aforementioned client satisfaction survey. In addition to service provision to families, the Talbot County LHD provides family and provider engagement opportunities through the Eastern Shore CoC. The COC-ES is a broad group of local, regional and state partners, including parents/family members, who

meet quarterly to build and strengthen connections, share data and initiatives, identify needs/challenges, and collaborate to resolve issues. Additionally, opportunities to educate and inform group participants on relevant topics from speakers from across the region and state are scheduled.

Title V continues to strengthen family partnerships through relationships with professional organizations, academic tertiary/specialty care centers and community-based organizations on a state and national level. Title V utilizes these partnerships to identify opportunities and to plan activities to engage families and improve family professional partnerships within the state. Staff have presented and served as faculty representing the “family voice” at a national level, frequently attend professional development opportunities focused on family partnership and engagement and maintain administrative responsibility for the coordination of several state-wide advisory committees and serve as members on other committees; all of which mandate some form of lived experience within their member rolls.

In addition to the above, other County Local Health Departments have worked to develop family and community partnerships. As an example, B’more for Healthy Babies is an initiative to reduce infant mortality in Baltimore City through policy, programs, service improvements, community mobilization, and behavior change. They have developed a community advisory board to work closely with families and community representatives to improve infant health across the city and in neighborhoods most impacted by premature birth, low birth weight, and unsafe infant sleep.

The Maryland Family Planning Program (MFPP) requires Information and Education initiatives in program promotion, community outreach, advisory committees that include family partnerships. Family partnerships continued and examples of initiatives include engaging with families at health fairs, church fairs, and at farmers markets. While many staff have been redirected to COVID activities, they also continue to participate in this activity but have often shifted to virtual opportunities.

III.E.2.b.iii. MCH Data Capacity

III.E.2.b.iii.a. MCH Epidemiology Workforce

Maryland's MCH epidemiology team is housed in the Office of Quality Initiatives. The MCH State staff consists of an Epidemiology Program Manager who serves as the Epidemiology supervisor, a high-level Epidemiologist III, and two contractual Epidemiologists who are assigned to the COVID-19 Surveillance for Pregnant Women and Infants project. MCHB is currently in the process of recruiting for the vacant Epidemiologist II position who focuses on the State Systems Development Initiative (SSDI) as well as Sudden Unexpected Infant Deaths (SUID) Initiative. The majority of the epidemiology activities related to SSDI are performed by the Epidemiologist II, however, all epidemiologists share duties and their work overlaps.

III.E.2.b.iii.b. State Systems Development Initiative (SSDI)

Since the mid-1990's, Maryland's State Systems Development Initiative (SSDI) Project has focused on the following:enhance and maintain a strong Maternal and Child Health (MCH) data infrastructure to support Title V needs assessment, planning, implementation, evaluation, and data driven decision-making. The intent is to align with the SSDI Performance Measure structure and goals, supporting essential State MCH data efforts to improve performance measurement, accountability and quality. This program addresses the needs for increased state MCH epidemiology capacity for both state and Title V needs, improved systematic MCH data coordination, linking, sharing, and use of data for translation to policy and program development. The program also continues technical assistance for MCH and Children and Youth with Special Health Care Needs (CYSHCN) program staff in local health agencies to improve MCH infrastructure and monitoring and evaluation of MCH programs and activities at the state and jurisdiction level. The SSDI program is housed within the Office of Quality Initiatives (OQI) in the Maternal and Child Health Bureau (MCHB) of the Prevention and Health Promotion Administration (PHPA) at the Maryland Department of Health (MDH).

Maryland has implemented a variety of strategies including recruitment of staff with expertise in epidemiology and database development, identification of data sources and proxy measures for monitoring Title V supported programs, completion of Title V needs assessments, and enhanced collaboration with the Maryland Vital Statistics Administration (VSA) to improve data linkages with surveys and surveillance systems for identification of MCH health disparities and program development.

There have been recent noteworthy developments in achieving the goal of direct, annual access to timely electronic maternal and child health data. First, MDH has continued to use a portion of SSDI and ELC Project W funds to support an administrative specialist position at Maryland's VSA to increase data support capacity within the office. Aligned with our project plan, a Memorandum of Agreement (MOA) was maintained to use SSDI funds to support an administrative assistant in the Vital Statistics Administration (VSA) to improve MCHB Epidemiologist access to birth and death certificate vital statistics data. Receipt of these data in 2018 led to the production of a comprehensive Perinatal Periods of Risk (PPOR) analysis for the years 2010-2016, and the creation of census tract level risk maps to help coordinate and enhance local program design to improve preconception and maternal health across the state. The PPOR analysis and VSA data were also used to create jurisdiction-level Fetal and Infant Mortality Review (FIMR) profiles which continue to inform about fetal and infant deaths, and areas to focus prevention efforts aimed at reducing rates and addressing disparities.

Improved access to de-identified birth and death certificate data has been crucial in Title V activities this year. The SSDI team collected, analyzed and entered data on the outcome and performance measures in support of the State's Title V MCH Block Grant application and Annual Report. This data has also been integral to developing many goals and objectives for future Title V work, such as developing performance measures for severe maternal morbidity and childhood asthma emergency department visits, as well as Maryland's Statewide Integrated Health Improvement Strategy (SIHIS) and Maternal Health Improvement Strategic Plan (MHIP). These data were also linked to Birth Defects Reporting and Information System (BDRIS) data to allow for analysis of maternal preconception and prenatal health factors as they relate to birth defects.
The addition of an epidemiologist with SSDI funds supports the analysis of each of these data sources in addition to the Child Fatality Review (CFR) and Maternal Mortality Review (MMR) case review data to further support Title V needs assessment and performance measure reporting. The SSDI epidemiologist also provides data support for the state's CDC SUID (Sudden Unexplained Infant Death) Case Registry grant, which aims to strengthen public health surveillance of SUID in Maryland through the efforts of the State CFR team.

New activities related to the current plan include continued participation in the CDC SUID and SDY Case Registry

surveillance grant initiative. These Child Fatality Review (CFR) initiatives will require regular data analysis and reporting which is directly supported by SSDI funding and further supports Goal 3 of the strategic plan. The recent acquisition of the infant birth records and BDRIS data file will allow advanced analyses of prenatal factors associated with birth defects.

Currently, MCHB epidemiologists are examining a range of information contained in the PRAMS database, especially the disability, opioid use, and COVID-19 supplemental questions.

III.E.2.b.iii.c. Other MCH Data Capacity Efforts

During the current reporting period, a SSDI/Title V Measure monitoring and tracking system was maintained for use by the MCHB staff. The monitoring system contains data for numerous Title V outcome and performance indicators and many of the SSDI minimum/core indicators, such as low birth weight, preterm birth, infant mortality, and teen births. The data is presented at the race and jurisdictional levels, for years 2010-2019 (where data is available), in an easy-to-use, interactive format that allows staff to print graphs and disseminate needed information. The monitoring system also provides comparisons to United States (US) rates, where available. Additionally, the indicators in the SSDI Minimum/Core dataset were monitored with the assistance of the Minimum/Core Dataset Implementation Guide and Training Module, to monitor Maryland's progress and compare it with other states.

Aligned with our project plan, a Memorandum of Agreement (MOA) was maintained to use SSDI funds to support an administrative assistant in the Vital Statistics Administration (VSA) to improve MCHB Epidemiologist access to birth and death certificate vital statistics data.

The annual Maternal Mortality Review (MMR) Legislative Report for 2020 was completed in December of 2020 and released in November 2021. The annual Child Fatality Review (CFR) Legislative Report for 2020 was completed in May of 2021 and was approved in December 2021. Data on child fatality was presented at quarterly Maryland CFR State Team meetings in 2020 and 2021. MCHB Epidemiology staff-maintained access to ImmuNet, Maryland's Immunization Information System Database to allow for access to immunization records for child fatality cases. SSDI staff continued collaboration with the Office of the Chief Medical Examiner (OCME) to solve issues related to child fatality data collection and dissemination to the state and local teams for analysis. Maryland is also continuing participation in the CDC Sudden Unexpected Infant Death (SUID) and Sudden Death in Young (SDY) Case Registry surveillance grant initiative which started September 30, 2018, and ends September 29, 2023. The final 2019 SUID data was completed and submitted to the CDC in December of 2020.

An interactive map of elevated indicators across the state of Maryland was maintained in conjunction with the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program, after initial dissemination to the MCHB in August 2018. The interactive map[1], now publicly available, provides a visual representation of the high-risk areas across the state. Jurisdiction specific risk levels can also be viewed by selecting individual jurisdictions. The map features 23 indicators, including preterm birth, low birth weight, infant mortality, prenatal care, maternal education, poverty, unemployment, Medicaid enrollment, and crime rate. The MIECHV needs assessment was updated in July of 2021, which highlighted the elevated indicators across the state. The interactive map was updated with data from the needs assessment in November 2021. The map was shared with all of the MIECHV program sites, home visiting consortium members and early childhood agencies.

The MCHB hosted an intern in partnership with the Graduate Student Epidemiology Program (GSEP) within the Association of Maternal and Child Health Programs (AMCHP). This intern used data from the Maryland Pregnancy Risk Assessment Monitoring Survey (PRAMS) to develop a data brief about gestational hypertension. The data brief was completed in August of 2021 and was posted on the MCHB website. The 2018 and 2019 Maryland PRAMS responses met the CDC's threshold for response rate, and the data was released to Maryland in March of 2021. The annual reports will be available on the MCHB website this year. PRAMS data was used to develop a data to action (DTA) brief which analyzed opioid use during pregnancy. The results of this analysis were presented to the Prevention and Health Promotion Administration (PHPA) opioid meeting, which shares best practices amongst Maryland Department of Health programs affecting those with substance use disorder.

SSDI is continuing to support the assessment and evaluation of neonatal abstinence syndrome (NAS) and substance exposed newborns (SEN) data in Maryland. Using Health Services Cost Review Commission (HSCRC)

newborn discharge data MCH staff have examined NAS and SEN trends based on ICD-9 coding but have noticed significant changes in the codes used to identify NAS and SEN under ICD-10. These findings are frequently shared with internal and external stakeholders to begin a discussion about how to better measure and track NAS and SEN.

In July 2020, MDH relaunched the Maryland Perinatal-Neonatal Quality Collaborative which is being led by Health Quality Innovators (HQI). The collaborative works with all 32 birthing hospitals in Maryland. The current collaborative focuses on maternal hypertension and newborn antibiotic stewardship. MCHB Epidemiologists provided statistics on maternal severe hypertension using inpatient hospitalization data using guidance from the Alliance for the Innovation on Maternal Health (AIM) Program. MCHB Epidemiologists provide data support for these efforts using data from HSCRC, VSA, and PRAMS.

In September 2019, Maryland was granted a funding opportunity through the Health Resources and Services Administration (HRSA), and MDH convened the Maryland Maternal Health Improvement Task Force. This collaboration between Johns Hopkins University, Maryland Department of Health, Maryland Patient Safety Center and the University of Maryland, Baltimore County will address the needs of pregnant and postpartum women in Maryland, through coordinated innovation in the areas of data, resource availability, and hospital and community care. MCH epidemiologists support the work of the task force to provide state maternal health data, and perinatal health data. The current work of the team is to support data related to severe maternal morbidity to create a surveillance and review process of maternal data using HSCRC data. Participation in this workgroup will continue the duration of the grant and will support data integration and development of a maternal health dashboard.

In July 2020, MCH was granted funding through the Centers of Disease Control and Prevention to expand current surveillance activities to include surveillance of COVID-19 in pregnancy and monitor pregnancy and infant outcomes through the Project W: Infants with Congenital Exposure: Surveillance and Monitoring to Emerging Infectious Diseases and Other Health Threats. MCH epidemiologists are leading efforts to support collaborative participation in surveillance data systems for COVID-19 in pregnant people and their exposed infants. MCHB is developing systems to collect follow-up clinical data through linkages to data sources and medical records abstraction to ensure identification of pregnant women and infants. Two staff were hired to assist in this work. The epidemiology team developed a detailed data process document outlining the flow of data during the surveillance project. The project involves multiple partners: a health information exchange system, the Chesapeake Regional Information System for our Patients (CRISP), the Vital Statistics Administration (VSA), and the Infectious Disease Bureau (IDB). 2020 COVID-19 pregnancies identified using CRISP and IDB were linked to the VSA live birth files to analyze maternal demographics and prenatal health. Using this linked data, epidemiologists completed a COVID-19 data brief and presentation comparing all live births in Maryland in 2019 to births with a positive test in 2020. The epidemiologist's complete monthly data tasks required by the CDC and attends programmatic meetings. Epidemiologists complete other data tasks when necessary for program advancement.

SSDI staff are continuing education and staying abreast of current health topics by attending webinars and conferences related to maternal and child health and health equity. The MCH Epidemiology team attended the 2020 CityMatCH Leadership and MCH Epidemiology Virtual Conference in September 2020 as well as the National Maternal Health Innovation Symposium in August 2021.

SSDI staff provided data analysis on maternal and child health indicators to support the Babies Born Health program. The program was initiated in 2016 to target jurisdictions with the highest numbers and rates of infant mortality in the state of Maryland. Jurisdictions were selected using data-driven methods which were updated in the fall of 2021 to update jurisdictions with the greatest need.

An in-depth review of the organization, roles, and needs of the MCH Epidemiology team was conducted in the

summer and fall of 2021. Each task was evaluated to determine its need and importance within the Bureau and assigned to a member within the team to better organize the workflow and structure of the MCH Epidemiology team. The MCH Epidemiology Program Manager also consulted with Epidemiology Leads in other MDH Bureaus to better understand their project management approach to teams and assignments.

In early 2021, the Statewide Integrated Health Improvement Strategy selected two MCH domains, 1. the reduction of severe maternal morbidity (SMM) and 2. asthma-related emergency department visits for children ages two to 17. The MCH epidemiology team provided data analysis expertise to determine the reduction goals for this domain using inpatient and emergency department hospitalization data with a focus on reducing disparities.

In the spring and summer of 2021, MDH drafted a Maryland Maternal Health Improvement Plan (MHIP) to help improve how agencies, organizations, community groups, and residents work together to reduce maternal deaths and complications in Maryland over the next five years. MCH epidemiologists provided data analysis related to maternal mortality (MMR) such as rates and disparity metrics. Additionally, data analysis on severe maternal morbidity (SMM) was conducted to include racial breakdowns on SMM rates over a 10-year period with projections through 2026. The epidemiology team assisted with calculating the projected reduction of MMR and SMM over time to reduce racial disparities, particularly among the Black, non-Hispanic population.

MCHB implemented an Interagency Agreement (IA) with the University of Maryland College Park (UMCP) to assist with higher level analyses of maternal and child health data. An in-depth analysis on sickle cell disease and sickle cell disease trait was conducted and a report outlining the findings was shared. The findings helped to inform our sickle disease strategy in Maryland.

Fetal, infant, and maternal data was used to create Maternal and Infant Health (MIH) profiles for each of the 24 jurisdictions in the state. The profiles summarize maternal and child health indicators for each jurisdiction as well as compared to other jurisdictions and the state overall. The MIH profiles will help inform jurisdictions of at-risk populations and areas of improvement as related to maternal and infant health. The MIH profiles are currently under review with a planned dissemination later this fiscal year.

[1] https://maps.health.maryland.gov/phpa/mch/indicators/ NOTE: A recent network security incident caused disruption to some of the Maryland Department of Health (MDH) operations including ArcGIS online.

III.E.2.b.iv. MCH Emergency Planning and Preparedness

The Maryland Emergency Management Agency (MEMA) conducts statewide emergency planning in Maryland. MEMA oversees development of four Operations Plans, including Prevention/Protection, Response, Disaster Recovery, and Mitigations plans. These plans are part of a hierarchy that also includes a Training and Exercise Plan and an All-Hazards Mitigation Plan, which together comprise the Maryland Emergency Preparedness Program that serves as Maryland's strategic plan for emergency preparedness. In addition, the Maryland Department of Health (MDH or the Department) Office of Preparedness and Response (OPR) coordinates the state's public health and medical response during an emergency. OPR coordinates with local health departments, acute care hospitals, federally qualified health centers, Emergency Medical Services (EMS) and other health care entities. OPR additionally provides tools and resources to Maryland residents, including a Family Emergency Communication Plan that provides families important numbers such as the Maryland Poison Control and assists the family in planning to know the contact information for their doctors, electric companies, gas companies, and pharmacies.

While the MEMA and OPR conduct statewide emergency planning, MDH is working towards increasing its workforce capacity to create and contribute to emergency plans, protocols, and procedures. On November 30, 2021, the Department issued two new policies related to preparedness and response that required all current employees to complete an online Incident Command System (ICS) prep course through the State's online training platform and complete the FEMA IS 100, 700, and 800 courses within the year.

During SFY 2021, Title V staff continued to respond to the COVID-19 Pandemic. Staff were reassigned to COVID testing, vaccinations, and outbreak response. In addition, staff also developed COVID-19 vaccination materials that provided information on the importance of vaccination.

During FY2021 and 2022, Title V staff responded to a call from MDH Office of Preparedness and Response to join the Medically Fragile Afghan Parolee response. Title V staff were well positioned to serve in this response effort as there was a population of parolees arriving in Maryland, including pregnant individuals who had received little or no prenatal care and their extended families. Title V staff worked within the Incident Command Structure (ICS) to serve as the point of contact between public health, local jurisdictions and the federal response agencies who were coordinating to meet the needs of the parolees. Title V staff lead the development of a secure tracking system to identify the medical needs of the parolees and facilitate collaboration among community partners and created a triage protocol for incoming parolees, to assess medical needs as well as cultural, and social needs. MCH staff served as a key convener between local health departments and community medical providers to identify the capacity and identify roles of MCH providers and their response to the plan to provide comprehensive care to parolees. MCH staff were also able to collaborate internally with WIC program leadership to identify opportunities for parolees to enroll in WIC. One key response identified through this parolee response was the need to provide infant safe sleep education and supplies to recent arrivals. MCH staff worked closely with Montgomery County local health department to leverage public health nurses and in person visits to conduct safe sleep assessments and onsite educational opportunities for families to gain knowledge and safe sleep supplies such as a pack n'play.

During FY2022, the Department experienced a Network Security Event that resulted in the Department's information and technology systems being taken offline out of an abundance of caution. The event started in December and was confirmed to be as a result of a ransomware attack.

Immediately, the Continuity of Operations Plan (COOP) for the Prevention and Health Promotion Administration and Title V was implemented. Three essential life-saving programs were identified within the Maternal and Child Health Bureau: Newborn Screening Follow-up, Children's Medical Services, and the Women, Infants, and Children (WIC)

services. All three COOP MCHB programs met daily to ensure operations would continue. In addition, all Title V and MCH programs met frequently to determine workarounds to ensure operations would continue.

Newborn bloodspot screening was identified as a priority service and an emergency procurement was enacted to complete screening through an external vendor. For both initial screens (collected just after 24 hours of life) and second screens (usually collected around 2 weeks of age), providers were directed to continue to send specimens to the Maryland State Laboratory for subsequent processing and transportation to the PerkinElmer Laboratory. The Newborn Screening Follow-up team met daily to develop new follow up protocols and to troubleshoot any issues immediately. They also met frequently with the Maryland Laboratory Administration to develop new protocols on shared processes of follow up on laboratory results and how to report abnormal test results to providers. The nurses, who are Title V staff, also communicated with providers about the new protocols and responded to provider questions and concerns on behalf of the State Lab when needed. A clinician letter was prepared and sent to all Maryland clinicians on January 10, 2022, and the Newborn Screening webpage was updated with information for providers related to screening and follow up protocols and procedures to request specimen collection kits.

The Children's Medical Services (CMS) Program team also met daily to plan, implement, and troubleshoot workarounds so enrollment applications, pre-authorization requests and claims for payment could continue and that care for enrolled children and youth with special healthcare needs would not be disrupted. While the CMS Program is still largely paper-based, the Program relies on networked printers, scanners and fax machines. Therefore, CMS was able to secure a non-networked printer to continue printing and scanning letters to families, pre-authorization notifications to providers, and required documentation for claims payment.

The Maryland WIC program partnered with local health departments who were also affected by the Network Security Event to provide guidance to local agencies.

While the aforementioned three programs are specifically noted in the COOP, all Title V programs were affected by the Network Security Event. Although this occurred in SFY2022, the security event affected documentation and accessibility of SFY2021 data, planning of programs and services for SFY2023 and beyond, including this Title V application, and made even the simplest of daily tasks complex and challenging. Title V Program staff initially had to rely on personal devices or a "hotelling" space of laptops in the state office building and did not have access to any internal shared network drives. Data analytic programs such as SAS were not able to be used and many state-wide data systems were locked down to MDH contact out of an abundance of caution. The Title V team developed workarounds to continue providing services. Title V staff re-created documents, re-developed reports, developed, implemented and trained on new operational protocols, and developed and implemented new data collection tools - all while using personal or borrowed equipment. As challenging as the situation was and continues to be, the event offered the opportunity for innovation. For example, the Children's Medical Services program reviewed their workflow, particularly how heavily paper-based it was, and looked at ways to automate processes. After a successful pilot, they are now rolling out electronic submissions of applications, pre-authorization requests and claim submissions.

Public and Private Partnerships:
Maryland Title V partners with federal and state partners to ensure access to health care services and other needed services. Maryland Title V leads various collaboratives and committees. For a full list, please see **Supplement Attachment: Partnerships, Collaboration, and Coordination**

Key collaborations include:

- Maryland Perinatal Neonatal Quality Collaborative: Title V works with Maryland birthing hospitals to strengthen the maternal and neonatal healthcare system by implementing the Alliance for Innovation on Maternal Health (AIM) bundles.
- Maternal Health Improvement Program Taskforce: The Title V manager staffs the TaskForce. This past year, co-chairs were elected. Members developed and implemented a strategic plan to improve the health of birthing people in Maryland.
- Morbidity, Mortality, and Quality Review Committee (MMQRC): Title V staff chairs the multi-disciplinary committee that monitors compliance with the Maryland Perinatal Standards of care for Level I and II hospitals. Title V staff also participate in compliance with Level III and IV Perinatal Standards of Care.
- Perinatal Clinical Advisory Committee: Title V chairs the multi-disciplinary committee of other state agencies, clinical leaders, and professional organizations that determine the standards of care for Maryland Birthing Hospitals using the national American Academy of Pediatrics and American College of Obstetrics guidelines.
- Statewide Integrated Health Improvement Strategy: The strategy is part of Maryland's Total Cost of Care Model and designed to engage State agencies and private sector partners to collaborate and invest in improving health, addressing disparities, and reducing costs for Marylanders. Title V staff lead the maternal and child health portion of the Statewide Integrated Health Improvement Strategy. Partners including payers, Health Information Exchange, professional societies, hospitals, and more.

Title V MCH-Title XIX Medicaid Inter-Agency Agreement:

Program Outreach and Enrollment
Title V has continued to collaborate with the Medicaid Program to improve access to health care services for women and children. As a Medicaid Expansion state, Maryland has decreased the numbers of uninsured individuals over the past 6 years. Maryland's uninsured rate declined from 10.1% in 2012 to 5.9% in 2020 and is lower than the national rate of 8.7%. Since 2015, the uninsured rate in Maryland decreased for all races and ethnicities but remained highest for Hispanic individuals (21.4% in 2020, a decrease from 22.1% percent in 2019). The uninsured rate decreased for all age groups since 2018. The uninsured rate remains highest among those aged 25 to 34 years in 2020. In 2021, birthing people's coverage will increase from two months to 12 months postpartum.

As more eligible residents have received Medicaid coverage to enable them to access health care, Title V has shifted its structure from a direct and gap filling model to more of a population and infrastructure-based model. Direct, gap filling services are largely provided by the Children's Medical Services (CMS) Program to children with special health care needs who are ineligible for Medicaid services. Over the past several years, expenditures for direct, gap filling services for the CMS Program have increased.

Health Care Financing
Maryland Managed Care Organizations (MCOs) provide services to Medicaid recipients by contracting with a network of licensed/certified healthcare providers. All MCOs are responsible to provide or arrange for a wide array of healthcare services. There are nine managed care organizations in Maryland: Aetna Better Health, Amerigroup Community Care, Carefirst Blue Cross Blue Shield Community Health Plan, Jai Medical Systems, Kaiser Permanente, Maryland Physicians Care, MedStar Family Choice, Priority Partners, and UnitedHealthCare. Nearly 90% of Medicaid participants were enrolled in managed care in Calendar Year 2019.

Maryland Medicaid does not participate in a Primary Care Case Management (PCCM) program as PCCM is considered an alternative to manage care.

Through the Total Cost of Care All-Payer Model contract the State of Maryland has entered with the Federal Government, the Maryland Primary Care Program (MDPCP) has been developed. A separate office within MDH works with interested primary care offices to coordinate care for patients across both hospital and non-hospital settings, improve health outcomes, and constrain the growth of health care costs in Maryland. MDPCP is a voluntary program open to all qualifying Maryland primary care providers that provides funding and support for the delivery of advanced primary care throughout the state.

Waivers or State Plan Amendments

Medicaid has operated a Home Visiting Services (HVS) pilot since 2017 through its §1115 waiver, which has enabled an expansion of evidence-based home visiting services to Medicaid eligible high-risk pregnant individuals and children up to age two. The HVS pilot program is aligned with two evidence-based models focused on the health of pregnant individuals. The Nurse Family Partnership (NFP) model is designed to reinforce maternal behaviors that encourage positive parent-child relationships and maternal, child and family accomplishments. The Healthy Families

America (HFA) model targets parents facing issues such as single parenthood, low income, childhood history of abuse, substance use disorder, mental health issues or domestic violence. The current financing structure of the HVS pilot, which requires local lead government entities to provide a local match through an intergovernmental transfer, has garnered limited participation from additional lead entities because of the requirement to produce the required match from non-federal 10 funding sources.

The Maryland Health Services Cost Review Commission (HSCRC) committed $8 million in annual funding to support Medicaid initiatives to address severe maternal morbidity and pediatric asthma. Therefore, during Fiscal Year 21 and 22, Medicaid staff worked on statewide expansion of the Home Visiting Services (HVS) pilot, statewide expansion of the Maternal Opioid Misuse (MOM) Model Pilot, Medicaid coverage for Doula/Birth Workers Services, Medicaid Coverage for HealthySteps, and Medicaid Coverage for CenteringPregnancy.

Effective January 13, 2022, Maryland Medicaid expanded coverage for evidence-based home visiting services to all Maryland beneficiaries through the State Plan Amendment. Home Visitors associated with one of two evidence-based models, Healthy Families America (HFA) or Nurse-Family Partnership (NFP) are the two covered models.

Doulas are trained nonmedical professionals who provide continuous physical, emotional and informational support to birthing parents throughout the prenatal and postpartum periods, including labor and delivery. These services will help increase access to care and lead to fewer low birth weight babies, birth complications, and C-sections. Coverage of doulas are through a State Plan Amendment. CenteringPregnancy is a program that offers group prenatal care for low-risk pregnancies, including screenings for sexually transmitted infections and HIV. HealthySteps promotes positive parenting and healthy development for babies and toddlers. The program aims to decrease postpartum depression and emergency department usage for care, as well as to increase child vaccination rates and well-child visits. The MOM model provides enhanced case management for pregnant and postpartum individuals with opioid use disorder, including screenings for needs related to social determinants of health and maternal anxiety and depression. The MOM model is authorized under 1115 waiver.

In 2017, the Maryland Department of Health submitted a successful application to the Centers for Medicare and Medicaid Services (CMS) for a Health Services Initiative (HSI) under the Children's Health Insurance Program (CHIP). The program, approved as a State Plan Amendment (SPA), allowed MDH to create a $3 million home visiting program for children who are enrolled in or eligible for Medicaid (including CHIP), based on diagnosis of either moderate to severe asthma or lead poisoning. The program operates in nine jurisdictions: Baltimore City and Baltimore, Charles, Dorchester, Frederick, Harford, Prince George's, St. Mary's, and Wicomico Counties. These are sites with some of the highest burden of asthma ED visits. Once they are deemed eligible and enrolled in the program, the children's families are eligible for up to six home visits to receive education and training around home environmental factors that trigger asthma, durable goods that can reduce or eliminate home triggers, and improved care coordination with providers through asthma action plans. The program similarly provides home visiting for eligible children who have been lead poisoned and is one of the first such programs in the country. The home visiting program is built on evidence-based models that emphasize remediation of environmental factors, including the provision of education and training for parents, and provision of durable cleaning supplies and other equipment to assist families in reducing environmental factors including dust mites, insect and pet allergens, and other common allergens.

Joint Policy Level Decision Making

The current IAA with Maryland Medicaid outlines agreements and guidelines on administration and policy, systems coordination, outreach and referral activities and data sharing.

Title V staff at the local health departments work with and coordinate with the Medicaid-operated Administration Care Coordination Unit (ACCU) to identify and enroll eligible pregnant people and children in the Medicaid program. ACCU serves as the central link between the beneficiary, managed care organization (MCO), healthcare provider and the Department of Health.

Title V is partnering with Medicaid to improve referrals through the Prenatal Risk Assessment and the Postpartum Infant Maternal Referral Form to the Local Health Departments. These referrals help to navigate social needs for birthing people who are in need of services.

In addition, Title V staff is working with Medicaid to achieve the goals for the Statewide Integrated Health Improvement Strategy. Specifically, Title V staff is working with Medicaid and other staff to expand asthma home visiting and maternal, infant, early childhood home visiting.

III.E.2.c State Action Plan Narrative by Domain

State Action Plan Introduction

Needs Assessment and State Action Plan

Please see the National Performance Measures for Maryland

National Performance Measure		Population Domain
NPM 3	Risk-Appropriate Perinatal Care	Perinatal/Infant Health (PIH)
NPM 4	Breastfeeding	PIH
NPM 5	Safe Sleep	PIH
NPM 6	Developmental Screening	Child Health (CH)
NPM 10	Adolescent Well-Visit	Adolescent Health (AH)
NPM 11	Medical Home	Children with Special HealthCare Needs (CSHCN), CH
NPM 12	Transition	CSHCN, AH
NPM 13.1	Preventive Dental Visit - Pregnancy	Women's/Maternal Health (WMH)
NPM 14.1	Smoking - Pregnancy	WMH

Please see the State Performance Measures:

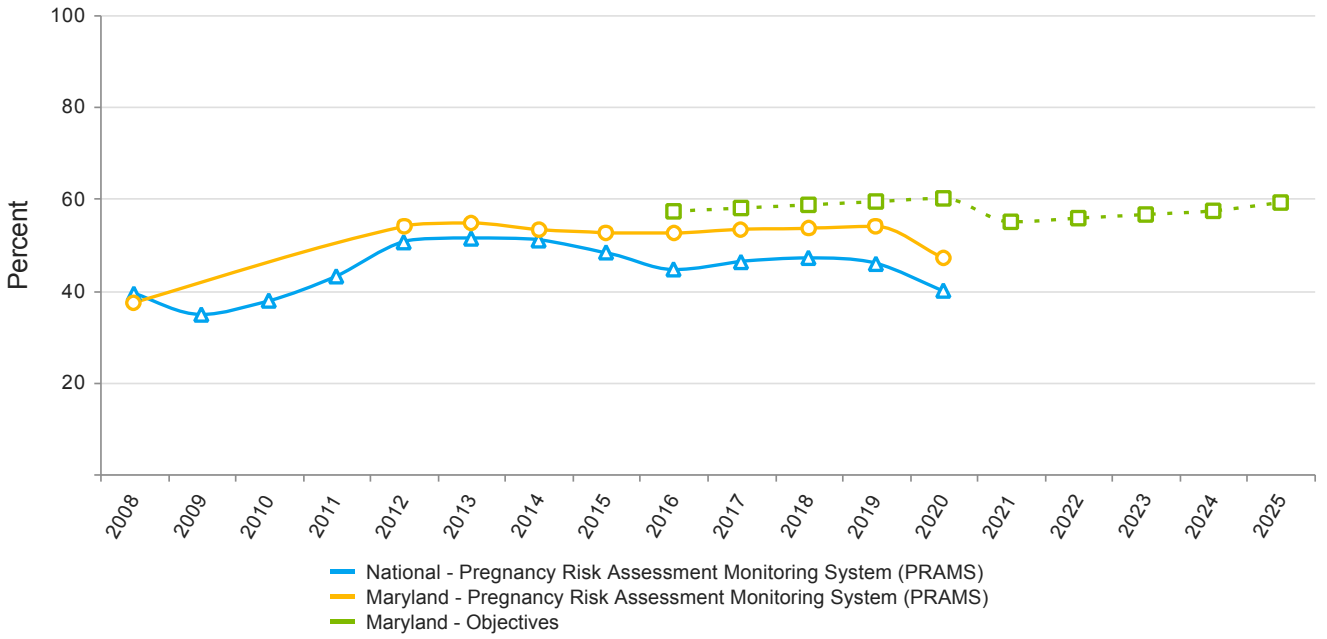
Table 2

State Performance Measure		Population Domain
SPM 1	Number of overdose mortalities for women, ages 15-49 in Maryland per 100,000 population	WMH
SPM 2	The excess rate between the Black Non-Hispanic Severe Maternal Morbidity (SMM) events to White Non-Hispanic SMM events per 10,000 delivery hospitalizations	WMH
SPM 3	Receipt of primary care during early childhood (Percent of children enrolled in Medicaid who reached age 15 months who had 5 or more well care visits in their first 15 months of life)	CH
SPM 4	Number of Asthma ED visits per 1,000 for ages 2-17	CH, AH
SPM 5	Percentage of MCHB committees/workgroups that include community members/persons with lived experience	Cross Cutting

Women/Maternal Health

National Performance Measures

NPM 13.1 - Percent of women who had a preventive dental visit during pregnancy
Indicators and Annual Objectives



Federally Available Data					
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	57.9	58.6	59.3	60	54.9
Annual Indicator	52.6	53.3	53.3	54.1	47.0
Numerator	34,237	33,752	33,752	33,888	28,934
Denominator	65,122	63,361	63,361	62,695	61,594
Data Source	PRAMS	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2015	2017	2017	2019	2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	55.7	56.5	57.3	59.1

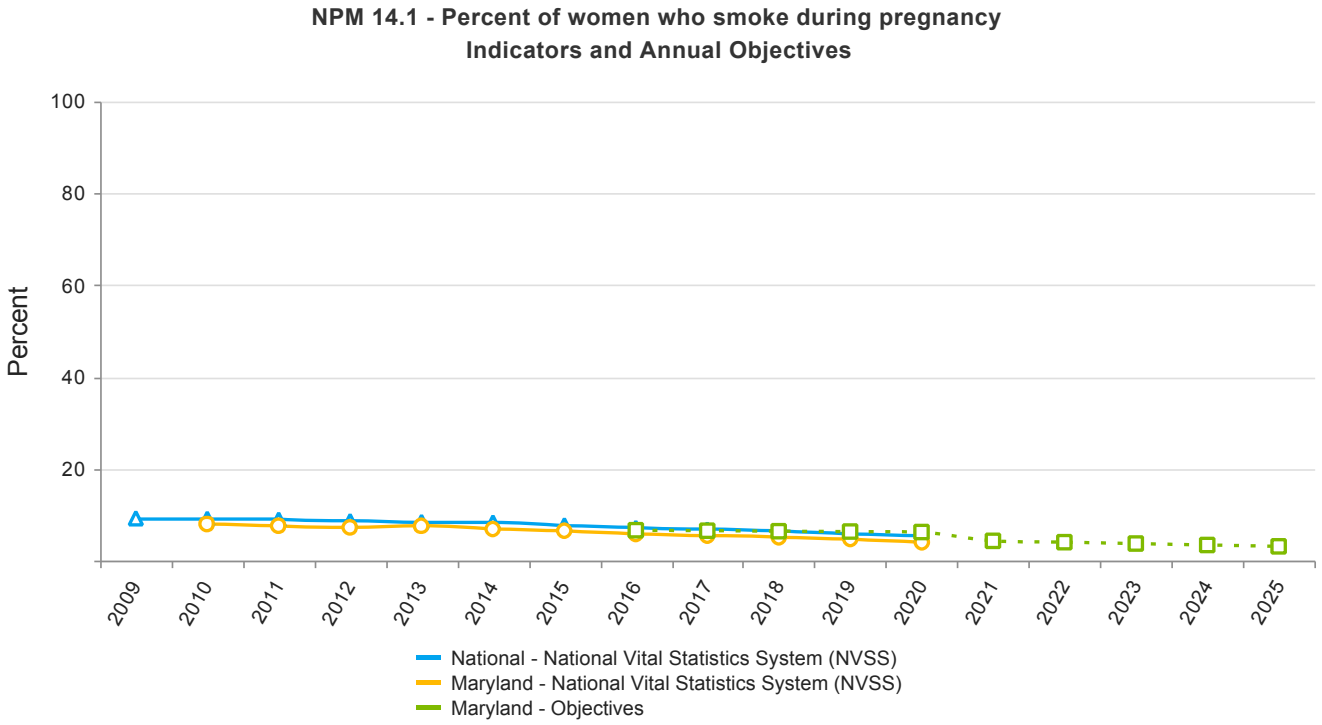
Evidence-Based or –Informed Strategy Measures

ESM 13.1.1 - Percentage of pregnant individuals aged 21 and older on medical assistance in Maryland who receive a preventive dental visit

Measure Status:	Active

State Provided Data			
	2019	2020	2021
Annual Objective			28.4
Annual Indicator	28.2	28.8	21.6
Numerator	7,979	8,346	6,666
Denominator	28,259	28,939	30,925
Data Source	Office of Oral Health Legislative Report	Office of Oral Health Legislative Report	Office of Oral Health Legislative Report
Data Source Year	CY 2018	CY 2019	CY2020
Provisional or Final ?	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	29.9	31.4	32.5	34.0



Federally Available Data					
Data Source: National Vital Statistics System (NVSS)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	6.6	6.5	6.4	6.3	4.4
Annual Indicator	5.9	5.5	5.3	4.7	4.2
Numerator	4,299	3,932	3,719	3,281	2,846
Denominator	72,838	71,324	70,599	69,782	68,236
Data Source	NVSS	NVSS	NVSS	NVSS	NVSS
Data Source Year	2016	2017	2018	2019	2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	4.1	3.8	3.5	3.2

Evidence-Based or –Informed Strategy Measures

ESM 14.1.1 - Number of pregnant individuals who use the statewide tobacco QuitLine

Measure Status:				Active	
State Provided Data					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	167	136	137	139	140
Annual Indicator	135	131	99	86	67
Numerator					
Denominator					
Data Source	MDH CTPC Quitline Data	MDH CTPC Quitline Data	MDH CTPC Quitline Data	Quit Line Data	Quit line Data
Data Source Year	FY17	FY 18	FY 19	FY 2020	FY2021
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	142.0	143.0	143.0	143.0

State Performance Measures

SPM 1 - Rate of overdose mortality for women ages 15-49

Measure Status:	Active

State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator	24.1	35.7
Numerator	334	493
Denominator	1,385,375	1,381,029
Data Source	VSA	CDC Wonder using ICD-10 Codes
Data Source Year	2019	2021
Provisional or Final ?	Final	Provisional

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	23.9	23.7	23.5	23.3

SPM 2 - Excess rate between Black Non-Hispanic Severe Maternal Morbidity (SMM) events to White Non-Hispanic SMM events per 10,000 delivery hospitalizations

Measure Status:	Active

State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator	328.5	381.4
Numerator	640	690
Denominator	19,481	18,090
Data Source	Health Services Cost Review Commission	Health Services Cost Review Commission
Data Source Year	2018	2021
Provisional or Final ?	Final	Provisional

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	312.1	295.7	279.3	262.8

State Action Plan Table

State Action Plan Table (Maryland) - Women/Maternal Health - Entry 1	
Priority Need	
Ensure that all birthing people are in optimal health before, during, and after pregnancy	
NPM	
NPM 13.1 - Percent of women who had a preventive dental visit during pregnancy	
Objectives	
Increase the number of people receiving preventive dental visits from a baseline of 28% to 36% by 2025.	
Strategies	
1. Distribute the Maryland Oral Health Guide 2020 through local health departments and other strategic partners. 2. Support the Office of Oral Health in providing education to prenatal providers on the importance of oral health during pregnancy. 3. Link pregnant people who are referred to the Maternal and Child Health Care Coordination at the Local Health Department to Oral Health resources.	
ESMs	**Status**
ESM 13.1.1 - Percentage of pregnant individuals aged 21 and older on medical assistance in Maryland who receive a preventive dental visit	Active
NOMs	
NOM 14 - Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year	
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	
NOM 17.2 - Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system	

State Action Plan Table (Maryland) - Women/Maternal Health - Entry 2

Priority Need

Ensure that all birthing people are in optimal health before, during, and after pregnancy

NPM

NPM 14.1 - Percent of women who smoke during pregnancy

Objectives

To increase the number of women who abstain from smoking tobacco during pregnancy from a baseline of 95.3% to 96.3% or more by 2025.

Strategies

1. Title V programs (e.g., Care coordination, home visiting, and other programs) will continue to refer pregnant people who smoke to the Maryland Tobacco Quitline and other smoking cessation programs. 2. The Maryland Family Planning Program will implement SBIRT (Screening, Brief Intervention, Referral to Treatment) with their subrecipient sites.

ESMs	Status
ESM 14.1.1 - Number of pregnant individuals who use the statewide tobacco QuitLine	Active

NOMs

NOM 2 - Rate of severe maternal morbidity per 10,000 delivery hospitalizations

NOM 3 - Maternal mortality rate per 100,000 live births

NOM 4 - Percent of low birth weight deliveries (<2,500 grams)

NOM 5 - Percent of preterm births (<37 weeks)

NOM 6 - Percent of early term births (37, 38 weeks)

NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths

NOM 9.1 - Infant mortality rate per 1,000 live births

NOM 9.2 - Neonatal mortality rate per 1,000 live births

NOM 9.3 - Post neonatal mortality rate per 1,000 live births

NOM 9.4 - Preterm-related mortality rate per 100,000 live births

NOM 9.5 - Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health

State Action Plan Table (Maryland) - Women/Maternal Health - Entry 3

Priority Need

Ensure that all birthing people are in optimal health before, during, and after pregnancy

SPM

SPM 1 - Rate of overdose mortality for women ages 15-49

Objectives

To decrease the overdose mortality rate for women, age 15-49 from 24.1 per 100,000 to 22.9 per 100,000 by 2025.

Strategies

1. Improve linkages to care for substance use disorder treatment through implementing the electronic prenatal Risk Assessment with State Medicaid, Overdose Data to Action partners and updating the postpartum infant maternal referral form (PIMR) 2. Partner with Medicaid to improve lnkages with the Managed Care Organizations through the Maternal Opioid Misuse Model. 3. Develop appendices of a Linkages to Care toolkit for providers of birthing people. 4. Monitor and understand opioid use trends through PRAMS Surveillance

State Action Plan Table (Maryland) - Women/Maternal Health - Entry 4

Priority Need

Address the racial disparities in Severe Maternal Morbidity rates among Black NH and White NH

SPM

SPM 2 - Excess rate between Black Non-Hispanic Severe Maternal Morbidity (SMM) events to White Non-Hispanic SMM events per 10,000 delivery hospitalizations

Objectives

Decrease the excess rate of Black NH Severe Maternal Morbidity rate to White NH Severe Maternal Morbidity rate by 25% by 2026.

Strategies

1. Implement expansion of programs that improve maternal health through the Statewide Integrated Health Improvement Strategy. 2. Implement the severe maternal hypertension bundle developed by the Alliance for Innovation on Maternal Health (AIM) in the Maryland Perinatal Neonatal Quality Collaborative (MDPQC). 3. Develop and implement a maternal health strategic plan by the Maternal Health Improvement Taskforce as part of the Maternal Health Innovation Program (MDMOM) 4. Ensure access to the Maryland Family Planning Program. 5. Ensure access to Maternal, Infant, and Early Childhood Home Visiting. 6. Provide accessible patient centered family planning services through the Maryland Family Planning Program.

Maryland's priority need for the women's/maternal health domain is "to ensure that birthing people are in optimal health before, during, and after pregnancy." Maryland Title V provided preventive and primary care through direct, enabling, and public health infrastructure services to a variety of women's/maternal health needs in FY 2021.

Services and activities focus on the needs of women and birthing people across the Title V pyramid as outlined by the State Action Plan. Within the maternal health priority area, there are three focus areas in maternal health:

- Focus Area 1: Oral Health measured by the national performance measure (NPM 13.1) of percent of women who had a preventive dental visit during pregnancy.
- Focus Area 2: Substance use prevention and linkages to care and measured with two performance measures:
    - 1) NPM 14.1, percent of women who smoke during pregnancy
    - 2) the state performance measure (SPM 1) of Overdose Mortality Rate for women, ages 15-49.
- Focus Area 3: Reduce rates and eliminate disparities in maternal mortality and morbidity with the state performance measure of reducing severe maternal morbidity rates that aligns with the Statewide Integrated Health Improvement Strategy

Focus Area 1: Oral Health:

NPM 13.1: Percent of women who had a dental visit during pregnancy. In Maryland in 2020, 62.1% of mothers had a cleaning during pregnancy, compared with 63.4% in 2019 (PRAMS). The percentage of mothers receiving oral health care during pregnancy increased among non-Hispanic Black mothers, from 48.8% to 56.4%. However, the percentage of Non-Hispanic White mothers receiving oral health care during pregnancy decreased from 72.9% to 68.7%, as did Hispanic mothers (56.5% to 53.1%) and non-Hispanic Asian mothers (69.7% to 53.0%). Among mothers with 13 or more years of education, 66.5% had their teeth cleaned during pregnancy in 2020, a slight decline from 68.4% in 2019, while among mothers with 12 years of education or less, 47.8% had their teeth cleaned during pregnancy in 2020, a slight decline from 48.2% in 2019. From 2019 to 2020, the percentage of mothers who received a teeth cleaning during pregnancy increased among mothers ages 30 to 34 years (64.7% to 66.1%), decreased among mothers under 20 years (70.0% to 61.1%), 20 to 24 years (56.4% to 48.8%), and 25 to 29 years (61.4% to 58.5%), and remained the same among mothers 35 years and older at 66.7 percent.

Key partners that work toward improving oral health include the Office of Oral Health (OOH), local health departments, and local dental clinics. Planning with the OOH and working with local health departments to refer clients to oral health offices highlight some of the work to improve oral health in FY2021.

During FY2021, the OOH updated the "Oral Health Care During Pregnancy: Practice Guidance for Maryland's Prenatal and Dental Providers." The practice guidelines emphasize that pregnant individuals should make a dental appointment early in pregnancy. In addition, the guidelines share myths versus facts and emphasize important information such as maternal oral health affects future child health. The guidelines also provide information on the oral conditions during pregnancy such as dental caries, pregnancy gingivitis, periodontitis, pyogenic granuloma, and tooth erosions. The guide will be shared in FY2022 with community-based organizations, primary care providers, and local health departments.

In FY2021, Title V funds also supported programming to pregnant people at local health departments throughout the state. A total of 1,251 pregnant people were referred to dental care by local health departments in FY 2021. The

number of pregnant people linked with dental care in FY 2021 is an increase from FY2020, when only 627 pregnant people were referred. However, it is lower than pre-pandemic levels. In FY 2019, 2,300 were referred to oral care.

Focus Area 2: Substance Use Prevention and Linkages to Care: This focus area has two performance measures: 1) NPM 14.1, percent of women who smoke during pregnancy and 2) the state performance measure (SPM 1) of Overdose Mortality Rate for women, ages 15-49

Performance Measure 1: NPM 14.1: Smoking during pregnancy*:* In 2020, Maryland was slightly below the national average for women who smoked during pregnancy, with 4.2% of Maryland women who smoked during pregnancy, compared to 5.5% nationally (National Vital Statistics System). Maryland has seen a downward trend in the percentage of women who smoke during pregnancy since 2010 (8.9%), while the national trend reached its peak in 2014 (7.9%) and has started decreasing since 2015. The percentage of Maryland women who smoked during pregnancy in 2019 was highest among non-Hispanic White women (7.4%), followed by non-Hispanic Black women (4.2%), and Hispanic women (0.8%).

During Fiscal Year 2021, Title V continued the partnership with MDH's Center for Tobacco Control and Prevention, which provides enhanced counseling services that motivate pregnant women to quit smoking. Counseling interventions provide motivation to quit and support to increase problem solving skills. Counseling interventions may include motivational interviewing, cognitive behavior therapy (CBT), other psychotherapies, problem-solving and other approaches. Pregnant people are more likely to quit when cessation counseling is combined with motivational interviewing and is provided by a trained educator.

The QuitLine, which is funded by MDH's Center for Tobacco Control and Prevention is a free service to all Maryland residents age 13 and older. The program for pregnant people consists of one initial and nine proactive follow-up coaching calls. Participants may call in for additional support at any time. The timing of proactive calls is relapse-sensitive, and the focus of the follow-up coaching calls is relapse prevention. Medication use is monitored to assure use compliance, assess and problem-solve potential side effects. The Quit Coach assesses the participant's status and progress, builds upon information previously gathered, identifies barriers, and reinforces successes. Coaches have degrees in counseling or addiction treatment.

In FY2020, there were 82 enrollments, and in FY2021, 67 enrollments. For FY2020, where there is the latest available detailed data, average engagement calls length were 2.3 calls. Text2Quit users average six texts.

Title V funds local health departments to routinely screen women for tobacco use and offer referrals to the State's QuitLine. Staff who screened were from home visiting, home birth certification, early intervention, and family planning clinics. In FY 2021, only 68 individuals were referred to tobacco cessation programs, including the QuitLine. This is a dramatic decrease from FY2020, when a total of 892 prenatal/postpartum people were referred to tobacco cessation programs, including the Quitline above. Due to COVID, many local health departments were unable to provide services.

Performance Measure 2: Overdose Mortality Rate for women of reproductive age. (SPM 1)
While overdose mortality rate for women of reproductive age was not a state performance measure during 2016-2020, efforts to prevent overdose deaths are added below to reflect the urgent need to address overdose deaths.

The rate of overdose deaths for women ages 15-49 was 24.1 per 100,000 population in 2019 according to the Maryland Vital Statistics Administration. Unintentional overdose was the leading cause of pregnancy associated

deaths in Maryland at 32 percent in 2018 (the most recent year data is available from the Maryland Maternal Mortality Review). According to the Maryland Behavioral Health Administration, it is estimated that only 21 percent of pregnant people with opioid use disorder received opioid maintenance treatment in 2019, a substantial decrease from 75 percent reported in 2018. This decrease can be explained by multiple factors: Maryland bases this metric on Administrative Services Organization (ASO)-Optum claims data and starting on January 1, 2020, the question, "Are you currently pregnant?" is no longer a mandatory part of the registration process. Additionally, providers have the option to opt out of asking and providing a response to this question. According to Maryland BHA, preliminary data shows that about 80 percent of providers are opting to not answer additional reporting questions. Finally, due to the MDH Network Security incident, there is a delay in data reporting. It is likely that the 21 percent of pregnant people who received maintenance treatment is an underestimate.

Incident characteristics of overdose deaths can be found in the annual Maternal Mortality Review Report, with the latest available report from 2020, which contains data from 2018. In Maryland, from 2010-2018, there were 91 overdose-related pregnancy associated deaths in Maryland, with 75% (n=69) White Non-Hispanic, 20% (n=18) Black non-Hispanic, 3 as other non-Hispanic. On average these overdose deaths occurred 198 days postpartum. Fourteen percent (n=13) had not initiated prenatal care.

The State has developed the Opioid Operational Command Center (OOCC) to coordinate activities to prevent overdose deaths. The OOCC developed an overdose dashboard in 2021 and can be found here: https://experience.arcgis.com/experience/c546d22ec4a946cbb700a282f53c6eb7/

Strategies to decrease overdose fatalities due to unintentional opioid use

Identification and linkages to treatment with the Maryland Medicaid Maternal Opioid Misuse Model

With over 21,000 individuals of childbearing age diagnosed with Opioid Use Disorder in Maryland, substance use is a leading cause of maternal death and has a significant impact on the approximately 1,500 infants born to Medicaid beneficiaries with OUD in Maryland per year. State Medicaid launched its Maternal Opioid Misuse (MOM) model in January 2020, with funding from the Center for Medicare and Medicaid Innovation (CMMI) and in collaboration with the Centers for Medicare and Medicaid Services (CMS). The model is a five-year, multi-pronged approach to combating the nation's opioid crisis by addressing fragmentation in the care of pregnant and postpartum Medicaid beneficiaries with opioid use disorder (OUD).

The MOM model focuses on improving clinical resources and enhancing care coordination to Medicaid beneficiaries with OUD during and after their pregnancies through the special need's coordinators in the Managed Care Organization. Due to COVID, the launch of the model was delayed to July 2021, and the focus was moved to one pilot jurisdiction, St. Mary's County. The smaller service area enabled a greater focus to be placed on model services, referral pathways, and data collection, in addition to refinement of processes as designed.

As part of the MOMS Model, the Department, through Maryland Medicaid, partnered with University of Maryland and the Maryland Addiction Consultation Services (MACS) to provide trainings to providers. These training encourage the use of buprenorphine for those with opioid use disorder and enrolled 198 practitioners in MACS for MOMs during FY 2021. In addition, there were 44 perinatal calls received through the MACS warmline and they also hosted two webinars with a total of 160 attendees. MACs also launched the MOMS TeleECHO clinic that is held monthly.

Title V Program has been partnering with the Medicaid Maternal Opioid Misuse Model team to expand referrals to the Local Health Departments and Managed Care Organizations through the Prenatal Risk Assessments (PRA).

Under COMAR 10.09.68.05 the PRA should be completed for Medicaid participants at the first prenatal care visit. Specifically, the Title V Program has emphasized the importance of the PRA during the local health department technical assistance calls. During SFY2021, a pilot to integrate the PRA into an electronic format was conducted in the Baltimore metro region. A couple of clinics were selected to develop the PRA into an electronic format and integrate it into the Electronic Medical Record System.

Screening, Brief Intervention, and Referral to Treatment with the Maryland Family Planning Program

Given the importance to identify substance misuse and the need to link to treatment, the Maryland Family Planning Program (MFPP) has implemented a program-wide training to implement SBIRT (Screening, Brief Intervention, Referral, and Treatment) in FY 2021 among all MFPP subrecipient sites. Maryland Family Planning Program has 62 sites across the State and sees approximately 40,000 to 50,000 individuals a year

After providing time for implementation, particularly during the COVID-19 pandemic, MFPP will collect data on screening and referral to treatment in FY23 and implement a continuous quality improvement plan. Pending the availability of funds, MFPP also intends to provide additional funding to sites to strengthen relationships with substance use disorder treatment centers.

Babies Born Healthy Initiative
During FY 2021, eight sites across seven local jurisdictions implemented state funded Babies Born Healthy (BBH) programs, which directed resources to engage women and communities in an effort to provide supportive coordinated care and address disparities in infant mortality rates in Maryland. A total of 1,389 women had accessed BBH services, and there was a total of 311 births among program participants and 8 fetal/neonatal deaths. The sites also provide linkages to care to further treatment for those who are experiencing opioid misuse or opioid use disorder.

Focus Area 3: Reduce rates and eliminate disparities in maternal mortality and morbidity

This focus area is tied to the new State Performance Measure (SPM 2) that aims to reduce Black NH to White NH severe maternal morbidity gaps. In addition, this focus area is linked to the national outcome measure (NOM 2) of Severe Maternal Morbidity and NOM 3 of Maternal Mortality. In FY 2021, Centers for Medicare and Medicaid Innovation (CMMI) approved the State's proposal to focus on Severe Maternal Morbidity and asthma as part of the Statewide Integrated Health Improvement Strategy and the State's healthcare finance model with the Total Cost of Care.

In 2021, the State's Severe Maternal Morbidity (SMM) rate was 287.0 events per 10,000 delivery hospitalizations (Health Services Cost Review Commission). SMM rates were highest among non-Hispanic Black women (381.4 per 10,000) and women ages 40 and over (428.4 per 10,000). The rate is an increase from the SIHIS baseline of 2018 and 2019.

Further analysis was conducted by the MCH Epi team. Using the data source of the Health Services Cost Review Commissions inpatient hospitalizations, the MCH epi team reviewed trends in Severe Maternal Morbidity (SMM) and COVID-19 diagnosis for Maryland live births from January 1, 2019, through June 30, 2021. The Alliance for Innovation on Maternal Health (AIM) ICD-10 codes for SMM were used to determine SMM events and the ICD-10 code U07.1 was used to determine a COVID-19 diagnosis during the birth hospitalizations.

Results of the analysis indicated that COVID-19 diagnoses contributed to the rising rates of SMM in Maryland

birthing people, especially among the Hispanic population. Overall, there was an increase in SMM rate in Maryland by 30%, from 226.0 SMM diagnoses per 10,000 delivery hospitalizations in the Q1 period of 2019, to 292.5 per 10,000 in the Q2 period of 2021. When analyzing the increase in SMM rate by race and ethnicity, the largest increase was seen among Hispanic birthing people, at 52% (from 227.4 per 10,000 in 2019-Q1 to 346.3 per 10,000 in 2021-Q2). SMM rates were analyzed both including and excluding a COVID-19 diagnosis, to try to determine the effect that a COVID-19 diagnosis had on SMM rates. When the SMM events that included a COVID-19 diagnosis were removed from the data, the SMM rate increased only 20% from 2019-Q1 to 2021-Q2. Additionally, there was a large disparity between the COVID-19 positive SMM diagnoses and the COVID-19 negative SMM diagnoses among Hispanic birthing people in 2020-Q2. The rate of SMM diagnoses that included a COVID-19 diagnosis was 56% higher than the rate of SMM diagnoses without a
COVID-19 diagnosis during that time period. The rates of the individual conditions that contribute to SMM were compared between three different scenarios: 2019, before the COVID-19 pandemic; 2020-2021 SMM cases excluding a COVID-19 diagnosis, and 2020-2021 SMM cases including a COVID-19 diagnosis. The rate of SMM COVID-19 positive cases with blood products transfusions was 204.5 per 10,000 delivery hospitalizations, 3% higher than the rate of SMM COVID-19 negative cases, and 11% higher than 2019 SMM cases. Similar disparities were seen amongst most of the SMM contributing conditions, but it is also especially noticeable among cases requiring ventilation, where the rate among COVID-19 positive SMM cases was 43% higher than among COVID-19 negative SMM cases. Low numbers prohibit calculating rates for many of the individual conditions by race and ethnicity, however, a similar disparity in rates of SMM cases requiring blood products transfusions was seen among Hispanic birthing people. The rate of COVID-19 positive SMM cases requiring blood products transfusion was 8% higher than that of COVID-19 negative SMM cases, and 20% higher than 2019 SMM cases. Results of the analysis concluded that COVID-19 has contributed to the increase in the SMM events. These results indicate that COVID-19 diagnoses contributed to the rising rates of SMM in Maryland birthing people, especially among the Hispanic population.

While the results were analyzed in FY2021 and 2022, the Title V team used this information in FY2022 to provide further information and work with local health departments on their efforts to increase information on COVID vaccinations. This included developing a printable and electronic version of a brochure of why vaccination for pregnant and breastfeeding people were important. This brochure was translated into several languages including Spanish, French, Tagalog, Chinese, Russian, and Korean.

Strategies to reduce rates and eliminate disparities in maternal mortality and morbidity

Overall, there is a statewide Maternal Health Improvement Program Strategic and Action plan through the Maternal Health Improvement Task Force that focuses on reducing disparities in maternal mortality and morbidity. Please see the Strategic and Action plan here. Please see below for further information on Title V contributions to improve maternal health in the state as well as more information on the Maryland Maternal Health Innovation Program.

Maternal Mortality Review Program

The Maternal Mortality Review Program reviews all pregnancy-associated (PA) deaths (deaths during or within one year after pregnancy from any cause). While the report for cases reviewed in FY2021 are still being finalized due to delays related to COVID-19 and the Department's network security incident, preliminary data for 2019 demonstrate that the leading cause of pregnancy-associated deaths are from unintentional overdoses, like that of previous years. In addition, fentanyl or fentanyl analogs have been the most frequently detected opioid.

Based on the most recent public data, which is the 2020 report that contains data from 2018, there were 38 pregnancy-associated deaths, resulting in a pregnancy-associated mortality rate of 53.5 deaths per 100,000 live births. Of the 38 pregnancy-associated deaths, 18 were determined to be pregnancy-related, for a pregnancy-

related mortality rate of 25.3 deaths per 100,000 live births. Among the 18 pregnancy-related deaths in 2018, the leading causes of death were non-cardiovascular conditions, cardiovascular conditions, and suicide, each accounting for three deaths. Homicide, amniotic fluid embolism, and thrombotic pulmonary embolism each accounted for two deaths. The remaining pregnancy-related deaths were single cases of substance use with unintentional overdose, infection, and pregnancy-induced hypertension.

Of the 18 pregnancy-related deaths occurring in 2018, six cases (33 percent) involved non-Hispanic White women, ten cases (56 percent) involved non-Hispanic Black women, and two cases (11 percent) involved Asian/Pacific Islander women. Among the 20 non-pregnancy-related deaths, 11 cases (55 percent) involved non-Hispanic White women, seven cases (35 percent) involved non-Hispanic Black women, one case involved a Hispanic woman, and one case involved a non-Hispanic woman whose race was identified as other. The rate of pregnancy-related deaths in non-Hispanic Black women was 2.2 times higher than that of non-Hispanic White women.

Further information of the Maternal Mortality Review Report can be found on the Maternal and Child Health Bureau webpage here: https://health.maryland.gov/phpa/mch/pages/mmr.aspx .

The Maryland Maternal Mortality Review Program has focused increased attention on disparities in pregnancy-related deaths. In 2018, the Maryland General Assembly enacted legislation to establish a Maternal Mortality Stakeholder Group composed of the Maryland Office of Minority Health and Health Disparities, the Maryland Patient Safety Center, the Maryland Healthy Start Program, women's health advocacy groups, community organizations, local health departments, health care providers serving minority women, and families that have experienced a maternal death. This Stakeholder Group is tasked with reviewing the findings and recommendations in the annual Maternal Mortality Review Report, examining issues resulting in disparities, and identifying new recommendations with a focus on disparities in maternal deaths.

In 2021, the Stakeholder group reviewed the results of the 2020 report including that among women initiating prenatal care during the first trimester, the pregnancy-related mortality rate was over three times higher in non-Hispanic Black women compared to non-Hispanic White women. Early initiation of prenatal care did not eliminate the racial disparity in pregnancy-related deaths. The pregnancy-related mortality rate increased by 270% with late or no prenatal care for non-Hispanic White women, and 52% for non-Hispanic Black women. The Stakeholder group discussed and recommended the need to focus on upstream factors such as preconception health, implicit bias and congruent care training for perinatal providers, and warm handoffs between providers and improving communications between healthcare providers. They also discussed the need for increased surveillance of pregnant and postpartum individuals with hypertension or other cardiovascular risks, and the need for coordinated care with perinatology and cardiology specialists.

Sexual and Reproductive Health through Maryland Family Planning:
The mission of the Maryland Family Planning Program (MFPP) is to reduce unintended pregnancies and to improve pregnancy outcomes by ensuring access to quality, comprehensive family planning services for those individuals with incomes below 250% Federal Poverty Level (FPL). Services include: a broad range of family planning methods, breast and cervical cancer screening, prevention and treatment of sexually transmitted infections, HIV testing and prevention education, infertility and preconception services, and health education/counseling and referrals to community resources. There are 62 family planning sites. State Match Title V dollars were used to support the Maryland Family Planning program in FY2021. In May 2019, Maryland became the first state to formally withdraw from Title X federal funding for family planning services in the setting of new restrictions. Therefore, Title V partnered with the Maryland Family Planning Program to continue essential service delivery.

In Fiscal Year 2021, there were a total of 49,440 clients and 67,425 visits. Overall, there was an 18% decrease in the

number of clients, and a 21% decrease in visits compared to FY 2020. Of the unduplicated clients seen this reporting period, 32,559 were new clients and 16,881 were continuing clients. This was a slight decrease from FY2020 with 38,428 new clients (↓ 15.3%) and 21,799 continuing clients (↓ 22.6%). The decrease is thought to be due to COVID.

In FY21, MFPP served 5,991 people who were less than 20 years old. Nearly seventy percent of the clients seen at Maryland Family Planning clinics were at 100% or below the poverty line.

The racial and ethnic breakdown for clients served by the Maryland Family Planning Program include: 40.6% Black, 34.3% White, 2.3% Asian, American Indian, 0.2%, 16.7% Hispanic origin.

During FY 2020 and 2021, many of the MFPP clinics had to adapt their services for COVID-19. Specifically, they embraced telehealth/telemedicine as well as new administrative guidelines. Family Planning providers linked clients to community partners, when necessary, proactively called scheduled patients to best assess their needs, and even provided birth control by mail.

Babies Born Healthy Initiative

During FY 2021, eight sites across seven local jurisdictions implemented state funded Babies Born Healthy (BBH) programs, which directed resources to engage women and communities in an effort to provide supportive coordinated care and address disparities in infant mortality rates in Maryland. A total of 1,389 women had accessed BBH services, and there was a total of 311 births among program participants and 8 fetal/neonatal deaths. These jurisdictions were selected to receive funding after the Perinatal Periods of Risk Assessment (PPOR) was conducted and concluded that these jurisdictions were key to effectively curbing disparities and rates of infant mortality. Services provided were focused on the promotion of prenatal care, reduction of substance use, tobacco cessation, long-acting reversible contraception, accessing health insurance, and other strategies driven by site-specific data to promote healthy maternal and infant outcomes. Specific activities included home visiting strategies, nurse and paraprofessional case management services for high-risk women and infants, family planning services, screening and referrals for mental health and substance use.

During FY2021, COVID-19 continued to present barriers to both families and staff. Many staff are public health nurses in LHDs, as such they were pulled into Maryland's COVID-19 response which left BBH sites with very limited capacity at times. Families faced numerous challenges including job loss and eviction, difficulty in accessing food, loss of childcare, lack of transportation, intimate partner violence, technology limitations, issues in accessing necessary baby supplies, and others. Many BBH sites responded by doing emergency supply drop-offs to their participants and were a crucial lifeline at the height of the pandemic.

State Maternal Health Innovation Program

In September 2019, the Health Resources Service Administration awarded Johns Hopkins University (JHU) $2,134,389 as part of a nationwide State Maternal Health Innovation Program. The Hopkins-led initiative, MDMOM, is a 5-year project to assist in addressing disparities in maternal health and improving maternal health outcomes, with a particular emphasis on preventing and reducing maternal mortality and severe maternal morbidity (SMM). For the program areas, JHU has partnered with several other organizations, and specifically to coordinate the Maternal Health Improvement Task Force, JHU has partnered with the Department. Title V staff members support the Task Force and their activities.

The Task Force and Title V staff spent the entirety of FY 2021 developing a Maternal Health Improvement Strategic Plan. The Maternal Health Strategic Plan process was structured into six stages: 1) scan of existing needs assessments and plans including the Title V State Action plan, Maternal Mortality Review Committee and

Stakeholder Group recommendations, as well as strategic plans from other states; 2) identification of state-level strengths and challenges; 3) identification of key priorities, goals, and desired outcomes based on identified strengths and challenges; 4) stakeholder and public input; 5) strategic plan revisions based on feedback; and 6) report finalization. Members of the Maternal Health Improvement Task Force with support from Title V staff led the development of the Maternal Health Strategic Plan. Overall, approximately 15 stakeholder input sessions were held. Many of these input sessions occurred through existing stakeholder meetings. The Strategic Plan, which was submitted to HRSA in September 2021, has five focus areas to improve maternal health, particularly in BIPOC populations:

1. Promote Equity and Mobilize Against Racism in Maternal Health
2. Achieve Health (Preconception, Prenatal and Birth, Post Partum, and Interconception Periods) Using the Life Course Model to Support Maryland Birthing People Through Advocacy and Implementation of Effective Policies.
3. Develop Strategies that Acknowledge the Influence of the Social Determinants of Health and Historical Racism to Improve Resiliency for Birthing People, Families, and Communities and to Promote an Optimal Quality of Life.
4. Improve Access and Utilization of Data and Improve Surveillance of Data on Structural Racism and its Impact to Make Informed Decisions.
5. Develop a Maternal Health Provider Workforce that will be Available, Accessible, and that Offers Services Based on the Principles of Cultural Humility, Equity, and Racial Justice.

In addition, as part of the strategic plan, the mission and vision of the Task Force was clarified. These sessions were led by Title V staff. The mission of the Task Force is to identify and support effective policies and initiatives that optimize current delivery systems in order to: meet the needs of communities that have been silenced as a result of structural racism; improve the quality of the full spectrum of reproductive, perinatal, and postpartum care; and strengthen service delivery systems for the medically- underserved. The vision of the Task Force is for all people in Maryland who give birth are in optimal health and thriving.

The Values and Guiding Principles of the Strategic plan include:
• Promote policies and practices that support racial equity and community inclusivity;
• Acknowledge that cumulative and intergenerational stress impacts health;
• Apply a strengths-based approach for all programs, policies, and procedures;
• Partner with community members who have lived experience through community-based and faith-based organizations;
• Ensure that programs, policies, and practices are data-driven and are evidence-informed;
• Honor and respect that families are formed with unique and diverse characteristics and a multi- generational, whole family, modernistic approach is required.

Title V staff drafted a charter to provide clarity in the Task Force's role and to provide foundational agreements, particularly since there was confusion on the MDMOMs program and the role of the Task Force. The purpose of the Task Force is to develop and implement a statewide maternal health improvement strategic plan that incorporates activities outlined in the state's most recent Title V Maternal and Child Health Services Needs Assessments. The charter included operating procedures including that the Task Force would meet quarterly. Group agreements were included in the Charger that included: Be Present, Call Each Other In as We Call Each Other Out, Recognize the Difference of Intent versus Impact, Create Space for Multiple Truths, Notice Power Dynamics, and Center Learning and Growth. A draft of the charter was presented to the Task Force during the July 2021 meeting and was finalized at the end of FY21.

In addition, the election process to elect co-chairs of the Task Force started in order to emphasize and practice inclusion. Previously, the Title V manager has been serving as Chair of the Task Force with support from the Director of the Bureau of Maternal and Child Health and the Deputy Director. However, Title V led the process to have the Task Force be led by co-chairs, who would strategically plan for agenda items and facilitate the activities and conversations moving forward.

Maryland Perinatal Quality Collaborative

Maryland's Perinatal Quality Collaborative (MDPQC) is a network of perinatal care providers and public health professionals working to improve health outcomes for women and newborns through continuous quality improvement. The Collaborative provides participating birthing hospitals with educational resources, technical assistance and a platform for communication and sharing of best practices.

During Fiscal Year 2021, two new initiatives were started based on guidance from a Steering Committee that included physicians, nurses, and nurse midwives from hospitals across the state, as well as public health stakeholders. The first initiative focuses on improving management of maternal hypertension through implementation of the Alliance for Innovation on Maternal Health (AIM) Patient Safety Bundle. All 32 delivery hospitals in Maryland participate in this collaborative. The second quality initiative focuses on antibiotic stewardship in the Neonatal Intensive Care Unit (NICU). 25 delivery hospitals in Maryland are enrolled in this collaborative.

Women/Maternal Health - Application Year

Maryland Title V identifies the priority for women's maternal health as ensuring that birthing people are in optimal health before, during, and after pregnancy.

To this end, in FY 2023, Title V will employ the following strategies to improve maternal health outcomes statewide. Please note that for FY2023, Maryland Title V shifted from Oral Health to a broader focus of well women's health.

Focus Area 1: Oral health: To increase the number of pregnant people receiving preventive dental visits from a baseline of 28% (2019) to over 36% by 2025 (Healthy People 2030 Target: 45%)

During Fiscal Year (FY23), the Office of Oral Health (OOH) will leverage its established partnership with the Maryland section of the American Congress of Obstetricians and
Gynecologists (ACOG) to disseminate Oral Health During Pregnancy: Practice Guidance for Maryland's Prenatal and Dental Providers through local health departments and other providers. The practice guidance contains essential information on oral health during pregnancy, including background on oral conditions during pregnancy, myths and facts about the safety of oral health care for pregnant women, pharmacological considerations for dental care for pregnant women, and detailed practice guidance for prenatal providers. The document also includes a variety of associated resources for use in practices and for patients. In addition, the OOH will also provide detailed information on how to apply the document's guidance in their practices. The Office of Oral Health team will conduct outreach to providers to assist them in establishing local referral networks for their pregnant patients, with the goal of increasing access to oral health care for this population.

Maternal and Child Health Care Coordination at the Local Health Department will continue linking pregnant people who are referred through the Maryland Prenatal Risk Assessment to Oral Health providers as part of their care coordination.

In the future, Maryland Title V will propose transitioning from the National Performance Measure of oral health to a broader national performance measure: Women's health by the national performance measure (NPM 1) of percent of women who had a preventive dental visit during pregnancy. Feedback was obtained on this transition, and overall, the feedback thought that this national performance measure aligned with work that was already occurring, including work at the local health departments.

Potential Future Objective 1: To increase the number of well-women visits from a baseline of 73% (2020; BRFSS) to over 78% by 2025.

If the broader national performance measure is approved, the Title V team will continue to work on increasing the number of well-women visits through partnership. The Title V team and the Maryland Family Planning Program (MFPP) will expand telehealth services in family planning and preventive care services. Maryland Family Planning Services will not only provide family planning services, but also navigate social needs identified through the visits, and link to other primary care providers. For the telehealth expansion, the MFPP will work with 11 local health departments including Baltimore City, Calvert, Carroll, Dorchester, Garrett, Harford, Howard, Prince George's, Somerset, St. Mary's, and Worcester and three non-profit organizations. These efforts promote the goal to increase well women visits as these visits provide preventive care and provide further coordination and referrals to comprehensive primary care visits. During FY2023, the team will begin by assessing existing telehealth resources in local health department family planning sites, identifying needs, barriers and opportunities to enhance services. The collected data will be used to plan and implement a virtual telehealth training and technical assistance program for

participating sites. After the training and technical assistance program, MDH will disseminate a comprehensive telehealth toolkit to the 62 MFPP sites, 24 local health departments and all family planning service sites in Maryland.

During the Maryland General Assembly 2021 Legislative Session, Senate Bill 923 was passed that required Medicaid to extend coverage for eligible pregnant individuals with family incomes up to 250% of the federal poverty level (FPL) for one year immediately following the end of the birthing individual's pregnancy. This coverage would include dental care as well as comprehensive medical care. The extended coverage became effective starting April 1, 2022. Title V staff will continue to work with Maryland families to inform them about the extension of the coverage during provision of services such as care coordination and home visiting.

In addition, for FY2023, Title V staff will focus on increasing linkages to care, specifically through expanding the Postpartum Infant Maternal Referral Form (PIMR). During FY21 and 22, Title V staff released a PIMR best practices form that reviewed the process of the PIMR. The best practices document explained the purpose of the form, including referring mothers and infants who need additional support and information on community-based services at the local health departments. During the next year, Title V staff will focus on understanding workflows from the local health departments as well as expand the electronic PIMR through the Regional Information Health Exchange, CRISP.

Care Coordination

Title V staff will continue to improve the quality and expand care coordination at the Local Health Departments to link pregnant and postpartum people to navigate their social needs and to navigate primary care. In FY2022, Title V allowed funding for Local Health Departments, which is mandated by House Bill 314, Laws of 1995 that the Federal Title V Maternal Child Health Block grant must go towards the local health department. Local Health Departments will continue linking pregnant people who are referred through the Maryland Prenatal Risk Assessment and PIMR. Title V has aligned care coordination through the Babies Born Healthy Program, an initiative focused on perinatal care coordination.

Focus Area 2: Substance use prevention and linkages to care through 1) NPM 14.1, percent of women who smoke during pregnancy and 2) the state performance measure (SPM 1) of Overdose Mortality Rate for women, ages 15-49.

Objective 1 for Focus Area 2: To increase the number of women who abstain from smoking tobacco during pregnancy from a baseline of 95.3% (2019) to 96.3% or more (Healthy People 2030).

Smoking During Pregnancy

Referrals to Maryland QuitLine
For Fiscal Year 2023, Title V will continue and strengthen the partnership with MDH's Center for Tobacco Control and Prevention. Specifically, Title V will work with local health departments for care coordination and connect individuals who smoke tobacco to the QuitLine or local health department tobacco cessation programs. QuitLine Coaches use cognitive behavioral coaching and practical skill-building to reinforce effective coping strategies, help the participant manage stress, and build self-efficacy. The QuitLine is a free service to all Maryland residents age 13 and older. Title V will also collaborate with the Center for Tobacco Control and Prevention to update a tobacco cessation toolkit

for OB/GYN providers.

In FY2023, the Maryland Family Planning Program will continue to focus on expanding SBIRT (Screening, Brief Interventions, and Referrals to Treatment) throughout their 62 service sites across Maryland. In addition, the program will focus on improving partnerships between substance use disorder clinics and family planning clinics particularly in Western and Northern Maryland.

Objective 2 for Focus Area 2: To decrease the overdose mortality rate for women, ages 15-49 from 24.1 per 100,000 to 22.9 per 100,000 by 2025.

Improve Linkages to Care through Overdose Data to Action
Title V will continue to partner with Medicaid and the Overdose Data to Action (OD2A) funded under Centers for Disease Control and Prevention to improve linkages to care, specifically implementing an electronic version of the Prenatal Risk Assessment (ePRA). During FY2023, Title V will explore the feasibility of implementing an ePRA statewide to increase the number of prenatal clinics referring clients to local health departments for care coordination. This work will be informed by the lessons learned during the pilot projects in FY22. In addition, Title V will partner with OD2A to implement an electronic version of the postpartum infant maternal referral form (PIMR), that is used to link birthing people and infants to care coordination at local health departments, statewide. Title V will partner with the State's Health Information Exchange (HIE), called CRISP, to achieve this.

In addition, Title V and OD2A will conduct a Gap Analysis of resources available to pregnant people experiencing Opioid Use Disorder (OUD), to better understand the landscape of OUD in the state, and areas in need of support. This gap analysis will understand opioid use through PRAMS by analyzing the supplemental questions on opioid use that will be used for further public health action as well as discussions with stakeholders. This gap analysis will serve as a basis for future planning and collaborations with partners such as Maryland Behavioral Health Administration, the Opioid Operational Command Center, Maryland Medicaid, Clinical Providers, Community-based organizations, local health departments and more.

Title V will continue to partner with Maryland Medicaid on the Maternal Opioid Misuse Model. Title V staff will continue to serve on the MOM model advisory council. The MOM model advisory council provides input into the model and how to further expand the model in the State. In addition, the Advisory Council will provide input in the partnership with the Maryland Addiction Consult Services.

Focus Area 3: Reduce rates and eliminate disparities in Maternal mortality and morbidity with the state performance measure of reducing severe maternal morbidity rates that aligns with the Statewide Integrated Health Improvement Strategy.

Objective 1 for Focus Area 3: *By 2026, reduce the Severe Maternal Morbidity Rate from a baseline of 242.5 per 10,000 delivery hospitalizations to 197.1 per 10,000 delivery hospitalizations and decrease disparities between Black to White SMM rates by at least 20% .*

Statewide Integrated Health Improvement Strategy (Severe Maternal Morbidity)
Overall, Focus Area 3 is based on the Statewide Integrated Health Improvement Strategy goals. Through an agreement with the Centers for Medicare and Medicaid Innovation (CMMI), the aim of SIHIS is to advance hospital quality, care transformation across the health care system, and population health. The last goal, total population

health, has three domains: diabetes, opioids, and maternal and child health. The maternal and child health goal has two specific outcomes of interest: severe maternal morbidity and childhood asthma. CMMI approved the State's strategy proposal on March 17, 2021.

Overall, as Title V staff will focus on 1) incorporating equity principles into practice either by partnering and working with more community-based organizations 2) shifting committee structures to include people with lived experiences 3) looking for sustainable funding for essential supportive services by partnering with Medicaid.

Maternal Health Innovation Program

In Fiscal Year 2023, the Title V Program will continue to work with the Maternal Health Innovation Program, also called "MDMOMs," by Johns Hopkins University, by monitoring the maternal health improvement Strategic Plan. During FY2022, Title V worked with the Task Force to elect co-chairs for the Task Force. Previously, the Title V manager with support from the Bureau Director chaired the Task Force. Two co-chairs were elected, and Title V staff worked with the Equity Advisor from the Bizell Group on a mechanism to compensate the co-chairs. Approval for compensation required internal approval and as the Task Force is not in statute or in regulations, compensation for the co-chairs was allowed. Often, compensation in committees or boards that are in statutes or regulation disallow compensation.

For FY2023, the Title V program will continue to home in on recommendations and coordination's of the Task Force, based on the Maryland Maternal Health Improvement Strategic Plan. The Task Force focuses on five goals: 1) promote equity and mobilize against racism in maternal health, 2) achieve maternal health (preconception, prenatal and birth, postpartum and inter-partum periods) using the life course models to support Maryland mothers through advocacy and implementation of policies, 3) improve resiliency for birthing people, families and communities that acknowledge the importance of relationships and social determinants of health for an optimal quality of life, 4) improve access to and utilization of data to make informed decisions, and 5) develop a maternal health workforce that will be available, accessible, and culturally relevant and based on principles of racial equity and justice. With the Equity Advisor, Title V will incorporate equity principles and provide recommendations on analysis and contextualization of data to demonstrate the impact of racism, determinants of equity, and determinants of health.

Statewide Integrated Health Improvement Strategy Funds

As Maternal and Child Health was identified as the third domain within population health, the Health Service Cost Review Commission approved an additional $40 million dollars over four years to meet the SIHIS Maternal and Child Health goals. The majority (80%) of the funds goes towards Medicaid to increase linkages to care for birthing people with opioid use disorder, reimburse for doula/birth worker support services, and expand group based prenatal care and maternal and infant home visiting. These are services that provide additional support for the most impacted populations and communities. Through partnership with Medicaid, these services can be more sustainable beyond the SIHIS grant fund periods.

A portion of the MCH SIHIS funds went toward grant funds to allow expansion of promising practice programs. For example, while Nurse Family Partnerships and Healthy Families America are the two evidence-based models supported by Medicaid reimbursement, these models are prohibitive in jurisdictions where they have not already implemented the model. The reason is due to start-up costs. For example, starting a Nurse Family Partnership Home visiting program may cost more than $1 million dollars and maintaining fidelity to this model incurs high ongoing costs. During FY2022, four home visiting sites in priority jurisdictions with elevated SMM events were selected after an open bid procurement. During FY23, Title V will continue to implement the grant funds and continue the expansion of their home visiting services. These organizations are: Montgomery County Health Department, the Family Tree,

Washington County Health Department, and Baltimore Healthy Start. In addition, in order to expand CenteringPregnancy, a group-based prenatal care, Mercy Medical Center was selected as a site to implement the CenteringPregnancy Model. During FY23, Title V will also put forward a competitive procurement to further expand CenteringPregnancy in Maryland.

The remaining SIHIS funds will go towards public health services to expand asthma home visiting, promising practice and evidence-based home visiting, as well as expanding group prenatal care for birthing people, regardless of payor. During FY2022, the Title V program and Maternal and Child Health staff will be working to expand the programs identified through SIHIS.

Maryland Perinatal Neonatal Quality Collaborative
The Maryland Perinatal Neonatal Quality Collaborative (MDPQC) is focused on addressing maternal hypertension and neonatal antibiotic stewardship. For FY2023, the MDPQC will focus on sustained implementation of quality improvement initiatives, which will include identifying barriers, assisting low performers, and continuing regular check-in calls, learning events, and data reporting. An in-person learning event is scheduled for Summer 2022 to provide updates and invite high performers to share best practices and lessons learned. The effectiveness of the collaborative will also be assessed at the midpoint of each initiative, with the Steering Committee and participating hospitals providing feedback, and a root-cause analysis will be conducted for any under-performing measures, as needed. The MDPQC will continue to heavily focus on health disparities and will push out data-driven improvement activities and resources to promote health equity.

Maternal Mortality Review Program
During Fiscal Year 2023, the Maternal Mortality Review Program will continue to conduct de-identified, confidential case reviews for all pregnancy-associated deaths to identify clinical and non-clinical factors and systems issues contributing to these deaths. There will be additional focus on streamlining medical records requests as there were challenges in obtaining records during COVID-19 pandemic. More attention will be focused on understanding the broader context of the cases and environments by reviewing the social determinants of health (e.g., poverty level of the area, high food priority area), maternal and child health services (e.g., home visiting, WIC, administration care coordination unit) in addition to the medical records. During Fiscal Year 2023, the administration of the MMR Program will be overseen by the Maryland Patient Safety Center after a competitive bid process, allowing for the expansion of the scope of work of the coordination activities.

Through the support from the Centers for Disease Control and Prevention Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) program, Maryland plans to move towards a multi-disciplinary review team in FY23 instead of a predominantly physician-led, medical review team to conduct comprehensive case reviews in line with the national best practices. The Multi-disciplinary review team, called the Statewide Maternal Mortality Review Team (MMRT) will identify and review pregnancy-associated deaths, identify factors that contribute to these deaths, and propose recommendations that aim to prevent future deaths. The overall mission of the Program is to review the issues surrounding the pregnancy-associated deaths, to identify interventions, and to promote change among individuals, health care systems, and communities in order to prevent maternal deaths, reduce maternal morbidities and improve population health. Members of the MMRT will represent the diversity of Maryland's population and will consist of individuals with both clinical and non-clinical expertise as recommended by national best practices. There will be approximately 20 members on the Review Team.

The member positions that will be included on the team include: individuals who work with pregnant or postpartum individuals and have expertise in Clinical Social Work, Community Doula Work, Community Birth Work, provision of behavioral health services, or social services such as housing or food insecurity; individuals with expertise in

Community Health Nursing/Maternal, Infant, and Early Childhood Health Home Visiting or Nursing Care for Pregnant Individuals, Postpartum Individuals, or Families of Pregnant or Postpartum Individuals; Individuals with expertise in quality improvement for pregnant or postpartum patients or pregnant or postpartum patient safety; Physicians with expertise or specialization in Obstetrics and Gynecology; individual with expertise in Public Health Epidemiology; physicians with expertise or specialization in Maternal Fetal Medicine; physicians with expertise or specialization in Addiction Medicine, Family Medicine, Internal Medicine, Anesthesiology, Critical Care, Emergency Medicine, Pediatrics, Adolescent Medicine, Preventive Medicine, or Cardiology, specifically Cardio-Obstetrics; advanced Practice Clinician in Women's Health (Certified Nurse Midwife or Women's Health Nurse Practitioner), representative from the Maternal Mortality Stakeholder Group, public health officials, State Medicaid, a representative from the Office of the Chief Medical Examiner.

The Maternal Mortality Stakeholder Group will continue to review the findings and recommendations in the annual Maternal Mortality Review Report, examining issues resulting in disparities, and identifying new recommendations with a focus on disparities in maternal deaths. These findings will inform the Maternal Health Improvement Program Task Force as the implementers of the Maryland Strategic Plan.

Maryland Family Planning Program

The Maryland Family Planning Program will continue to promote optimal health outcomes for men, women and families through ensuring access to breast and cervical cancer screening, prevention and treatment of sexually transmitted infections, HIV testing and prevention education, infertility and preconception services, health education and counseling and referrals to community resources. This program provides access to affordable, broad range of family planning methods to assist individuals with their reproductive life plan, which includes postponing, preventing, achieving and the spacing of their pregnancies. In FY23, the Maryland Family Planning Program will focus on expanding SBIRT (Screening, Brief Interventions, and Referrals to Treatment) throughout their 62 service sites across Maryland. In addition, the program will focus on improving partnerships between substance use disorder clinics and family planning clinics particularly in Western and Northern Maryland. In FY23, the Maryland Family Planning Program remains committed to providing support to subrecipients as they continue their innovative telehealth practices, as well as assist with strategic efforts to return to safe practices while clinics reopen post-Covid.

Perinatal/Infant Health

National Performance Measures

NPM 3 - Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)
Indicators and Annual Objectives

Federally available Data (FAD) for this measure is not available/reportable.

State Provided Data			
	2019	2020	2021
Annual Objective			93.7
Annual Indicator	79.2	93.4	91.6
Numerator	954	891	854
Denominator	1,205	954	932
Data Source	VSA	VSA	VSA
Data Source Year	2018	2019	2020
Provisional or Final ?	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	94.0	94.3	94.6	95.0

Evidence-Based or –Informed Strategy Measures

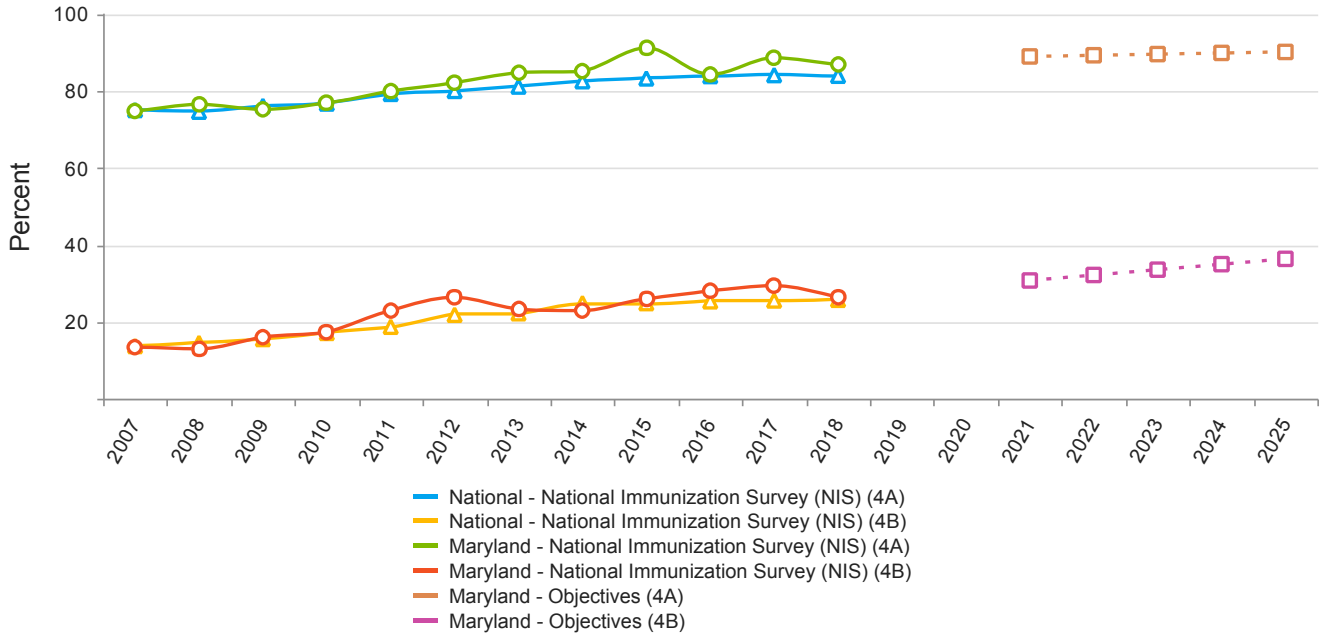
ESM 3.1 - Percentage of Level III & IV Perinatal Referral Centers who received their re-designations based on the 2019 MD Perinatal System Standards

Measure Status:	Active

State Provided Data			
	2019	2020	2021
Annual Objective			93.7
Annual Indicator	0	15.4	46.2
Numerator	0	2	6
Denominator	14	13	13
Data Source	Program Data	Program Data	Program Data
Data Source Year	2019	2020	2021
Provisional or Final ?	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	62.0	85.0	100.0	100.0

NPM 4 - A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months Indicators and Annual Objectives



NPM 4A - Percent of infants who are ever breastfed

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2019	**2020**	**2021**
Annual Objective			88.9
Annual Indicator	84.1	88.6	86.8
Numerator	51,263	55,833	59,613
Denominator	60,967	63,040	68,676
Data Source	NIS	NIS	NIS
Data Source Year	2016	2017	2018

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	89.2	89.5	89.8	90.1

NPM 4B - Percent of infants breastfed exclusively through 6 months

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2019	**2020**	**2021**
Annual Objective			30.8
Annual Indicator	28.0	29.4	26.6
Numerator	16,851	17,961	17,625
Denominator	60,103	61,137	66,307
Data Source	NIS	NIS	NIS
Data Source Year	2016	2017	2018

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	32.2	33.6	35.0	36.4

Evidence-Based or –Informed Strategy Measures

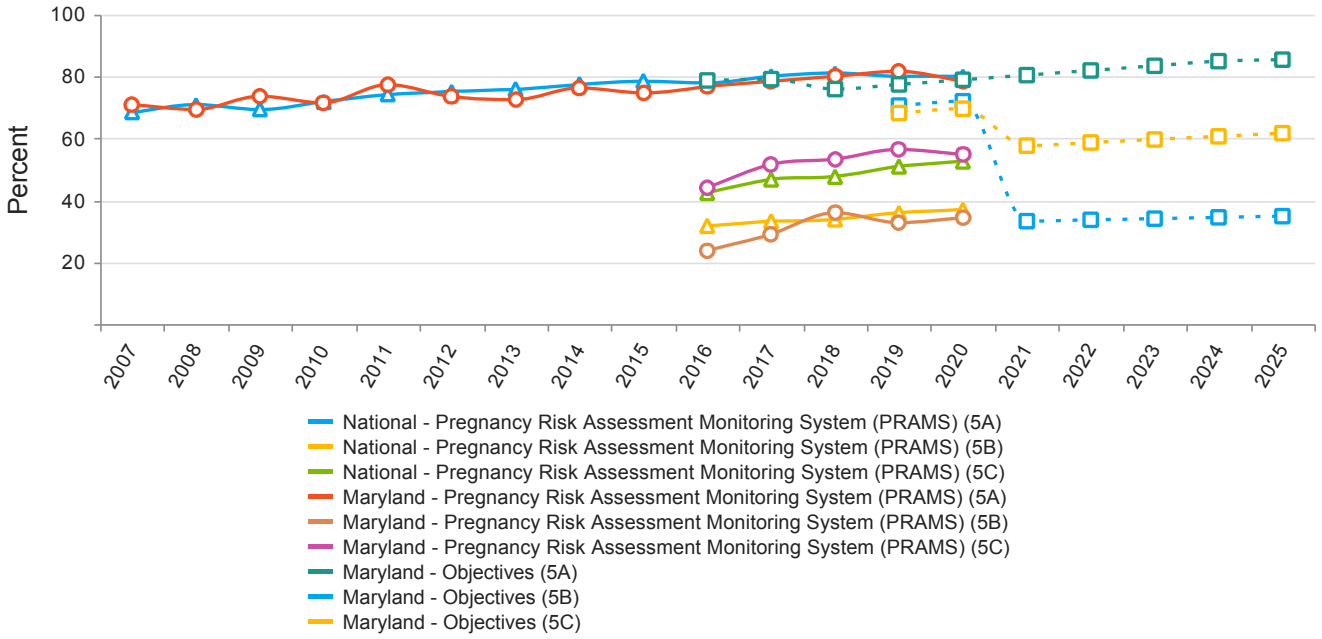
ESM 4.1 - Number of birthing hospitals designated as breastfeeding friendly

Measure Status:	Active

State Provided Data			
	2019	2020	2021
Annual Objective			10
Annual Indicator		10	10
Numerator			
Denominator			
Data Source		MDH Breastfeeding Policy Committe	MDH Breastfeeding Policy Committee
Data Source Year		FY 2020	FY2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	11.0	12.0	13.0	15.0

NPM 5 - A) Percent of infants placed to sleep on their backs B) Percent of infants placed to sleep on a separate approved sleep surface C) Percent of infants placed to sleep without soft objects or loose bedding Indicators and Annual Objectives



NPM 5A - Percent of infants placed to sleep on their backs

Federally Available Data					
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	79	75.8	77.3	78.8	80.3
Annual Indicator	74.6	78.2	78.2	81.6	78.5
Numerator	47,705	48,293	48,293	50,368	47,476
Denominator	63,975	61,753	61,753	61,754	60,460
Data Source	PRAMS	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2015	2017	2017	2019	2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	81.8	83.3	84.8	85.3

NPM 5B - Percent of infants placed to sleep on a separate approved sleep surface

Federally Available Data				
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)				
	2018	**2019**	**2020**	**2021**
Annual Objective		70.5	71.9	33.3
Annual Indicator	29.0	29.0	32.9	34.5
Numerator	16,948	16,948	19,188	19,974
Denominator	58,441	58,441	58,412	57,908
Data Source	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2017	2019	2020

State Provided Data					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective			70.5	71.9	33.3
Annual Indicator	69.1				
Numerator	45,750				
Denominator	66,226				
Data Source	PRAMS				
Data Source Year	2015				
Provisional or Final ?	Final				

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	33.7	34.1	34.5	34.9

NPM 5C - Percent of infants placed to sleep without soft objects or loose bedding

Federally Available Data				
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)				
	2018	**2019**	**2020**	**2021**
Annual Objective		68.1	69.5	57.6
Annual Indicator	51.7	51.6	56.6	55.0
Numerator	30,441	30,441	32,851	31,754
Denominator	58,942	58,942	58,015	57,742
Data Source	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2017	2019	2020

State Provided Data					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective			68.1	69.5	57.6
Annual Indicator	66.8				
Numerator	44,268				
Denominator	66,226				
Data Source	PRAMS				
Data Source Year	2015				
Provisional or Final ?	Final				

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	58.6	59.6	60.6	61.6

Evidence-Based or –Informed Strategy Measures

ESM 5.1 - Percentage of infants less than 6 months who are placed on their backs to sleep

Measure Status:	Inactive - Replaced		
State Provided Data			
	2019	**2020**	**2021**
Annual Objective			80.3
Annual Indicator	78.2	81.6	80.3
Numerator	48,293	50,368	48,530
Denominator	61,753	61,754	60,415
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2019	2020
Provisional or Final ?	Final	Final	Final

ESM 5.2 - Number of home visiting or care coordination clients, providers, and other Title V program participants that received infant safe sleep counseling and information

Measure Status:		Active	
Annual Objectives			
	2023	**2024**	**2025**
Annual Objective	6,900.0	7,000.0	7,100.0

State Action Plan Table

State Action Plan Table (Maryland) - Perinatal/Infant Health - Entry 1	
Priority Need	
Ensure that all babies are born healthy and prosper in their first year	
NPM	
NPM 3 - Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)	
Objectives	
Increase the percentage of very low birth weight babies delivered at an appropriate level hospital from 93.4% to greater than 95% by 2025.	
Strategies	
1. Continue with oversight of standardizing definitions for birthing hospitals levels of care through the Maryland Perinatal Standards of Care and with site visits for Level I, II, III, and IV birthing hospitals. 2. Provide maternal fetal medicine support and technical assistance through the Maryland Perinatal Support Program. 3. Continue to implement the maternal hypertension bundle and the neonatal antibiotic stewardship through the Maryland Perinatal-Neonatal Quality Collaborative. 4. Continue with The Maryland Health Innovation Program and Task Force to address maternal and perinatal health through data, policy, quality initiatives, training and telemedicine. 5. Continue with Surveillance Quality Initiatives such as Child Fatality Review and Fetal and Infant Mortality Review to identify systemic preventive factors.	
ESMs	**Status**
ESM 3.1 - Percentage of Level III & IV Perinatal Referral Centers who received their re-designations based on the 2019 MD Perinatal System Standards	Active
NOMs	
NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths	
NOM 9.1 - Infant mortality rate per 1,000 live births	
NOM 9.2 - Neonatal mortality rate per 1,000 live births	
NOM 9.4 - Preterm-related mortality rate per 100,000 live births	

State Action Plan Table (Maryland) - Perinatal/Infant Health - Entry 2

Priority Need

Ensure that all babies are born healthy and prosper in their first year

NPM

NPM 4 - A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months

Objectives

Increase the number of infants who are ever breastfed from a baseline of 88.6% to 90% by 2025

Strategies

1.Provide training for providers and encourage hospitals to adopt policies that are conducive to breastfeeding. 2. Provide breastfeeding education through home visiting, care coordination, and Babies Born Healthy.

ESMs	Status
ESM 4.1 - Number of birthing hospitals designated as breastfeeding friendly	Active

NOMs

NOM 9.1 - Infant mortality rate per 1,000 live births

NOM 9.3 - Post neonatal mortality rate per 1,000 live births

NOM 9.5 - Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

State Action Plan Table (Maryland) - Perinatal/Infant Health - Entry 3

Priority Need

Ensure that all babies are born healthy and prosper in their first year

NPM

NPM 5 - A) Percent of infants placed to sleep on their backs B) Percent of infants placed to sleep on a separate approved sleep surface C) Percent of infants placed to sleep without soft objects or loose bedding

Objectives

Increase the number of babies who are placed on their back to sleep as reported by PRAMS from 81.6% to 88.9% by 2025.

Strategies

1. Assess the feasability of implementing a Safe Sleep Communication Plan developed from Morgan State University's previous research, 2. Provide infant safe sleep eductation through Local Health Departments and Babies Born Healthy Sites. 3. Continue to support the Surveillance and Quality Improvement Program to gather information from mothers who had a fetal or infant loss through Fetal and Infant Mortality Review.

ESMs	Status
ESM 5.1 - Percentage of infants less than 6 months who are placed on their backs to sleep	Inactive
ESM 5.2 - Number of home visiting or care coordination clients, providers, and other Title V program participants that received infant safe sleep counseling and information	Active

NOMs

NOM 9.1 - Infant mortality rate per 1,000 live births
NOM 9.3 - Post neonatal mortality rate per 1,000 live births
NOM 9.5 - Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

Maryland Title V has three priorities for Perinatal Health:

1. Ensure that all babies are born healthy and prosper in their first year
2. Increase the number of infants that are ever breastfed
3. Reduce the number of sleep-related infant deaths statewide.

The Title V program conducted and supported activities to address national perinatal health performance measures in 2021.

Priority 1: Ensure that all babies are born healthy and prosper in their first year

Infant Mortality: Infant mortality is a significant indicator of the overall health of a population. Infant mortality reflects the broader community health status, poverty and other social determinants of health, and the availability and quality of health services. In 2020, the Maryland infant mortality rate was 5.7 deaths per 1,000 live births, a decrease of three percent from the 2019 rate of 5.9 deaths per 1,000 live births, and reflecting a six percent overall decrease from the average rate of 6.6 deaths per 1,000 live births from 2011-2015. The non-Hispanic (NH) White infant mortality rate decreased by 20 percent from 4.1 to 3.3 deaths per 1,000 live births and the Hispanic infant mortality rate decreased by 10 percent, from 5.1 to 4.6 deaths per 1,000 live births The NH Black rate increased by six percent from 9.3 to 9.9 deaths per 1,000 live births. The neonatal mortality rate (deaths under 28 days of age) increased by five percent from 3.9 in 2019 to 4.2 in 2020, with the rate increasing by six percent among NH Black infants, from 6.4 to 6.8, and increasing six percent from 3.3 to 3.5 among Hispanic neonates and decreasing 11 percent from 2.7 to 2.4 among NH white infants. The statewide post-neonatal mortality (deaths from 28 days through 11 months of age) rate decreased by 20 percent, from 2.0 in 2019 to 1.6 deaths per 1,000 live births in 2020. The rate decreased 36 percent among NH White infants from 1.4 to 0.9 deaths per 1,000 live births and decreased 37 percent among Hispanic infants from 1.9 to 1.2 deaths per 1,000 live births. The post neonatal rate increased by seven percent among non-Hispanic black infants from 2.9 to 3.1 deaths per 1,000 live births. The leading causes of infant death in 2020 were disorders related to short gestation and low birth weight (LBW) account for 19 percent of losses, congenital abnormalities (14 percent), sudden unexpected infant death (SUID) including Sudden Infant Death Syndrome (SIDS) (12 percent), and maternal complications of pregnancy (12 percent).

Preliminary data show that there were 46 Sudden Unexpected Infant Deaths in 2020, with an annual rate of 67.1 deaths per 100,000 live births. Comparing two five-year periods over the last decade (2011-2015 and 2016-2020), the overall infant mortality rate in Maryland has declined by six percent. The average rate for NH Black infants decreased by eight percent and the average rate among Hispanic infants increased by two percent between these two time periods. The post-neonatal mortality rate increased slightly among NH Black (six percent), NH White (nine percent), and Hispanic infants (nine percent). The largest declines in infant mortality over the past ten years were seen in the National Capital area, especially in Prince George's County, which had a statistically significant decrease of 14.5 percent, as well as in the Baltimore Metro Area, with Anne Arundel County seeing a 22.3 percent decrease in infant mortality rates. The Eastern Shore Area also experienced an overall decrease of 8.3 percent with Talbot, Caroline, and Worcester counties experiencing decreases of 44.7, 33.8, and 19.8 percent, respectively. Rates of infant mortality increased in the Northwest, Southern, and Eastern Shore regions, with increases in Dorchester (57.3 percent), Somerset (31.2 percent) Washington (25.9 percent), and Allegany (22.5 percent) counties.

Fetal and Infant Mortality Review (FIMR): Title V funds support Fetal and Infant Mortality Review (FIMR) activities

through the required state match. FIMR is an important quality improvement strategy to improve maternal and child health. FIMR not only provides important insight into opportunities for systems improvement, but they also serve as a mechanism for local and regional communication, coordination and collaboration on other MCH issues. In FY2021, FIMR programs operated in eight of the 24 jurisdictions experiencing the highest number of fetal and infant deaths.

During FY2021, FIMR process improvements previously identified through the Quality Improvement Council continued. The process improvements included quarterly calls with all local coordinators to allow for cross-jurisdictional collaboration and data sharing. To enhance infant mortality prevention efforts at the local level, quarterly meetings were held with the Babies Born Healthy teams to align on prevention strategies and share best practices. In several jurisdictions, Babies Born Healthy (BBH) staff participated in FIMR and Community Action Team (CAT) meetings, and BBH was also involved in the follow up and outreach process for maternal interviewing. FIMR teams were required to review all cases that were identified as meeting the following criteria: Substance use during pregnancy, birth defects or congenital anomalies, or a maternal history of fetal loss. CAT teams were required to address Statewide FIMR recommendations and develop strategies to increase education on safe sleep practices, improving preconception care and early initiation and access to quality clinical care. The CAT teams also explored how to improve referral, tracking and follow up of high-risk pregnant people and improve resources and referral to SUD and SEN services.

Quarterly FIMR meetings focused on the ongoing congenital syphilis outbreak in Maryland and included updates from the MDH Center for Sexually Transmitted Infections Program. Our FIMR program also worked closely with NCFRP FIMR staff to explore efforts to better align congenital syphilis case review standards with national best practices. Congenital syphilis case review will transition to the MDH Center for STI Programs in FY2022 and will no longer be the responsibility of FIMR teams.

FIMR coordinators were surveyed on receipt and utilization of the MDH Postpartum Infant and Maternal Referral Form (PIMR) and the Medicaid Pregnancy Risk Assessment (PRA) form. The purpose of both forms is to identify pregnant and postpartum people in need of resources and services and to connect them to the local health department for care coordination. There was wide variation on the use of the PIMR form though it is seen to be underutilized in most jurisdictions due to lack of awareness of the form, lack of clarity of the workflow, and the paper-based nature of the form creating gaps in the referral pathway. For example, it was reported that the faxed forms were difficult to track and sometimes got lost in staff offices, creating unnecessary challenges to connecting with clients. The Medicaid PRA form is more widely used since completion of the form is reimbursed by Medicaid and its value is clearly communicated to prenatal providers.

Community Action Teams (CAT) review the findings of the CRT and are charged with advocating for creating large-scale systems change to benefit all pregnant or postpartum women, with particular emphasis on those identified as being most at-risk and vulnerable to poor pregnancy outcomes. Membership of Community Action Teams consists of those with the political will and fiscal resources to create systems changes. These members can develop a community perspective on how to best create the desired changes within the community. In FY 2021, Community Action Teams provided recommendations and developed a distribution plan for Safe Sleep, Kick Count resources, developed patient empowerment campaigns to encourage pregnant people to “Speak Up” about their pregnancy concerns to care providers, addressed care collaboration and continuity of care starting with preconception health, provided public presentations to local government officials on Infant Mortality and racial disparities in their jurisdiction, and continued to participate in local Substance Exposed Newborn (SEN) workgroups with Department of Social Services (DSS) to implement the START (Sobriety Treatment and Recovery Teams) model within the jurisdiction, among many other activities executed. Also, in FY2021, MCHB began work on several SUID and safe sleep data visualization briefs for dissemination to local health departments and other partners.

Child Fatality Review (CFR):

During FY2021 MCHB provided Surveillance and Quality Initiatives (SQI) grants to all twenty-four jurisdictions to support ongoing Child Fatality Review (CFR) Activities. Multidisciplinary case review teams (CRT) conduct confidential, de-identified reviews of fetal and infant deaths within the jurisdiction to identify non-clinical factors and systems issues contributing to poor pregnancy outcome and deaths. The teams develop prevention strategies to address health care delivery systems and identify community resource needs, in order to reduce preventable child deaths.

Throughout FY2021, both FIMR and CFR teams continued to readjust to the COVID-19 Pandemic. Local Health Department members were re-deployed to help with the pandemic efforts. In addition, teams no longer met in-person and adjusted to secure virtual meetings. The majority of teams found that virtual meetings improved attendance and availability of members, and many teams were able to add new members that were previously unable to attend in person meetings consistently.

For the NPM 3: Risk Appropriate Perinatal Care, the number of VLBW (very low birth weights, < 1,500g) births at all Maryland hospitals decreased slightly from 2018 to 2019, from 1,050 VLBW deliveries in 2018 to 954 VLBW births in 2019 across all hospital levels. Due to the Network Security Event, 2020 data is still pending.

A total of 17,775 babies were born at Level I and Level II delivering hospitals in 2020, with 78 of these babies (8.4% of all VLBW births) born at weights less than or equal to 1,500g. There were 43,500 births at Maryland Level III/IV delivering hospitals in 2020, of which 854 were VLBW, making up 91.6% of all VLBW births, keeping ahead of the Healthy People 2020 goal of 83.7% of VLBW births occurring at Level III or Level IV facilities. This is a slight decrease from 2019 with 93.4%.

Maryland Perinatal System Standards:

The Maryland Perinatal System Standards was developed in the mid-1990s by a Maryland Department of Health advisory committee as a set of voluntary standards for Maryland hospitals providing obstetric and neonatal services. Level III and Level IV hospitals are designated perinatal referral centers that have both specialized care for pregnant women, as well as the baby. The Standards have since been incorporated into the regulations for designation of perinatal referral centers by the Maryland Institute for Emergency Medical Services Systems (MIEMSS), as well as the Maryland Health Care Commission's State Plan regulations for obstetrical units and neonatal intensive care units. MIEMSS regulates Level III and Level IV Hospitals. Level I and Level II are voluntary designations as delivering hospitals but do not have the specialized care as Level III and Level IV hospitals.

The Maternal Child Health Bureau (MCHB) convenes and leads the Perinatal Clinical Advisory Committee that develops, reviews, and updates the Maryland Perinatal System Standards for all levels of obstetric and neonatal care. The Perinatal Standards were updated in April 2019 to be consistent with the most recent edition of the *Guidelines for Perinatal Care*, a joint manual of the American Academy of Pediatrics (AAP) and the American College of Obstetrics and Gynecology (ACOG). All Level III and Level IV perinatal referral hospitals were notified of this update, and MIEMSS (Maryland Institute for Emergency Medical Services Systems) Regulation Compliance Verification packages were sent to these hospitals in order to verify compliance with the Standards. Of the 32 delivery hospitals in Maryland, seven (7) are Level I, twelve (12) are Level II, eleven (11) are Level III, and two (2) are Level IV. The most recent Standards are incorporated in regulations governing the Level III and IV hospitals, and compliance with the Standards is required for designation at these levels. In FY21, MCHB continued to work with the Maryland Institute for Emergency Medical Services Systems in the compliance reviews of Level III and IV hospital centers.

The Standards specify that very low birth weight (VLBW) births should occur at Level III and IV hospitals which have the necessary subspecialty obstetric care and neonatal intensive care. VLBW infants, who weigh 1,500g or less at birth, are the most fragile newborns. They are more likely to survive and thrive when born in a facility with a Level III or IV neonatal intensive care unit (NICU). MCHB and Vital Statistics monitor the number of VLBW births born in Maryland, and track where these infants were born. Each Maryland delivering hospital receives a report showing VLBW births and neonatal mortality rates by hospital of delivery and level of care.

One role of the MCHB Morbidity, Mortality, and Quality Review Committee is to monitor voluntary compliance of Level I and Level II hospitals with the Standards. During site visits conducted every four to five years, Level I and Level II hospitals are asked to review all VLBW births at their site and to determine if any could have been avoided by transfer of the mother to a higher level of care prior to delivery. During Fiscal Year 2021, the MMQRC reviewed the VLBW data from 2018, and conducted virtual site visits at three Level II hospitals (prioritizing those with higher VLBW deliveries than other Level I and II hospitals). Additional site visits are planned in FY 2023.

Maryland Perinatal-Neonatal Quality Collaborative (MDPQC):

Perinatal Collaboratives are networks of perinatal care providers and public health professionals working to improve health outcomes for women and newborns through continuous quality improvement (QI). The Collaborative provides participating birthing hospitals with educational resources, technical assistance, and a platform for communication and sharing best practices.

The MDPQC Steering Committee was reestablished in August 2020, consisting of physicians, nurses, midwives, and public health experts from hospitals and organizations across the state of Maryland. The Steering Committee, after reviewing relevant data and soliciting hospital input, decided to focus on maternal hypertension and neonatal antibiotic stewardship for our quality improvement topics. The maternal hypertension topic area is being implemented in partnership with the Alliance for Innovation on Maternal Health (AIM). Hospitals were recruited, implementation and data collection plans established, and a kick-off event was held for each topic area (Hypertension on 1/25/21, and Antibiotic Stewardship on 5/7/21). All 32 birthing hospitals were recruited for the maternal hypertension initiative, and 20 hospitals were recruited for the neonatal antibiotic stewardship initiative.

The MDPQC also created a baseline assessment of hospital engagement and readiness, and hospitals continue to submit data to the Collaborative on a quarterly or monthly basis. On the administrative side, a Mission Statement was written, a website created, and a listserv including contacts from all birthing hospitals was launched. Learning events hosted included COVID-19 Information for Birthing Hospitals, Maternal Safety Bundle Implementation, and the first two events of a Respectful Care Webinar Series – “Respectful Care for All Families: Introduction to the Unique Families Program and How it Betters Care for All Patient Populations", and “Respectful Care While Addressing our Implicit Bias”.

Neonatal Abstinence Syndrome (NAS):

The rate of neonatal abstinence syndrome (NAS) among Maryland resident newborns born in Maryland hospitals has decreased 30.2%, from 14.2 per 1,000 newborn discharges in 2017, to 9.9 per 1,000 newborn discharges in 2021 (Case-mix data, Health Services Cost Review Commission). From 2016-2020, Maryland had the State Performance Measure (SPM) on Hospital Policy change to improve quality of care for infants with neonatal Abstinence Syndrome.

The Department of Human Services recently updated their Substance Exposed Newborn Policy to reduce the number of SEN out-of-home placements and to improve the quality and effectiveness of services for SEN and

families impacted by substance use disorder. To address the need for cross-system coordination of services and providers, MCHB program staff participated in statewide training for DHS staff to increase knowledge of community resources for families with a substance exposed newborn. Any newborn displaying effects of withdrawal from a controlled substance exposure as determined by medical personnel will trigger a SEN notification to DHS. MCHB Program staff provided training on the Postpartum Infant and Maternal referral form (PIMR), which allows hospital staff to refer families to their local health department for resources to address the child and family needs. Local DSS staff were encouraged to support delivery hospitals in utilizing the PIMR form for any SEN notification, and information about the PIMR was included in supplemental resources available for those who completed the SEN policy training.

The Maryland Department of Health led a work group to establish a Statewide definition of Neonatal Abstinence Syndrome. The purpose of this effort is to strengthen and standardize NAS reporting and inform program planning. A multidisciplinary team agreed to the following definition and has communicated the definition to all Maryland birthing hospitals:

- Evidence of maternal use of opioids, benzodiazepines or barbiturates; and at least one of the following:
    - Presence of two or more infant withdrawal signs related to NAS
    - Birth hospitalization length of stay >three days

Perinatal Support Program: The purpose of the Maryland Perinatal Support Program (MPSP) is to support and improve the perinatal system of care in Maryland. Specifically, MPSP brings maternal-fetal medicine consultation, education and technical assistance, as well as obstetric nursing outreach and education, to Level I and II birthing hospitals in the State. Maternal-fetal medicine specialists can provide unique support in the evaluation and management of pregnant and postpartum patients with pre-existing medical conditions, pregnancy complications, or known/suspected fetal anomalies.

During Fiscal Year 2021, providers from Johns Hopkins Hospital conducted 66 physician and advanced practitioner outreach events and 14 nurse outreach visits. The providers continued to provide technical assistance, education, and case reviews for conditions such as gestational diabetes, antiphospholipid syndrome, and substance use disorders. Due to COVID, many of the outreach visits were limited to remote and telephone meetings. The providers answered questions related to COVID and its effects on pregnant people and their fetuses. The University of Maryland won a competitive project to take over the Perinatal Support Program beginning in FY 2022.

Babies Born Healthy: In FY21, nine sites across eight local jurisdictions implemented state funded Babies Born Healthy (BBH) programs, which directed resources to engage women and communities to provide supportive coordinated care and address disparities in infant mortality rates in Maryland. A total of 1,389 women had accessed BBH services, and there was a total of 311 births among program participants and 8 fetal/neonatal deaths. These jurisdictions were selected to receive funding after they had been identified by the Perinatal Periods of Risk Assessment (PPOR) was conducted and concluded that these jurisdictions were key to effectively curbing disparities and rates of infant mortality.

Services provided were geared towards the promotion of prenatal care, reduction of substance use, tobacco cessation, infant safe sleep education, long-acting reversible contraception, accessing health insurance, and other strategies driven by site-specific data to promote healthy maternal and infant outcomes. Specific activities included home visiting strategies, nurse and paraprofessional case management services for high-risk women and infants, family planning services, screening and referrals for mental health and substance use. Also in FY 2020, sites began to utilize prenatal care groups following research pointing towards their effectiveness in promoting prenatal health and birth outcomes.

COVID-19 continued to present barriers to both families and staff. Many staff are public health nurses in local health departments (LHDs), as such they were pulled into Maryland's COVID-19 response which left BBH sites with very limited capacity at times. Families faced numerous challenges including job loss and eviction, difficulty in accessing food, loss of childcare, lack of transportation, domestic violence, technology limitations, issues in accessing necessary baby supplies, and others. Many BBH sites responded by doing emergency supply drop-offs to their participants and were a crucial lifeline at the height of the pandemic.

Priority Area 2: Increase the number of infants who are breastfed

Breastfeeding:

The progress of Priority Area 2 is measured by NPM 4: Percent of infants who are ever breastfed. In 2020, according to PRAMS data, 89.9 percent of Maryland mothers reported having ever breastfed their babies, a slight decrease from 91.4% in 2019. Rates of breastfeeding in Maryland were high across all races ranging from 84.8% for Non-Hispanic Black mothers to 93.9% among Hispanic mothers.

The Maryland Department of Health's Breastfeeding Policy Committee provides technical assistance to birthing hospitals related to the Maryland Breastfeeding Policy Recommendations. The committee consists of 11 members: 6 MDH staff members including the Title V Manager and 5 birthing hospital representatives. MCHB continues to support all delivery hospitals in the state to become "Maryland Best Practices Hospitals," by either attaining Baby Friendly certification through the Baby Friendly Hospital Initiative (BFHI) or by meeting the ten criteria in the Maryland Hospital Breastfeeding Policy Recommendations. At the implementation of the Maryland Hospital Breastfeeding Policy Recommendations, Maryland had no Baby Friendly designated hospitals. For FY 2021, there were ten that held current designation. Due to the COVID-19 Pandemic, many of the activities of the Breastfeeding Policy Committee were halted including regular committee meetings, redesignation of Baby Friendly Hospitals, updating of training modules, and technical assistance site visits.

Maryland WIC Program:

The Maryland WIC Program is committed to helping families have positive, successful breastfeeding experiences. WIC provides resources, such as a FAQ sheet, handouts and a breastfeeding checklist available in both English and Spanish, as well as videos that provide information on various breastfeeding-related topics. Maryland WIC employs 31 breastfeeding peer counselors who provide ongoing one on one support to pregnant and breastfeeding participants. Maryland WIC staff provided breastfeeding education and support to parents and caregivers of 28,127 (unduplicated) infants during SFY2021 (July 2020-June 2021.) Additionally, Maryland WIC staff provided prenatal breastfeeding education to 27,949 unduplicated participants during the same reporting period.

WIC Breastfeeding coordinators started training for their staff on diversity, equity, and inclusion to provide an inclusive environment. In October 2021, WIC Breastfeeding coordinators received a presentation entitled "Equity in Breastfeeding: Voices of Black Mothers." In December 2021, Nekisha Killings, an IBCLC, provided a presentation on breastfeeding and normalizing brown breasts.

Home Visiting: During FY 2021, six local health departments used Title V funds through Core Public Health funding, Child Health Systems Improvement funding, and High-Risk Infants funding to support home visiting services to at-risk women and infants. These programs link women to needed community resources such as WIC and breastfeeding.

In FY 2021, nearly 3,800 pregnant women enrolled in home visiting services and infants received home visiting services through a local health department. Local health departments reported challenges due to COVID-19 that ranged from local health departments temporarily closing and then adapting to changes after reopening to an overflow of patients in other local health departments that remained open during COVID-19 and the decline in the number served from past years was directly related to COVID-19 closures and restrictions.

Priority Area 3: Reduce the number of sleep-related infant deaths statewide

Promoting infant safe sleep continued to be a priority for Maryland in FY 2020. Progress of infant safe sleep is measured by NPM 5. PRAMS data for 2020 births indicated that 78.5% of new mothers placed their babies on their backs to sleep, similar to what was reported in 2016 at 79.4 percent. This exceeds the Healthy People 2020 target of 75%. The prevalence was highest among NH white mothers (88%) and mothers 30 to 34 years of age (89%), but lowest among NH Black mothers (67%) and mothers 20 to 24 years of age (60%).

In FY 2021, infant safe sleep education was provided to 6,728 families, providers, and other community members through Title V. Jurisdictions such as Baltimore City have a dedicated provider outreach program to inform providers including pediatricians, obstetrics and gynecologists, Department of Social Service providers on the importance on focusing on infant safe sleep and how infants can sleep safely.

In addition, through Title V, 2,463 families received information on second hand/environmental smoke exposure. CFR teams continued to review all sleep-related infant deaths and a detailed analysis and review was provided in the annual CFR legislative report.

As part of FY 2021 SQI efforts, local CFR and FIMR teams prioritized dissemination of information and education on sleep-related infant death and Safe Sleep best practices. Teams reported distribution of safe sleep materials, pack-n-plays and sleep sacks, as well as ongoing community-based safe sleep education training conducted throughout the state. Between Babies Born Healthy (BBH) and SQI grantees a total of 886 portable cribs were distributed in the state during FY 2021.

Perinatal/Infant Health - Application Year

The Health Resources and Services Administration (HRSA) has identified three National Performance Measures (NPM) for perinatal/infant health: 1) ensuring that higher risk mothers and newborns delivery at hospitals that are able to provide appropriate care (NPM 3); 2) increasing the number of infants who are breastfed and those who are exclusively breastfed through 6 months (NPM 4); and 3) increasing the number of infants placed to sleep on their backs (NPM 5).

To this end, the state of Maryland, as a result of the 2021-2025 Needs Assessment, has identified all three perinatal/infant health performance measures as priorities over the next five years. As part of the objective to improve perinatal/infant health, Maryland will also look to reduce the racial disparities within these performance measures.

Objective 1: Increase the number of very low birth weight babies from 93.4% (Baseline, 2019) to greater than 95% by 2025 will be born in hospitals with the appropriate level of care.

NPM 3: Risk Appropriate Perinatal Care

The strategy selected for this NPM is to continue with the oversight and compliance review of the standardized definitions for birthing hospital levels of care. Maryland has had a systematic approach focused on improving the perinatal care system and reducing infant mortality for over ten years. Since the mid-1990s, Maryland has had a systematic approach to improving the perinatal system of care and assuring delivery of very low birthweight (VLBW) infants at hospitals with the appropriate level of care.

The Maryland Perinatal Standards of Care defines hospital levels of neonatal care and levels of maternal care using American Academy of Pediatrics (AAP) and American College of Obstetrics and Gynecology (ACOG)/ Society of Maternal Fetal Medicine (SMFM) guidelines. The standardized classification system includes: basic care (level I), specialty care (level II), subspecialty care (level III) and regional perinatal health care centers (level IV)[1].

The Maryland's Perinatal Clinical Advisory Committee reconvened in 2018 to revise the Standards in order to be consistent with the 8th edition of the Guidelines for Perinatal Care, issued in 2017 jointly by AAP and ACOG.

Standards are incorporated into the regulations for designation of perinatal referral centers (Level III and Level IV hospitals) by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) , as well as the Maryland Health Care Commission's State Plan regulations for obstetrical units and neonatal intensive care units.

For FY 2023, MIEMSS will continue with the Level III and IV Perinatal Referral Center re-designation with eight site reviews. In addition, the MIEMSS Perinatal Advisory Committee will meet quarterly.

For FY2023, the Morbidity, Mortality, and Quality Review Committee (MMQRC) will continue to monitor voluntary compliance of Level I and Level II hospitals with the Standards with four site reviews. The MMQRC will continue to meet quarterly.

Maryland Perinatal Support Program

The purpose of the Maryland Perinatal Support Program (MPSP) is to support and improve the perinatal system of care in Maryland. While Level III and Level IV perinatal hospitals (as defined in the Maryland Perinatal System Standards and designated by MIEMSS) are required to have maternal-fetal medicine physicians on staff, the Level I and II hospitals, community health clinics, and obstetric care providers often do not have access to such specialists.

Maternal-fetal medicine specialists can provide unique support in the evaluation and management of pregnant and postpartum patients with pre-existing medical conditions, pregnancy complications, or known/suspected fetal anomalies. Support provided by a maternal-fetal medicine specialist through consultation, education, and technical assistance to obstetric providers may allow a woman to continue care within her community. Such support may also assist an obstetric provider in determining whether a pregnant patient would need to transfer her prenatal care to a specialty center. MPSP brings maternal-fetal medicine consultation, education and technical assistance, as well as obstetric nursing outreach and education, to providers in all regions of the State. Consultation and other technical assistance are provided virtually via secure internet hosts, through scheduled webinars and online meetings, and also onsite (e.g. at the hospitals, clinics, or offices), as needed. These services are provided without charge to the hospital or obstetric provider.

The three goals of the Maryland Perinatal Support Program are 1.) to assist in providing risk appropriate perinatal care, 2.) to assist providers with determining if a prenatal patient will need to transfer her care to a specialty center, and 3.) provide evidence-based guidelines for obstetrical care.

Following a competitive bid, University of Maryland was selected to lead the Maryland Perinatal Support Program. During FY2023, University of Maryland will use the learnings from a needs assessment of Level I and II hospitals, Federally Qualified Health Centers (FQHCs), and obstetric care provider practices across the state conducted in FY2022 meet the needs of specialized perinatal care in Maryland. In addition, University of Maryland will provide maternal-fetal medicine consultation, education, and technical assistance to community obstetric providers and other individual groups, or organizations. They will do so through a website created for the Perinatal Support Program. They will also continue to coordinate with other state initiatives such as Maryland Maternal Health Innovation Program, the Morbidity, Mortality, Quality Review Committee.

Maryland Perinatal- Neonatal Quality Collaborative

Fiscal Year 2023 will mark the two-year maternal (hypertension) and neonatal (antibiotic stewardship) initiatives selected by the MDPQC Steering Committee. Steering Committee members consist of providers, public health officials, payors, patient representatives, and representatives of professional societies. The MDPQC will focus on sustained implementation of quality improvement initiatives, which will include identifying barriers, assisting low performers, and continuing regular check-in calls, learning events, and data reporting. An in-person learning event will be organized to provide updates and invite high performers to share best practices and lessons learned. The effectiveness of the collaborative will also be assessed at the midpoint of each initiative, with the Steering Committee and participating hospitals providing feedback, and a root-cause analysis will be conducted for any under-performing measures, as needed. The MDPQC will continue to heavily focus on health disparities and will push out data-driven improvement activities and resources to promote health equity.

Maryland Maternal Health Innovation Program, MDMOM

MDMOM, the Maryland Health Innovation Program, is a five-year HRSA funded program to improve maternal health across the state. MDMOM is a collaboration between Johns Hopkins University, Maryland Department of Health, Maryland Patient Safety Center and the University of Maryland, Baltimore County who work together to coordinate innovation in the areas of data, resource availability and hospital and community care.

The Maryland Maternal Health Task Force was convened by the MDH to address the needs of pregnant and postpartum women in Maryland. While the Task Force was previously chaired by the Title V Manager, in order to have a committee led by partners, an election was held to vote for co-chairs. Two co-chairs were elected from a community-based organization and another from an academic university. The Task Force developed a statewide strategic plan with five areas of focus: 1) Equity and antiracism, 2) Achieve health using the life course model, 3) Families and Communities, 4) Data, and 5) Workforce. During the next Fiscal Year, the co-chairs will continue

implementing the strategic plan through coordination through multiple partners.

Surveillance Quality Initiatives

In FY2023, Surveillance Quality Initiatives such as Child Fatality Review and Fetal and Infant Mortality review will continue to identify systemic preventive factors to improve perinatal health in Maryland. The goal of the SQI funding to local jurisdictions is to develop, implement, and align recommendations aimed at improving rates of infant and child fatalities. For Fiscal Year 2023, jurisdictions will continue to address the following priorities as part of their funding:

- Dissemination of information and education on sleep-related infant death and Safe Sleep
- Practices, particularly among communities at highest risk of sleep-related infant death;
- Conduct screening, provide referrals to reduce incidence of substance use disorder in pregnancy
- Increasing social supports for women during the perinatal and postpartum periods

In addition, jurisdictions will now include a health equity strategy into their program efforts using one of the following priority areas:

- Measure and assess health equity indicators and use that data to inform program design and community involvement in program implementation
- Identify gaps in workforce health equity competencies by assessing needs and providing opportunities for professional development to all levels of staff. This includes the completion of the Kirwan training series on implicit bias for all FIMR/CFR staff.
- Use surveys, interviews or focus groups to include the community's voice in the design and implementation of the program and to promote accountability

All CFR/FIMR Coordinators will also attend a Maryland Department of Health-funded implicit bias training series led by a diversity, equity, and inclusion expert consultant. The focus of this training will be to provide definitions, recognition of intentional and unintentional biases, identifying root causes of inequity, and working in teams to take action steps towards reducing inequities and systemic racism in the fetal/infant and child fatality review process and program implementation.

FIMR

The Maternal and Child Health Bureau, housed within the Maryland Department of Health, serves as the lead agency for Maryland's Fetal Infant Mortality Review (FIMR) Program. Funded by Title V, our FIMR program works with program staff in jurisdictions with the highest rates of fetal and infant mortality. Infant and child mortality are two of the most critical indicators of the overall health of a population, and Maryland has made significant strides to improve infant and child health. In 2020, the infant mortality rate in Maryland was 5.7/1,000, representing a 3% decrease from the 2019 rates, and a 6% overall decrease from the average of 6.6/1,000 from 2011-2015. This is the lowest infant mortality rate recorded in Maryland's history. While infant and child mortality rates in Maryland have declined, significant disparities persist and work remains to be done: there was a 6% increase in the non-Hispanic Black infant mortality rate, from 2019 to 2020 additionally, the non-Hispanic Black infant mortality rate (9.9/1,000) is triple that of the non-Hispanic White infants (3.3/1,000). There was a decrease in the rate of infant mortality for Hispanic infants, from 5.11,000 to 4.6/1,000, however that is still higher than the 2018 rate of 3.8/1,000.

There are currently 8 funded FIMR projects in Maryland, operating in the jurisdictions identified via PPOR analysis as having the highest rates of infant mortality in the state. They include Anne Arundel, Charles, Prince George's, Montgomery, Caroline, Wicomico, and Baltimore Counties and Baltimore City. The Fetal Infant Mortality Review was designed to be a community-owned action-oriented process to improve service systems, and works to examine the

medical, non-medical and systems related factors contributing to fetal and infant death at the community level. Each local team works with their Community Action Teams (CAT) to develop program and policy recommendations to improve maternal and fetal outcomes. Leveraging the recommendations of the CAT teams, health departments will now be required to implement interventions aimed at addressing factors contributing to preventable maternal and infant deaths in Maryland.

In FY 2023, FIMR CAT teams will be asked to identify gaps and expand interventions to reduce infant mortality, with specific focus on substance use disorder, reducing disparities, and reducing sleep-related infant deaths.

In FY 2023, FIMR teams will select cases for review based on the categories of fetal and infant death where the largest disparities are present within their jurisdictions. Teams are also expected to conduct case reviews with one or more of the following risk factors present: substance use during pregnancy; birth defects or fetal anomalies; significant maternal health conditions (hypertension, gestational diabetes); maternal history of fetal loss; or SARS-CoV-2 infection during pregnancy. Teams will work to identify various findings, recommendations and action steps for improving systems of care for pregnant people and infants. Recent recommendations include developing educational materials for providers and patients on the importance of early prenatal care and “counting kicks”, improving access to family planning, bereavement and other mental health services and substance use disorder services. A significant part of the review is incorporating the voices of postpartum people who experience a fetal loss in addition to reviewing the medical aspects of the case, with Maternal Interviews being central to the FIMR process. In FY23, FIMR teams will focus on Maternal Interviews as a strategy area for quality improvement. FIMR teams will address health equity in their review process and FIMR CAT program to improve health disparities in their local jurisdiction.

Objective 2: Increase the number of infants who are breastfed from a baseline of 88.6% to 90% (National Immunization Survey).

NPM 4: Breastfeeding

The strategy selected for this NPM is to provide all postpartum mothers with breastfeeding information and providing appropriate referrals to lactation consultant services before discharge. This strategy entails informing pregnant women and new mothers about lactation consultant services and ensuring that lactation consultants have access to new mothers after birth. As part of this strategy, Title V may consider utilizing doulas/birth workers in a similar role as lactation consultant to promote breastfeeding.

This strategy is considered to have moderate evidence, where “dedicated lactation specialists may play a role in providing education and support to pregnant women and new mothers wishing to breastfeed and to continue breastfeeding to improve breastfeeding outcomes” was shown in various systematic literature reviews[2].

Maryland Hospital Breastfeeding Policy

The Maryland Department of Health (MDH) formed an 11-member committee, which includes the Title V Manager, to develop breastfeeding policy recommendations that will strengthen and improve current maternity care practices. The first finalized policy recommendations were completed in September 2012. These policy recommendations, based on WHO/UNICEF Ten Steps to Successful Breastfeeding, include evidence-based hospital practices to increase rates of breastfeeding initiation, duration and exclusivity for healthy, fully term infants whose mothers have chosen to breastfeed. The committee currently meets biannually and provides provider training and hospital policies for Baby-Friendly hospitals.

In 2012, MDH launched a statewide initiative to help hospitals improve the support that hospitals give to breastfeeding mothers. All 32 birthing hospitals committed to this quality improvement process. In 2016, almost 85% of the birthing hospitals reaffirmed their commitments. Hospitals are encouraged to sign a letter of intent to become designated as Baby-Friendly through the Baby-Friendly Hospital initiative, or to follow the Maryland Hospital Breastfeeding Policy Recommendations. As of 2020, 10 hospitals reaffirmed their commitments, representing approximately 31% of birthing hospitals.

Maternity Staff Training
Under the guidance of the Hospital Breastfeeding Policy Committee, and in a collaboration between International Board-Certified Lactation Consultants (IBCLCs) at the Maryland Department of Health and the University of Maryland Upper Chesapeake Medical Center, a series of 15 maternity staff training modules were developed. The modules provide education and expertise needed to meet both the Maryland Hospital Breastfeeding Policy Recommendations and the Baby Friendly Hospital Initiative. During SFY23, these state trainings will be updated. They were planned to be updated in FY22 but were unable to do so due to the network security event and the inability to view these modules on the shared drive.

Technical Assistance Calls
The Maryland Hospital Breastfeeding Policy Committee offers technical assistance conference calls three to four times a year, on average, to help hospitals with implementation of the Maryland Breastfeeding Policy Recommendations and Baby Friendly Ten Steps. These calls include practical steps and information from IBCLCs, staff nurses, administrators and policy committee members from across Maryland. The experts on the call, professionals from hospitals achieving the topic at hand, lead the conversation about best-practices and ideas on how to best implement the topic being discussed. Past recordings on Auditing and Quality Improvement, Skin-to-Skin and Breastfeeding Training Resource Webinar are still available for listening and will continue to be available in FY23.

Physician Webinar Series
In 2016, the Maryland Hospital Breastfeeding Policy Committee coordinated a six-lecture series of free webinars about breastfeeding-related topics[3]. These webinars provided continuing medical education (CME) credits, as well training sessions help fulfill the Baby Friendly USA and the Maryland Hospital Breastfeeding Policy Recommendations. CME credits were available at no cost until June 2019. These sessions continue to be online. In Fiscal Year 23, these series will be updated. They were not updated in FY22 due to the network security event.

Maryland WIC Program
The Maryland WIC Program continues to be committed to helping families have positive, successful breastfeeding experiences. WIC will continue to provide resources, such as a FAQ sheet, handouts and a breastfeeding checklist available in both English and Spanish, as well as videos that provide information on various breastfeeding-related topics. Maryland WIC employs 31 breastfeeding peer counselors who will continue to provide ongoing one on one support to pregnant and breastfeeding participants.

Objective 3: *Increase the number of babies who are placed on their back to sleep as reported by PRAMS from 78.5% to the Healthy People 2030 target of 88.9%*

NPM 5: Safe Sleep
The Maryland Department of Health will conduct a literature scan, review strategies from other states, and review existing data about infant safe sleep. We will procure a vendor to lead a Statewide infant safe sleep conference in FY2023. This conference will focus on integrating evidence-informed infant safe sleep strategies into practical

messaging for a variety of stakeholders. The conference will gather community members with lived experience, community-based organizations, local health departments, and other entities to share the strategy selected for this NPM is to build on infant safe sleep campaigns by engaging Title V programs and community partners. This strategy entails a professional training made available to Home Visitors, Healthy Start providers and other direct service providers in the community who work directly with expecting and new mothers and families to emphasize a nuanced approach to take family needs, beliefs and context into account when talking about safe sleep.

This strategy is a new approach and is supported by the "Building on Campaigns with Conversations" series of modules developed by the National Center for Education in Maternal and Child Health (NCEMCH). The modules received extensive input from the National Action Partnership to Promote Safe Sleep (NAPPSS) coalition of more than 70 national organizations. Furthermore, this approach is based on Ajzen's Theory of Planned Behavior and follows current American Academy for Pediatrics (AAP) recommendations for safe sleep.

Local Health Departments
Local Health Departments through Babies Born Healthy (BBH) and Care Coordination Units will continue to provide information related to Infant Safe Sleep. In addition, sites with portable crib programs will continue to provide portable cribs for families in need.

Babies Born Healthy (BBH)
The goal of Babies Born Healthy (BBH) is to identify and link at-risk pregnant people to essential services that have been associated with improved birth outcomes. To achieve the Healthy People 2030 Objective of 5.0 infant deaths per 1,000 live births the objectives of BBH are to: (1) Reducing overall infant mortality rates in Maryland by 5%

In FY 2023, there will be stronger guidelines on how programs should plan and execute their care coordination services, including guidance on screening, care planning, and engagement. In FY23, programs will be required to provide services to program participants through 6-months postpartum, when they had previously been required to provide services through 6-weeks postpartum. Additionally, there will be stronger guidelines for the inclusion of an equity strategy for each program. Babies Born Healthy has also been brought into closer alignment with FIMR/CFR programming in order to synergize reports and incidents of deaths and the jurisdictional response to address the causes of death.

The Babies Born Healthy strategy will undergo a refresh in FY2023 for FY 2024-2028. The purpose of the refresh process is to assess the most up to date data and evidence and align with other major infant mortality initiatives such as the Statewide Integrated Health Improvement Strategy. The renewed focus will be on decreasing disparities, strengthened outcome measures, and building evaluation into the program.

The refresh will consist of further examining the following outcome measures to determine jurisdictional priorities: infant mortality rate and numbers by jurisdiction, disaggregated by race and ethnicity, low birth weight, preterm birth weight, access to prenatal care, and other indicators such as social determinants of health indicators and maternal health indicators. Existing programmatic data such as quarterly reports, surveys, and key informant interviews and scan evidence-based practices that improve infant health will also be reviewed.

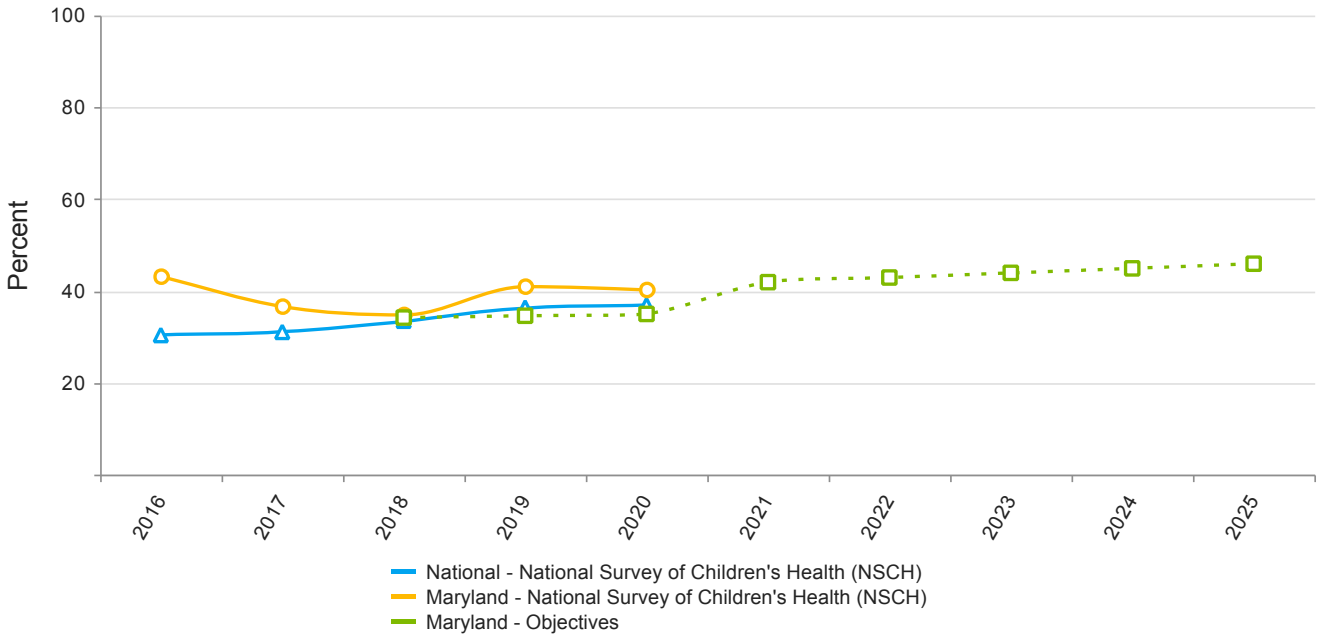
[1] https://www.acog.org/clinical/clinical-guidance/obstetric-care-consensus/articles/2019/08/levels-of-maternal-care
[2] https://www.mchevidence.org/documents/NPM-Webinar-3-04-22-20.pdf

[3] https://phpa.health.maryland.gov/mch/Pages/Hospital_Breastfeeding_Physician_Training.aspx

Child Health

National Performance Measures

NPM 6 - Percent of children, ages 9 through 35 months, who received a developmental screening using a parent-completed screening tool in the past year
Indicators and Annual Objectives



Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective		34.2	34.6	35	41.9
Annual Indicator	43.1	36.6	34.7	40.9	40.3
Numerator	60,201	49,586	47,097	55,907	57,317
Denominator	139,848	135,327	135,685	136,579	142,190
Data Source	NSCH	NSCH	NSCH	NSCH	NSCH
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	42.9	43.9	44.9	45.9

Evidence-Based or –Informed Strategy Measures

ESM 6.1 - Number of parents who receive information/education on the importance of developmental screenings from Home Visiting and Care Coordination Title V providers

Measure Status:	Active

State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	2,832	1,181	1,201	1,220	1,239
Annual Indicator	1,162	1,035	1,022	749	2,325
Numerator					
Denominator					
Data Source	MCHB Data	MCHB Data	MCHB	MCHB Data	MCHB Data
Data Source Year	2017	2018	2019	FY 2020	2021
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	1,259.0	1,278.0	1,278.0	1,300.0

State Performance Measures

SPM 3 - Receipt of Primary Care During Early Childhood

Measure Status:	Active

State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	67.4	64.6	65.8	67.1	68.2
Annual Indicator	63.5	65.9	67.1	67	71.7
Numerator	25,389	30,621	25,794	24,969	27,940
Denominator	39,994	46,466	38,455	37,253	38,989
Data Source	Medicaid	Medicaid	Medicaid	Medicaid	Medicaid
Data Source Year	2017 (CY)	2018 (CY)	2019 (CY)	2020 (CY)	2021 (CY)
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	69.4	70.6	71.8	73.0

SPM 4 - Number of Asthma Emergency Room Visits per 1,000 for Children age 2-17 with a primary diagnosis of asthma

Measure Status:	Active

State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator	9.2	3.5
Numerator	10,974	4,213
Denominator	1,195,993	1,193,543
Data Source	Health Services Cost Review Commission	Health Services Cost Review Commission
Data Source Year	2018	2021
Provisional or Final ?	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	8.5	7.2	6.7	6.2

State Action Plan Table

State Action Plan Table (Maryland) - Child Health - Entry 1	
Priority Need	
Ensure that all children have an opportunity to develop and reach their full potential	
NPM	
NPM 6 - Percent of children, ages 9 through 35 months, who received a developmental screening using a parent-completed screening tool in the past year	
Objectives	
Increase the percentage of children who receive a developmental screen from 40.9% to 46% by 2025.	
Strategies	
1. Local health departments will educate parents on the importance of developmental screenings. 2. Track and monitor Medicaid data regarding developmental screenings.	
ESMs	**Status**
ESM 6.1 - Number of parents who receive information/education on the importance of developmental screenings from Home Visiting and Care Coordination Title V providers	Active
NOMs	
NOM 13 - Percent of children meeting the criteria developed for school readiness (DEVELOPMENTAL)	
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	

State Action Plan Table (Maryland) - Child Health - Entry 2

Priority Need

Ensure that all children have an opportunity to develop and reach their full potential

SPM

SPM 3 - Receipt of Primary Care During Early Childhood

Objectives

Increase the percentage of children receiving at least five well visits by fifteen months from 67% to 73% by 2025.

Strategies

1. Continue to monitor and track receipt of primary care in early childhood through Medicaid data. 2. Coordinate with local health departments to provide primary care services such as childhood vaccinations, and vision and hearing screenings. 3. Home visiting programs will continue to promote primary care. 4. Support school based health centers to deliver primary care to children.

State Action Plan Table (Maryland) - Child Health - Entry 3

Priority Need

Ensure children with asthma and their families have the tools and supports necessary to manage their condition so that it does not impede their daily activities

SPM

SPM 4 - Number of Asthma Emergency Room Visits per 1,000 for Children age 2-17 with a primary diagnosis of asthma

Objectives

Decrease the number of asthma ED visits per 1,000 for ages, 2-17 from 9.2 to 5.3 by 2026.

Strategies

1. Support asthma home visiting through the local health departments and in collaboration with the Environmental Health Bureau. 2. Support School Based Health Centers (transfer to MDH in 2022) 3. Support regional asthma collaborations to coordinate asthma related activities. 4. Partner with CRISP (HIE) to strengthen linkages amongst pediatric care teams including school health providers, EDs, primary care, and specialists.

Maryland's Priority Need for the child health domain is "to ensure that all children have the opportunity to develop and reach their full potential". Maryland Title V provided preventive and primary care through direct, enabling, and public health infrastructure services to a variety of child health needs in FY 2021. Services and activities focus on the needs of children across the Title V pyramid as outlined by the State Action Plan. Child health activities for which Title V provides state leadership including local child fatality reviews, access to developmental screenings and medical homes, school-based health services such as hearing and vision screening and referral, behavioral and substance use screening and referral, immunizations, and early intervention services.

NPM 6 Developmental Screen: According to the National Survey of Children's Health 2019-2020 data, 40.3% of children ages 9 through 35 months received a developmental screening using a parent-completed screening tool in the past year.

SPM 3 Receipt of Primary Care During Early Childhood (receiving at least 5 well-care visits by 15 months): Maryland state Medicaid data reported that in 2021, 71.7% of children enrolled in Medicaid who reached age 15 months received five or more well-care visits in their first 15 months of life.

Local Health Departments: Local health departments serve as Title V's primary delivery arm for preventive and primary care services for children. Each of the 24 local health departments receives federal Title V funding through a state core funding process to support direct, enabling, and public health services and systems. In FY 2021, ten local health departments used Title V core funding to support child health services including services such as immunizations, hearing and vision screening (in collaboration with local public and private school systems); and school-based health services (elementary through high school) including wellness care and behavioral health screening.

Title V requires local health departments that provide child health services to submit performance measure data quarterly to demonstrate how their activities align with the Title V state action plan. This includes activities such as providing linkages to medical homes, providing information on developmental screenings and subsequent linkages to early intervention or specialty care when indicated, linkages to mental health or substance use treatment, and education on secondhand smoke exposure.

The ongoing COVID-19 Pandemic in FY 2021 limited the local health department's efforts to provide critical child health services across Maryland. The dual burden of redeployed public health workers as well as the shifting school and work closures for community members contributed to the ability of local health departments to provide child health services through Title V funded programs. As many of our local health departments not only deliver essential public health services, but they also serve as the first responders for the COVID-19 pandemic response. With the scope and severity of the pandemic many local health departments had to shift their public health workforce capacity to administer vaccines, outbreak investigations and contact tracing activities. As a result, there were clinic closures, limited capacity/hours of local health department programs, and reduced workforce for staffing core services had a tremendous impact on the number of children reached. As a core component of Title V funding is utilized to support child health services that are administered or connected to school systems, the pandemic driven school closures, quarantine requirements for those exposed to COVID-19 and parental shifting work environments drastically reduced the number of children served in FY 2021. The table below shows the dramatic difference in numbers served between FY 2020 and FY 2021.

Type of Service	Number of Children Served FY 2020	Number of Children Served FY 2021
Immunizations	16,199	2,934
Hearing Screen	51,073	4,141
Vision Screen	46,948	5,091
School Based Well Visits	20,943	2,509
Total	135,163	14,675

Medicaid continues to be a significant Title V partner. The current MOU outlines agreements and guidelines on administration and policy, systems coordination, outreach and referral activities, and data sharing. Local health department Title V funded staff work with the Medicaid Administrative Care Coordination Unit (ACCU) within their health department to identify and enroll eligible children in the Medicaid Program and other child health services.

Child Fatality Review: A critical activity of the Maternal Child Health Bureau and Title V is the prevention of child and adolescent deaths through Child Fatality Review (CFR). CFR was established by Maryland statute in 1999. Maryland CFR program's mission is to develop plans, implement change and advise on policy and practice to prevent child deaths in every jurisdiction in the state. Maryland CFR comprises 24 local teams and the state team. Local CFR programs review all unexpected deaths of children under the age of 18, in order to understand the cause and incidence of child deaths and make community level recommendations for the prevention of child deaths. The State CFR Team, in turn, reviews statewide child fatality data to make state-agency level recommendations, implement recommended changes within the agencies represented on the State CFR team, and to advise State leadership on preventing child deaths. Title V supports the 24-member State CFR Team, which meets quarterly, as well as each of the 24 local CFR teams.

The State CFR Team oversees the efforts of local CFR teams that operate in each jurisdiction. Each month the local CFR teams receive notice from the Office of the Chief Medical Examiner (OCME) of unexpected resident child (under age 18) deaths and are required to review each of these deaths. Local teams meet at least quarterly to review cases and make recommendations for local level systems changes in statute, policy, or practice to prevent future child deaths, and work to implement these recommendations.

State CFR efforts to reduce the number of preventable child deaths continued as mandated by the Maryland Legislature. In FY 2021, CFR received 181 referrals from the Office of the Chief Medical Examiner (OCME), and teams reviewed 172 deaths, 95% of all cases referred.

In FY 2021, the CFR Coordinator continued to be an active participant in the Department of Human Services Social Services Administration's Substance Use Disorder Workgroup to collaborate on interagency efforts to reduce the risk of harm for substance exposed newborns and their families. As part of those efforts, the CFR Coordinator developed training materials on the Postpartum Infant and Maternal Referral form and presented to several hundred DHS staff receiving training on DHS' new Substance Exposed Newborn referral policy. The Maryland Postpartum and Infant Referral Form (PIMR) I is an often-underutilized tool to refer and follow higher risk infants and families. Historically, there have been low rates of PIMR referrals completed for infant death cases, which indicates that there are significant systems gaps in identifying higher risk newborns and families that must be addressed to prevent these infant deaths.

The CFR program continues to participate in the ongoing efforts of the CDC SUID Case Registry, and local teams and coordinators received training and technical assistance on the utilization of the SUID Categorization Algorithm, which was utilized in all SUID reviews that occurred during FY2021. Teams continued to work towards meeting the timeliness goals set by the CDC (270 days from date of death to case cleaning by CFR epidemiologist) with 52 cases entered in the SUID case registry during FY2021, with 37% of cases meeting desired timeliness benchmarks, and over 79% cleaned within 120 days of data entry.

The COVID-19 pandemic proved incredibly challenging to local CFR programs, with teams being unable to meet in person for several months after the start of pandemic and delays in development in protocols in each jurisdiction to allow for remote reviews. Additionally, CFR coordinators were partially or fully detailed to pandemic related duties for several months.

Child Abuse Medical Providers (CHAMP) Initiative:

Chapter 334 of the Acts of 2005 (SB 782) charged the Secretary of the Maryland Department of Health (the Department) to establish the Child Abuse and Neglect Centers of Excellence Initiative and to appoint and convene the Child Abuse and Neglect Expert Panel. In 2008, pursuant to Md. Ann. Code Health-General Art., §13-2201, the Child Abuse and Neglect Centers of Excellence Initiative was renamed Maryland Child Abuse Medical Providers (CHAMP). The CHAMP initiative was developed to provide expert consultation and training to local multidisciplinary teams (MDTs) and child advocacy centers in the diagnosis and treatment of child abuse.

According to the Maryland Department of Human Services' Child Protective Services, in Fiscal Year (FY) 2021, there were 41,567 cases of alleged child abuse and neglect in Maryland. This represents a significant decrease in cases of alleged child abuse and neglect in FY 2019 and FY 2020 but is likely an artifact of the decreased reporting by school staff due to school closures due to the COVID-19 pandemic and does not reflect actual decreases in child abuse and neglect.

Multidisciplinary teams (MDTs) comprised of medical professionals, Child Protective Services staff, law enforcement, mental health providers, forensic interviewers, State's Attorneys and victim advocates are used to enhance and improve investigations and responses for children and families. These teams are required due to the complex nature of child abuse and neglect investigations. These MDTs staff child advocacy centers (CACs), which are child-friendly facilities where children and families engaged in child abuse investigations can access services. In Maryland, 24 local CACs respond to over 5,000 children each year with allegations of sexual abuse, sexual assault, and other maltreatment of children. The CHAMP initiative was developed to provide training and ongoing support to local providers, and expert consultation to local or regional CACs in the diagnosis and treatment of child physical abuse, sexual abuse, and neglect.

During FY 2021 the Department's Maternal and Child Health Bureau administered the CHAMP initiative through staff support of six CHAMP faculty members contracted to provide ongoing training, consultation, and case review to local providers.

CHAMP Activities

The CHAMP initiative was administered through a grant agreement with Lifebridge Health. In FY 2021, the CHAMP initiative maintained a faculty of six child abuse medical experts. The faculty met monthly to discuss future educational activities, recruitment of network providers, and child maltreatment prevention efforts. The CHAMP faculty provided educational and case review support in the diagnosis and treatment of child maltreatment to local

health care providers, and expert consultation to State agencies involved in child abuse and neglect investigations, such as Child Protective Services and law enforcement. CHAMP faculty provide case review to local providers via a secure, HIPAA-compliant online program called Telecam. Local providers can upload case information and images to the secure website, which is accessible only to CHAMP faculty for review.

In FY 2021, CHAMP held three half-day continuing education events for health care providers to review a variety of child maltreatment topics. In FY 2021, CHAMP held three half-day continuing education events for health care providers to review a variety of child maltreatment topics, including: Child Sex Abuse Prevention- the Intersection of Legal Reform, Research, and Training; Interpreting Findings in Child Sexual Abuse; Research for Practice; Basic Child Maltreatment Examination; and Forensic Evidence Testing. Each educational event also included an interactive case review session, where providers presented child abuse cases and participated in a discussion of the case, their evaluations, and findings. The case review sessions were led by a faculty member and were an opportunity for providers to review and discuss suspected incidents of child abuse and neglect. The case review sessions were particularly helpful for those who practice in lower volume jurisdictions and may not have opportunities to observe and assess fewer common findings in a clinical setting. The Forensic Nurse Examiner Faculty members conducted seven adult and seven pediatric forensic nurse examiner trainings in FY 2021.

In FY 2019, the Department partnered with the Maryland Children's Alliance to conduct a statewide assessment of each CAC's resources for helping assess and address child maltreatment. Maryland Children's Alliance is a private nonprofit organization accredited by the National Children's Alliance as a State Chapter to serve as a convener of CACs across Maryland. The Maryland Children's Alliance plays a vital role in providing accreditation support and professional development for local member centers. In FY 2021, the CHAMP Initiative responded to the 2019 MCA Statewide Needs Assessment of each CAC's resources for assessing and addressing child maltreatment. Several actions and activities were undertaken to address the primary areas of concern identified by the Statewide Needs Assessment:

Medical Evaluation Capacity

Insufficient medical evaluation capacity has been a persistent challenge across the State. The CHAMP Faculty identified all the medical partners associated with Maryland's CACs, and conducted significant outreach throughout FY 2021 to identify both CACs lacking medical support, and those medical partners that were not yet engaged with CHAMP training and peer review services. The NCA standards require that specialized medical evaluations for pediatric clients be available on-site, or with other appropriate agencies or providers through written linkage agreements. In FY 2021, an additional CAC gained the capacity to provide on-site medical evaluations, and CHAMP funds were used to purchase needed medical examination equipment in order to allow for these on-site evaluations. Many CACs operate under a memorandum of understanding (MoU) with a local hospital or medical center for needed examinations. The majority of CACs that provide medical examinations offer services at the convenience of the family and provider and are generally performed within one to two weeks of initial family contact with the CAC.

Medical staff who serve the CACs include physicians and pediatricians, sexual assault forensic nurse examiners, medical directors, and medical representatives for the multi-disciplinary team. The vast majority of centers do not employ their own medical providers. Almost all centers work with local hospitals to provide medical staff on a part-time, as-needed basis. In order to enhance medical evaluation capacity, especially in Southern Maryland, CHAMP Faculty have initiated training for a group of pediatric Hospitalists employed at MedStar St. Mary's Hospital. The team was also provided with a Cortexflo camera, to ensure their ability to take evidence grade photographs and videos with secure storage capacity for forensic medical examinations. Additionally, several nurses from Southern

Maryland were engaged in FNE-A education and clinical training by CHAMP Faculty member Pamela Holtzinger.

Training and Standards

The 2019 CAC needs assessment found most centers are not currently providing any training to medical providers and rely on local hospitals to provide necessary training. NCA standards require ongoing, continuous quality improvement for the medical components of the CAC. In addition, NCA standards require medical professionals providing services to the CAC to demonstrate continuing education in the field of child abuse medicine. These continuing education requirements consist of a minimum of eight contact hours every two years.

The CHAMP Faculty has spent FY 2021 revising and updating their curriculum, referral criteria, and peer review standards to ensure the offered trainings continue to meet NCA standards as well as providing sufficient preparation for CHAMP trained medical providers performing child abuse medical evaluations at CACs or hospitals.

CHAMP Faculty have continued to provide additional outreach to CAC Medical Providers to ensure that there is greater utilization of Telecam, helps CACs meet NCA medical standard “C.” Standard C requires medical professionals providing services to CAC clients to demonstrate that, at minimum, 50 percent of all abnormal findings undergo expert review by an “advanced medical consultant.” As the result of recently increased reporting requirements for CACs, the additional functionality of Telecam to increase data collection capacity has been an important improvement.

Accreditation Process

Along with MCA, CHAMP Faculty have committed to continue to ensure medical providers at the currently unaccredited CACs have access to the required training and advanced medical consultation needed to meet the medical evaluation standards for gaining NCA accreditation. Additionally, CHAMP Faculty will continue to assist CACs in meeting newly updated medical evaluation standards.

The Department intends to assist the CHAMP Initiative in engaging other key stakeholders who work with children and child maltreatment. The CAC needs assessment provided the Department with a starting point in bridging gaps in the continuum of care. Recommendations in the needs assessment included providing more training opportunities for school nurses on child maltreatment, as well as a recommendation that all Maryland medical staff who see children should screen for Adverse Childhood Experiences at their well visits. The Department intends to work more closely with the Maryland Children’s Alliance, the CACs, and the CHAMP Faculty to increase collaboration and reduce gaps in the identification and evaluation of victims of child abuse and maltreatment.

Child Health - Application Year

The state of Maryland identifies the objective for child health as “ensuring all children have the opportunity to develop and reach their full potential.” To this end, in FY 2023, Title V will employ the following strategies to improve child health outcomes statewide:

Local Health Departments: In FY 2023, Title V will continue to provide federal Core Public Health funding to all 24 of the state’s local health departments. Local health departments have the opportunity to focus their efforts in one or any of a combination of the three Title V domains: child health, maternal health, and/or children and youth with special health care needs. Local health departments choose their domain of focus based on alignment with the Title V State Action Plan and with local needs assessments. Allowable services within the child health services domain will continue to include hearing and vision screening, school-based health services including well visits, screening and referral for behavioral health and/or substance use, immunizations, and childhood asthma programming. In FY 2023, eleven (11) out of the 24 local health departments focused on child health services.

Asthma: Beginning in FY 2022, local health departments were able to use Title V funding for the new State Performance Measure related to reducing child asthma ER visits. Addition of this measure/service was to align with the Statewide Integrated Health Improvement Strategy (SIHIS).

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 State entered a Memorandum of Understanding (MOU) that required Maryland to provide a proposal for the Statewide Integrated Health Improvement Strategy (SIHIS) to CMMI by December 31, 2020. The strategy aligns statewide efforts across three domains that are interrelated and, if addressed successfully, have the potential to make significant improvement in not just Maryland’s healthcare system, but in the health outcomes of Marylanders.

- Domain 1: Hospital Quality
- Domain 2: Care Transformation Across the System
- Domain 3: Total Population Health

Asthma (along with Severe Maternal Morbidity referenced in Women’s Health) is included within Domain 3: Total Population Health. The strategy identifies a goal of reducing the number of asthma related Emergency Room visits for children age 2-17 and decreasing the disparities between Black, Non-Hispanic to White Non-Hispanic rates by 30% by 2026.

In FY 2023, local health departments again may use Title V funding for asthma related programming/services including asthma home visiting or asthma school-based management programs (in collaboration with PHPA’s Environmental Health Bureau); provide health care education opportunities on asthma management; developing asthma regional collaboratives to coordinate asthma related activities within the region; or partnering with CRISP (the designated Health Information Exchange (HIE) for Maryland) to strengthen linkages among pediatric care teams including school health providers, Emergency Departments, primary care and specialists.

Child Fatality Review: In FY 2023, all 24 jurisdictions in the state will continue to review all OCME-referred unexpected child deaths. In FY 2023, CFR, FIMR and Babies Born Healthy programs will continue to complete a joint planning process to ensure that all efforts related to infant, child and maternal health at local health departments are aligned. Teams are asked to align their goals and objectives with recommendations from the 2019 Legislative Report of the State Child Fatality Review Team, specifically: reduce sleep related infant deaths, enhance data quality

for SUID cases through continued participation in the CDC SUID Case Registry, and develop recommendations to address racial disparities in child deaths. All jurisdictions are required to track their progress towards meeting identified performance measures through quarterly reporting. Child Fatality Review teams will continue to work towards data quality improvement for Sleep-related SUID deaths through our work with the CDC SUID case registry, with a focus on decreasing the number of days between review and entry into the NCDR-CRS for SUID case and decreasing the number and percent of missing and unknown priority variables for all SUID cases. To this end, the Office of the Chief Medical Examiner has provided Doll Scene Reenactment training to their entire Forensic Investigation staff, as well as revised their Infant Death Scene Investigation form to align with the CDC SUID IRF document. As of July 2021, all infant deaths have a completed doll scene reenactment performed by a forensic investigator and include scene reenactment photography to ensure that teams are better able to categorize these deaths using the CDC Categorization algorithm.

During FY 23, the State CFR Team will develop an Advanced Review process for selected CFR cases, upon request of local teams. The purpose of the Advanced Review team is to review cases that were deemed to have an undetermined cause of death; where there was disagreement about the preventability of the death; when the death was directly related to the COVID-19 pandemic; or upon special request of the local team.

Local teams will continue to provide letters to birthing hospitals upon review of an infant-sleep related death of a child born at that hospital, to ensure that there is ongoing engagement around safe-sleep education from delivering hospitals.

In FY 23, the local teams will participate in a Diversity, Equity, Inclusion, and Implicit Bias webinar training series to promote health equity and a better understanding of systemic issues that lead to infant and child deaths. The training will offer a foundation for a review team's fatality review process with an equity lens, enabling the team to improve data quality and identify prevention recommendations that target the root causes of deaths and reduce disparities.

School-Based Health Centers: In FY 2023, the Maternal and Child Health Bureau will formally begin administering the Maryland School-Based Health Center (SBHC) Program. Maryland's SBHCs represent an essential and innovative strategy for improving the health and educational achievement of Maryland's children and their families. SBHCs are conveniently located where students spend most of their day and can therefore address the unique needs of children and youth through increased access to medical, mental, dental and/or other health related services. As of FY 22, there are 94 SBHCs located in 17 of the 24 Maryland jurisdictions. The Maryland SBHC Program will conduct a statewide needs assessment in FY23 to inform further expansion of the program. SBHCs will be integrated with Title V-funded programming through shared performance measures, alignment of initiatives across the state, and coordination of services.

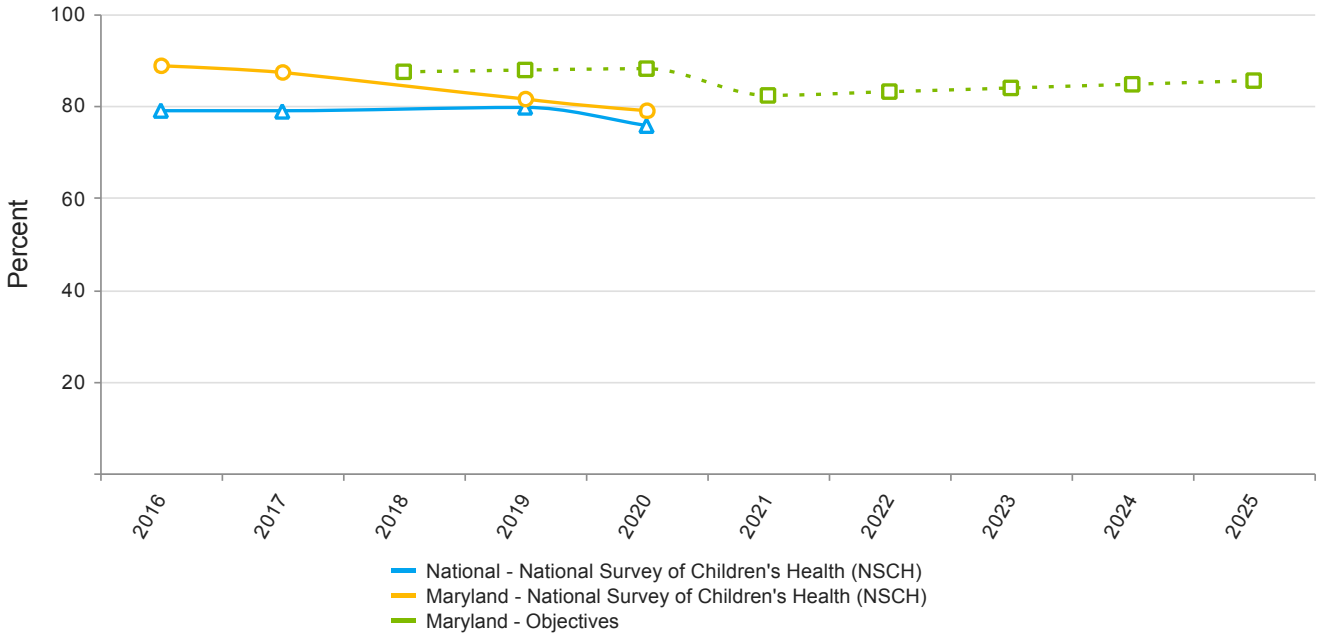
(CHAMP) Child Abuse Medical Provider Network: In FY 2023, the Child Abuse Medical Provider Network will be maintained under the grant agreement with LifeBridge Health. Our six CHAMP faculty and two network providers will continue to provide training and support to CAC multidisciplinary teams, in addition to providing peer review via Telecam, a HIPAA-compliant chart review platform that allows medical providers to upload exam documentation for advanced review by a member of the CHAMP faculty. Due to recent updates to the National Children's Alliance Standards for medical providers at accredited Child Advocacy Centers, the CHAMP Faculty will take a more proactive role in ensuring that all accredited CACs in Maryland are utilizing the Telecam system for peer review to ensure that 50% of all findings deemed abnormal or diagnostic of trauma from sexual abuse have undergone expert review by an advanced medical consultant.

The initiative will also continue to provide educational activities, consultation, and case review support to local providers, and to explore opportunities for child maltreatment prevention efforts. Additionally, the CHAMP faculty will finalize development of a new training curriculum based on the findings of the 2019 CAC needs assessment. The CHAMP Faculty have added an additional forensic nurse examiner trainer to the Initiative and are working to expand forensic nurse examiner training options, as well as training for Pediatricians, in underserved areas of the State.

Adolescent Health

National Performance Measures

NPM 10 - Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year.
Indicators and Annual Objectives



Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective		87.3	87.7	88	82.2
Annual Indicator	88.7	87.1	87.1	81.4	78.7
Numerator	393,976	386,469	386,469	359,586	355,101
Denominator	444,207	443,800	443,800	441,589	451,033
Data Source	NSCH	NSCH	NSCH	NSCH	NSCH
Data Source Year	2016	2016_2017	2016_2017	2019	2019_2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	83.0	83.8	84.6	85.4

Evidence-Based or –Informed Strategy Measures

ESM 10.2 - Number of adolescent (12-17) who receive well visits through school based health centers

Measure Status:	Active

State Provided Data			
	2019	2020	2021
Annual Objective			45,000
Annual Indicator		37,578	798
Numerator			
Denominator			
Data Source		MCHB Data	MCHB Data
Data Source Year		FY 2020	FY2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	60,000.0	75,000.0	90,000.0	110,000.0

State Performance Measures

SPM 4 - Number of Asthma Emergency Room Visits per 1,000 for Children age 2-17 with a primary diagnosis of asthma

Measure Status:	Active

State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator	9.2	3.5
Numerator	10,974	4,213
Denominator	1,195,993	1,193,543
Data Source	Health Services Cost Review Commission	Health Services Cost Review Commission
Data Source Year	2018	2021
Provisional or Final ?	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	8.5	7.2	6.7	6.2

State Action Plan Table

State Action Plan Table (Maryland) - Adolescent Health - Entry 1	
Priority Need	
Ensure that adolescents age 12-17 receive comprehensive well visits that address physical, reproductive, and behavioral health needs.	
NPM	
NPM 10 - Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year.	
Objectives	
Increase the percentage of adolescents (12-17) who receive a preventive medical visit from a baseline of 81.4% to 85% by 2025.	
Strategies	
1. Continue the Healthy Kids Program under the EPSDT Program to enhance the quality of health services delivered by Medicaid providers. 2. Continue the Sexual Risk Avoidance Education grant program to promote sexual risk avoidance. 3. Continue the Personal Responsibility and Education Program to promote positive youth development. 4. Implement the Maryland Optimal Adolescent Health Program to reduce teen pregnancy. 5. Continue to support local health departments school based health services. 6. Support the network of school based health centers across the state.	
ESMs	**Status**
ESM 10.2 - Number of adolescent (12-17) who receive well visits through school based health centers	Active

NOMs

NOM 16.1 - Adolescent mortality rate ages 10 through 19, per 100,000

NOM 16.2 - Adolescent motor vehicle mortality rate, ages 15 through 19, per 100,000

NOM 16.3 - Adolescent suicide rate, ages 15 through 19, per 100,000

NOM 18 - Percent of children, ages 3 through 17, with a mental/behavioral condition who receive treatment or counseling

NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health

NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)

NOM 22.2 - Percent of children, ages 6 months through 17 years, who are vaccinated annually against seasonal influenza

NOM 22.3 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine

NOM 22.4 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the Tdap vaccine

NOM 22.5 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the meningococcal conjugate vaccine

NOM 23 - Teen birth rate, ages 15 through 19, per 1,000 females

NOM 17.2 - Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system

Maryland's identified Priority Need for adolescent health is to "ensure that adolescents age 12-17 receive comprehensive well visits that address physical, reproductive, and behavioral health needs."

NPM 10 Adolescent Well Visit: According to the National Survey of Children's Health 2019-2020 data, 78.7% of adolescents ages 12 to 17 received a preventive medical visit in the past year.

In FY 2021, Maryland Title V provided funding to local health departments to address adolescent health needs. Additionally, MCHB's Office of Family and Community Health Services (OFCHS) administered the Maryland Optimal Adolescent Health (MOAHP), Personal Responsibility Education Program (PREP), and the Sexual Risk Avoidance Education Program (SRAE) grants focused on adolescent reproductive health/wellness.

Local Health Departments: Title V funding directly supported four local health departments efforts to provide school-based health services to middle and high school aged youth. School-based health services included comprehensive wellness visits, mental/behavioral health screenings and care plans, and referrals to substance use disorder treatment. In FY 2021, school-based health services were dramatically affected by the COVID-19 Pandemic response. Only 798 students received a comprehensive wellness visit, compared to over 30,000 in FY 2020. Schools in Maryland were closed in most jurisdictions until the end of March/beginning of April 2021. Upon re-opening, schools were in a hybrid format where students were in school only 2-3 days per week. School closures severely impacted the LHDs ability to assess students in need of health services.

In FY 2021, Title V also supported family planning/reproductive health clinics at the local health departments. During FY 2021, 3,193 adolescents received a comprehensive reproductive health exam. Additionally, 749 adolescents received counseling for behavioral health and substance use, and 108 adolescents received a referral for care or treatment through a partner focusing on substance use and behavioral health. Through Title V funds and through Title V matching funds, the Maryland Family Planning Program provided services to 7,071 individuals who were less than 20 years old. This represented 13.2% of the total clients served by the Maryland Family Planning Program.

Maryland Optimal Adolescent Health (MOAHP): In July 2020, the Maternal and Child Health Bureau, Office of Family and Community Health Services (OFCHS) was awarded a three-year federal teen pregnancy prevention grant. The Maryland Optimal Adolescent Health Program (MOAHP), (re-branded as True You Maryland), is a collaborative effort between Healthy Teen Network, Johns Hopkins University Center for Adolescent Health, local health departments and school and community-based programs in 6 rural jurisdictions. True You Maryland programs have been established in Allegany, Dorchester, Somerset, Washington, Wicomico and Worcester counties. All grantees will offer sexual education programming to teens aged 14-19 living in areas of the state with high rates of teen birth and sexually transmitted infections.

The True You Maryland program promotes equity in reaching optimal health by preventing teen pregnancy and sexually transmitted infections in rural counties of the state by creating an infrastructure to develop and support highly effective health education and parent/caregiver programs.

During FY 2021, approximately 381 youth were served by the program. Local True You Maryland programs provided training for county health education teachers in 4 counties and worked to get the Positive Prevention Plus (3Ps) evidence-based curriculum approved for implementation by local county school boards. The curriculum was implemented during the spring semester in one county. Each county also formed local systems teams, which are composed of a variety of stakeholders including, but not limited to, health department and school system staff, medical professionals, parents, youth, educators, social service organizations, law enforcement, child welfare

agencies, businesses, faith-based and youth serving organizations.

Each local program is required to form a youth advisory board to ensure that youth voice plays a critical role in the local priorities set forth by the program and that the program activities are relevant and responsive to the needs of county youth.

Program challenges included the global Covid-19 pandemic causing school scheduling disruptions, the reassignment of some local health department staff to Covid-19 focused work, and delays in approval of the Positive Prevention Plus (3Ps) curriculum by local school boards.

PREP: Title V federal funds are also used to support the salaries of two state-level staff to coordinate efforts related to adolescent health through the Personal Responsibility Education Program (PREP) and the Sexual Risk Avoidance Education Program (SRAE). During the past year, adolescent and young adult health program coordinators have focused their efforts on strengthening collaborative relationships within the state health department as well as with the Maryland State Department of Education (MSDE) in addressing adolescent health priorities including access school based reproductive health services, sexuality education (comprehensive and abstinence-based) and production and dissemination of adolescent health data briefs.

PREP program implementation occurred in 8 jurisdictions across the state, including Allegany, Anne Arundel, Baltimore City, Dorchester, Prince George's, Washington, Wicomico, and Worcester counties. PREP's sub-grantees provided services to approximately 1,088 youth through various evidence-based curricula, outreach, and supportive program activities in community and faith-based organizations and local health departments. PREP programs were implemented in a variety of settings across the state including a YMCA, county high schools and churches.

PREP also funded Project KISS (Keeping It Safe Sexually), a college-based peer educator training model through a collaboration of MDH, University of Maryland Eastern Shore, and Salisbury University. In its fourth year, Project KISS provided training for 23 peer educators. This training equips peer educators with the skills required to provide reproductive health education to fellow students on campus. In FY 2021, approximately 631 students were seen between the two campuses. Project KISS also supports health screenings; 84 students received HIV testing and 9 students were screened for Hepatitis C at local health departments.

PREP peer educators were able to develop leadership skills, provide valuable insight regarding program activities, and increase program impact through participation in programs at Coppin State University (Coppin CARESS) in Baltimore City and Project KISS on Maryland's Eastern Shore.

The global COVID-19 pandemic impacted recruitment and engagement efforts, and the number of students enrolled in the program decreased.

SRAE: The SRAE program is implemented statewide by grantees in 7 jurisdictions through local health departments in Baltimore City, Caroline County, Garrett County, Somerset County, Washington County, Wicomico County, and Worcester County as well as one community-based organization grant that was selected through a Request for Application (RFA) process.

The SRAE program approach is guided by a Positive Youth Development Framework which teaches self-regulation, healthy relationship skills, goal setting, and risk reduction strategies related to sexual coercion, dating violence, illicit drug use, and underage drinking to middle and high school age students. In FY 2021, the SRAE program was

impacted by the global pandemic, and some local programs shifted to virtual or hybrid implementation formats to observe COVID-19 safety guidelines. Despite these barriers, 1,372 students participated in programmatic activities statewide.

Specific program activities in FY 2021 included youth summer camps, virtual and in-person parent education workshops, community service projects and a Parent-Child cookout for 8th graders transitioning to high school and their parents.

Adolescent Health - Application Year

Maryland Title V identifies the objective for adolescent health as "ensuring adolescents receive a comprehensive well visit that addresses physical, reproductive, and behavioral health needs." To this end, in FY 2022, Title V will employ the following strategies to improve adolescent health outcomes statewide:

SPM 4: Decrease the number of asthma Emergency Department (ED) visits from a baseline of 0.3 ED visits per 1,000 for ages 12-17 (2019) to 0.1 in 2026

Local Health Departments: Title V will continue to provide federal Core Public Health funding to local health departments in FY 2023 to support school based health efforts related to school based health clinics and asthma programming and services which specifically target middle and high school students. In FY 2021, there were three local health departments who focused their Title V funding on school based health services.

Asthma: Beginning in FY 2022, local health departments were able to use Title V funding for the new State Performance Measure related to asthma programming. Addition of this measure/service is to align with the Statewide Integrated Health Improvement Strategy (SIHIS). These services include expanding home visiting, collaborating with providers and the health information exchange in their region, and school based health services to improve asthma health in Maryland.

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. As a result of the collaboration with CMMI, the State entered into a Memorandum of Understanding (MOU) that required Maryland to provide a proposal for the Statewide Integrated Health Improvement Strategy (SIHIS) to CMMI by December 31, 2020. The SIHIS aligns statewide efforts across three domains that are interrelated and, if addressed successfully, have the potential to make significant improvement in not just Maryland's healthcare system, but in the health outcomes of Marylanders.

- Domain 1: Hospital Quality
- Domain 2: Care Transformation Across the System
- Domain 3: Total Population Health

Asthma is included within Domain 3: Total Population Health. The strategy identifies a goal of reducing the number of asthma related Emergency Room visits for children aged 2-17. Title V will specifically collect data on adolescents age 12-17 receiving these services.

In FY 2023, local health departments may use Title V funding on asthma related programming/services including asthma school based management programs (in collaboration with PHPA's Environmental Health Bureau); provide health care education opportunities on asthma management; developing asthma regional collaboratives to coordinate asthma related activities within the region; or partnering with CRISP (the designated Health Information Exchange for Maryland) to strengthen linkages among pediatric care teams including school health providers, Emergency Departments, primary care and specialists.

NPM 10: Increase the percentage of adolescents (12-17) who receive a preventive medical visit from a baseline of 81.4% (2019) to 85% by 2025.

School-Based Health Centers (SBHCs): In FY 2023, the Maternal and Child Health Bureau will formally begin

administering the Maryland School-Based Health Center (SBHC) Program. Maryland's SBHCs represent an essential and innovative strategy for improving the health and educational achievement of Maryland's children and their families. SBHCs are conveniently located where students spend the majority of their day and can therefore address the unique needs of adolescents through increased access to medical, mental, dental and/or other health related services. As of FY 22, there are 95 SBHCs program locations in 17 of the 24 Maryland jurisdictions. The Maryland SBHC Program will conduct a statewide needs assessment in FY23 to inform further expansion of the program. SBHCs will be integrated with Title V-funded programming through shared performance measures, alignment of initiatives across the state, and coordination of services. Fourteen SBHCs also serve as Maryland Family Planning/Title X Program subrecipient sites.

Other adolescent health programs that will continue to be supported by Title V funded staff in FY 2023 include:

Maryland Optimal Adolescent Health Program (MOAHP): In July 2020, the Maternal and Child Health Bureau, Office of Family and Community Health Services (OFCHS) was awarded a three year federal teen pregnancy prevention grant. Project funds will be distributed to grantees (e.g., Healthy Teen Network, Johns Hopkins University Center for Adolescent Health, local health departments, school, and community-based programs) located throughout the state. In year 3 , grantees will continue to offer sexual education programming to teens aged 14-19 living in areas of the state with high rates of teen birth and sexually transmitted infections.

The teen pregnancy prevention initiative was rebranded as True You Maryland by Youth Advisory Board members from across the state and is formally named the Maryland Optimal Adolescent Health Program (MOAHP). MOAHP promotes equity in reaching optimal health by preventing teen pregnancy and sexually transmitted infections in rural counties of the state by creating an infrastructure to develop and support highly effective health education and parent/caregiver programs. MOAHP will increase the capacity of health education programs to develop students' positive attitudes and values towards sexual and reproductive health and increase opportunities to reinforce skills and positive behaviors. Parent/caregiver programs will increase healthy communication between adults and youth. Healthy Teen Network (HTN) will continue to lead this effort by providing instruction and guidance to health educators and administrators to improve program outcomes and promote the sustainability of highly effective health education programming in Maryland.

The MOAHP consortium will continue to use the Positive Prevention Plus curriculum, which has seen a statistically-significant delay in the onset of sexual activity and statistically-significant increases in student-parent communication around sexual health issues. HTN will model and enforce behaviors that create an environment in which students feel valued and emphasize individual and group norms that support optimal health-enhancing behaviors as well as demonstrate effective instructional and behavior management strategies that support social-emotional learning.

OFCHS will continue to create networks of support for health educators and students to effectively engage youth, parents/caregivers, and the community in MOAHP. OFCHS and HTN will partner with local school system and community stakeholders to replicate, with fidelity, effective programs, and supportive services that are culturally and age appropriate, medically-accurate, and trauma-informed. Johns Hopkins University Center for Adolescent Health will evaluate and inform the program throughout the project period.

PREP: In FY 2023 the Maryland Personal Responsibility Education Program (PREP) will continue to provide comprehensive sex education in eight (8) counties throughout the state. Jurisdictions implementing PREP activities include Baltimore City, Allegany, Anne Arundel, Dorchester, Prince Georges, Washington, Wicomico, and Worcester Counties. Youth will receive PREP education in middle, high school, foster care homes and detention centers across the state. Additionally, activities also include a college-based Peer Educator model implemented on the campuses of the University of Maryland Eastern Shore and Salisbury State University. As COVID-19 restrictions for schools

lessen, PREP programs will return to an in-person format of instruction in place of virtual lessons. Local health departments will continue to collaborate with faith-based and community organizations to implement PREP. The PREP program will continue to reach a minimum of 1700 youth as well as 160 parents/caregivers with a combination of evidenced based curriculum instruction, parent education and enrichment programs.

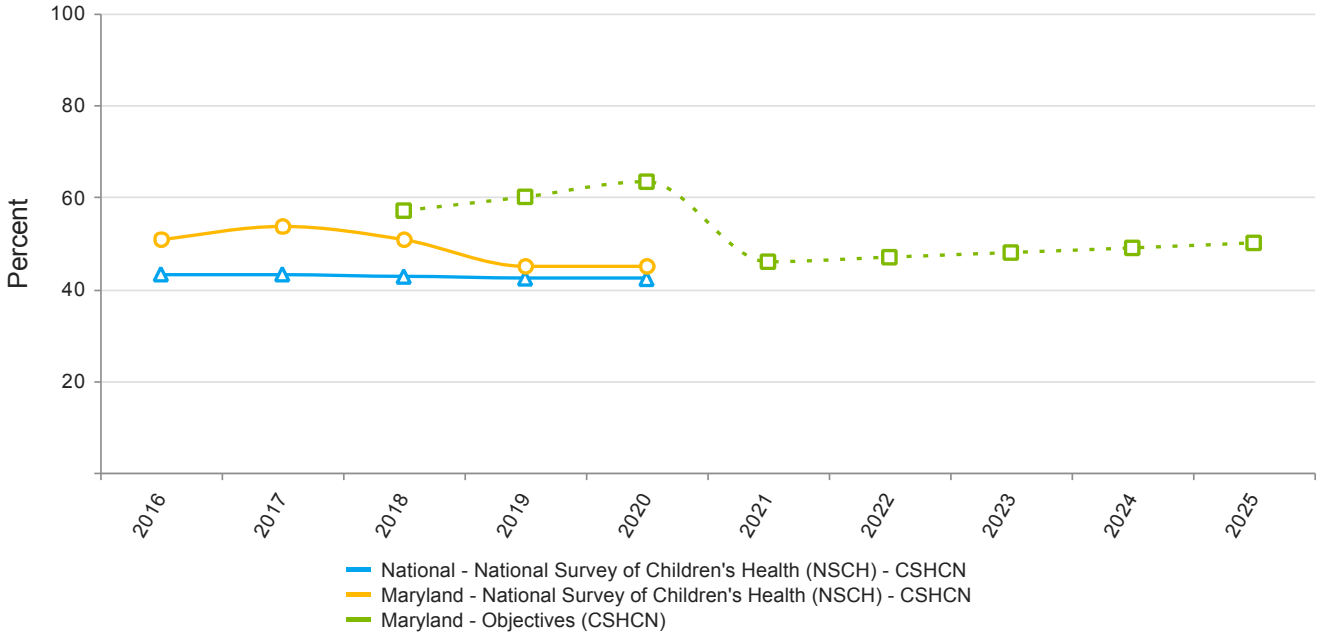
Sexual Risk Avoidance Education (SRAE): In FY 2023 the Maryland SRAE program will continue to provide Sexual Risk Avoidance education to middle and high school students across the state. As schools begin to re-open for in person instruction, local health departments and community partners will begin to return to curriculum implementation in health classes, on campus after school programs and community settings. The SRAE program will continue to reach a minimum of 500 youth as well as 100 parents/caregivers with a combination of evidenced based curriculum instruction, parent education and enrichment programs. A request for applications (RFA) has been released and will determine community based grantees. Ongoing topical training and professional development will be provided to meet the needs of program staff as a means to enhance their work.

Children with Special Health Care Needs

National Performance Measures

NPM 11 - Percent of children with and without special health care needs, ages 0 through 17, who have a medical home

Indicators and Annual Objectives



NPM 11 - Children with Special Health Care Needs

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - CSHCN					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective		57	60	63.3	45.9
Annual Indicator	50.8	53.4	50.6	44.9	44.9
Numerator	127,072	137,990	130,334	117,076	122,840
Denominator	250,000	258,184	257,564	260,596	273,531
Data Source	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	46.9	47.9	48.9	50.0

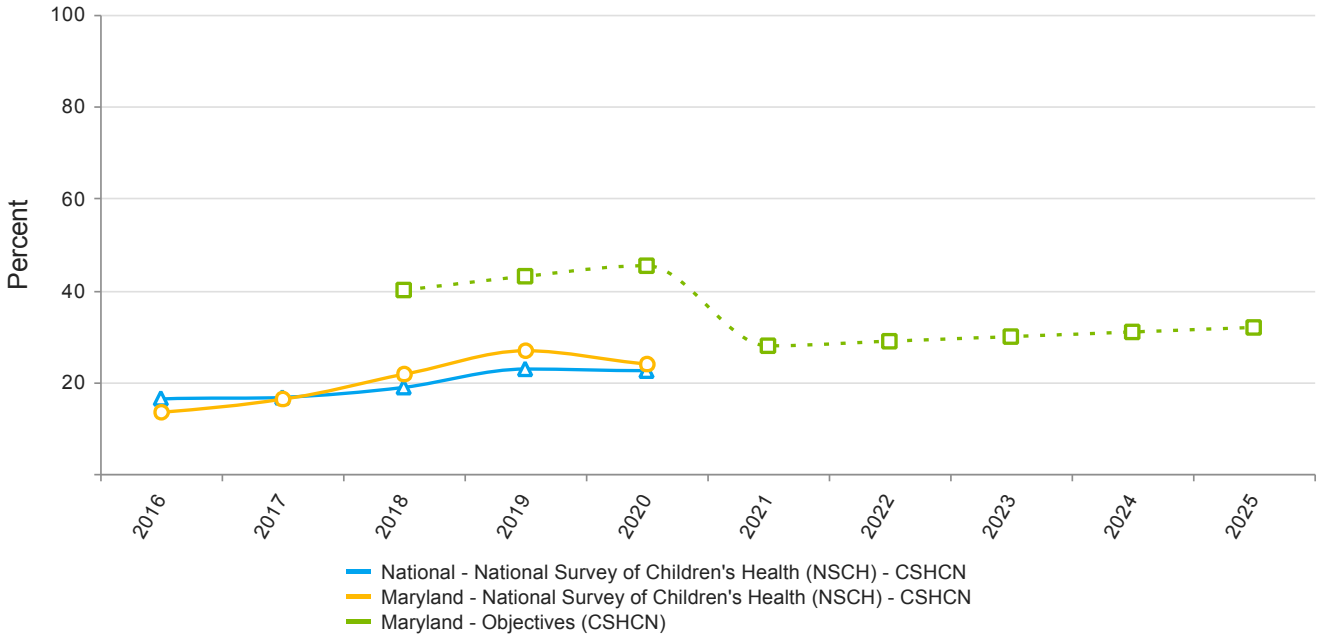
Evidence-Based or –Informed Strategy Measures

ESM 11.1 - Number of CYSHCN who receive patient and family-centered care coordination services

Measure Status:				Active	
State Provided Data					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	0	61	5,300	5,400	5,500
Annual Indicator	60	5,362	5,770	1,463	1,502
Numerator					
Denominator					
Data Source	OGPSHCN Data	OGPSHCN Data	OGPSHCN Data	OGPSHCN Data	OGPSHCN Data
Data Source Year	FY 2017	FY 18	FY 19	FY 2020	FY 2021
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
2022	**2023**	**2024**	**2025**	
Annual Objective	5,600.0	5,700.0	5,800.0	6,000.0

NPM 12 - Percent of adolescents with and without special health care needs, ages 12 through 17, who received services to prepare for the transition to adult health care
Indicators and Annual Objectives



NPM 12 - Children with Special Health Care Needs

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - CSHCN					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective		40	43	45.3	27.9
Annual Indicator	13.4	16.2	21.6	26.9	23.8
Numerator	14,817	21,034	28,923	31,754	28,346
Denominator	110,803	129,507	133,731	118,003	119,301
Data Source	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	28.9	29.9	30.9	31.9

Evidence-Based or –Informed Strategy Measures

ESM 12.1 - Number of CYSCHN and their families who participate in health care transition planning activities

Measure Status:				Active	
State Provided Data					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	0	61	62	63	64
Annual Indicator	60	5,697	1,308	416	81
Numerator					
Denominator					
Data Source	MCHB Data	OGPSHCN	OGPSHCN	OGPSHCN Data	OGPSHCN Data
Data Source Year	FY 2017	FY2018	FY 2019	FY 2020	FY 2021
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	65.0	66.0	67.0	1,300.0

State Action Plan Table

State Action Plan Table (Maryland) - Children with Special Health Care Needs - Entry 1	
Priority Need	
Ensure optimal health and quality of life for all CYSHCN and their families by providing all services within an effective system of care in alignment with the Six Core Outcomes	
NPM	
NPM 11 - Percent of children with and without special health care needs, ages 0 through 17, who have a medical home	
Objectives	
Increase the proportion of children and adolescents with special health care needs who receive care in a family-centered, comprehensive, and coordinated system.	
Strategies	
1) Encourage implementation of the Medical Home model in pediatric primary care practices through education and training opportunities, particularly with providers-in-training and early career providers to inform and educate about the medical home, and to provide some practical tips on how to implement a medical home in their practice. 2) Discuss expansion, replication, and sustainability of medical home-focused initiatives currently underway by current OGPSHCN grantees who were awarded under the 2020 competitive request for applications. 3) Educate family members on factors of the medical home they can control: recognizing good medical care; engaging in clear and respectful communication, and effective advocacy for their CYSHCN 4) Conduct trainings for families on resource , identification and advocacy, 5) Continue to seek opportunities to provide family sensitivity trainings to internal and external partners who serve CYSHCN 6) Implement a schedule to review and edit all public-facin	
ESMs	**Status**
ESM 11.1 - Number of CYSHCN who receive patient and family-centered care coordination services	Active
NOMs	
NOM 17.2 - Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system	
NOM 18 - Percent of children, ages 3 through 17, with a mental/behavioral condition who receive treatment or counseling	
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	
NOM 25 - Percent of children, ages 0 through 17, who were unable to obtain needed health care in the past year	

State Action Plan Table (Maryland) - Children with Special Health Care Needs - Entry 2

Priority Need

Ensure optimal health and quality of life for all CYSHCN and their families by providing all services within an effective system of care in alignment with the Six Core Outcomes

NPM

NPM 12 - Percent of adolescents with and without special health care needs, ages 12 through 17, who received services to prepare for the transition to adult health care

Objectives

Increase the proportion of adolescents with and without special health care needs who have received the services necessary to make transitions to adult health care.

Strategies

1) Increase and enhance parent/family education and training around HCT, 2) Implement the Six Core Elements of Healthcare Transition 3.0, 3) Promote Got Transition's "Six Core Elements" to transition and principles of successful transition, 4) Continue to provide information and resources for youth to young adult health care transition through the Office of Genetics and People with Special Health Care Needs (OGPSHCN), 5) Establish a collaborative relationship with the Governor's Transitioning Youth Initiative (GTYI), coordinated through the Maryland Developmental Disabilities Administration (DDA), 6) Explore strategies to engage families in the transition process for their youth with special health care needs, 7) explore how information from the National Resource Center for Supported Decision Making and other organizations, as well as feedback from self-advocates, can be incorporated into HCT materials, 8) review resources related to sex education for CYSHCN, 9) Establish training prot

ESMs	Status
ESM 12.1 - Number of CYSCHN and their families who participate in health care transition planning activities	Active

NOMs

NOM 17.2 - Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system

Children with Special Health Care Needs - Annual Report

In 2008, HRSA's Maternal and Child Health Bureau (MCHB), together with its partners, identified six core outcomes to promote the community-based system of services mandated for all children with special health care needs under Title V. These outcomes give us a concrete way to measure our progress in making family-centered care a reality and in putting in place the kind of systems all children with special health care needs deserve[1]. The six core outcomes are:

- Families of children and youth with special health care needs partner in decision making at all levels and are satisfied with the services they receive;
- Children and youth with special health care needs receive coordinated ongoing comprehensive care within a medical home;
- Families of CSHCN have adequate private and/or public insurance to pay for the services they need;
- Children are screened early and continuously for special health care needs;
- Community-based services for children and youth with special health care needs are organized so families can use them easily;
- Youth with special health care needs receive the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence.

For the 2021-2025 MCH Block Grant needs assessment reporting cycle, Maryland identified, “ensuring optimal health and quality of life for all children and youth with special health care needs and their families by providing services within an effective system of care in alignment with the six core outcomes” as a continued State Priority.

National priority measures and associated evidence-based strategy measures selected for programmatic focus to impact this overarching state priority were:

- NPM 11: Medical Home
  Percent of children with and without special health care needs, ages 0 through 17, who have a medical home
  ESM 11.1: Number of CYSHCN who receive patient and family-centered care coordination services

- NPM 12: Transition
  Percent of adolescents with and without special health care needs, ages 12 through 17, who received services to prepare for the transition to adult health care
  ESM 12.1: Number of CYSHCN and their families who participate in health care transition planning activities

Medical Home

The National Survey for Children’s Health reported in their 2018-2019 data that 44.9% of children ages 0-17 with special health care needs have a medical home, compared to 46.4% of children ages 0-17 without special health care needs.

Maryland recognizes that the medical home approach to providing comprehensive and high-quality primary care is the best practice for children with and without special health care needs. Despite the model’s introduction fifty years ago, limited progress has been made in universal implementation.

Health Care Transition

The National Survey for Children’s Health reported in their 2019-2020 data that 23.8% of adolescents age 12-17 with special health care needs received services necessary to make transitions to adult health care, compared to

15.8% of adolescents age 12-17 without special health care needs.

Maryland continued the overarching goal of increasing the percent of adolescents with and without special health care needs who have received the services necessary to make transitions to adult health care.

State Fiscal Year 2021
The Office for Genetics and People with Special Health Care Needs (OGPSHCN) is MDH's Children and Youth with Special Health Care Needs (CYSHCN) office. OGPSHCN is housed in the Prevention and Health Promotion Administration's Maternal and Child Health Bureau and includes five programs:

- Children's Medical Services
- Early Hearing Detection and Intervention
- Newborn Screening Follow-Up and Critical Congenital Heart Disease Surveillance
- Operations and Support
- Systems Development, which includes
    - Birth Defects Surveillance
    - Sickle Cell Disease Long-term Follow Up
    - CYSHCN Title V Block Grant Coordination
        - Grants to local health departments, community-based non profit organizations, and academic clinical centers
        - Internal projects

OGPSHCN served 17,380 CYSHCN and their families through Title V-supported programs and efforts in SFY2021. This figure reflects counts of unduplicated children and/or families served through direct health care services or enabling services.

In SFY2020 and SFY2021, OGPSHCN engaged in an intensive review of the internal process for awarding grants. In conjunction with a greater focus on competitive procurement processes from Department leadership and an effort to maintain fidelity to MCH Block Grant Program goals, OGPSHCN leadership took a significant portion of the year to analyze and edit the Request for Applications (RFA) for Systems Development grants. This included multiple strategic planning meetings with staff at all levels, consultation with the Administration's Office of Procurement and countless drafts and revisions. Secondary to the COVID-19 pandemic, SFY2020 funding to local health departments and certain other grantees was extended through the first quarter of SFY2021. The final competitive RFA, "Strengthening Systems of Care for Maryland's Children and Youth with Special Health Care Needs," was posted in July 2020, with the first segment of the anticipated 3-year grant cycle being shortened to quarters 2, 3 and 4 (October 1, 2020 to June 30, 2021). These grant awards were eligible for continued funding for two subsequent years upon satisfactory completion of project objectives and at OGPSHCN's discretion.

In their submissions, applicants were required to select at least one "focus area" corresponding to one of the core outcomes identified by HRSA as critical indicators of success in implementing community-based systems or services for CYSHCN (Table 1). Projects could incorporate elements of more than one focus area but were required to identify one as primary.

Table 1. Focus Areas from Maryland's CYSHCN Request for Applications

Focus Area	Corresponding Core Outcome
Family Professional Partnership	Families of CYSHCN partner in decision making at all levels and are satisfied with the services they receive.
Medical Home Implementation	CYSHCN receive coordinated ongoing comprehensive care within a medical home
Health Care Transition	YSHCN receive the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence.
Workforce Development	

The RFA also noted that while projects employing direct or indirect/enabling service provision would be considered, the driving force was the need for high-yield efforts that impact systems and translate into meaningful benefits for Maryland's CYSHCN.

The RFA further stated:

> *The Federal Health Resources and Services Administration's (HRSA's) Title V Maternal and Child Health Services Block Grant Program (CFDA No. 93.994) provides funding to States to support infrastructure building for systems of care. The conceptual framework for maternal and child health services under the Title V Block Grant is envisioned as a pyramid with four tiers of services: Direct Services (top of pyramid), Enabling Services, Population-Based Services, and Infrastructure-Building Services (bottom of pyramid).*
>
> *Population-Based Services and Infrastructure-Building Services serve as the base of the pyramid and are the primary focus of this RFA. An overarching goal of all projects should be to build capacity and strengthen systems—capacity of families to manage and coordinate complex systems of care for their CYSHCN; capacity for youth to transition from pediatric to adult care and to live as independently as possible; and capacity of providers to provide comprehensive, coordinated, culturally effective, and consumer-friendly care.*

During SFY2021, the budgeted amount for the CYSHCN grants was $1,101,811 compared to $1,174,605 in SFY2020. The reason for the decrease for these grants is to accommodate other CYSHCN initiatives including Child Medical Services and preventive and child health programming through the Child Health Improvement Systems.

OGPSHCN received and evaluated applications from community-based organizations, local health departments, and university centers. After the evaluation process was complete, a total of six grants were awarded for Quarters 2, 3 and 4 of SFY2021.

Table 2. SFY2021 / Q2-4 OGPSHCN Grantees

Grantee	Focus Area(s)	Project Description
Children's National Medical Center Parent |	Family Professional	Provide peer to peer support to families of Maryland children with special health care

Navigator Program	Partnership	needs followed in the Goldberg Center for Community Pediatric Health and the Complex Care Program. Build on existing community education programs at Children's National and develop targeted transition and educational programs for both community primary care pediatricians and staff and pediatric trainees through a partnership with Children's National clinically integrated network, the Pediatric Health Network (PHN)
National Alliance to Advance Adolescent Health	Healthcare Transition	Increase school mental health professional training in evidence-informed transition practices and replicate a new school mental health transition initiative modeled after Got Transition's Six Core Elements of Health Care Transition. Ensure expanded access to transition supports via school mental health programs
The Coordinating Center	Medical Home	Expand on the VIPhysicians&Kids pilot program, which received OGPSHCN funding in FY2020) VIPhysicians&Kids is The Coordinating Center's exclusive, medical home service for families with CYSHCN. Patients of pediatric practices enrolled in VIPhysicians&Kids have access to the VIPhysicians&Kids Care Team. The Care Team supports the development of a shared care plan that is centered on achieving personal goals. The Care Team supports practices so that providers can focus on medical treatment for their patients, and families can focus on parenting their children, while the Care Team works to resolve issues that impact the patient's health. The Center aims to increase the number of participating practices from two to five (with one focused on Sickle Cell), strengthen the family professional partnership, and develop strategies to become a scalable, replicable and sustainable model supported by practices, health care systems and third-party

		payers once the grant has ended.
Baltimore County Health Department	Family Professional Partnership	Improve family professional partnerships in Baltimore County by utilizing several strategies including: care coordination, education of families, needs assessments through focus groups, education through provider toolkits and expansion of emergency preparedness efforts for CYSHCN
Calvert County Health Department	Medical Home	Coordinate with the Calvert County Behavioral Health Services to provide a patient-centered behavioral health medical home to families of infants under two years old whose parents have a history of substance use disorder, severe mental health disorder and/or homelessness. Use an intensive case management model, with monthly contacts to families and twice monthly support meetings. Families will be directed to needed financial resources and workforce-development resources. Families will be taught the components of the medical home model so that they can develop a patient-centered medical home with adult and primary care providers. Appointment compliance will be monitored from the participating family member and the child's well visits, and the child will be continuously screened for developmental and immunization delays. For other CYSHCN from birth to age 12 who are not currently being case managed by another source, resource assistance and case management will be provided as needed, including educating families in the benefits of a patient-centered medical home.
Talbot County Health Department	Medical Home, Family Professional Partnership, and Health Care Transition	Create a systematic approach for the transition of care coordination competencies to families of CYSHCN and the Medical Home. Regional systems approach focusing on addressing gaps and barriers will overlap to support these efforts

Additional FY21 / Q2-4 (not awarded as part of the aforementioned RFA) Grantees were:

The Arc Montgomery County: Supporting the Karasik Family Infant & Child Care Center, a fully inclusive childcare program for children 6 week to 10 years old with and without special health care needs and disabilities.

Clinical genetic centers: These awards provided continuous consultation support to OGPSHCN Newborn Screening Follow-Up Program and clinical care to Maryland children identified by newborn screening.

Children's National Medical Center, Division of Genetics and Metabolism - To support operation of the Genetics and Newborn Screening Follow-up program.

Johns Hopkins University, McKusick-Nathans Institute of Genetic Medicine - To provide genetic services through The Johns Hopkins University Department of Genetic Medicine.

Kennedy Krieger Hospital-Biochemical Genetics Laboratory - To provide diagnostic and follow-up testing for metabolic disorders identified by the Maryland newborn screening program and for other metabolic conditions not identified by the newborn screening process.

University of Maryland, Baltimore - To provide diagnostic and long-term follow-up for CYSHCN identified by newborn screening.

OGPSHCN continued to monitor and review reporting requirements from all grantees to ensure fidelity to Department goals and grant agreement scopes of work, while also planning for future iterations of the request for applications to be posted and the work that needs to be done across the state.

In SFY2021, Maryland's Title V Program continued to structure activities around the six core systems outcomes developed in 2008 by HRSA's Maternal and Child Health Bureau (MCHB) for CYSHCN including:

- Family-Professional Partnership
- Medical Home
- Adequate Insurance
- Early and Continuous Screening
- Easy-to-Use Services and Supports
- Youth Transition to Adult Health Care.

Family-Professional Partnership

During FY21, OGPSHCN built upon previous efforts to enhance family engagement and family-professional partnership (FPP) by assessing internal programs and identifying opportunities for change.

OGPSHCN's Parent Resource Coordinator position was staffed from July 1, 2019 to mid-December, 2019. During that time the Parent Resource Coordinator, who is also a parent of YSHCN, served to help families find local and State resources for their child, and to provide education and training to families of CYSHCN. Upon her departure, OGPSHCN engaged in a thorough search to fill the Parent Resource Coordinator position, hindered by the fact that State guidelines do not allow targeted recruitment of specific groups (in this case, a parent/caregiver of a CYSHCN or a former CYSHCN). In the absence of a dedicated FPP "expert," the Systems Development Program Chief, the Health Care Transition and Medical Home Coordinator and the OGPSHCN Deputy Director all participated in FPP efforts and in helping families find appropriate resources, while additional office staff also participated in various

ventures pertaining to CYSHCN.

OGPSHCN staff hold administrative responsibility for the coordination of several state-wide advisory committees, including: the Advisory Council to the Maryland Early Hearing Detection and Intervention Program; the Advisory Council on Hereditary and Congenital Disorders; and Statewide Steering Committee on Services for Adults with Sickle Cell Disease. Each of these committees mandates some degree of membership from those with lived experience, either parents/caregivers, affected adults, or some combination thereof. In addition to staffing the aforementioned committees, OGPSHCN staff served as members of numerous advisory councils as the expert voice on CYSHCN, a person with lived experience, or in a clinical advisory role. Those committees include: Maryland Commission on Caregiving; Mortality Quality Review Committee, Maryland Developmental Disabilities Council, Youth Camp Advisory Council, Sinerge (Northeast Sickle Cell Grant Collaborative) Advisory Board, ASH-CTN (ASH RC Sickle Cell Disease Clinical Trials Network) Community Advisory Board, Disability Health Inclusion Program Advisory Committee, United Healthcare Community Advisory Council, Traumatic Brain Injury Advisory Board and Charting the Lifecourse Community of Practice Leadership Team.

OGPSHCN staff are always striving to improve understanding of successful Family Professional Partnership and to discover and implement new best practices. To that end, staff members attended various professional development opportunities focused on FPP and family engagement, including the June 2021 Family Voices Leadership Conference and multiple other webinars and workshops. In January 2021, the Maryland Maternal and Child Health Bureau (MCHB) initiated a series of “Bureau Month” trainings, including a session on Incorporating the Community Voice, and in February 2021, initiated the MCHB Equity Workgroup which includes staff representation from all Bureau Offices, including OGPSHCN.

As a parent of CYSHCN, the OGPSHCN Deputy Director was also once again invited by The American Academy of Pediatrics (AAP) to participate in the Managing Students with Seizures ECHO (Extension for Community Health Care Outcomes), a multi-cohort learning opportunity and forum for health care professionals to learn and improve access to quality healthcare for children and youth with epilepsy. The OGPSHCN Deputy Director served as the “parent voice” faculty from January 2021 through June 2021, working alongside and presenting to clinical professionals to ensure that the family voice was heard. Additionally, the Deputy Director presented on “Supporting Families in Telehealth Visits for Epilepsy” for the Access Improvement and Management for Epilepsy through Telehealth ECHO for the AAP National Coordinating Center for Epilepsy.

The Deputy also participated in the AMHCP Family Engagement Community of Practice (CoP), the goal of which was to increase Title V capacity to engage families in their work. The CoP provided a platform to share ideas, innovations, lessons learned, successes, and best practices from subject matter experts. The CoP cohort explored topics including: Intersection of equity and family engagement; Challenges/barriers of availability of family members able to participate in training, public awareness, and policy development; Engaging/partnering with families without additional funding or increased funding levels for programs; and discussion on institutionalizing family engagement and reaching younger families.

In September 2020, the Deputy was invited to serve as an advisor and speaker for the Maryland “Launching Family and Youth Engagement” project from the Maryland Chapter of the American Academy of Pediatrics (MDAAP). The project was funded by a Family Engagement Chapter Grant from the The FamilY Partnerships Network. Over the course of several months, family engagement experts, including the OGPSHCN Deputy Director, presented at an Initial kickoff meeting, a MD AAP Board meeting and a general membership meeting to introduce strategies of family engagements, implementation and evaluation tools, and map next steps.

From December 2020 through March 2021, the Deputy participated in the Family Voices Telehealth CARES Act

Community of Practice (CoP) in partnership with The Parents' Place of Maryland (PPMD). PPMD is Maryland's Parent Training and Information Center, Family-to-Family Health Information Center and Family Voices State Affiliate Organization. The purpose of the CoP was to share and discuss best practices around the delivery of telehealth including strategies for reaching families who are diverse, vulnerable, medically underserved and hard to reach.

During previous grant cycles, OGPSHCN provided funding to PPMD to provide one-on-one assistance and navigation services to families around the core outcomes of Medical Home and Health Care Transition. As part of this funding, PPMD coordinated the statewide Maryland Community of Care Consortium (CoC), a working group of diverse stakeholders, including families, providers, advocates, consumers, administrators, and professionals from the public and private service systems. Using the national agenda for CSHCN and core outcomes as a starting point, the CoC worked to create systems of care that promote optimal health, functioning, and quality of life for Maryland CSHCN and their families. Membership in the CoC was open to anyone with an interest in improving the systems of care and family members were particularly encouraged to join. In FY20, there were three separate Community of Care Consortia (statewide, Southern Maryland, and Eastern Shore).

In FY2021, there was one Community of Care Consortia in the Eastern Shore and was supported by one of the region's local health departments. State Title V staff had planned to coordinate a Statewide CoC but due to the pandemic and staffing transitions, it was unable to occur.

Additionally, several of the aforementioned SFY2021 grantees indicated Family Professional Partnership as a primary or secondary focus area.

The **Talbot County Health Department**, which has coordinated the aforementioned Eastern Shore CoC for many years through funding from OGPSHCN, also planned a tiered approach to create a systematic transition of care coordination competencies to families of CYSHCN and the Medical Home. In response to the OGPSHCN request that proposed projects focus on Population-Based Services and Infrastructure-Building Services, Talbot County devised a plan to identify families with the highest need for intervention and implement a tiered system of family education. In SFY2021, Talbot LHD served 102 CYSHCN utilizing this tiered approach.

Baltimore County Health Department proposed and implemented a project to improve family professional partnerships in Baltimore County by utilizing several strategies including: care coordination, education of families, needs assessments through focus groups, education through provider toolkits and expansion of emergency preparedness efforts for CYSHCN. This project served 84 CYSHCN in SFY2021.

Finally, the Parent Navigator Program at **Children's National Medical Center** in Washington DC helps to reduce family stress by providing peer-to-peer support and connecting parents or caregivers to resources, assisting with care navigation, finding educational tools for parents and children, and providing emotional support so that managing a child's healthcare journey is a little easier. The navigators are parents of CYSHCN and bring a unique perspective and understanding to every parent enrolled in the program. In SFY2021, Parent Navigators provided support and assistance to the families of 121 CYSHCN. The Parent Navigator Program was a previous grantee of OGPSHCN. In response to the RFA guidance to focus on building capacity and strengthening systems, the Program developed a proposal to build on existing community education programs and materials and develop targeted transition and educational programs for both community primary care pediatricians and staff and pediatric trainees through a partnership with Children's National clinically integrated network, the Pediatric Health Network (PHN)

Medical Home

In FY2021 OGPSHCN continued to focus on expanding awareness of the medical home model through educating

families, training providers and developing new partnerships around the state. The Medical Home (MH) Coordinator conducted outreach efforts and dissemination of information across the state through workshop presentations at The University of Maryland and at Kennedy Krieger Institute, participation in planning and presenting at the state-wide School Health Interdisciplinary Program (SHIP) conference, and attendance at community resource fairs and other outreach opportunities. The COVID-19 Pandemic greatly reduced the opportunities to attend in-person events, which so many outreach efforts are, but as sponsoring organizations shifted their events to the virtual environment, the MH Coordinator was also able to pivot to this different style of outreach and engagement. A total of 225 individuals were educated on Medical Home implementation within their respective roles. In particular, the presentation at the SHIP conference educated school health staff on the Medical Home model, what a patient-centered MH looks like, and their role in coordination of care for CYSHCN. The participation with SHIP conference planning and implementation exhibits a cohesiveness between multiple OGPSHCN-funded grantees and office staff, as it supports several priority focus areas. The MH Coordinator additionally provided technical assistance and resources in support of medical home implementation to local health departments and pediatric provider practices, school health professionals and educational medical institutions.

With OGPSHCN's shift to the new RFA, increased competitiveness in the procurement process, and budget limitations not as many grants were awarded in FY21 as in previous years. Local Health Departments (LHDs) were particularly impacted by these changes. In FY20, OGPSHCN provided funding to CYSHCN programs in 13 of Maryland's 24 LHDs; programs that utilized nurse care coordinators to provide care coordination services to CYSHCN in their respective jurisdictions in support of a Medical Home model of care. In anticipation of SFY2021, LHDs and community-based non-profit organizations (CBOs) were evaluated and awarded funds based on the same competitive RFA. Those that indicated Medical Home as a primary or secondary focus area include The Coordinating Center, Calvert County Health Department and Talbot County Health Department.

The Coordinating Center (TCC) expanded on the VIPhysicians&Kids pilot program (which received OGPSHCN funding in FY2020), an exclusive, medical home service for families with CYSHCN. Patients of pediatric practices enrolled in VIPhysicians&Kids have access to the VIPhysicians&Kids Care Team. The Care Team supports the development of a shared care plan that is centered on achieving personal goals. The Care Team supports practices so that providers can focus on medical treatment for their patients, and families can focus on parenting their children, while the Care Team works to resolve issues that impact the patient's health. In SFY2021, the Center added three new practices, the Pediatric Sickle Cell Program at The Herman & Walter Samuelson Children's Hospital at Sinai Hospital, the University of Maryland Children's Hospital Behavioral and Developmental Pediatrics Division, and Dundalk Pediatric Associates to the program, which served a total of 75 unduplicated CYSHCN.

Calvert County Local Health Department proposed an intensive case management model to provide a patient-centered behavioral health medical home to families of infants under two years old whose parents have a history of substance use disorder, severe mental health disorder and/or homelessness. Implementing this intensive model, the LHD provided case management services to the families of ten CYSHCN. Additionally, this LHD proposed resource assistance and case management on an as needed basis, including educating families in the benefits of a patient-centered medical home, for CYSHCN from birth to age 12 not currently being case managed by another source.

Through implementation of a triage system, **Talbot County Local Health Department,** proposed a tiered system of determining family/CYSHCN needs and providing care coordination services based on identified level of need, while beginning the process of educating and assisting families to manage care coordination independently. The Children with Special Health Care Needs (CSHCN) Screener© - developed by the Child and Adolescent Health Measurement Initiative (CAHMI) - was used to identify level of need. The CHSCN Screener© is a five item, parent survey-based tool by which children are identified on the basis of experiencing one or more current functional limitations or service use needs that are the direct result of an on-going physical, emotional, behavioral, developmental or other health condition. The county also made use of the KS-CYSHCN "Holistic Care Coordination[2]" model to assist families in navigating health care systems by first assessing individual needs, then tailoring support to meet those needs. A portion of the funding to Talbot County LHD focuses on regional infrastructure building, regional consultations and special projects, including support for the aforementioned Eastern Shore CoC. For FY 21, a total of 101 youth were served,

Not funded as part of the 'Strengthening Systems of Care for Maryland's Children and Youth with Special Health Care Needs' RFA, but still supporting the Medical Home model:

The Arc Montgomery County Karasik Family, Infant & Child Care Center (KFICCC) is a fully inclusive childcare program for children 6 weeks to 10 years old with and without special health care needs and disabilities. The program provides various services including childcare, special education, nursing, therapies, PreK, and family resources in a single location. KFICCC's medical home model provides services in four areas: 1) nursing care and monitoring; 2) developmental growth; 3) education; and 4) family support. They provided service support to 27 families and provided 26 professional and cultural sensitivity staff development training for the staff. They provided services to 31 (unduplicated) CYSHCN youth.

While other grantees did not specify Medical Home as a primary area of focus, arguably all grantees are working toward components of the Medical Home model.

Children's National Medical Center supports the MH model by providing integrated access to services and care coordination for Maryland's CYSHCN through Parent Navigator and Complex Care Programs. The navigators provide peer-to-peer support for families and share knowledge and resources for families to effectively navigate their health care system. The Complex Care Program supports medical homes by bridging the gap between primary care providers and tertiary services. In SFY2021,175 families were served through the Parent Navigator and Complex Care Programs, and 311 individual CYSHCN received care coordination services.

OGPSHCN also continued to provide funding for clinical genetics services to the University of Maryland, Children's National Medical Center, John Hopkins University, and the Kennedy Krieger Institute Biochemical Genetics Laboratory. These genetics services are provided, in furtherance of medical home concepts, to reduce or prevent adverse outcomes from heritable conditions; provide opportunities for CYSHCN and their families to receive services necessary to manage genetic conditions; offer culturally-competent and family-oriented services; and increase the number of primary care, specialty care, and other related providers who are informed about genetic contributions to health and illness and able to apply of genetic information to improve the health of individuals and families in their care. In FY 2021, 6,174 children and their families received clinical genetic services.

Adequate Health Insurance

OGPSHCN's Children's Medical Services (CMS) Program pays for specialty care for qualifying CYSHCN who are underinsured or uninsured and whose family income does not exceed 200% of the federal poverty level. In FY2021, the CMS Program processed 265 applications, determined that 184 CYSHCN were eligible for services, and paid for services for 537 CYSHCN. Relative to FY2020, these figures represent a 3.8 percent increase in applications, a

3.8 percent increase in eligible CYSHCN, and a 4.8 percent increase in CYSHCN served. In addition to the fee-for-service payment structure, the CMS Program also purchased health insurance for 41 of the 537 eligible children, which represented a 7.8 percent increase from FY20. Insurance coverage was purchased for children with the costliest diagnoses so these children could receive health services that were more comprehensive than those covered by the CMS Program, such as general pediatric care, sick visits, emergency room visits and admissions, dental, vision and mental health services. The CMS Program covered the cost of health insurance premiums as well as costs of co-pays, co-insurance and deductibles. Additionally, there was one insurance-enrolled child enrolled in the Kaiser Permanente's Community Health Access Program. For this child, the CMS Program paid for services not covered by the Community Health Access Program.

The open enrollment period for health insurance plans occurs over a limited period and represents the only time in which health insurance can be purchased for the upcoming year. Since enrollment into the CMS Program occurs throughout the year, the CMS Program continued to cover the cost of care and services for children deemed appropriate for purchase of health insurance plans but who could not be enrolled until the open enrollment period.

During the last 4 months of FY2021, no child was disenrolled from the CMS Program as a result of the Governor's Executive Order extending eligibility during the COVID-19 Pandemic State of Emergency. Existing enrollees remained eligible until 30 days after termination of the State of Emergency. The state of emergency terminated on July 15, 2021, thus the eligibility extension ended on August 15, 2021.

The CMS Program is the costliest program within OGPSHCN, and SFY2021 proved true to that rule. Extended eligibility secondary to the COVID-19 Pandemic State of Emergency resulted in the highest number of children enrolled in CMS since its inception. The range of diagnoses enrolled children have results in variable treatment plans and medication costs, making it challenging to predict annual allocation amounts even when not in a state of emergency. The cost of one prescription for one child can conceivably deplete the entire budget. CMS, OGPSHCN and MCHB leadership engaged in several 'brainstorming' sessions in SFY2021 to discuss strategies for cost containment. OGPSHCN contacted The Catalyst Center to discuss opportunities for technical assistance or other support. Unfortunately, competing priorities stalled those conversations in SFY2021, but that is something we hope to pursue in the future.

Early and Continuous Screening

Newborn Screening (NBS)

Newborn screening in Maryland is performed using a two-screen method. The first being obtained at greater than 24 hours of age and after the infant has received 24 hours of feeding, and the second at 10-14 days of age. To differentiate between a newborn and a subsequent specimen, the laboratory identifies all specimens collected at less than 7 days of age as a newborn specimen and specimens collected over 7 days of age as a subsequent specimen.

In CY 2021, a total of 73,009 babies have been identified as having a specimen collected in the newborn period, identified as less than 7 days of age. In previous reports, the number of refusal notifications have been used to identify babies who have not been screened. However, secondary to a network security incident at the beginning of December 2021, this data is inaccessible at this time. Additionally, the Maryland State Newborn Screening Laboratory has not been able to perform any of the newborn screening testing for Maryland babies since December 3, 2021. Specimens received as of December 1, 2021, are being sent to an outside laboratory for evaluation and results are returned to Maryland.

The total number of babies screened is higher than the total recorded births in Maryland which is most likely secondary to the potential overlap of specimens received between December 1st and December 3rd and the inability to filter the data received from the outside laboratory to exclude babies born to military facilities out of state and overseas. Additionally, the outside laboratory is not currently linking multiple specimens from one baby together. Although efforts have been made to verify each record is for a unique baby, there may still be some duplication in the babies screened in December 2021.

FY21 marks the completion of the first year and a half of the addition of DNA for cystic fibrosis (CF) to the newborn screen. Maryland has retained the two-screen process in screening for CF using an IRT/IRT/DNA model, unless the initial IRT is over 200 which results in DNA being tested on the initial specimen. The DNA panel usually performed on the second elevated IRT specimen consists of 60 mutations, determined through consultation with our pulmonology specialist to be the most common mutations in our population. Since Maryland has remained a two-screen state, the NBS Follow-up program is notified of the initial elevated IRT result only if DNA was tested and was positive or if a routine repeat specimen has not been received on the infant.

If there is no repeat specimen received by the laboratory at 3 weeks of age to rescreen the IRT, the NBS Follow-up program is notified and then identifies and locates the infant in order to determine if a repeat specimen has been collected and may still be in transit to the lab or if a repeat specimen is still needed. Since the cut-off for IRT was reduced as well with implementation of DNA, the number of babies who had elevated IRTs on the first screen increased resulting in a substantial increase in the number of babies reported for follow-up for an initial IRT elevation. This increase in the number of babies reported has been further exacerbated by the U.S. Postal service delays, which have resulted in repeat specimens not being received until 3.5-6 weeks of age. The NBS Follow-up program is currently working with the NBS laboratory to determine the best timing for notification to reduce burden on the follow-up team and ultimately to eliminate undue anxiety on the part of the family. More in depth data analysis and discussion with our pulmonology specialists is also needed to determine if the IRT cut-off needs to remain at 60 with the addition of DNA; the previous cut-off was 100, without DNA.

In FY21, the multiplexed screening for the lysosomal storage disorders (LSD) consisting of Pompe, Mucopolysaccharidosis Type 1 (MPS-1) and Fabry Disease continues to identify a large number of pseudo deficiencies in both Pompe and MPS-I. Further analysis of cut-offs related to final diagnosis is needed to further refine the screening process to reduce this false positive rate, particularly in the absence of second tier testing.

The timeframe for implementation of screening for X-Linked Adrenoleukodystrophy (X-ALD) remains unknown at this time. X-ALD was approved in September 2016 for inclusion on the Maryland Newborn Screening panel when the laboratory has the financial and personnel resources necessary for implementation. Since screening for X-ALD cannot be multiplexed with any of the other disorders and requires purchase of dedicated equipment, this implementation has been delayed. The NBS laboratory has initiated the procurement process for the equipment at this present time.

The total number of babies requiring follow-up services for metabolic newborn screening in CY21 is 1993 babies. NBS short-term follow-up services are provided by staff consisting of the program chief and two full-time nurses. The nurses provide consultation with hospitals, primary care providers and specialists regarding results obtained through newborn metabolic screening, as well as reporting unsatisfactory specimens. Cases are followed and updated until there is a confirmed diagnosis or final resolution of the case. The team of nurses share 24/7 on-call responsibility, including weekends and holidays. Since teleworking during the COVID-19 pandemic proved to be a relatively seamless transition, the nurses are continuing to telework three days per week and working in the office two days per week to foster relationships with NBS laboratory staff.

Critical Congenital Heart Disease (CCHD) Screening Program

OGPSHCN conducts surveillance for the Critical Congenital Heart Disease (CCHD) Screening Program. The CCHD screening results and follow-up actions are completed prior to the baby's discharge from the hospital and entered the OZ Systems database by birth facilities. The CCHD screening data is used to identify variations in hospital compliance and to determine final diagnosis for abnormal screens. In CY21, there were 64,859 reported births in the OZ database that are listed as eligible for CCHD screening, and 54,772 babies reported as being screened for CCHD. The combined screening rate for the state is 84.5%. This screening rate has decreased since the last reporting period, which was 92.1% in CY20. A more extensive review of the data will be conducted to determine if the decrease is an overarching problem with the documentation of CCHD results into the database or a concentrated problem at a few birth facilities of the screened babies, 11 babies are documented as failing the CCHD screen, one of which has a critical congenital heart defect that was not suspected prenatally or clinically prior to screening. The remainder of these babies had non-critical cardiac defects, delayed transition or pneumonia. Of note, 21 babies were documented as having a critical congenital heart defect identified either prenatally or clinically prior to screening, indicating prenatal screening and postnatal assessment remains a vital part of identification of critical congenital heart defects.

Review of the most recent CCHD data reveals that birth facilities may be over utilizing the category of Physician Override. This category was created for babies who had an ECHO already performed secondary to findings on a prenatal ultrasound or for babies who require urgent attention clinically. If the Physician Override category is chosen, the birth facility must choose a reason why the override is performed. Of the 158 cases documented as Physician Override, 71 of these cases are identified as having no prenatal suspicion of a cardiac defect, with 34 cases documented as not having clinical symptoms either. Education efforts with the birth facilities need to focus on documentation in general, as well as clearly defining the category of Physician Override.

Sickle Cell Disease Follow up Program

OGPSHCN's Sickle Cell Disease Long-Term Follow up Program follows children diagnosed with sickle cell disease through age 18. The program continues to focus on childhood preventive care standards and provide education and assistance through transition into adulthood. In FY21 563 children were being followed in the program. In May 2015, a pilot parent mentor program was formed to assist parents of newborns with sickle cell disease. This program continues to grow and develop as new parent mentors are added. In November of 2018, the program conducted a survey of providers to determine awareness of and preparation to discuss Sickle Cell Trait (SCT) testing outcomes, via Newborn Screening, and health concerns with families. The outcome showed that while most providers were aware of SCT potential health risks, the breadth of knowledge was limited. This lead OGPSHCN to explore opportunities to expand knowledge related to SCT among providers, parents of those affected, those affected, and the community at large. FY20 legislation prompted the reconvening of the Statewide Steering Committee on Services for Adults with Sickle Cell Disease," in which OGPSHCN plays a key role both in planning and implementation. SCT Follow-up opportunities are being discussed in the statewide Adult Sickle Cell Disease Steering Committee.

Early Hearing Detection and Intervention (EHDI)

The Maryland Early Hearing Detection and Intervention (EHDI) Program, housed within the OGPSHCN, provides

surveillance and follow up to ensure newborns and infants receive a newborn hearing screening and recommended follow up, including referral to early to intervention services, when appropriate. During FY21, there were 64,522 births reported to the Maryland EHDI OZ Systems database. 63,467 newborns were documented as screened. Out of the newborns screened, 62,400 passed the newborn hearing screen; 1,346 infants missed or did not pass their inpatient screen; 95 were identified as deaf or hard of hearing and documented as referred to early intervention services; 441 infants (270 of these are home births) have files that are closed as lost to follow up or lost to documentation (LTF/D), and there are currently an additional 447 infants whose files are still open and unresolved as of this writing. CY20 LTF/D was 30.9% and the CY19 LTF/D was 27.12%.

Follow up for newborn hearing screening suffered greatly due to the COVID-19 pandemic. Clinics had limited appointment availability, parents did not want to expose themselves or their newborns, and staffing issues were prevalent. Many of these issues remain even now, but CY20 certainly saw what we hope was the pinnacle with many “non-essential” medical services being stopped or postponed during months of that year.

The MD EHDI program staff and MD EHDI Advisory Council board members obtained and shared input on how the pandemic affecting newborn hearing screening, follow up, and early intervention services. The information obtained allowed MD EHDI staff to better assist families and provide them with up-to-date information and realistic expectations as they navigate the EHDI process. In addition, in response to changes in the status of nonessential health care services in Maryland and inquiries received, the MD EHDI program developed a statement that was provided to birthing staff when necessary. In part, it states: “the newborn hearing screen is a critical step in identifying children who are deaf or hard of hearing. Birthing facilities should make every effort to complete a hearing screen on newborns prior to hospital discharge and to report those findings to MDH following the usual protocols. Hearing screens should be provided safely and consistent with available guidance to minimize the risk of exposure to COVID-19 and other pathogens.” Despite efforts from MD EHDI staff and stakeholders, CY20 showed an increase in LTF/D percentages; one which will be explored further going forward.

Birth Defects Reporting and Information Systems (BDRIS)

In FY21, the BDRIS program continued to use the OZ Systems database to monitor birth defects. Birth facility training continued, using a virtual platform subsequent to the COVID-19 pandemic, to make sure staff and administrators were using the system appropriately and effectively, and to increase reporting compliance rates. In FY21, no training sessions were conducted for birthing facilities due to pandemic restrictions. Questions regarding OZ were handled on an individual basis. Hospital site visits normally are conducted in collaboration with the CCHD screening program chief and the EHDI Program audiologist to reinforce appropriate screening and reporting procedures. These site visits were also useful to obtain documentation of the protocols being used by birth facilities for CCHD screening. BDRIS program staff continued to reach out to specialty clinics to encourage reporting of birth defects that are not diagnosed until an infant is discharged from the nursery. The program also continued to send out letters and fact sheets to families with infants identified as having a birth defect. With the emergence of COVID-19, all birthing facilities in Maryland were updated on appropriate reporting. In FY21, 1,177 babies were identified via the birth defects reporting system and linked to resources.

Easy to Use Services and Supports

The overarching mission of the OGPSHCN is to ensure a comprehensive, coordinated, culturally effective, and consumer-friendly system of care that meets the needs of Maryland's CYSHCN and their families. Having community-based services for CYSHCN organized so families can use them easily is integral to accomplishing this mission but implementing strategies to foster ease of use is significantly easier said than done. Services and supports for

CYSHCN are complex and convoluted, made unnecessarily more so by regional differences and a lack of a centralized resource repository for families. Through both internal efforts and funding to community-based organizations and to local health departments, OGPSHCN seeks to ameliorate some of the challenges to accessing supports and services.

OGPSHCN continued the regional liaison relationship with Talbot County Local Health Department on the Eastern Shore of Maryland in FY21. This relationship, which includes a full-time nurse devoted to the role, has proven to be very beneficial. As a result of this unique partnership, all nine counties of Maryland's Eastern Shore engage in collaboration to identify and share information about community-based services throughout the state.

Regional liaisons are employed by a local health department in a given region and provide support, education and mentoring to LHD nurses/care coordinators within their region.They are the designated local contact from OGPSHCN to regional stakeholders, including families, and utilize regional partners to develop an ongoing system of information collection for the region, which can direct services by identifying gaps and unmet needs and assist in implementing regional initiatives as determined by OGPSHCN.

To further support collaboration amongst programs serving CYSHCN around the state, OGPSHCN conducted a Grantee Meeting in January 2021, inviting all awardees from the competitive RFA to participate in a sharing session allowing each to learn more about the others' respective projects. Through this communication, OGPSHCN grantees can learn about additional resources and opportunities for collaboration. This is something OGPSHCN plans to pursue with more focus in the coming year.

Along the same goals of increasing opportunities for collaboration and resource knowledge, OGPSHCN also increased engagement with internal Department of Health partners. The Maryland Developmental Disabilities Administration (DDA) and the Center for Chronic Disease Prevention and Control (the Center) are both natural allies to the Office for Genetics and People with Special Health Care Needs. In FY21, OGPSHCN leadership and leadership from both DDA and the Center to explore partnership opportunities. This, too, is something OGPSHCN plans to pursue with more focus in the coming year.

Resource Line and Resource Locator

In FY21 there were a total of 26,728 visits to the OGPSHCN website with 2195 unique visits. Average time spent on the website was approximately 2 minutes. In FY21, the OGPSHCN Resource Line and Resource Locator continued to grow and serve as a valuable resource for accessing community-based services. The Resource Line is a live resource service that was staffed by OGPSHCN's Parent Resource Coordinator prior to their departure. After their departure, the "Systems Development" Program Chief took the lead on responding to calls for assistance. The Resource Locator is an online resource with over 1,100 listings. In FY21, the most requested topics were general resource information and questions regarding funding sources. Due to the network security incident that the Department experienced in December 2021, FY21 numbers for the Resource Locator are not available. Between July 1, 2019, and June 30, 2020, there were 5,125 unique visits to the Resource Locator. Approximately 13.8% of users returned to the site after the initial visit. A majority of the users came from the United States (91%) with users from the Philippines, India, France, and Indonesia making up the remainder (9%). OGPSHCN promoted use of the Resource Line and Resource Locator through partners' online listservs, newsletters and dissemination of fliers at local events. The Resource Locator is translatable into 50 languages and uses a language link translation service for those that choose to call in for assistance.

Internal Case Presentation and Training opportunities

In our FY21 application, it was noted that OGPSHCN staff would continue to identify opportunities for cross-program integration between the Systems Development Program, which manages the grants, and OGPSHCN's other programs, with a focus on how the Systems Development grant activities might act in synergy with other programs or expand the functional capacity of those programs to address specific programmatic needs that have a direct outcome on Maryland's CYSHCN. In an effort to support cross-program collaboration and integration, a case presentation opportunity was added to routine senior staff meetings. OGPSHCN "Program Chiefs" meet monthly; time was allotted on each agenda and a case presentation form template was provided to each chief with a rotating schedule. The intent was and is to foster increased communication and collaboration between OGPSHCN programs and to share resources that could support the families we serve.

OGPSHCN also conducts bi-monthly "all-staff" meetings during which training. opportunities have been implemented, some focused-on Title V-specific topics (Block grant summary overview) and others focused more on office or state-specific topics (Quality improvement, Maryland's legislative process), but all with the overarching goal of increasing staff knowledge of sister programs, familiarity with federal and state programs and requirements, and capacity to service Maryland's CYSHCN

Youth Transition to Adult Health Care

During FY21, OGPSHCN focused efforts on education and awareness, interagency partnerships, technical assistance and systems development activities to increase the number of youths with special health care needs (YSHCN) that receive the services necessary to make a successful transition to adult health care. Due to the COVID-19 Pandemic beginning in March of 2020 many of the in-person activities were canceled and/or switched to virtual which was a hindrance for some health care transition activities and services. Many of the programs funded by OGPSHCN created effective and supportive outreach initiatives that were very successful in keeping youth, families and partners engaged in health care transition initiatives.

Again, through both internal efforts and through funding to community-based organizations and to local health departments, OGPSHCN sought to increase the number of YSHCN that receive the services necessary to make a successful transition to adult health care.

In FY21, The Health Care Transition Program (HCT) collaborated with other state agencies to incorporate HCT into program planning and increase overall education and awareness about HCT, including the Maryland Department of Social Services - Foster Care Programs, the Specialized Health Needs Interagency Collaboration program (a collaborative partnership between the Kennedy Krieger Institute and the Maryland State Department of Education), and United Health Care Community Advisory Board. The OGPSHCN Health Care Transition Coordinator also again served on the planning committee for the School Health Interdisciplinary Program (SHIP) conference, a project of the National Center for School Mental Health.

In an effort to offset the challenges presented by COVID-19 and to keep parents/caregivers, youth, providers, support systems, and school health professionals engaged in health care transition training and educational activities, OGPSHCN Health Care Transition Coordinator updated the HCT-specific webpage with current content and developed a new online virtual presentation request form.

For the Strengthening Systems of Care for Maryland's Children and Youth with Special Health Care Needs RFA, only one applicant selected Health Care Transition as a primary focus area.

The **National Alliance to Advance Adolescent Health** is a new grantee for OGPSHCN in SFY2021. The overall project goal for their grant Year 1 was to increase school mental health professional training in evidence-informed transition practices through a new school mental health transition initiative modeled after Got Transition's structured approach called the Six Core Elements of Health Care Transition. This goal was accomplished by customizing and piloting mental health transition tools produced by The National Alliance to Advance Adolescent Health/Got Transition and the University of Maryland's Prince George's School Mental Health Initiative (PGSMHI) transition improvement team.

Workforce Development

In FY21 OGPSHCN continued the ongoing effort to incorporate workforce development activities into the office programs by accepting student interns from various colleges and universities within the state. These interns range from health education majors to nursing and public health majors, from both undergraduate and graduate level programs. The office is utilizing student interns to introduce concepts of public health, needs of the CYSHCN population, newborn screening, surveillance and follow up activities, as well as to enhance the work of the office.

In the past few years, OGPSHCN has hosted students from Morgan State University and Coppin State University - both HBCUs - and from the University of Maryland and Stevenson University. The interns have worked on various projects ranging from updating and developing health education materials, to developing discussion sessions, and assisting with programmatic work. Interns are welcomed to OGPSHCN through a "meet and greet " style meeting with OGPSHCN leadership and any Program Chiefs and staff with whom they will be working directly. Upon the end of their internship, they are invited to present their work and what they have learned at an office-wide meeting specifically for this purpose.

Additionally, OGPSHCN has prioritized the professional development of existing staff. Through a structured calendar of meetings for all staff and selected staff groupings, along with an intentional increase in learning opportunities, OGPSHCN hopes to keep staff engaged and coordinated, and continue to build capacity to serve effectively.

[1] Core Outcomes: Key Measures of Performance

[2] Kansas Department of Health, Special Health Care Needs

Children with Special Health Care Needs - Application Year

The Office for Genetics and People with Special Health Care Needs (OGPSHCN) administers Title V funds specific to children and youth with special health care needs (CYSHCN)

In 2008, HRSA's Maternal and Child Health Bureau (MCHB), together with its partners, identified six core outcomes to promote the community-based system of services mandated for all children with special health care needs under Title V. These outcomes gave us a concrete way to measure our progress in making family-centered care a reality and in putting in place the kind of systems all children with special health care needs deserve[1]. The six core outcomes were:

- Families of children and youth with special health care needs partner in decision making at all levels and are satisfied with the services they receive;
- Children and youth with special health care needs receive coordinated ongoing comprehensive care within a medical home;
- Families of CSHCN have adequate private and/or public insurance to pay for the services they need;
- Children are screened early and continuously for special health care needs;
- Community-based services for children and youth with special health care needs are organized so families can use them easily;
- Youth with special health care needs receive the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence.

In previous years, OGPSHCN has used these six core outcomes as a framework for activities and for the 2021-2025 MCH Block Grant needs assessment reporting cycle, Maryland identified, “ensuring optimal health and quality of life for all children and youth with special health care needs and their families by providing services within an effective system of care in alignment with the six core outcomes” as a continued State Priority. However, those six core outcomes have been revised and updated over the years. Beginning with the FY2022 annual report and moving forward through FY2023 and beyond, revised and updated outcomes will be discussed.

In 2014 the National Consensus Framework for Improving Quality Systems of Care for Children and Youth with Special Health Care Needs project released a core set of structure and process standards for systems of care for CYSHCN adding cultural competence as a seventh outcome and introducing 10 core domains for system standards[2]. Version 2.0 of the National Standards for CYSHCN, released in 2017 as a result of a partnership between The Association of Maternal & Child Health Programs (AMCHP) and the National Academy for State Health Policy (NASHP) organizes the standards into eight core domains and introduces four Foundational Standards for Systems of Care for CYSHCN.[3] As stated in the report, “These four principles are the foundation for all standards in each domain, and should be in place to ensure a comprehensive, quality system of care for children and youth with special health care needs.”[4]

Foundational Standards for Systems of Care for CYSHCN:

- Children and families of CYSHCN are active, core partners in decision making in all levels of care.
- All services and supports for CYSHCN are implemented and delivered in a culturally competent, linguistically appropriate, and accessible manner to best serve CYSHCN and their families. All written materials provided to CYSHCN and their families are culturally appropriate, provided in the primary language of the CYSHCN and their family, and in a manner and format appropriate for children and their parents or caregivers who have limited English proficiency, lower levels of literacy, or sensory impairments.
- Insurance coverage for CYSHCN is accessible, affordable, comprehensive, and continuous.
- All care provided to CYSHCN, and their families is evidence-based where possible, and evidence-informed

and/or based on promising practices where evidence-based approaches do not exist.

Core Domains for System Standards

- Identification, Screening, Assessment, and Referral
- Eligibility and Enrollment in Health Coverage
- Access to Care
- Medical Home
    - Pediatric Preventive and Primary Care
    - Medical Home Management
    - Care Coordination
    - Pediatric Specialty Care
- Community-Based Services and Supports
    - Respite Care
    - Palliative and Hospice Care
    - Home-Based Services
- Transition to Adulthood
- Health Information Technology
- Quality Assurance and Improvement

In 2022, the Blueprint for Change: A National Framework for a System of Services for CYSHCN was released via a special supplement to *Pediatrics*. The Blueprint for Change is the result of work led by the Maternal Child Health Bureau (MCHB) in partnership with families, health professionals, and other stakeholders. In the Blueprint, four critical areas are addressed: health equity, family and child well-being, access to services, and financing of services. In FY23, OGPSHCN will spend some time evaluating and assessing how the Standards of Care and the Blueprint are related and how to integrate our current work.

SFY2023 is an ideal time for OGPSHCN to shift to the updated standards of care for CYSHCN as a programmatic blueprint, as the last few years have exposed the need for adjustments to internal organizational structures and refreshed program strategies.
In SFY2020 and SFY2021, OGPSHCN engaged in an intensive review of the internal process for awarding grants. In SFY2022, OGPSHCN and the Bureau began the work of assessing current programs and developing forward-looking strategic plans. This will continue and expand in SFY2023

HRSA identifies its key strategic goal for children and youth with special health care needs as creating an effective system of care to allow for optimal health and quality of life for all CYSHCN and their families. An effective system of care ensures:

- Families are partners in care
- Screening occurs early and continuously
- Families can easily use community-based services
- Children and youth have access to an accessible family-centered, comprehensive medical home
- There is adequate insurance and funding to cover services
- Families and providers plan for transition to adult care and services.

The State of Maryland identifies the objective for this population as improved health through comprehensive, coordinated care for CYSHCN and support for successful transition to adult health care.

For the 2021-2025 Five-Year Action Plan, the Maryland Steering Committee selected Medical Home (NPM 11) and

Health Care Transition (NPM 12) as the National Performance Measures (NPMs) for children and youth with special health care needs. These NPMs include children and youth with and without special health care needs crossing both CSHCN and Child Health population domains.

One of the many challenges in improving health systems for CYSHCN when there are so many opportunities for improvement is creating a set of goals, benchmarks and measures of success that is SMART (specific, measurable, achievable, relevant and timebound). In discussing plans for SFY2023, Maryland will primarily look at the Foundational Standards for Systems of Care within the context of the selected National Performance Measures and will secondarily look at those core domains for system standards not named as performance measures but still foundational to provide effective systems of care for CYSHCN. Thirdly, Maryland will explore ways in which to integrate the four critical areas addressed in the Blueprint for Change to ensure access to a well-functioning system of services for CYSHCN.

MEDICAL HOME

Medical Home

According to the 2018-2019 National Survey of Children's Health, 44.9% of children ages 0 to 17 with special health care needs had a medical home, compared to 46.4% of children ages 0 to 17 without special health care needs.

NPM 11: Medical Home

The strategy selected for this NPM is to encourage implementation of the Medical Home model in pediatric primary care practices through education and training opportunities. OGPSHCN will explore the possibility of providing a continuing education course on Medical Home Implementation for MDs, PAs, NPs, nurses, and other medical providers, with a focus on engaging providers-in-training and early career providers.

In addition, discussions will be sought around expansion, replication, and sustainability of medical home-focused initiatives currently underway by current OGPSHCN grantees who were awarded under the 2020 competitive request for applications. Specific topics for these discussions include patient/family-centered care, sustainable care coordination and/or case management and shared plans of care between primary care providers and specialists.

Looking at the Foundational Standards for Systems of Care, in the context of the medical home model:

Children and families of CYSHCN are active, core partners in decision making in all levels of care (shortened to Family-Professional Partnership)

A great deal of effort in the past has focused on educating families about the Medical Home system of care, however, the reality is that families are more of a recipient of the medical home framework once it has been implemented and have very little control of how, when or even if, a given provider can and will adopt this framework. Awareness of the existence of the concept is important, but awareness alone will not increase its implementation within the provider community. OGPSHCN will endeavor to engage providers-in-training and early career providers to inform and educate about the medical home, and also to provide some practical tips on how to implement a medical home in their practice.

This does not preclude educating family members. Rather, the shift is in educating family members on factors they can control: recognizing good medical care; engaging in clear and respectful communication, and effective advocacy for their CYSHCN.

In FY20/21, OGPSHCN drafted and posted the newly revised competitive RFA previously discussed with the explicit requirement that all proposed projects ensure family members have a meaningful role in grant-funded activities. This requirement continues in FY23 and beyond. As current grantees enter their third and final year of funded project activities, OGPSHCN begins drafting the scope of work for grant projects beginning in FY24. Again, Family-Professional partnership will take center stage.

OGPSHCN's dedicated Parent Resource Coordinator departed in late 2019, which posed a challenge for delivering parent perspective training and providing FPP resources. However, OGPSHCN saw an opportunity to integrate Family Professional Partnership into all facets of the work. All too often, a single family member is identified and the box for family engagement is checked. OGPSHCN wants to see the family voice fully incorporated into all facets of program development, implementation and administration. Without the conscious, valued, and sustained involvement of family, none of the other goals will ever be fully and meaningfully accomplished. Collaboration with those with lived experience is essential to determining what is needed, why needs are not currently being met, and what can be done to address those needs. Family Professional Partnership is not a separate outcome but is the very foundation upon which all other desired outcomes can be achieved.

OGPSHCN will continue to seek opportunities to provide family sensitivity trainings to internal and external partners who serve CYSHCN, as well as trainings for families on resource identification and advocacy, and will also identify additional opportunities and strategies to integrate the family voice.

All services and supports for CYSHCN are implemented and delivered in a culturally competent, linguistically appropriate, and accessible manner to best serve CYSHCN and their families. All written materials provided to CYSHCN and their families are culturally appropriate, provided in the primary language of the CYSHCN and their family, and in a manner and format appropriate for children and their parents or caregivers who have limited English proficiency, lower levels of literacy, or sensory impairments. (Shortened to Cultural Competency)

Maryland Title V humbly changes this foundational standard to read: All services and supports for CYSHCN are implemented and delivered in a culturally ***respectful***, linguistically appropriate, and accessible manner to best serve CYSHCN and their families. Through an equity lens, we acknowledge that “cultural competence” is an improbable accomplishment. The word “competence” itself implies proficiency; an end to learning. But can one be competent in a culture one is not a part of? The standard we aspire to and will endeavor to demonstrate is one on cultural humility. This implies respect for others’ culture as well as a mindset of continuous learning.

The clinical setting naturally comes with a power imbalance, but through a shared decision-making model, the strengths each party brings to the table are recognized and respected. In FY23, OGPSHCN will develop informational materials and learning opportunities on shared decision making in the context of the medical home (shared decision making between provider and patient/family) and in the context of health care transition, discussed further below.

One of the frameworks around which Title V is structured in the Health Equity Framework. The health equity framework looks at class, race/ethnicity, gender, sexual orientation, and immigration status and recognizes how institutional and structural inequities can create unequal living conditions. The unequal living conditions can then shape the health behaviors and health outcomes. Thinking about this framework in the context of CYSHCN, intersectionality - how race, class, gender and other characteristics intersect with one another to overlap and create different forms of discrimination - adds another layer of complexity for families of CYSHCN and for YSHCN navigating the journey to adulthood. Through existing and planned outreach and education efforts to providers and families, OGPSHCN has the opportunity to inform about factors contributing to, or impeding, health equity as well. In FY23, OGPSHCN will explore how to integrate discussion and learning opportunities on health equity into existing

learning opportunities.

OGPSHCN boasts fact sheets and resource information on multiple individual diagnoses as well as the medical home model in general. In FY23 and beyond, OGPSHCN will implement a schedule to review and edit all public-facing and internal fact sheets and presentation materials, including website materials.

In addition to considerations of accessibility related to limited English proficiency, lower levels of literacy, or sensory impairments, OGPSHCN recognizes the need to modernize communication approaches. Some programs are still using communication methodologies established 20+ years ago; it is time to consider not only 'modern' communication methods, but post-COVID communication methods and needs. In FY23, OGPSHCN will explore the utilization of increased electronic communication and record-keeping.

Insurance coverage for CYSHCN is accessible, affordable, comprehensive, and continuous. (Shortened to Insurance Coverage)

Federal and State legislation dictates much about insurance coverage, however, there are some areas OGPSHCN can impact through outreach and education. In FY23, OGPSHCN will endeavor to ensure CYSHCN have access to continuous health coverage, all benefits they are eligible to receive, and relevant care where they learn and live. Through enrollment in the Children's Medical Services Program, uninsured/underinsured CYSHCN have specialty care paid for and, in some cases, private insurance purchased on their behalf. This will continue in FY23.

Additionally, through restoring previous relationships and forging new partnerships among community-based organizations, healthcare providers, sister State programs and local health departments, OGPSHCN can increase awareness of resources across the board, which will increase access to benefits and care for CYSHCN and their families. Specific to those families, insurance and other benefits navigation is complex and often difficult to understand. Through outreach and education to families, this confusion can be alleviated within the confines of providing general information applicable to all programs.

All care provided to CYSHCN, and their families is evidence-based where possible, and evidence-informed and/or based on promising practices where evidence-based approaches do not exist. (Shortened to evidence-based care)

Evidence-based care or Evidence Based Health Care can be defined as, "the integration of the best research evidence, clinical expertise and the patient's unique values and circumstances.[5] This approach to health care embraces the concepts of family professional partnership wherein a clinician "uses the best evidence available, in consultation with the patient (evidence-based patient choice), to decide upon which option best suits the patient." OGPSHCN will continue to educate on best practices for family-professional partnership.

Sub-categories within the Medical Home Core Domain for System Standards include:

- Pediatric Preventive and Primary Care
- Medical Home Management
- Care Coordination
- Pediatric Specialty Care

Care Coordination has long been a focus of OGPSHCN's efforts, however in recent years this focus has wavered. Defining care coordination (as opposed to case management), determining the current landscape of care coordination, and developing feasible, sustainable plans for care coordination in consideration of the many carried

needs of CYSHCN, and their families seems an almost insurmountable challenge. Two of OGPSHCN current grantees are doing some exciting and innovative work around the medical home and care coordination which can potentially be expanded. OGPSHCN will endeavor to further develop and refine the role of care coordination and case management within the context of future grant requests for applications, with a focus on outcome measures, quality improvement, and sustainability of local care coordination services.

In 2022, the National Academy of State Health Policy released National Care Coordination Standards for CYSHCN Implementation Guide to outline the core system-level components of high-quality care coordination for this population. OGPSHCN will use these standards as a guide to further inform care coordination activities in FY23.

Collaboration among multiple partners is key in providing care to CYSHCN and pediatric specialty care is no exception. It is imperative that pediatric primary care and specialty
providers are able to communicate and collaborate without leaving the CYSHCN and their family feeling like they are playing a game of “telephone.” A relatively easy mode of collaboration that can be as high-tech or low-tech as needed is to establish a shared plan of care.[6] In FY23, OGPSHCN will increase provider and family use of shared plans of care.

HEALTH CARE TRANSITION

Health Care Transition. In 2017, 15.3% of children in Maryland received services necessary to transition to adult health care, compared with 14.2% nationally. 21.6% of children and youth with special health care needs received services necessary for transition to adult health care, compared to the national average of 18.9%.

NPM 12: Transition

The strategy selected for this NPM is to increase and enhance parent/family education and training around HCT. Internally, OGPSHCN will explore strategies to engage families in the transition process for their youth with special health care needs. Provider knowledge and willingness to treat is essential for successful transition, but only with the concentrated efforts of engaged families and youth will we truly see an increase in the measures. Similar to plans under Medical Home, discussions will be sought around expansion, replication, and sustainability of health care transition-focused initiatives
underway by current OGPSHCN grantees who were awarded under the 2020 competitive request for applications. Specific topics for these discussions include increasing adult provider willingness and capacity to provide quality care for youth with special health care needs, increasing family awareness of transition benchmarks, and increasing health care and school-based professional awareness of transition benchmarks.

Looking at the Foundational Standards for Systems of Care, the context of Health Care Transition:

Family-Professional Partnership

Without the engagement of an involved adult, successful health care transition (HCT) for our YSHCN is unlikely to happen. While there are systems and structures in place to support HCT through certain provider offices, and to support transition to adulthood in general through school, those systems are overwhelmed and inefficient. A goal for FY23 is to revitalize parent/family training around HCT. While the focus of efforts around the Medical Home may rest within the provider community, the focus of activities around HCT awareness would ideally rest with the family. There are numerous challenges to successful health care transition — including a dearth of adult providers willing to see youth and adults with special health care needs — but families not knowing how, when, and why to focus on transition efforts is also a significant challenge and one that might be tackled more effectively within OGPSHCN's scope of influence.

In years past, the HCT Program within OGPSHCN convened a Health Care Transition Leadership Team, produced fact sheets, and engaged in meaningful partnerships with stakeholders. While some of those efforts continued in more recent years, staffing issues and other internal challenges have led to a decline in HCT-focused activities. In FY23, OGPSHCN will explore how efforts around HCT can take the forefront again, beginning with efforts to solicit input from families, youth and adult self-advocates. The Center for Chronic Disease Prevention and Control within the Maryland Department of Health coordinates the Disability Health Inclusion Advisory Council, on which OGPSHCN holds a seat. In FY22, that Advisory Council established a transition of care workgroup to impact successful health care transition for disabled youth. The advisory council includes family-led organizations and self-advocates. Additionally, The Association of Maternal and Child Health Programs (AMCHP) partnered with Title V Block Grants and Got Transition® to develop AMCHP's Implementation Toolkit for National Performance Measure 12. The toolkit provides various relevant resources and tools Title V programs and public health professionals can use to address NPM 12 and encourage successful youth transitions to adult health care. The toolkit explores five strategic approaches, which include: 1) youth and family education and leadership development, 2) health care professional workforce development, 3) care coordination, 4) communications and 5) social media, and 5) measurement and assessment. In FY23, OGPSHCN will review this tool to aid in the design and implementation of training programs.

Educating families is only part of the equation; we must also educate and empower youth to take charge of their own health outcomes. Many years ago, OGPSHCN designed and offered a Health Care Notebook for caregivers and for youth. In FY23, OGPSHCN will explore electronic medical record keeping systems specifically for youth/young adults, particularly in consideration of varying intellectual capacity.

Cultural Competency (i.e. Cultural Humility)

Efforts to demonstrate the standard of cultural humility extends to health care transition. The shared decision model is applicable not only to the medical home (shared decision making between provider and patient/family) but to HCT as well. Supported decision making has long been considered an alternative to guardianship for adults with disabilities. In FY23, OGPSHCN will explore how information from The National Resource Center for Supported Decision Making[7] and other organizations, as well as feedback from self-advocates, can be incorporated into HCT materials. As previously noted, OGPSHCN boasts fact sheets and resource information on health care transition. Along with plans to review medical home fact sheets, OGPSHCN will implement a schedule to review and edit all public-facing and internal fact sheets focused on HCT.

Insurance Coverage

The Children's Medical Services (CMS) Program pays for specialty care for children and youth who are uninsured or underinsured up to age 22. The eligibility age cutoff can be extended to age 25 in certain circumstances. There are very few safety nets for these young adults after enrollment in the CMS Program terminates. In FY22, the Program began sending a letter to families prior to enrollment termination with health care resources for their adult child. In FY23, additional resources will be added to the information being sent to families. OGPSHCN will also explore opportunities to educate this cohort of families and youth with whom we already have a strong connection on insurance and other benefits navigation.

Evidence-Based Care

Throughout FY23, OGPSHCN plans to conduct more statewide presentations on best practices related to health care transition. The focus will be on early-career providers to increase the capacity and willingness of adult providers to see youth and young adults with special health care needs.

In FY23, OGPSHCN will also explore a collaboration with the Adolescent Health Program within the Maryland Maternal and Child Health Bureau to review resources related to sex education for CYSHCN. Special health care needs and disabilities can have significant impact on sexual health and increase the risk of victimization. Researching evidence-based best practices concerning sex education for CYSHCN will be the first stage of educating and informing providers, parents and youth.

ADDITIONAL CORE DOMAINS FOR SYSTEM STANDARDS

- Identification, Screening, Assessment, and Referral
- Eligibility and Enrollment in Health Coverage
- Access to Care
- Community-Based Services and Supports
    - Respite Care
    - Palliative and Hospice Care
    - Home-Based Services
- Health Information Technology
- Quality Assurance and Improvement

Identification, Screening, Assessment, and Referral

OGPSHCN houses several Programs related to identification, screening, assessment and referral, including: Newborn Screening (NBS) Follow up; Critical Congenital Heart Disease (CCHD) Screening; Birth Defects Reporting and Information System (BDRIS); Sickle Cell Long-Term Follow-Up; and Early Hearing Detection and Intervention (EHDI). The aforementioned Standards for Systems of Care for Children and Youth with Special Health Care Needs Version 2.0[8] lists numerous factors needed for success in this standard. OGPSHCN will review these factors in FY23 to determine where Program improvements can be made and/or where outreach to providers or other stakeholders would be warranted.

In the area of Newborn Screening Follow-Up, OGPSHCN has begun development on an educational webinar providing technical assistance on specimen collection to reduce the number of unsatisfactory specimens.

One area needing significant attention in FY23 and beyond is refusal and loss to follow up for certain screening programs. One can surmise several factors contributing to increased refusal for certain screenings and assessments over the past several years. In FY23, OGPSHCN will assess the current status of refusals and loss to follow up in current programs and develop plans to determine causes and enact strategies to reduce those numbers.

Eligibility and Enrollment in Health Coverage

Thinking about factors involved in eligibility and enrollment in health coverage that are within OGPSHCN's sphere of influence, in FY23, outreach and education to families will focus on insurance and other benefits navigation. Additionally, OGPSHCN will explore increased partnership and collaboration with Maryland Medicaid to inform and ensure best practices for CYSHCN enrolled in Medicaid Managed Care Organizations. With the renewed Community of Care Consortium, discussed elsewhere, OGPHSCN will provide a forum for health coverage providers and other stakeholders of the CYSHCN community to interact.

Access to Care

Access to care involves CYSHCN having geographic and timely access to primary and specialty services.

Through the CMS Program, access to specialty care on an individual level is directly supported for enrolled CYSHCN. On a more-systemic level, The Maryland Community of Care Consortium for CYSHCN (COC) served as a forum for learning, networking, and communication among various stakeholder groups for years. The COC was coordinated by The Parents' Place of Maryland (PPMD) through grant funding through FY20. COC work was not included in the FY21 competitive RFA and discussions between OGPSHCN, Bureau and Administrative leadership are ongoing to plan and implement continuation of the COC. This has been a challenge over the last year; one OGPSHCN hopes to address in FY23. The COC was a valuable statewide collaborative effort that enhanced access to care by sharing information and resources among multiple stakeholders. In rebuilding the COC, OGPSHCN will look at the previous structure, but also consider current needs and technology in a post-COVID world. The Florida Family Leaders Network brings together family leaders from across the state who work or volunteer at local regional or state level - with healthcare systems, agencies and government offices, community based or family run organizations. Organizations and systems like this will be assessed to determine how we can integrate their successes into Maryland Title V for CYSHCN.

Additional opportunities for information sharing and collaboration will be afforded to OGPSHCN grantees with the long-awaited implementation of grantee meetings in FY23. This has also been a challenge over the last year.

The aforementioned efforts to ensure a shared plan of care for CYSHCN will additionally enhance the capacity of system stakeholders to provide care no matter where the CYSHCN present themselves.

Finally, a significant "silver lining" of the COVID-19 pandemic has been the increase in telemedicine/telehealth. Providers rapidly shifted to what had previously, for years, been an emerging practice. The shift was so rapid that an assessment of the current state of telemedicine in Maryland would be beneficial. Upon the outcome of that assessment, OGPSHCN can determine what additional educational and advocacy efforts are needed.

Community-Based Services and Supports

Strategies to impact access to care will have the added benefit of impacting community-based services and supports. However, to truly provide comprehensive home and community-based supports, OGPSHCN will additionally pursue collaborative opportunities with health systems, and community agencies including family organizations, education, Early Intervention (Part C), Special Education, child welfare, mental health, and home health care organizations. Through the aforementioned Community of Care Consortium, stakeholders such as these will have the opportunity to interact with and learn from each other.

Sub-categories within the Community-Based Services and Supports Core Domain for System Standards include: Respite Care, Palliative and Hospice Care and Home-Based Services. While OGPSHCN has encouraged grantees to focus on some of these categories - respite care, specifically - those efforts have declined in recent years. In FY23, OGPHSCN will review components of success for each of these standards and determine the best next steps.

Health Information Technology

Several years ago, OGPSHCN developed a Health Care Notebook and a Maryland Youth to Young Adult Care Notebook. These care notebooks were designed for parents and caregivers of a child with special health care needs and provided a helpful central tool to store all of a child's health care information. The care notebooks allowed parents and caregivers to provide any health information about their child, including reports from recent doctor's visits, recent summaries of hospital stays, current school plans, test results and informational pamphlets to new providers. Additionally, parents and caregivers could provide pertinent information about their child that they felt a paid caregiver might need. At the time of development, they were invaluable record-keeping, organization and information-sharing tools. In 2022, however, the idea of carrying around a binder full of papers is outdated and, in the case of youth, unrealistic. In FY23, OGPSHCN will review the care notebooks to update for current needs and

technology options, including ensuring that youth with special health care needs play a role in creating their own care notebook.

Quality Assurance and Improvement

Effective quality assurance and improvement requires data.

OGPSHCN recently inherited the management of an existing agreement between Maryland's Office of Quality Initiatives and the University of Maryland, College Park Epidemiology Doctoral Internship Program. In FY22, doctoral interns focused on sickle cell data, assessing hospital utilization, and morbidity and mortality among young adults with sickle cell disease and sickle cell trait. Analysis of Maryland data will allow for comparison with national data and permit identification of priority needs for young adults with these conditions. In addition, sickle cell analyses will serve as a template for analyses of all CYSHCN and for specific conditions. In FY23, this relationship will continue. In addition to the opportunities afforded by that agreement, OGPSHCN will invest time and efforts into data capacity, creating opportunities for data sharing and data linkages among partners and stakeholders. With increased data, OGPSHCN can develop additional measurable objectives.

Overarching internal goals for FY23 and Beyond

Many plans for FY23 and beyond for OGPSHCN are overarching goals pertaining to program assessment, refresh and redesign. Through necessity (staffing changes, network security incident) and desire, FY22 has brought numerous opportunities to evaluate the structure of OGPSHCN, its programs, and the processes by which those programs are run. Frankly, Title V CYSHCN programs have stagnated in the last few years. In many respects FY23 will be a year of assessment and planning across all programs, with the evaluation and possible reconfiguration that began in FY22 continuing to focus on innovative and modern program design and implementation.

Beginning with a comprehensive review of current literature and best practices, and culminating in a determination of priorities, strategies and measures of success, FY23 should be a year of significant change for OGPSHCN.

Structural changes

In FY23, components of the OGPSHCN organizational structure will shift. Some due to staffing challenges and some due to a very intentional review of staff capacity and ideal structure. OGPSHCN plans to hire and onboard a new CYSHCN Title V manager, a new Medical Director and a new epidemiologist, as well as a new EHDI program manager within FY23.

Measures of Success

Goals regarding measures of success are two-fold; one specific to internal programs and processes, and the other specific to OGPSHCN Title V-funded grantees.

Development of measures for NPM 11 and NPM 12

In FY23, OGPSHCN will assess data needs and availability related to medical home and health care transition specifically. Through the aforementioned contract with University of Maryland, a review of data available through Maryland's Health Services Cost Review Commission[9] regarding health care transition for CYSHCN has already begun. A detailed data request to Maryland Medicaid will also be submitted after consideration of what data fields would be most beneficial. Through this data, OGPSHCN will be better able to determine accurate baseline numbers for Maryland CYSHCN, thereby more accurately identifying needs and assessing the value of planned strategies and interventions.

Program Assessment and Evaluation

As a result of aforementioned opportunities to evaluate OGPSHCN programs and the processes by which those programs are run, certain programs have been asked to implement new or increased tracking systems in FY22. This

review and expansion of tracking mechanisms will continue in FY23. In order to determine if OGPSHCN programs are reaching targeted populations, data must be collected on stakeholder outreach and contacts. Additionally, evaluation tools will be developed and implemented for education and training opportunities to determine value and effectiveness.

Grant Management
Services provided by grantee organizations vary by design. OGPSHCN endeavors to keep scopes of work in requests for applications as broad as possible to allow community-based organizations and local health departments to design projects that will reflect the needs of the communities they serve. Each applicant is asked to submit their plans to evaluate program efforts within their initial application and to update theri evaluation plan in any non-competitive applications. This allows grantees to design their own program, however, it also allows them to tell the State how they will measure success. In future requests for applications, OGPSHCN will endeavor to include a more explicit statement of work and evaluation measures. The State Title V office should and will tell grantees how success will be measured and have them provide the needed information.

In FY23 OGPSHCN will continue to monitor and review reporting requirements from all grantees to ensure fidelity to Department goals and grant agreement scopes of work, while also planning for future iterations of the request for applications to be posted and the work that needs to be done across the state.

Collaboration
An important goal in FY23 will be to establish or maintain connections to other State offices, community-based organizations, local health departments, provider organizations, and more.

The Community of Care Consortium (COC) will afford OGPSHCN an opportunity to liaise with multiple stakeholders across many categories. The first step in re-introducing the COC will be to conduct an internal assessment of partners and stakeholders to be invited. The first task of the newly re-formed COC will likely be to conduct a more thorough partnership assessment of sorts to determine additional stakeholders who should be invited to participate.

An additional requirement for FY21 grantees and continued with the FY22 grants was the establishment of routine grantee meetings to discuss topics identified as priorities by OGPSHCN. Much of the planning for these meetings took place internally during FY21, with the intent to implement fully in FY22, however, planning and implementation was stalled due to internal challenges. In FY23, grantee meetings will begin. Genetic Center grantees funded to provide support to the newborn screening follow up program will have their own meetings to discuss challenges and opportunities specific to their work, while other grantees will meet to discuss topics such as: social return on investment;
addressing health and wellness equity; performance measures and outcome measures; and grant work intersections with OGPSHCN's programs and opportunities for complementary activities.

OGPSHCN also hopes to host a more structured "all-grantee" meeting that will require the attendance of each grant's Project Director, along with one CYSHCN or family member who is a contributor to the grantee's project. Maternal and Child Health Bureau and Prevention and Health Promotion Administration leadership will also be invited to these 'all-grantee' meetings.

Collaboration with other state offices and agencies serving the same population is already happening on some level through sponsoring or serving on certain advisory councils and committees (e.g. Disability Health Inclusion Advisory Council and Transition of Care Workgroup), but it will be important in FY23 to map missing partners and establish connections. For example, the Maryland Health Care Commission (MHCC) is an independent regulatory agency whose mission is "to plan for health system needs, promote informed decision-making, increase accountability and

improve access in a rapidly changing health care environmental by providing timely and accurate information on availability, cost and quality of services to policy makers, purchasers, providers and the public." The MHCC oversees the Patient Centered Medical Home (PCMH) workgroup. OGPSHCN will endeavor to connect with MHCC in FY23.

In FY23, OGPSHCN will also continue to have leadership representation on the Maryland Community of Practice for Supporting Families and Charting the Lifecourse Framework (MD-CoP), which is coordinated by the Maryland Department of Health's Developmental Disabilities Administration. The goal of the MD-CoP is to "build capacity across and within the state to create policies, regulations, systems and practices to enhance the lives of people with intellectual and developmental disabilities and their families enabling all people to live, love, work, play, learn and pursue their aspirations in their community." This collaborative effort will help to improve policies, programs and practices around HCT, workforce development and more. There are additional opportunities for partnership with the Developmental Disabilities Administration that will also be explored in FY23 and beyond.

Opportunities to collaborate with organizations at the national level will also be explored. OGPSHCN had reached out to The Catalyst Center to discuss technical assistance options for the Children's Medical Services Program previously. This will be an item for follow up in FY23.

Family-Professional Partnership

Family-Professional Partnership is perhaps the highest priority for OGPSHCN. OGPSHCN wants to see the family voice fully incorporated into all facets of program development, implementation and administration. Without the conscious, valued, and sustained involvement of family, none of the other goals will ever be fully and meaningfully accomplished. Collaboration with those with lived experience is essential to determining what is needed, why needs are not currently being met, and what can be done to address those needs. Family Professional Partnership is not a separate outcome but is the very foundation upon which all other desired outcomes can be achieved.

As the lead agency on Family-Professional Partnership (FPP), OGPSHCN will assess how to increase FPP within State systems, as well as providing training and support to external stakeholders. In FY23, a review of evaluation tools will be conducted with plans to evaluate the current status of internal FPP, determine areas of relative weakness and develop strategies to increase FPP. Depending upon the results of the evaluation and staff bandwidth, OGPSHCN hopes to introduce Leading by Convening[10] to staff, including Maternal and Child Health Bureau Staff. This "blueprint for authentic engagement"[11] provides a framework to engage stakeholders. The companion, Serving on Groups[12] can also be shared with family members wishing to serve on a decision-making group, whether within OGPSHCN or not.

In addition to Leading by Convening as a professional development opportunity, OGPSHCN staff will continue to engage in other opportunities for learning and enhancing family-professional partnership.

Since her onboarding, the OGPSHCN Deputy Director has served as the Title V Family Delegate; In FY23, OGPSHCN will identify a new family delegate outside of the Title V agency. OGPSHCN leadership will additionally seek out pathways for targeted recruitment of specific groups (e.g., a parent/caregiver of a CYSHCN or a former CYSHCN) within the framework of approved state hiring practices. This will provide a foundation for future recruitment efforts which have proven challenging in the past.

A word about COVID-19

COVID-19 has had a profound impact on the entire world. Children and youth with special health care needs represent a population that may be at increased risk for complications with COVID-19. Children with chronic conditions, disabilities and those with medically complex conditions are especially vulnerable.

The Developmental Disabilities Administration (DDA), a sister State administration, has gathered informational materials and developed guidance for community-based services in response to COVID-19. The DDA is working with the Maryland Department of Health (MDH) Administrations and the Maryland Department of Disabilities (MDOD), as well as Maryland and National Advocacy Organizations to inform and support people in services, family members, direct support professionals and providers. OGPSHCN supports the efforts of the DDA and will seek opportunities to collaborate and disseminate information in FY23.

There have been some unforeseen benefits from COVID-19, including increased availability of telehealth/telemedicine. Telemedicine has been a component to successful access to care for CYSHCN for years. In FY23, OPGSHCN will assess the current state of telemedicine in Maryland and determine what additional educational and advocacy efforts are needed.

Emergency Preparedness

As we've seen during the pandemic, people with disabilities are often left out of disaster preparedness and response, compounding the risk to CYSHCN and their families.

The Partnership for Inclusive Disaster Strategies is a "disability-led organization with a focused mission of equity for people with disabilities and people with access and functional needs throughout all planning, programs, services and procedures before, during and after disasters and emergencies."[13] In FY23, OGPSHCN will assess the current state of emergency preparedness for CYSHCN and their families in Maryland and determine the best next steps.

Looking forward

Finally, while the current grantees resulting from the FY21 competitive RFA should remain in effect until June 30, 2023, now is the time to assess the needs of the communities we serve and discuss desired edits to applicant scopes of work beyond FY23. The recent Maternal and Child Health strategic plan and the recent Needs Assessment will aid in this effort, as carefully review of reporting requirements from all grantees. The last year or two were a bit of a turning point for OGPSHCN grants administration. This has been a difficult transition on many levels, but the fervent hope is that with more focused attention to a truly competitive process and a strenuous application review process, we will see innovative and sustainable programs that can change the landscape for CYSHCN in Maryland for the better.

If there were one phrase to describe OGPSHCN efforts in the past years and continuing into FY23, it would be "increasing capacity." Ultimately, the goal is to increase the capacity of staff to effectively and efficiently serve the people of Maryland - particularly CYSHCN and their families, to increase the capacity of providers to provide care for CYSHCN within a medical home, and to increase the capacity of families to support their CYSHCN now and in the future while allowing for as much independence as possible.

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[1] Core Outcomes: Key Measures of Performance

[2] Standards for Systems of Care for Children and Youth with Special Health Care Needs

[3] National Standards for Systems of Care for Children and Youth with Special Health Care Needs, Version 2.0 Informational website

[4] National Standards for Systems of Care for Children and Youth with Special Health Care Needs, Version 2.0 report

[5] Bhargava, K., & Bhargava, D. (2007). Evidence Based Health Care: A scientific approach to health care. Sultan Qaboos University medical journal, 7(2), 105–107.

[6] National Resource Center for Patient/Family Centered Medical Home

[7] The National Resource Center for Supported Decision Making

[8] Standards for Systems of Care for Children and Youth with Special Health Care Needs Version 2.0

[9] Health Services Cost Review Commission

[10] Leading by Convening

[11] Cashman, C., Linehan, P., Purcell, L., Rosser, M., Schultz, S., and Skalski,S. (2013). Leading by Convening: A Blueprint for Authentic Engagement. Alexandria, VA: National Association of State Directors of Special Education.

[12] Serving on Groups

[13] The Partnership for Inclusive Disaster Strategies

Cross-Cutting/Systems Building

State Performance Measures

SPM 5 - Cross-Cutting Measure: Percentage of MCHB committees/workgroups that include community members/persons with lived experience

Measure Status:	Active		
Annual Objectives			
	2023	**2024**	**2025**
Annual Objective	27.0	36.0	45.0

State Action Plan Table

State Action Plan Table (Maryland) - Cross-Cutting/Systems Building - Entry 1
Priority Need
Ensure that MCHB policies and processes are centered on equity and anti-racism principles
SPM
SPM 5 - Cross-Cutting Measure: Percentage of MCHB committees/workgroups that include community members/persons with lived experience
Objectives
To increase the percentage of MCHB committees/workgroups that include community members/persons with lived experiences from a baseline of 18% to at least 50% by 2025.
Strategies
1) Continue to convene the MCHB Equity Work Group, 2) Facilitate a webinar and/or training related to disparities in maternal and child health, which will be open to internal and external stakeholders, 3) Conduct an internal assessment of family engagement using an evaluation tool, 4) Work towards stakeholders of committees/workgroups represent racially, ethnically, and geographically diverse communities (ex. FIMR Teams) through assessment and creation of tools/guidance/templates that support the development of committees/workgroups that are diverse , 5) Recruitment and onboarding of an Advanced Health Policy Analyst and Outreach Manager. A part of this person's role will convene the MCHB Equity workgroup to help implement a plan to help Title V further focus on equity, 6) request grantees to disaggregate data by race and ethnicity to better understand health disparities, 7) Participate in the Root Causes of Health Initiative (ROCHI), an initiative led by the Institute for Healthcare.

Cross-Cutting/Systems Builiding - Annual Report

Maryland's identified priority need for cross cutting/systems building is "to ensure that Maternal and Child Health Bureau (MCHB) policies and processes are centered on equity principles." This is a new priority area proposed for FY2023 to reflect the State's Title V effort on equity.

During Fiscal Year 21, State Title V staff developed an internal equity workgroup that initially focused on developing shared language, definitions, and understanding within the Bureau, discussing and planning ways to strengthen partnerships and collaborations, using data and information systems to strengthen equity, influence policy and strategic resources where there is an impact to promote an equity and anti-racist lens. Representatives from each office joined the internal working group that started December 2020.

The group developed the following ground rules to start each workgroup meeting:

- Listen deeply;
- Accept one another's reality;
- Step up, step back;
- Ask compassionate questions;
- Challenge yourself;
- Expect and accept non-closure;
- Expect to experience discomfort;
- Allow others to learn what you already know;
- Respect confidentiality— take the stories, leave the names;
- Commit to be open minded;
- Treat people the way they want to be treated and not just how you want to be treated;
- Willingness to own mistakes, be honest, and learn;
- Be courageous when undertaking this work;
- All these elements take time. So, take care of yourself.

The group then developed a self-assessment for Title V State staff and Maternal and Child Health Bureau staff that was based on the self-assessment tool developed by the Bay Area Regional Health Inequities Initiatives for Local Health Departments. In total, there were 43 respondents which is nearly 50% of the MCHB Staff. The respondents were associated with 16 different programs.

Questions included asking the staff about the top unjustly distributed health issues, and top environmental, social, and economic conditions that impact health. The top unjustly distributed health issues included: 1) Infant Mortality, 2) Food Insecurity/Hunger, 3) Maternal Mortality, and 4) Overweight/Obesity. The top environmental, social, and economic conditions that impacted health included: 1) transportation, 2) housing, 3) education,4) access to care, 5) food insecurity, and 6) poverty.

Approximately 11% of the 43 respondents reported that they were not certain or did not know if their program was addressing health inequities. In addition, approximately 56% of the respondents said that there is some focus on addressing health inequities in their program, and 37% reported that "there is a lot of focus" on addressing health inequities. When asked about ways that staff can work towards addressing equity and eliminating health disparities in their role, some reported having grantees focus on eliminating health disparities (44% of the respondents) and focus funding on more community-based organizations (33%). Respondents also reported that hosting regular discussions on equity can help Title V and the Bureau address equity and eliminate health disparities (58%) and provide additional training about toolkits to focus on equity and eliminating health disparities. All respondents agreed or strongly agreed to the statement that it is important to understand the beliefs and values of the residents and

communities served by the Bureau.

As part of the equity workgroup, members developed a recruitment dissemination list for Title V recruitment postings. The dissemination list includes Historically Black Colleges and Universities, organizations who serve people with disabilities, as well as other academic universities. The dissemination list was provided to supervisors to ensure that open recruitments are shared broadly with the organizations on the dissemination list.

In addition, the State Title V staff developed an interview format to make the recruitment process more inclusive for positions with Title V. This was after the Equity Workgroup led a discussion on the importance of inclusivity and the need to include sharing pronouns in the workspace. During the recruitment process, the interview panels shared their pronouns and asked the applicant if they would be willing to share their pronouns. Title V staff have also included their pronouns in the signatory line of their emails.

Title V staff also organized key workshops during Black Maternal Health Week that were open to Title V staff and partners. This was part of the Maternal Health Improvement Program or MDMOMs initiative. These workshops included: Intersectionality and Anti-Racism (Workshop #1) and Improving Maternal Health with Community Doulas (Workshop #2) both led by Andrea Williams- Muhammad. Andrea Williams-Muhammad is the Director of Nzuri Malkia Birth Cooperative and is a birth worker who has combined her experience in Social Work, as a Family Support Counselor with the Housing Authority of Baltimore, and as a HRIS Policy and Implementation Analyst along with her grassroot community building and advocacy. She unapologetically centers her work in the advocacy and sustainability of Black cultural traditions in birthing, Black female-led scholarship, and creating sustainable pathways for community building.

During Workshop #1, participants learned the definitions of key terms such as intersectionality that was coined and defined by professor Kimberlé Crenshaw, understand how the systems within which we work can perpetuate oppression, and how staff can work within those systems for sustainable change. She also reviewed how historical trauma affects current Title V work. In Workshop #2, participants learned the scope of practice of community doulas and the evidence supporting their contribution to reductions in maternal mortality as well as challenges and misconceptions of doula care, highlighting examples in urban and rural settings in Maryland. In addition to Andrea Williams-Muhammad, Patricia Liggins, Founder/Owner of Birthers United spoke and Tanay Lynn Harris, Co-Founder of the Bloom Collective. There were 96 attendees for Workshop #1 and 92 attendees for Workshop #2. Attendees to the workshop reported that they will work to incorporate family voice into their work such as home visiting and care coordination.

Through the Equity workgroup, activities related to equity were tracked within the Bureau. Offices shared training that was being implemented on the program level, and other programs were inspired to implement additional trainings. For example, in July 2021, an outside presenter facilitated a presentation, “Words Matter” to make sure language for gender inclusiveness was being used in a WIC Breastfeeding Coordinators meeting. In addition, an implicit bias training was conducted to approximately one half of all the statewide WIC paraprofessionals with another training that was held in September 2021.

As Title V staff were participating in the Maternal Health Improvement Program or MDMOMs, Title V staff led an open bid procurement for an equity advisor for the Maternal Health Improvement Program Task Force. The equity advisor would provide strategic guidance prior to and during the Task Force meeting to ensure inclusivity, in collaboration with the Task Force Chair, develop objectives and recommendations for the statewide Maternal Health Strategic Plan through an equity and anti-racist lens and lead strategic planning sessions with Task Force members and community partners in the development of the Maternal Health Strategic Plan. Dr Kanika Harris, of the Bizell Group,

was selected as the Equity Advisor in FY2021 and began working with the Task Force members and the Chair of the Task Force, which was the Title V Manager to provide strategic guidance to this Statewide program.

In addition, Title V staff, including the Bureau Director and the Title V Manager, worked with the Maternal Health Improvement Task Force to help develop the Maternal Health Improvement Program Strategic Plan. The Maternal Health Strategic Plan process was structured into six stages: 1) scan of existing needs assessments and plans including the Title V State Action plan, Maternal Mortality Review Committee and Stakeholder Group recommendations, as well as strategic plans from other states; 2) identification of state-level strengths and challenges; 3) identification of key priorities, goals, and desired outcomes based on identified strengths and challenges; 4) stakeholder and public input; 5) strategic plan revisions based on feedback; and 6) report finalization. Members of the Maternal Health Improvement Task Force led the development of the Maternal Health Strategic Plan. Overall, approximately 15 stakeholder input sessions were held. Many of these input sessions occurred through existing stakeholder meetings.

Members of the Equity workgroup were also involved in the MCHB staff's professional development and learning event called, "Bureau Month." The inaugural Bureau Month started in January 2021 and was led by the Deputy Director of the Bureau in collaboration with a planning committee. Staff members weighed in on topics for the Bureau Month plenary sessions. The top three choices by staff were to focus on anti-racism and equity, incorporating community voice into programs, and collaboration and communication.

Bureau month consisted of weekly 90-minute sessions, in which staff members from each of the offices led team building sessions for 30-minutes, and 60-minute plenary sessions that had been voted on by the Bureau. Dr. Eroll Bolden, Professor, Department of Social Work at Coppin State University served as the plenary speaker for session four of Bureau Month, Communication and Collaboration. In addition, there was a session on Mental Health and Self Care that was presented by Ifetayo White, Founder and Director of CHOICES Birthing and Wellness Support and the Lowcountry School of Reiki. A member from the Office of Family and Community Health Services led the team building exercise that was related to Lean Six Sigma and circles. There was a session on Incorporating the Community Voice into Our Programs that was led by Kristina Wint, Program Manager, Women's Health and Jessica Stieger, Program Manager, Infant Health from AMCHP. A staff member from WIC led the team building exercise of two truths and a lie. A presentation on Anti-racism and equity was led by Stephanie Slowly, Director of Systems Management, from the Behavioral Health Administration. The team building exercise was led by a staff member by the Office for Genetics and People with Special Health Care needs.

Cross-Cutting/Systems Building - Application Year

Maryland's identified priority need for cross cutting/systems building is "to ensure that Maternal and Child Health Bureau (MCHB) policies and processes are centered on equity principles." This is a new priority area proposed for FY 2023 to reflect the State's Title V efforts on achieving equity.

State Title V staff started an internal equity workgroup that initially focused on developing shared language, definitions, and understanding within the Bureau, discussing and planning ways to strengthen partnerships and collaborations, using data and information systems to strengthen equity, influence policy and strategic resources where there is an impact to promote an equity and anti-racist lens. Representatives from each office joined the internal working group that started December 2020. Since then, the Title V staff have met monthly.

For FY 2023, to continue with focusing on equity, Title V staff and the Bureau of Maternal and Child Health Staff will continue to convene the MCHB/Title V Internal Equity Group. Starting in FY 2022, the workgroup started shared learning by reading and discussing articles. Readings have included books such as *Not in My Neighborhood: How Bigotry Shaped a Great American City.* This was selected after equity workgroup members decided that reading this book would enhance the group's learning. Discussion questions are led by various Equity Workgroup members.

In addition, the Equity workgroup has moved towards 25% learning and a 75% action format. This was based on a needs assessment of the group of the direction to move towards more action-oriented activities. The group will develop a workplan to determine and prioritize activities that will help Title V and the Bureau move towards achieving equity. Some of the priorities include hiring a Health Policy and Outreach Manager, whose focus will also be leading the Equity Workgroup along with the Maternal and Infant Health Program Manager and Adolescent Health Coordinator.

Title V staff, through the Equity Workgroup will facilitate a webinar and/or training related to disparities in maternal and child health, which will be open to internal and external stakeholders. Starting in FY 2021, Title V staff organized key workshops during Black Maternal Health Week that were open to Title V staff and partners. This was part of the Maternal Health Improvement Program (MDMOMs Initiative). These workshops included: Intersectionality and Anti-Racism (Workshop #1) and Improving Maternal Health with Community Doulas (Workshop #2) both led by Andrea Williams- Muhammad. Andrea Williams-Muhammad is the Director of Nzuri Malkia Birth Cooperative. In FY 2023, Title V will continue to plan to organize workshops during Black Maternal Health Week working with external partners.

In addition, during FY 2021, the inaugural Bureau Month was started for Bureau of Maternal and Child Health staff. The purpose of the sessions are for team building and professional development. The sessions were organized by the Deputy Bureau Director with a small workgroup, which had a few members of the Equity workgroup. MCHB Staff voted on the topics. The topics included Communication and Collaboration, Mental Health and Self Care, Incorporating the Community Voice into Our Programs, and Anti-racism and Equity. During FY 2023, planning for professional development and training opportunities will continue. One of the measures that Title V staff will review is to see how many staff have undergone Diversity, Equity, and Inclusion (DEI) training with the goal that 100% of all staff have undergone training by 2025.

Title V staff will participate in the Root Causes of Health Initiative (ROCHI), an initiative led by the Institute for Healthcare Improvement and the National Association of Chronic Disease Departments that is championed by the Prevention and Health Promotion Administration (PHPA). This initiative is a learning collaborative where PHPA participants receive technical assistance and have an opportunity to gain a deeper understanding of adaptive leadership and how to use these skills to address the root causes of health inequities. As part of ROCHI, staff will

participate in an Equity Action Lab, which is a proven method for involving end-users and front-line staff in the co-design and co-implementation of an initiative. This is a model for setting an ambitious goal, designing a preliminary plan to achieve this goal, and taking action. The Equity Action Lab structure consists of four phases: Prep Phase, Planning phase, Spring phase and sustainability. The Prep phase which takes approximately 2-3 months consists of data collection to understand the needs, interventions, and the development of ideas. The formation of the team occurs during this phase as well as the narrowing of the focus. In the planning phase, an ambitious goal is set, potential solutions are brainstormed, and action plans are developed. Then in the Spring Phase, which lasts approximately 100 days, the plan is implemented to test the idea, plans are adapted as needed to achieve goals, and there are weekly team meetings. PHPA aims to implement a quality improvement process that will systematically assess the operationalization of equity of the program, with the long-term goal of reaching health equity in Maryland. The questions that participating programs will ask is: 1. Equity of reach: is the racial/ethnic distribution of the program participants a match to an expected or desired racial/ethnic distribution based on who is eligible and disproportionate risk considerations and 2. Equity of impact: is the rate of achieving a milestone the same for participants across different racial/ethnic groups. For FY 2023, Title V staff will participate in the 100-day challenge and look within its programs to determine equity of reach and equity of impact. Title V staff will examine its own data system and see if equity of reach can be examined. This will lead to recommendations for its data system.

Title V staff will participate in the Prevention and Health Promotion Administration (PHPA)'s Equity workgroup that also supports staff by increasing knowledge and skills in equity, inclusion, and resilience as well as developing language and resources for equitably awarding grantees. Title V staff will continue to work with the larger PHPA Equity workgroup to conduct an environmental scan of PHPA Offices and Centers through a survey to obtain a baseline focus on health equity and conduct key informant interviews with the PHPA Office of Procurement and Office of Minority Health and Health Disparities.

Title V Staff supported the development of the Maternal Health Improvement Strategic Plan which was led by the Maternal Health Improvement Taskforce. The Strategic Plan, which was submitted to HRSA as part of the MD MOM Initiative, has five main focus areas to improve maternal health, particularly in BIPOC populations:

1. Promote Equity and Mobilize Against Racism in Maternal Health
2. Achieve Health (Preconception, Prenatal and Birth, Post Partum, and Interconception Periods) Using the Life Course Model to Support Maryland Birthing People Through Advocacy and Implementation of Effective Policies.
3. Develop Strategies that Acknowledge the Influence of the Social Determinants of Health and Historical Racism to Improve Resiliency for Birthing People, Families, and Communities and to Promote an Optimal Quality of Life.
4. Improve Access and Utilization of Data and Improve Surveillance of Data on Structural Racism and its Impact to Make Informed Decisions.
5. Develop a Maternal Health Provider Workforce that will be Available, Accessible, and that Offers Services Based on the Principles of Cultural Humility, Equity, and Racial Justice.

In addition, the Task Force elected co-chairs in order to emphasize and practice inclusion. Previously, Title V Manager chaired the Task Force. Title V staff with the co-chairs will continue to strategically plan for agenda items and facilitate the activities and conversations moving forward. In FY 2023, Title V staff will work with the Co-Chairs to review, execute, and manage the strategic plan and further work to understand individuals and organizations who should be part of the Maternal Health Improvement Task Force and review policies that would improve maternal health services across the State.

In addition, in FY2023, Title V staff will work to ensure stakeholders of committees/workgroups represent racially, ethnically, and geographically diverse communities (ex. FIMR Teams) through assessment and creation of tools/guidance/templates that support the development of committees/workgroups that are diverse. Through the support from the Centers for Disease Control and Prevention Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) program, Maryland plans to move towards a multi-disciplinary review team versus a predominantly physician-led, medical review team to conduct comprehensive case reviews in line with the national best practices. The multi-disciplinary review team, called the Statewide Maternal Mortality Review Team (MMRT) will identify and review pregnancy-associated deaths, identify factors that contribute to these deaths, and propose recommendations that aim to prevent future deaths. The overall mission of the Program is to review the issues surrounding the pregnancy-associated deaths, to identify interventions, and to promote change among individuals, health care systems, and communities in order to prevent maternal deaths, reduce maternal morbidities and improve population health. Members of the MMRT will represent the diversity of Maryland's population and will consist of individuals with both clinical and non-clinical expertise as recommended by national best practices. There will be approximately 20 members on the Review Team.

The member positions include: individuals who work with pregnant or postpartum individuals and have expertise in Clinical Social Work, Community Doula Work, Community Birth Work, provision of behavioral health services, or social services such as housing or food insecurity; individuals with expertise in Community Health Nursing/Maternal, Infant, and Early Childhood Health Home Visiting or Nursing Care for Pregnant Individuals, Postpartum Individuals, or Families of Pregnant or Postpartum Individuals; Individuals with expertise in quality improvement for pregnant or postpartum patients or pregnant or postpartum patient safety; Physicians with expertise or specialization in Obstetrics and Gynecology; individuals with expertise in Public Health Epidemiology; physicians with expertise or specialization in Maternal Fetal Medicine; physicians with expertise or specialization in Addiction Medicine, Family Medicine, Internal Medicine, Anesthesiology, Critical Care, Emergency Medicine, Pediatrics, Adolescent Medicine, Preventive Medicine, or Cardiology, specifically Cardio-Obstetrics; Advanced Practice Clinician in Women's Health (Certified Nurse Midwife or Women's Health Nurse Practitioner), representative from the Maternal Mortality Stakeholder Group, public health officials, State Medicaid, a representative from the Office of the Chief Medical Examiner.

Title V staff will continue to assess its funding and work towards open competitive procurements to allow various organizations to apply for funding. Of note, a significant portion of federal Title V funds go towards local health departments as core public health funding for essential maternal and child health infrastructure. House Bill 314, Laws of 1995 defined core public health services to include: Communicable Disease Control, Environmental Health, Maternal and Child Health, Family Planning, Wellness Promotion, Adult Health and Geriatric Services, and Administration. As a result of House Bill 314, a significant amount of funds from the Maternal Child Health Block grant must be allocated to the local health departments for maternal and child health-related activities. These essential activities include addressing elevated lead levels, care coordination for pregnant individuals and infants, home visiting, school health services, hearing screens and vision screens.

III.F. Public Input

During the FY 2022 Application/FY 2020 Annual Report, public input was obtained. The Application/Annual Report was posted on the Maternal and Child Health Bureau's Title V webpage for a week after submission. Stakeholder groups, including local health department grantees were alerted to the posting and provided a direct link. Public comments were then integrated when applicable and feasible into the Application/Report in FY 2021/FY 2023.

Stakeholders were pleased to see that the equity framework was included in the Title V application. In addition, there were suggestions to create a comprehensive template/curriculum of how to assess/educate and implement the MCHB priorities for care coordination for birthing people, infants, and children. One of the comments also noted the change in a healthcare facility name, and another respondent noted that Maryland Title V used to work with traditional organizations that worked with families with children and youth with special health care needs, and the change due to a competitive procurement for organizations to provide services changed the organizations that Maryland Title V works with.

Based on the feedback, the Maryland Title V team continued to incorporate the equity framework into the Title V application. In addition, during FY21 and FY22 the Maryland Title V team assessed various care coordination templates and curricula to incorporate into various care coordination initiatives including Babies Born Healthy and Title V. The Title V team will continue to build upon the assessments done to improve care coordination in Maryland. The Office for Genetics and People with Special HealthCare Needs will incorporate the feedback during the next cycle of competitive procurements to expand relationships with families, medical homes, and transition of care.

Maryland Title V elicited public input on the changes to performance measures particularly to change the national performance measure from preventive dental care visits to the well woman visit. This change was proposed to further align Title V with the Statewide Integrated Health Improvement Strategy. Feedback was obtained in late June and early July 2022, and will be considered for the Title V 2022/2024 application. In addition, feedback was obtained in June and July to add in a cross cutting measure on equity for the Title V 21/23 application. Feedback was positive amongst stakeholders, including local health department representatives and therefore added for the Title V 23 application.

After submission of the Application/Annual Report to HRSA and following our Annual Review, the FY 2023 Application/FY 2021 Annual Report will be posted to the Title V webpage on the MDH website. This webpage also includes the ability for visitors to leave public comments. The website link will be disseminated to local health departments and other maternal and child health stakeholders for feedback. The Title V Manager is responsible for addressing the public comments that are received, provide responses, and make recommendations for incorporation into Title V practice and interventions.

III.G. Technical Assistance

Maryland Title V team continued to engage in technical assistance with the MCH Evidence team from Georgetown University. The Maryland Title V Team assessed ways to align with the Maryland Diabetes Action Plan and the Statewide Integrated Health Improvement Strategy, specifically in gestational diabetes. The MCH Evidence team shared information about gestational diabetes with the Maryland Title V Team including various evidence informed strategies, National Performance Measures, and other states' Performance Measures. This information was used to discuss potential performance and strategy measures that Maryland could use. Ultimately because of limited data availability for gestational diabetes, the Maryland Title V team decided to use a broader measure for women's health beginning in FY24, specifically the National Performance Measure of the Well Women Visit and leveraging existing work with the Maryland Family Planning Program which provides essential reproductive and sexual health services.

In addition, based on the feedback from last year, Maryland Title V worked on a cross cutting state performance measure, objectives, and evidence-based strategy with the assistance of the MCH Evidence team from Georgetown University. The Title V team reviewed examples from other states that pursued equity, cross cutting measures and developed objectives that were specific, measurable, and realistic with the updated SPMs and also for the NPMs. Maryland Title V will continue its progress with addressing alignment of the State Action Plan and will request technical assistance to develop more robust evidence-based strategy measures with the MCH Evidence team from Georgetown University. The Equity Workgroup within the Bureau shared learnings, readings, and developed goals for the Bureau and Title V.

Given that the Maryland Department of Health's Network Security Event and staffing transitions delayed work with the Title V team, Maryland Title V will focus on continuing with health equity technical assistance and the development of a Title V data system, as well as workforce retention.

Title V Data System

Currently, many local health departments use separate case management systems for their clients. Several local health departments use paper, spreadsheets, or other databases. A centralized data collection system would allow the opportunity to collect data in a consistent manner and would benefit Title V greatly. Identifying necessary components for a Statewide- Title V data system to prevent duplication of data would be helpful. Currently, there are limited resources and funding to develop a Title V statewide data collection system. However, providing resources or sharing best practices from other states would assist in reporting to Title V.

Public Health

Overall, local health departments have been working many hours and assumed additional duties to address the COVID-19 pandemic through testing, contact tracing, linkages to resources, and vaccinations. Many staff have been re-assigned to COVID duties while still trying to maintain their primary duties. Many staff have been fatigued due to the workload. Providing resources or sharing best practices from other states would assist in ways that Title V can help with retaining the MCH workforce.

IV. Title V-Medicaid IAA/MOU

The Title V-Medicaid IAA/MOU is uploaded as a PDF file to this section - MD_MOU_FY22.pdf

V. Supporting Documents

The following supporting documents have been provided to supplement the narrative discussion.

Supporting Document #01 - MCH Partnerships and Collaborations FY 23.pdf

VI. Organizational Chart

The Organizational Chart is uploaded as a PDF file to this section - Title V MDH Org Charts.pdf

VII. Appendix

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Form 2
MCH Budget/Expenditure Details

State: Maryland

	FY 23 Application Budgeted	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	$ 11,981,449	
A. Preventive and Primary Care for Children	$ 3,770,104	(31.4%)
B. Children with Special Health Care Needs	$ 4,747,066	(39.6%)
C. Title V Administrative Costs	$ 469,509	(4%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	$ 8,986,679	
3. STATE MCH FUNDS (Item 18c of SF-424)	$ 9,023,964	
4. LOCAL MCH FUNDS (Item 18d of SF-424)	$ 0	
5. OTHER FUNDS (Item 18e of SF-424)	$ 0	
6. PROGRAM INCOME (Item 18f of SF-424)	$ 0	
7. TOTAL STATE MATCH (Lines 3 through 6)	$ 9,023,964	
A. Your State's FY 1989 Maintenance of Effort Amount $ 8,262,484		
8. FEDERAL-STATE TITLE V BLOCK GRANT PARTNERSHIP SUBTOTAL (Total lines 1 and 7)	$ 21,005,413	
9. OTHER FEDERAL FUNDS Please refer to the next page to view the list of Other Federal Programs provided by the State on Form 2.		
10. OTHER FEDERAL FUNDS(Subtotal of all funds under item 9)	$ 123,038,688	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	$ 144,044,101	

OTHER FEDERAL FUNDS	FY 23 Application Budgeted
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > Sexual Risk Avoidance Education (SRAE)	$ 760,253
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Pregnancy Risk Assessment Monitoring System (PRAMS)	$ 160,020
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Sudden Unexpected Infant Death (SUID) Case Registry Program	$ 86,095
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Formula Grants	$ 7,506,158
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Universal Newborn Hearing Screening and Intervention	$ 370,907
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > State Systems Development Initiative (SSDI)	$ 38,630
Department of Health and Human Services (DHHS) > Office of Population Affairs (OPA) > Title X Family Planning	$ 4,000,000
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)	$ 106,147,025
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > PREP	$ 935,663
Department of Health and Human Services (DHHS) > Office of Population Affairs (OPA) > State Optimal Adolescent Health Program	$ 1,697,965
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > MIECHV Expansion	$ 802,559
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Optimization of EHDI Surveillance	$ 160,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Strengthening Maternal Mortality Surveillance	$ 373,413

	FY 21 Annual Report Budgeted		FY 21 Annual Report Expended	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	$ 11,673,326 (FY 21 Federal Award: $ 11,872,645)		$ 11,872,645	
A. Preventive and Primary Care for Children	$ 3,649,163	(31.3%)	$ 3,954,551	(33.3%)
B. Children with Special Health Care Needs	$ 3,671,343	(31.5%)	$ 5,291,767	(44.5%)
C. Title V Administrative Costs	$ 453,200	(3.9%)	$ 237,976	(2.1%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	$ 7,773,706		$ 9,484,294	
3. STATE MCH FUNDS (Item 18c of SF-424)	$ 8,754,995		$ 10,999,716	
4. LOCAL MCH FUNDS (Item 18d of SF-424)	$ 0		$ 0	
5. OTHER FUNDS (Item 18e of SF-424)	$ 0		$ 0	
6. PROGRAM INCOME (Item 18f of SF-424)	$ 0		$ 0	
7. TOTAL STATE MATCH (Lines 3 through 6)	$ 8,754,995		$ 10,999,716	
A. Your State's FY 1989 Maintenance of Effort Amount $ 8,262,484				
8. FEDERAL-STATE TITLE V BLOCK GRANT PARTNERSHIP SUBTOTAL (Total lines 1 and 7)	$ 20,428,321		$ 22,872,361	
9. OTHER FEDERAL FUNDS Please refer to the next page to view the list of Other Federal Programs provided by the State on Form 2.				
10. OTHER FEDERAL FUNDS (Subtotal of all funds under item 9)	$ 118,199,750		$ 88,972,950	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	$ 138,628,071		$ 111,845,311	

OTHER FEDERAL FUNDS	FY 21 Annual Report Budgeted	FY 21 Annual Report Expended
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > Sexual Risk Avoidance Education (SRAE)	$ 831,903	$ 573,626
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > State Personal Responsibility Education Program (PREP)	$ 944,604	$ 808,466
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Pregnancy Risk Assessment Monitoring System (PRAMS)	$ 161,000	$ 161,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Sudden Unexpected Infant Death (SUID) Case Registry Program	$ 75,000	$ 22,767
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Formula Grants	$ 751,102	$ 8,248,192
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)	$ 115,191,574	$ 79,049,808
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Universal Newborn Hearing Screening and Intervention	$ 244,567	$ 109,091

Form Notes for Form 2:

None

Field Level Notes for Form 2:

1.	**Field Name:**	**1. FEDERAL ALLOCATION**
	Fiscal Year:	**2023**
	Column Name:	**Application Budgeted**
	Field Note: $11,872,645	
2.	**Field Name:**	**Federal Allocation, B. Children with Special Health Care Needs:**
	Fiscal Year:	**2021**
	Column Name:	**Annual Report Expended**
	Field Note: Amount is higher than originally annual budgeted as CMS enrollment was high during FY21 and during the COVID pandemic	
3.	**Field Name:**	**Federal Allocation, C. Title V Administrative Costs:**
	Fiscal Year:	**2021**
	Column Name:	**Annual Report Expended**
	Field Note: FY21, the Title V administrative costs were lower due to staffing transitions due to COVID-19 Pandemic	
4.	**Field Name:**	**3. STATE MCH FUNDS**
	Fiscal Year:	**2021**
	Column Name:	**Annual Report Expended**
	Field Note: State MCH Funds were higher as originally budgeted as state funds for the Maryland Family Planning Program were not previously accounted for in developing the FY21 budget	
5.	**Field Name:**	**Other Federal Funds, Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Formula Grants**
	Fiscal Year:	**2021**
	Column Name:	**Annual Report Expended**
	Field Note: Budget expenditures were higher than the original budget amount, that listed the budget amount for FY21 incorrectly.	

Data Alerts: None

Form 3a
Budget and Expenditure Details by Types of Individuals Served

State: Maryland

I. TYPES OF INDIVIDUALS SERVED

IA. Federal MCH Block Grant	FY 23 Application Budgeted	FY 21 Annual Report Expended
1. Pregnant Women	$ 1,527,945	$ 1,800,811
2. Infants < 1 year	$ 1,466,825	$ 587,540
3. Children 1 through 21 Years	$ 3,770,104	$ 3,954,551
4. CSHCN	$ 4,747,066	$ 5,291,767
5. All Others	$ 0	$ 0
Federal Total of Individuals Served	$ 11,511,940	$ 11,634,669

IB. Non-Federal MCH Block Grant	FY 23 Application Budgeted	FY 21 Annual Report Expended
1. Pregnant Women	$ 4,790,614	$ 4,281,182
2. Infants < 1 year	$ 1,788,342	$ 1,517,184
3. Children 1 through 21 Years	$ 1,545,008	$ 2,107,351
4. CSHCN	$ 900,000	$ 400,000
5. All Others	$ 0	$ 2,693,998
Non-Federal Total of Individuals Served	$ 9,023,964	$ 10,999,715
Federal State MCH Block Grant Partnership Total	$ 20,535,904	$ 22,634,384

Form Notes for Form 3a:

None

Field Level Notes for Form 3a:

1.	**Field Name:**	**IB. Non-Federal MCH Block Grant, 1. Pregnant Women**
	Fiscal Year:	**2023**
	Column Name:	**Application Budgeted**
	Field Note: Includes: Family Planning, Babies Born Healthy, Perinatal Support Program, Perinatal Quality Collaborative, Thrive by Three	
2.	**Field Name:**	**IB. Non-Federal MCH Block Grant, 2. Infant < 1 Year**
	Fiscal Year:	**2023**
	Column Name:	**Application Budgeted**
	Field Note: Includes Babies Born Healthy, Perinatal Support Program, Perinatal Quality Collaborative, Thrive by Three	
3.	**Field Name:**	**IB. Non-Federal MCH Block Grant, 3. Children 1 through 21 years**
	Fiscal Year:	**2023**
	Column Name:	**Application Budgeted**
	Field Note: Includes Surveillance Quality Initiatives, Child Abuse Medical Provider Network,	
4.	**Field Name:**	**IB. Non-Federal MCH Block Grant, 4. CSHCN**
	Fiscal Year:	**2023**
	Column Name:	**Application Budgeted**
	Field Note: Direct services for Medical Day Care and funding for Children Medical Services	
5.	**Field Name:**	**IB. Non-Federal MCH Block Grant, 1. Pregnant Women**
	Fiscal Year:	**2021**
	Column Name:	**Annual Report Expended**
	Field Note: Includes: Family Planning, Babies Born Healthy, Perinatal Support Program, Perinatal Quality Collaborative, Thrive by Three	
6.	**Field Name:**	**IB. Non-Federal MCH Block Grant, 2. Infant < 1 Year**
	Fiscal Year:	**2021**

	Column Name:	**Annual Report Expended**
	Field Note: Includes Babies Born Healthy, Perinatal Support Program, Perinatal Quality Collaborative, Thrive by Three	
7.	**Field Name:**	**IB. Non-Federal MCH Block Grant, 3. Children 1 through 21 years**
	Fiscal Year:	**2021**
	Column Name:	**Annual Report Expended**
	Field Note: Included SQI, CHAMP and Child Health Systems Improvement	
8.	**Field Name:**	**IB. Non-Federal MCH Block Grant, 4. CSHCN**
	Fiscal Year:	**2021**
	Column Name:	**Annual Report Expended**
	Field Note: Direct services for Medical Day Care	
9.	**Field Name:**	**IB. Non-Federal MCH Block Grant, 5. All Others**
	Fiscal Year:	**2021**
	Column Name:	**Annual Report Expended**
	Field Note: Includes Family Planning	

Data Alerts: None

Form 3b
Budget and Expenditure Details by Types of Services

State: Maryland

II. TYPES OF SERVICES

IIA. Federal MCH Block Grant	FY 23 Application Budgeted	FY 21 Annual Report Expended
1. Direct Services	$ 1,758,114	$ 4,607,864
A. Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants up to Age One	$ 0	$ 1,133,192
B. Preventive and Primary Care Services for Children	$ 0	$ 0
C. Services for CSHCN	$ 1,758,114	$ 3,474,672
2. Enabling Services	$ 6,348,186	$ 4,517,481
3. Public Health Services and Systems	$ 3,875,149	$ 2,747,300
4. Select the types of Federally-supported "Direct Services", as reported in II.A.1. Provide the total amount of Federal MCH Block Grant funds expended for each type of reported service		
Pharmacy		$ 1,019,523
Physician/Office Services		$ 1,299,286
Hospital Charges (Includes Inpatient and Outpatient Services)		$ 1,725,151
Dental Care (Does Not Include Orthodontic Services)		$ 13,885
Durable Medical Equipment and Supplies		$ 146,136
Laboratory Services		$ 0
Other		
Purchase of Care for CMS		$ 225,495
Genetic Services		$ 178,388
Direct Services Line 4 Expended Total		$ 4,607,864
Federal Total	$ 11,981,449	$ 11,872,645

IIB. Non-Federal MCH Block Grant	FY 23 Application Budgeted	FY 21 Annual Report Expended
1. Direct Services	$ 3,708,724	$ 3,132,160
A. Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants up to Age One	$ 2,808,724	$ 2,732,160
B. Preventive and Primary Care Services for Children	$ 0	$ 0
C. Services for CSHCN	$ 900,000	$ 400,000
2. Enabling Services	$ 2,351,797	$ 3,452,784
3. Public Health Services and Systems	$ 2,963,443	$ 1,720,773
4. Select the types of Non-Federally-supported "Direct Services", as reported in II.B.1. Provide the total amount of Non-Federal MCH Block Grant funds expended for each type of reported service		
Pharmacy		$ 0
Physician/Office Services		$ 2,732,160
Hospital Charges (Includes Inpatient and Outpatient Services)		$ 0
Dental Care (Does Not Include Orthodontic Services)		$ 0
Durable Medical Equipment and Supplies		$ 0
Laboratory Services		$ 0
Other		
Medical Day Care		$ 400,000
Direct Services Line 4 Expended Total		$ 3,132,160
Non-Federal Total	$ 9,023,964	$ 8,305,717

Form Notes for Form 3b:

None

Field Level Notes for Form 3b:

None

Form 4
Number and Percentage of Newborns and Others Screened Cases Confirmed and Treated

State: Maryland

Total Births by Occurrence: 73,009 **Data Source Year: 2021**

1. Core RUSP Conditions

Program Name	(A) Aggregate Total Number Receiving at Least One Valid Screen	(B) Aggregate Total Number of Out-of-Range Results	(C) Aggregate Total Number Confirmed Cases	(D) Aggregate Total Number Referred for Treatment
Core RUSP Conditions	73,009 (100.0%)	1,729	191	191 (100.0%)

Program Name(s)				
3-Hydroxy-3-Methyglutaric Aciduria	3-Methylcrotonyl-Coa Carboxylase Deficiency	Argininosuccinic Aciduria	Biotinidase Deficiency	Carnitine Uptake Defect/Carnitine Transport Defect
Citrullinemia, Type I	Classic Galactosemia	Classic Phenylketonuria	Congenital Adrenal Hyperplasia	Critical Congenital Heart Disease
Cystic Fibrosis	Glutaric Acidemia Type I	Glycogen Storage Disease Type II (Pompe)	Hearing Loss	Holocarboxylase Synthase Deficiency
Homocystinuria	Isovaleric Acidemia	Long-Chain L-3 Hydroxyacyl-Coa Dehydrogenase Deficiency	Maple Syrup Urine Disease	Medium-Chain Acyl-Coa Dehydrogenase Deficiency
Methylmalonic Acidemia (Cobalamin Disorders)	Methylmalonic Acidemia (Methylmalonyl-Coa Mutase)	Mucopolysaccharidosis Type 1	Primary Congenital Hypothyroidism	Propionic Acidemia
S, ßeta-Thalassemia	S,C Disease	S,S Disease (Sickle Cell Anemia)	Severe Combined Immunodeficiences	Spinal Muscular Atrophy Due To Homozygous Deletion Of Exon 7 In SMN1
ß-Ketothiolase Deficiency	Trifunctional Protein Deficiency	Tyrosinemia, Type I	Very Long-Chain Acyl-Coa Dehydrogenase Deficiency	X-Linked Adrenoleukodystrophy

2. Other Newborn Screening Tests

Program Name	(A) Total Number Receiving at Least One Screen	(B) Total Number Presumptive Positive Screens	(C) Total Number Confirmed Cases	(D) Total Number Referred for Treatment
Fabry Disease	73,009 (100.0%)	91	6	6 (100.0%)

3. Screening Programs for Older Children & Women

None

4. Long-Term Follow-Up

The Sickle Cell Disease Long-Term Follow up Program follows children diagnosed with sickle cell disease through age 18. The program continues to focus on childhood preventive care standards and provide education and assistance through transition into adulthood. In FY 2021, 596 children were being followed in the program.

Form Notes for Form 4:

None

Field Level Notes for Form 4:

1.	**Field Name:**	**Total Births by Occurrence**
	Fiscal Year:	**2021**
	Column Name:	**Total Births by Occurrence Notes**
	Field Note: The discrepancy from Form 6 is due to the fact that these numbers may also include out-of-state residents and repeat screens. Of note, this form uses data from 2021 and not 2020.	
2.	**Field Name:**	**Core RUSP Conditions - Total Number of Out-of-Range Results**
	Fiscal Year:	**2021**
	Column Name:	**Core RUSP Conditions**
	Field Note: Due to the Network Security Event, the number of out of range results are unavailable from MDH laboratories. Current numbers are based on referrals made for diagnostic testing for each of the conditions, so the number of out of range results does not include cases where a repeat specimen was included.	

Data Alerts: None

Form 5
Count of Individuals Served by Title V & Total Percentage of Populations Served by Title V

State: Maryland

Annual Report Year 2021

Form 5a – Count of Individuals Served by Title V (Direct & Enabling Services Only)

		Primary Source of Coverage				
Types Of Individuals Served	(A) Title V Total Served	(B) Title XIX %	(C) Title XXI %	(D) Private / Other %	(E) None %	(F) Unknown %
1. Pregnant Women	2,991	39.0	0.0	58.0	3.0	0.0
2. Infants < 1 Year of Age	4,055	0.0	39.0	58.0	3.0	0.0
3. Children 1 through 21 Years of Age	167,491	0.0	32.0	63.0	4.0	1.0
3a. Children with Special Health Care Needs 0 through 21 years of age^	64,330	0.0	32.0	65.0	3.0	0.0
4. Others	53,875	14.0	0.0	79.0	7.0	0.0
Total	228,412					

Form 5b – Total Percentage of Populations Served by Title V (Direct, Enabling, and Public Health Services and Systems)

Populations Served by Title V	Reference Data	Used Reference Data?	Denominator	Total % Served	Form 5b Count (Calculated)	Form 5a Count
1. Pregnant Women	68,554	Yes	68,554	100.0	68,554	2,991
2. Infants < 1 Year of Age	65,536	Yes	65,536	100.0	65,536	4,055
3. Children 1 through 21 Years of Age	1,565,086	Yes	1,565,086	100.0	1,565,086	167,491
3a. Children with Special Health Care Needs 0 through 21 years of age^	335,107	Yes	335,107	100.0	335,107	64,330
4. Others	4,421,133	Yes	4,421,133	1.5	66,317	53,875

^Represents a subset of all infants and children.

Form Notes for Form 5:

None

Field Level Notes for Form 5a:

1.	**Field Name:**	**Pregnant Women Total Served**
	Fiscal Year:	**2021**
	Field Note: Due to the COVID-19 pandemic, clinics and programs were serving at limited capacity. Pregnant people receiving services though Title V funded programs including Local Health Department, Child Health System Improvements, BBH, Family Planning Clinics	
2.	**Field Name:**	**Infants Less Than One YearTotal Served**
	Fiscal Year:	**2021**
	Field Note: Includes all Newborn Screenings, local health department data for Title V programs providing home visits, case management for elevated blood levels, immunizations, home birth certification, and health education for parents and linkages to primary care.	
3.	**Field Name:**	**Children 1 through 21 Years of Age**
	Fiscal Year:	**2021**
	Field Note: Due to the COVID-19 pandemic, clinics and programs were serving at limited capacity. Children receiving services through LHDs including school-based health services and family planning clinics. This includes Child Health Systems Improvement	
4.	**Field Name:**	**Children with Special Health Care Needs 0 through 21 Years of Age**
	Fiscal Year:	**2021**
	Field Note: Due to the COVID-19 pandemic, clinics and programs were serving at limited capacity. CYSHCN receiving services through grantees of the Office for Genetics and People with Special HealthCare Needs and local health departments.	
5.	**Field Name:**	**Others**
	Fiscal Year:	**2021**
	Field Note: Others receiving services through local health department reproductive health clinics.	
6.	**Field Name:**	**Total_TotalServed**
	Fiscal Year:	**2021**
	Field Note: Overall, due to the COVID-19 pandemic, clinics and programs were serving at limited capacity	

Field Level Notes for Form 5b:

1.	**Field Name:**	**Pregnant Women Total % Served**
	Fiscal Year:	**2021**
	Field Note: Pregnant individuals delivering at hospitals that are participating in the Maryland Perinatal Collaborative, Babies Born Healthy program, local health department home visiting program, PRAMS, and perinatal Regionalization guidelines who focus on all pregnant people in Maryland.	
2.	**Field Name:**	**Infants Less Than One Year Total % Served**
	Fiscal Year:	**2021**
	Field Note: Number reflects the efforts of newborn screening and early hearing detection which reaches 100% of infants in Maryland	
3.	**Field Name:**	**Children 1 through 21 Years of Age Total % Served**
	Fiscal Year:	**2021**
	Field Note: *Represents efforts of local health departments from direct and enabling services, communication health campaigns, vision and hearing screenings, immunizations, and injury prevention. Child Fatality Review has also developed recommendations for children ages, 1-17.	
4.	**Field Name:**	**Children with Special Health Care Needs 0 through 21 Years of Age Total % Served**
	Fiscal Year:	**2021**
	Field Note: Represents direct, enabling, and population bases services through CYSHCN through complex care, navigation services, training/education, accessing medical homes, care coordination, genetic services, medical services, follow-up to newborn screening, birth defects, sickle cell program, early intervention for hearing, resource locator, adult transitions through OGPSHCN, local health departments, and Title V grantees	
5.	**Field Name:**	**Others Total % Served**
	Fiscal Year:	**2021**
	Field Note: Overall, these numbers represent health education sessions for providers, parents, local health departments, communications, as well as direct and enabling services from local health departments and other programs.	

Data Alerts: None

Form 6
Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX

State: Maryland

Annual Report Year 2021

I. Unduplicated Count by Race/Ethnicity

	(A) Total	(B) Non-Hispanic White	(C) Non-Hispanic Black or African American	(D) Hispanic	(E) Non-Hispanic American Indian or Native Alaskan	(F) Non-Hispanic Asian	(G) Non-Hispanic Native Hawaiian or Other Pacific Islander	(H) Non-Hispanic Multiple Race	(I) Other & Unknown
1. Total Deliveries in State	68,546	28,782	21,631	13,020	114	4,739	0	0	260
Title V Served	68,546	28,782	21,631	13,020	114	4,739	0	0	260
Eligible for Title XIX	43,610	10,161	17,651	5,784	113	1,865	0	0	8,036
2. Total Infants in State	69,583	28,399	22,322	14,059	169	4,634	0	0	0
Title V Served	69,583	28,399	22,322	14,059	169	4,634	0	0	0
Eligible for Title XIX	36,214	5,672	9,015	2,638	108	1,545	0	0	17,236

Form Notes for Form 6:

Data in this form is based on the most recently available date, which is from 2020.

Field Level Notes for Form 6:

1.	**Field Name:**	**2. Total Infants in State**
	Fiscal Year:	**2021**
	Column Name:	**Total**

Field Note:
The discrepancy between Total # of Infants in State on Form 6 and Total Births on Form 4 is due to different reporting years. VSA data used for Form 6 are from 2020. Births used for Form 4 are from 2021 and from the Office for Genetics and People with Special Health Care Needs. In addition, the Form 4 numbers may include repeat screens and births from out of state residents.

Form 7
State MCH Toll-Free Telephone Line and Other Appropriate Methods Data

State: Maryland

A. State MCH Toll-Free Telephone Lines	2023 Application Year	2021 Annual Report Year
1. State MCH Toll-Free "Hotline" Telephone Number	(800) 456-8900	(800) 456-8900
2. State MCH Toll-Free "Hotline" Name	MDH Medicaid for Pregnant Women	MDH Medicaid for Pregnant Women
3. Name of Contact Person for State MCH "Hotline"	Maryland HealthChoice	Maryland HealthChoice
4. Contact Person's Telephone Number	(800) 456-8900	(800) 456-8900
5. Number of Calls Received on the State MCH "Hotline"		507

B. Other Appropriate Methods	2023 Application Year	2021 Annual Report Year
1. Other Toll-Free "Hotline" Names	N/A	N/A
2. Number of Calls on Other Toll-Free "Hotlines"		0
3. State Title V Program Website Address	https://health.maryland.gov/phpa/mch/Pages/titlev.aspx	https://health.maryland.gov/phpa/mch/Pages/titlev.aspx
4. Number of Hits to the State Title V Program Website		45,628
5. State Title V Social Media Websites	N/A	N/A
6. Number of Hits to the State Title V Program Social Media Websites		0

Form Notes for Form 7:

None

Form 8
State MCH and CSHCN Directors Contact Information

State: Maryland

1. Title V Maternal and Child Health (MCH) Director	
Name	Shelly Choo, MD, MPH
Title	Director, Maternal and Child Health Bureau
Address 1	201 W. Preston Street
Address 2	
City/State/Zip	Baltimore / MD / 21201
Telephone	(443) 571-3424
Extension	
Email	shelly.choo@maryland.gov

2. Title V Children with Special Health Care Needs (CSHCN) Director	
Name	Stacy Taylor
Title	Acting Director, Office of Genetics and People with Special Health Care Needs
Address 1	201 W. Preston Street
Address 2	
City/State/Zip	Baltimore / MD / 21201
Telephone	(443) 997-0433
Extension	
Email	stacy.taylor@maryland.gov

3. State Family or Youth Leader (Optional)	
Name	N/A
Title	N/A
Address 1	N/A
Address 2	
City/State/Zip	Baltimore / MD / 21201
Telephone	(410) 550-2021
Extension	
Email	tbt@maryland.gov

Form Notes for Form 8:

None

Form 9
List of MCH Priority Needs

State: Maryland

Application Year 2023

No.	Priority Need
1.	Ensure that all babies are born healthy and prosper in their first year
2.	Ensure that adolescents age 12-17 receive comprehensive well visits that address physical, reproductive, and behavioral health needs.
3.	Ensure optimal health and quality of life for all CYSHCN and their families by providing all services within an effective system of care in alignment with the Six Core Outcomes
4.	Ensure that all birthing people are in optimal health before, during, and after pregnancy
5.	Ensure that all children have an opportunity to develop and reach their full potential
6.	Ensure children with asthma and their families have the tools and supports necessary to manage their condition so that it does not impede their daily activities
7.	Address the racial disparities in Severe Maternal Morbidity rates among Black NH and White NH
8.	Ensure that MCHB policies and processes are centered on equity and anti-racism principles

Form Notes for Form 9:

Additional Priority Need for SFY 23:
Ensure that MCHB policies and processes are centered on equity and anti-racism principles

Field Level Notes for Form 9:

None

Form 9 State Priorities – Needs Assessment Year – Application Year 2021

No.	Priority Need	Priority Need Type (New, Revised or Continued Priority Need for this five-year reporting period)
1.	Risk Appropriate Perinatal Care	New
2.	Breastfeeding	New
3.	Safe Sleep	Continued
4.	Adolescent Well Visit	Continued
5.	Medical Home	Continued
6.	Transitions	Continued
7.	Preventive Dental Visit-Pregnancy	Continued
8.	Smoking-Pregnancy	Continued
9.	Child Developmental Screenings	Continued

Form 10
National Outcome Measures (NOMs)

State: Maryland

Form Notes for Form 10 NPMs, NOMs, SPMs, SOMs, and ESMs.

None

NOM 1 - Percent of pregnant women who receive prenatal care beginning in the first trimester

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	75.1 %	0.2 %	49,581	65,990
2019	74.5 %	0.2 %	49,981	67,069
2018	74.6 %	0.2 %	50,559	67,772
2017	73.8 %	0.2 %	50,375	68,265
2016	72.0 %	0.2 %	49,044	68,127
2015	71.1 %	0.2 %	48,674	68,505
2014	70.6 %	0.2 %	48,351	68,446
2013	67.4 %	0.2 %	44,741	66,393
2012	68.0 %	0.2 %	47,698	70,186
2011	67.7 %	0.2 %	45,046	66,571
2010	68.9 %	0.2 %	41,490	60,199

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20, a confidence interval width >20% points or >1.2 times the estimate, or >10% missing data and should be interpreted with caution

NOM 1 - Notes:

None

Data Alerts: None

NOM 2 - Rate of severe maternal morbidity per 10,000 delivery hospitalizations

Data Source: HCUP - State Inpatient Databases (SID)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	79.3	3.5	517	65,195
2018	82.9	3.5	566	68,272
2017	80.3	3.4	554	68,950
2016	66.0	3.1	466	70,576
2015	67.7	3.6	357	52,704
2014	73.2	3.2	514	70,180
2013	77.7	3.4	532	68,449
2012	81.2	3.5	532	65,480
2011	99.8	3.9	648	64,928
2010	115.7	4.2	758	65,530
2009	102.8	3.9	688	66,896
2008	88.0	3.6	602	68,385

Legends:

Indicator has a numerator ≤10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 2 - Notes:

None

Data Alerts: None

NOM 3 - Maternal mortality rate per 100,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2016_2020	17.8	2.2	63	354,589
2015_2019	17.5	2.2	63	359,651
2014_2018	18.7	2.3	68	363,394

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 3 - Notes:

None

Data Alerts: None

NOM 4 - Percent of low birth weight deliveries (<2,500 grams)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	8.5 %	0.1 %	5,792	68,521
2019	8.7 %	0.1 %	6,111	70,147
2018	8.8 %	0.1 %	6,266	71,038
2017	8.9 %	0.1 %	6,375	71,599
2016	8.5 %	0.1 %	6,248	73,085
2015	8.6 %	0.1 %	6,297	73,585
2014	8.6 %	0.1 %	6,345	73,878
2013	8.5 %	0.1 %	6,088	71,913
2012	8.8 %	0.1 %	6,417	72,839
2011	8.9 %	0.1 %	6,466	73,037
2010	8.8 %	0.1 %	6,474	73,766
2009	9.1 %	0.1 %	6,836	75,014

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20, a confidence interval width >20% points or >1.2 times the estimate, or >10% missing data and should be interpreted with caution

NOM 4 - Notes:

None

Data Alerts: None

NOM 5 - Percent of preterm births (<37 weeks)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	10.1 %	0.1 %	6,941	68,524
2019	10.3 %	0.1 %	7,211	70,130
2018	10.2 %	0.1 %	7,231	71,034
2017	10.5 %	0.1 %	7,491	71,592
2016	10.1 %	0.1 %	7,408	73,088
2015	10.0 %	0.1 %	7,380	73,567
2014	10.1 %	0.1 %	7,455	73,871
2013	9.8 %	0.1 %	7,053	71,758
2012	10.3 %	0.1 %	7,461	72,698
2011	10.2 %	0.1 %	7,469	72,875
2010	10.4 %	0.1 %	7,662	73,613
2009	10.4 %	0.1 %	7,820	74,936

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20, a confidence interval width >20% points or >1.2 times the estimate, or >10% missing data and should be interpreted with caution

NOM 5 - Notes:

None

Data Alerts: None

NOM 6 - Percent of early term births (37, 38 weeks)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	27.4 %	0.2 %	18,765	68,524
2019	27.3 %	0.2 %	19,129	70,130
2018	26.1 %	0.2 %	18,564	71,034
2017	26.1 %	0.2 %	18,669	71,592
2016	25.4 %	0.2 %	18,585	73,088
2015	25.0 %	0.2 %	18,376	73,567
2014	24.6 %	0.2 %	18,160	73,871
2013	24.6 %	0.2 %	17,686	71,758
2012	24.6 %	0.2 %	17,860	72,698
2011	24.4 %	0.2 %	17,771	72,875
2010	24.9 %	0.2 %	18,357	73,613
2009	25.1 %	0.2 %	18,835	74,936

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20, a confidence interval width >20% points or >1.2 times the estimate, or >10% missing data and should be interpreted with caution

NOM 6 - Notes:

None

Data Alerts: None

NOM 7 - Percent of non-medically indicated early elective deliveries

Data Source: CMS Hospital Compare

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020/Q3-2021/Q2	2.0 %			
2019/Q4-2020/Q3	2.0 %			
2019/Q1-2019/Q4	2.0 %			
2018/Q4-2019/Q3	2.0 %			
2018/Q3-2019/Q2	1.0 %			
2018/Q2-2019/Q1	1.0 %			
2018/Q1-2018/Q4	1.0 %			
2017/Q4-2018/Q3	1.0 %			
2017/Q3-2018/Q2	1.0 %			
2017/Q2-2018/Q1	1.0 %			
2017/Q1-2017/Q4	1.0 %			
2016/Q4-2017/Q3	1.0 %			
2016/Q3-2017/Q2	1.0 %			
2016/Q2-2017/Q1	1.0 %			
2016/Q1-2016/Q4	1.0 %			
2015/Q4-2016/Q3	4.0 %			
2015/Q3-2016/Q2	9.0 %			
2015/Q2-2016/Q1	10.0 %			
2015/Q1-2015/Q4	12.0 %			
2014/Q3-2015/Q2	5.0 %			
2014/Q2-2015/Q1	6.0 %			
2014/Q1-2014/Q4	3.0 %			
2013/Q4-2014/Q3	3.0 %			
2013/Q3-2014/Q2	3.0 %			

Legends:

NOM 7 - Notes:

None

Data Alerts: None

NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	6.2	0.3	439	70,383
2018	6.2	0.3	440	71,277
2017	6.6	0.3	471	71,847
2016	6.9	0.3	507	73,359
2015	7.2	0.3	531	73,856
2014	7.0	0.3	518	74,152
2013	7.0	0.3	504	72,185
2012	6.9	0.3	507	73,105
2011	7.6	0.3	559	73,321
2010	7.2	0.3	535	74,039
2009	7.3	0.3	547	75,291

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 8 - Notes:

None

Data Alerts: None

NOM 9.1 - Infant mortality rate per 1,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	5.8	0.3	410	70,178
2018	6.0	0.3	428	71,080
2017	6.4	0.3	461	71,641
2016	6.5	0.3	478	73,136
2015	6.6	0.3	485	73,616
2014	6.5	0.3	480	73,921
2013	6.6	0.3	477	71,953
2012	6.4	0.3	463	72,883
2011	6.8	0.3	498	73,093
2010	6.8	0.3	504	73,801
2009	7.2	0.3	542	75,059

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 9.1 - Notes:

None

Data Alerts: None

NOM 9.2 - Neonatal mortality rate per 1,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	3.9	0.2	274	70,178
2018	4.1	0.2	293	71,080
2017	4.5	0.3	319	71,641
2016	4.7	0.3	344	73,136
2015	4.8	0.3	351	73,616
2014	4.6	0.3	338	73,921
2013	4.5	0.3	327	71,953
2012	4.7	0.3	344	72,883
2011	5.2	0.3	378	73,093
2010	4.7	0.3	350	73,801
2009	5.1	0.3	383	75,059

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 9.2 - Notes:

None

Data Alerts: None

NOM 9.3 - Post neonatal mortality rate per 1,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend				
Year	**Annual Indicator**	**Standard Error**	**Numerator**	**Denominator**
2019	1.9	0.2	136	70,178
2018	1.9	0.2	135	71,080
2017	2.0	0.2	142	71,641
2016	1.8	0.2	134	73,136
2015	1.8	0.2	134	73,616
2014	1.9	0.2	142	73,921
2013	2.1	0.2	150	71,953
2012	1.6	0.2	119	72,883
2011	1.6	0.2	120	73,093
2010	2.1	0.2	154	73,801
2009	2.1	0.2	159	75,059

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 9.3 - Notes:

None

Data Alerts: None

NOM 9.4 - Preterm-related mortality rate per 100,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend				
Year	**Annual Indicator**	**Standard Error**	**Numerator**	**Denominator**
2019	260.8	19.3	183	70,178
2018	270.1	19.5	192	71,080
2017	269.4	19.4	193	71,641
2016	317.2	20.9	232	73,136
2015	311.1	20.6	229	73,616
2014	292.2	19.9	216	73,921
2013	309.9	20.8	223	71,953
2012	306.0	20.5	223	72,883
2011	335.2	21.5	245	73,093
2010	323.8	21.0	239	73,801
2009	333.1	21.1	250	75,059

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 9.4 - Notes:

None

Data Alerts: None

NOM 9.5 - Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend				
Year	**Annual Indicator**	**Standard Error**	**Numerator**	**Denominator**
2019	74.1	10.3	52	70,178
2018	97.1	11.7	69	71,080
2017	97.7	11.7	70	71,641
2016	72.5	10.0	53	73,136
2015	92.4	11.2	68	73,616
2014	89.3	11.0	66	73,921
2013	82.0	10.7	59	71,953
2012	75.5	10.2	55	72,883
2011	79.4	10.4	58	73,093
2010	75.9	10.1	56	73,801
2009	98.6	11.5	74	75,059

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 9.5 - Notes:

None

Data Alerts: None

NOM 10 - Percent of women who drink alcohol in the last 3 months of pregnancy

Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	6.7 %	1.0 %	4,131	61,487
2019	7.7 %	1.0 %	4,852	62,661
2018	8.7 %	1.1 %	5,591	64,037
2017	8.3 %	1.0 %	5,224	62,971
2016	8.9 %	0.9 %	5,825	65,120
2015	9.7 %	1.0 %	6,335	65,364
2014	9.5 %	0.9 %	6,225	65,780
2013	7.7 %	0.9 %	4,921	64,306
2012	9.4 %	1.1 %	6,104	65,289
2011	8.9 %	1.1 %	5,818	65,300
2010	8.9 %	1.1 %	5,840	65,772
2009	9.9 %	1.1 %	6,592	66,417
2008	8.8 %	1.0 %	5,921	67,517
2007	7.4 %	0.9 %	4,914	66,622

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has an unweighted denominator between 30 and 59 or confidence interval width >20% points or >1.2 times the estimate and should be interpreted with caution

NOM 10 - Notes:

None

Data Alerts: None

NOM 11 - Rate of neonatal abstinence syndrome per 1,000 birth hospitalizations

Data Source: HCUP - State Inpatient Databases (SID)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	12.4	0.4	811	65,634
2018	12.7	0.4	877	68,983
2017	13.3	0.4	920	69,180
2016	13.1	0.4	920	70,422
2015	13.2	0.5	701	53,099
2014	13.4	0.4	948	70,870
2013	13.0	0.4	904	69,306
2012	11.6	0.4	774	66,584
2011	10.5	0.4	691	66,119
2010	9.5	0.4	634	66,665
2009	8.3	0.4	562	67,937
2008	7.3	0.3	504	69,472

Legends:

Indicator has a numerator ≤10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 11 - Notes:

None

Data Alerts: None

NOM 12 - Percent of eligible newborns screened for heritable disorders with on time physician notification for out of range screens who are followed up in a timely manner. (DEVELOPMENTAL)

Federally available Data (FAD) for this measure is not available/reportable.

NOM 12 - Notes:

None

Data Alerts: None

NOM 13 - Percent of children meeting the criteria developed for school readiness (DEVELOPMENTAL)

Federally available Data (FAD) for this measure is not available/reportable.

NOM 13 - Notes:

None

Data Alerts: None

NOM 14 - Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	11.3 %	1.3 %	141,990	1,260,919
2018_2019	10.6 %	1.4 %	136,722	1,286,835
2017_2018	10.0 %	1.5 %	127,239	1,267,442
2016_2017	9.0 %	1.2 %	113,081	1,252,855
2016	9.0 %	1.2 %	112,430	1,252,032

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 14 - Notes:

None

Data Alerts: None

NOM 15 - Child Mortality rate, ages 1 through 9, per 100,000

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend				
Year	**Annual Indicator**	**Standard Error**	**Numerator**	**Denominator**
2020	15.0	1.5	99	660,668
2019	14.6	1.5	97	662,566
2018	15.5	1.5	103	664,105
2017	15.6	1.5	104	667,948
2016	15.8	1.5	106	670,711
2015	20.3	1.7	136	670,836
2014	17.7	1.6	119	671,448
2013	16.7	1.6	111	666,603
2012	18.0	1.7	119	662,541
2011	16.2	1.6	107	659,217
2010	15.2	1.5	100	659,833
2009	16.0	1.6	105	655,038

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 15 - Notes:

None

Data Alerts: None

NOM 16.1 - Adolescent mortality rate ages 10 through 19, per 100,000

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	33.2	2.1	251	755,284
2019	31.3	2.0	237	757,229
2018	28.7	1.9	218	760,010
2017	33.4	2.1	254	761,565
2016	33.4	2.1	254	759,740
2015	29.9	2.0	227	759,736
2014	22.8	1.7	174	763,694
2013	27.3	1.9	209	765,139
2012	31.3	2.0	242	773,432
2011	32.3	2.0	251	776,406
2010	30.8	2.0	242	785,270
2009	33.0	2.0	261	790,570

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 16.1 - Notes:

None

Data Alerts: None

NOM 16.2 - Adolescent motor vehicle mortality rate, ages 15 through 19, per 100,000

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2018_2020	7.6	0.8	87	1,138,999
2017_2019	7.9	0.8	91	1,146,283
2016_2018	8.7	0.9	100	1,152,302
2015_2017	8.2	0.8	95	1,156,115
2014_2016	6.9	0.8	80	1,158,159
2013_2015	6.9	0.8	80	1,161,768
2012_2014	8.7	0.9	102	1,173,032
2011_2013	11.0	1.0	130	1,184,125
2010_2012	11.4	1.0	137	1,200,823
2009_2011	11.3	1.0	137	1,214,384
2008_2010	12.0	1.0	148	1,229,879
2007_2009	14.7	1.1	182	1,236,839

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 16.2 - Notes:

None

Data Alerts: None

NOM 16.3 - Adolescent suicide rate, ages 15 through 19, per 100,000

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2018_2020	8.1	0.8	92	1,138,999
2017_2019	7.8	0.8	89	1,146,283
2016_2018	7.1	0.8	82	1,152,302
2015_2017	6.5	0.8	75	1,156,115
2014_2016	6.5	0.8	75	1,158,159
2013_2015	6.3	0.7	73	1,161,768
2012_2014	6.1	0.7	72	1,173,032
2011_2013	5.7	0.7	68	1,184,125
2010_2012	5.3	0.7	64	1,200,823
2009_2011	5.9	0.7	72	1,214,384
2008_2010	5.9	0.7	72	1,229,879
2007_2009	6.4	0.7	79	1,236,839

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 16.3 - Notes:

None

Data Alerts: None

NOM 17.1 - Percent of children with special health care needs (CSHCN), ages 0 through 17

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	20.5 %	1.4 %	273,531	1,331,754
2018_2019	19.4 %	1.5 %	260,596	1,339,840
2017_2018	19.2 %	1.6 %	257,564	1,344,597
2016_2017	19.2 %	1.4 %	258,184	1,343,836
2016	18.6 %	1.6 %	250,000	1,343,874

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 17.1 - Notes:

None

Data Alerts: None

NOM 17.2 - Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	18.3 %	3.1 %	49,950	273,531
2018_2019	18.8 %	3.3 %	48,870	260,596
2017_2018	8.3 %	1.9 %	21,436	257,564
2016_2017	14.7 %	2.6 %	37,919	258,184
2016	26.0 %	4.3 %	64,987	250,000

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 17.2 - Notes:

None

Data Alerts: None

NOM 17.3 - Percent of children, ages 3 through 17, diagnosed with an autism spectrum disorder

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	3.0 %	0.8 %	34,572	1,143,062
2018_2019	3.1 %	0.9 %	35,921	1,156,312
2017_2018	2.0 %	0.6 %	22,126	1,132,008
2016_2017	2.5 %	0.6 %	28,463	1,120,237
2016	4.1 %	1.0 %	45,908	1,116,162

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 17.3 - Notes:

None

Data Alerts: None

NOM 17.4 - Percent of children, ages 3 through 17, diagnosed with Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD)

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	9.1 %	1.1 %	103,332	1,135,411
2018_2019	8.2 %	1.1 %	93,322	1,141,804
2017_2018	10.3 %	1.3 %	115,075	1,113,679
2016_2017	11.8 %	1.3 %	129,569	1,100,731
2016	10.8 %	1.4 %	117,992	1,093,513

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 17.4 - Notes:

None

Data Alerts: None

NOM 18 - Percent of children, ages 3 through 17, with a mental/behavioral condition who receive treatment or counseling

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	55.7 %	5.0 %	87,278	156,698
2018_2019	51.8 %	5.5 %	81,415	157,080
2017_2018	52.8 %	6.2 %	79,416	150,539
2016_2017	63.6 %	5.7 %	89,108	140,147
2016	68.1 %	6.4 %	94,282	138,528

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 18 - Notes:

None

Data Alerts: None

NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	94.2 %	0.8 %	1,254,834	1,331,754
2018_2019	93.5 %	1.1 %	1,250,085	1,337,302
2017_2018	93.1 %	1.2 %	1,249,389	1,342,059
2016_2017	93.9 %	0.9 %	1,261,384	1,343,503
2016	93.7 %	1.1 %	1,258,778	1,343,208

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 19 - Notes:

None

Data Alerts: None

NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)

Data Source: WIC

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2018	16.4 %	0.2 %	7,721	47,153
2016	15.6 %	0.2 %	7,891	50,469
2014	16.5 %	0.2 %	8,100	49,008
2012	16.2 %	0.2 %	8,363	51,503
2010	17.1 %	0.2 %	8,758	51,280
2008	16.3 %	0.2 %	6,596	40,557

Legends:

Indicator has a denominator <50 and is not reportable

Indicator has a confidence interval width >20% points or >1.2 times the estimate and should be interpreted with caution

Data Source: Youth Risk Behavior Surveillance System (YRBSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	12.8 %	0.4 %	28,910	226,200
2017	12.6 %	0.3 %	28,487	226,002
2015	11.5 %	0.2 %	26,316	228,179
2013	11.0 %	0.2 %	25,455	231,036
2011	12.0 %	0.8 %	29,379	245,278
2009	12.0 %	1.1 %	30,848	257,496
2007	12.9 %	1.1 %	32,855	254,909
2005	12.6 %	1.1 %	31,387	249,623

Legends:

Indicator has an unweighted denominator <100 and is not reportable

Indicator has a confidence interval width >20% points or >1.2 times the estimate and should be interpreted with caution

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	16.7 %	2.3 %	99,293	593,904
2018_2019	17.6 %	2.5 %	100,089	568,211
2017_2018	14.5 %	2.6 %	79,529	549,812
2016_2017	15.7 %	2.4 %	89,354	567,381
2016	16.9 %	2.4 %	96,856	571,754

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 20 - Notes:

None

Data Alerts: None

NOM 21 - Percent of children, ages 0 through 17, without health insurance

Data Source: American Community Survey (ACS)

Multi-Year Trend				
Year	**Annual Indicator**	**Standard Error**	**Numerator**	**Denominator**
2019	3.0 %	0.3 %	40,425	1,331,209
2018	3.0 %	0.3 %	40,114	1,336,906
2017	3.9 %	0.4 %	52,934	1,345,120
2016	3.3 %	0.4 %	43,863	1,346,368
2015	4.2 %	0.3 %	55,893	1,346,012
2014	3.4 %	0.3 %	45,150	1,347,272
2013	4.3 %	0.3 %	57,589	1,344,277
2012	3.8 %	0.3 %	51,552	1,342,323
2011	4.5 %	0.4 %	60,555	1,346,032
2010	4.9 %	0.3 %	65,771	1,350,668
2009	4.7 %	0.3 %	63,797	1,349,602

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 21 - Notes:

None

Data Alerts: None

NOM 22.1 - Percent of children who have completed the combined 7-vaccine series (4:3:1:3*:3:1:4) by age 24 months

Data Source: National Immunization Survey (NIS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2017	75.4 %	2.4 %	55,000	73,000
2016	73.5 %	3.3 %	54,000	74,000
2015	73.9 %	3.6 %	55,000	75,000
2014	70.0 %	3.8 %	52,000	75,000
2013	72.5 %	3.6 %	54,000	74,000
2012	66.7 %	4.2 %	50,000	75,000
2011	75.6 %	4.1 %	57,000	75,000

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval width/estimate >1.2

Estimates with 95% confidence interval widths >20 or that are inestimable might not be reliable

NOM 22.1 - Notes:

None

Data Alerts: None

NOM 22.2 - Percent of children, ages 6 months through 17 years, who are vaccinated annually against seasonal influenza

Data Source: National Immunization Survey (NIS) – Flu

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020_2021	70.1 %	1.1 %	885,932	1,263,811
2019_2020	74.8 %	1.1 %	941,973	1,259,322
2018_2019	74.5 %	1.5 %	940,620	1,262,916
2017_2018	67.5 %	1.6 %	848,968	1,257,723
2016_2017	68.5 %	2.5 %	868,723	1,268,024
2015_2016	72.8 %	2.1 %	915,983	1,258,218
2014_2015	64.5 %	3.0 %	810,079	1,255,158
2013_2014	66.0 %	2.3 %	836,263	1,267,127
2012_2013	67.6 %	2.7 %	853,540	1,263,588
2011_2012	64.0 %	3.6 %	824,711	1,289,465
2010_2011	62.7 %	2.7 %	771,223	1,230,020
2009_2010	49.5 %	2.3 %	588,753	1,189,401

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or because the relative standard error is >0.3.

Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM 22.2 - Notes:

None

Data Alerts: None

NOM 22.3 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine

Data Source: National Immunization Survey (NIS) - Teen

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	83.1 %	1.9 %	314,970	378,813
2019	78.9 %	2.8 %	297,815	377,552
2018	74.7 %	3.1 %	283,824	379,953
2017	69.2 %	3.5 %	263,244	380,264
2016	64.5 %	3.2 %	245,374	380,245
2015	60.3 %	3.3 %	229,471	380,246

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval width/estimate > 1.2

Estimates with 95% confidence interval widths > 20 or that are inestimable might not be reliable

NOM 22.3 - Notes:

None

Data Alerts: None

NOM 22.4 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the Tdap vaccine

Data Source: National Immunization Survey (NIS) - Teen

Multi-Year Trend				
Year	**Annual Indicator**	**Standard Error**	**Numerator**	**Denominator**
2020	90.2 %	1.5 %	341,560	378,813
2019	91.6 %	1.9 %	345,693	377,552
2018	88.4 %	2.1 %	336,034	379,953
2017	88.3 %	2.6 %	335,786	380,264
2016	85.1 %	2.4 %	323,385	380,245
2015	86.5 %	2.3 %	328,905	380,246
2014	85.0 %	2.7 %	323,794	380,851
2013	83.2 %	3.2 %	318,664	383,012
2012	78.1 %	3.4 %	300,758	385,101
2011	73.0 %	2.7 %	284,003	389,332
2010	61.2 %	3.3 %	234,929	383,916
2009	51.9 %	4.1 %	202,186	389,944

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval width/estimate > 1.2

Estimates with 95% confidence interval widths > 20 or that are inestimable might not be reliable

NOM 22.4 - Notes:

None

Data Alerts: None

NOM 22.5 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the meningococcal conjugate vaccine

Data Source: National Immunization Survey (NIS) - Teen

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	94.0 %	1.1 %	356,030	378,813
2019	94.9 %	1.4 %	358,427	377,552
2018	91.8 %	2.0 %	348,823	379,953
2017	91.8 %	2.2 %	348,975	380,264
2016	84.9 %	2.6 %	322,627	380,245
2015	87.3 %	2.3 %	331,887	380,246
2014	86.5 %	2.5 %	329,314	380,851
2013	78.0 %	3.4 %	298,661	383,012
2012	74.9 %	3.5 %	288,608	385,101
2011	78.5 %	2.4 %	305,702	389,332
2010	68.9 %	3.1 %	264,513	383,916
2009	59.3 %	4.1 %	231,140	389,944

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval width/estimate >1.2

Estimates with 95% confidence interval widths > 20 or that are inestimable might not be reliable

NOM 22.5 - Notes:

None

Data Alerts: None

NOM 23 - Teen birth rate, ages 15 through 19, per 1,000 females

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	13.1	0.3	2,431	185,978
2019	13.9	0.3	2,603	186,613
2018	14.1	0.3	2,645	187,101
2017	14.2	0.3	2,667	188,265
2016	15.9	0.3	3,017	189,190
2015	17.0	0.3	3,214	189,152
2014	17.8	0.3	3,379	189,695
2013	19.3	0.3	3,690	191,242
2012	22.1	0.3	4,286	193,953
2011	24.4	0.4	4,797	196,427
2010	27.3	0.4	5,396	197,629
2009	30.7	0.4	6,140	199,852

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 23 - Notes:

None

Data Alerts: None

NOM 24 - Percent of women who experience postpartum depressive symptoms following a recent live birth

Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	14.3 %	1.5 %	8,840	61,648
2019	15.6 %	1.5 %	9,718	62,162
2018	16.1 %	1.5 %	10,296	63,824
2017	12.4 %	1.2 %	7,680	61,977
2016	13.3 %	1.1 %	8,480	63,932
2015	11.9 %	1.1 %	7,612	64,089
2014	12.0 %	1.1 %	7,734	64,505
2013	11.4 %	1.1 %	7,145	62,837
2012	12.3 %	1.3 %	7,826	63,627

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has an unweighted denominator between 30 and 59 or a confidence interval width >20% points or >1.2 times the estimate and should be interpreted with caution

NOM 24 - Notes:

None

Data Alerts: None

NOM 25 - Percent of children, ages 0 through 17, who were unable to obtain needed health care in the past year

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	2.3 %	0.5 %	30,088	1,319,601
2018_2019	2.3 %	0.5 %	30,815	1,331,725
2017_2018	2.1 %	0.6 %	27,505	1,337,635
2016_2017	1.7 %	0.5 %	22,648	1,338,569
2016	1.3 %	0.5 %	17,042	1,343,874

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 25 - Notes:

None

Data Alerts: None

Form 10
National Performance Measures (NPMs)

State: Maryland

NPM 3 - Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)

Federally available Data (FAD) for this measure is not available/reportable.

State Provided Data			
	2019	2020	2021
Annual Objective			93.7
Annual Indicator	79.2	93.4	91.6
Numerator	954	891	854
Denominator	1,205	954	932
Data Source	VSA	VSA	VSA
Data Source Year	2018	2019	2020
Provisional or Final ?	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	94.0	94.3	94.6	95.0

Field Level Notes for Form 10 NPMs:

None

NPM 4A - Percent of infants who are ever breastfed

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2019	**2020**	**2021**
Annual Objective			88.9
Annual Indicator	84.1	88.6	86.8
Numerator	51,263	55,833	59,613
Denominator	60,967	63,040	68,676
Data Source	NIS	NIS	NIS
Data Source Year	2016	2017	2018

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	89.2	89.5	89.8	90.1

Field Level Notes for Form 10 NPMs:

None

NPM 4B - Percent of infants breastfed exclusively through 6 months

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2019	**2020**	**2021**
Annual Objective			30.8
Annual Indicator	28.0	29.4	26.6
Numerator	16,851	17,961	17,625
Denominator	60,103	61,137	66,307
Data Source	NIS	NIS	NIS
Data Source Year	2016	2017	2018

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	32.2	33.6	35.0	36.4

Field Level Notes for Form 10 NPMs:

None

NPM 5A - Percent of infants placed to sleep on their backs

Federally Available Data					
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	79	75.8	77.3	78.8	80.3
Annual Indicator	74.6	78.2	78.2	81.6	78.5
Numerator	47,705	48,293	48,293	50,368	47,476
Denominator	63,975	61,753	61,753	61,754	60,460
Data Source	PRAMS	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2015	2017	2017	2019	2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	81.8	83.3	84.8	85.3

Field Level Notes for Form 10 NPMs:

None

NPM 5B - Percent of infants placed to sleep on a separate approved sleep surface

Federally Available Data				
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)				
	2018	**2019**	**2020**	**2021**
Annual Objective		70.5	71.9	33.3
Annual Indicator	29.0	29.0	32.9	34.5
Numerator	16,948	16,948	19,188	19,974
Denominator	58,441	58,441	58,412	57,908
Data Source	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2017	2019	2020

State Provided Data					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective			70.5	71.9	33.3
Annual Indicator	69.1				
Numerator	45,750				
Denominator	66,226				
Data Source	PRAMS				
Data Source Year	2015				
Provisional or Final ?	Final				

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	33.7	34.1	34.5	34.9

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
Indicator reflects the estimated percentage of recent mothers reporting their new baby usually sleeps in a crib or portable crib AND did not report their new baby sleeps with themselves or another person.

NPM 5C - Percent of infants placed to sleep without soft objects or loose bedding

Federally Available Data				
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)				
	2018	**2019**	**2020**	**2021**
Annual Objective		68.1	69.5	57.6
Annual Indicator	51.7	51.6	56.6	55.0
Numerator	30,441	30,441	32,851	31,754
Denominator	58,942	58,942	58,015	57,742
Data Source	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2017	2019	2020

State Provided Data					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective			68.1	69.5	57.6
Annual Indicator	66.8				
Numerator	44,268				
Denominator	66,226				
Data Source	PRAMS				
Data Source Year	2015				
Provisional or Final ?	Final				

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	58.6	59.6	60.6	61.6

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
Indicator reflects the estimated percentage of recent mothers who did not report their new baby usually sleeps with pillows, bumper pads, plush or thick blankets, stuffed toys, or an infant positioner.

NPM 6 - Percent of children, ages 9 through 35 months, who received a developmental screening using a parent-completed screening tool in the past year

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective		34.2	34.6	35	41.9
Annual Indicator	43.1	36.6	34.7	40.9	40.3
Numerator	60,201	49,586	47,097	55,907	57,317
Denominator	139,848	135,327	135,685	136,579	142,190
Data Source	NSCH	NSCH	NSCH	NSCH	NSCH
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	42.9	43.9	44.9	45.9

Field Level Notes for Form 10 NPMs:

None

NPM 10 - Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year.

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective		87.3	87.7	88	82.2
Annual Indicator	88.7	87.1	87.1	81.4	78.7
Numerator	393,976	386,469	386,469	359,586	355,101
Denominator	444,207	443,800	443,800	441,589	451,033
Data Source	NSCH	NSCH	NSCH	NSCH	NSCH
Data Source Year	2016	2016_2017	2016_2017	2019	2019_2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	83.0	83.8	84.6	85.4

Field Level Notes for Form 10 NPMs:

None

NPM 11 - Percent of children with and without special health care needs, ages 0 through 17, who have a medical home - Children with Special Health Care Needs

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - CSHCN					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective		57	60	63.3	45.9
Annual Indicator	50.8	53.4	50.6	44.9	44.9
Numerator	127,072	137,990	130,334	117,076	122,840
Denominator	250,000	258,184	257,564	260,596	273,531
Data Source	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	46.9	47.9	48.9	50.0

Field Level Notes for Form 10 NPMs:

None

NPM 12 - Percent of adolescents with and without special health care needs, ages 12 through 17, who received services to prepare for the transition to adult health care - Children with Special Health Care Needs

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - CSHCN					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective		40	43	45.3	27.9
Annual Indicator	13.4	16.2	21.6	26.9	23.8
Numerator	14,817	21,034	28,923	31,754	28,346
Denominator	110,803	129,507	133,731	118,003	119,301
Data Source	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	28.9	29.9	30.9	31.9

Field Level Notes for Form 10 NPMs:

None

NPM 13.1 - Percent of women who had a preventive dental visit during pregnancy

Federally Available Data					
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	57.9	58.6	59.3	60	54.9
Annual Indicator	52.6	53.3	53.3	54.1	47.0
Numerator	34,237	33,752	33,752	33,888	28,934
Denominator	65,122	63,361	63,361	62,695	61,594
Data Source	PRAMS	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2015	2017	2017	2019	2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	55.7	56.5	57.3	59.1

Field Level Notes for Form 10 NPMs:

None

NPM 14.1 - Percent of women who smoke during pregnancy

Federally Available Data					
Data Source: National Vital Statistics System (NVSS)					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	6.6	6.5	6.4	6.3	4.4
Annual Indicator	5.9	5.5	5.3	4.7	4.2
Numerator	4,299	3,932	3,719	3,281	2,846
Denominator	72,838	71,324	70,599	69,782	68,236
Data Source	NVSS	NVSS	NVSS	NVSS	NVSS
Data Source Year	2016	2017	2018	2019	2020

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	4.1	3.8	3.5	3.2

Field Level Notes for Form 10 NPMs:

None

Form 10
State Performance Measures (SPMs)

State: Maryland

SPM 1 - Rate of overdose mortality for women ages 15-49

Measure Status:	Active

State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator	24.1	35.7
Numerator	334	493
Denominator	1,385,375	1,381,029
Data Source	VSA	CDC Wonder using ICD-10 Codes
Data Source Year	2019	2021
Provisional or Final ?	Final	Provisional

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	23.9	23.7	23.5	23.3

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2021**
	Column Name:	**State Provided Data**

Field Note:
Of note, because of the Network Security Incident, 2021 data are not available from the VSA. Therefore, CDC Wonder data was used using ICD-10 codes from SAMSA's guidance.

SPM 2 - Excess rate between Black Non-Hispanic Severe Maternal Morbidity (SMM) events to White Non-Hispanic SMM events per 10,000 delivery hospitalizations

Measure Status:	Active

State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator	328.5	381.4
Numerator	640	690
Denominator	19,481	18,090
Data Source	Health Services Cost Review Commission	Health Services Cost Review Commission
Data Source Year	2018	2021
Provisional or Final ?	Final	Provisional

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	312.1	295.7	279.3	262.8

Field Level Notes for Form 10 SPMs:

None

SPM 3 - Receipt of Primary Care During Early Childhood

Measure Status:	Active

State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	67.4	64.6	65.8	67.1	68.2
Annual Indicator	63.5	65.9	67.1	67	71.7
Numerator	25,389	30,621	25,794	24,969	27,940
Denominator	39,994	46,466	38,455	37,253	38,989
Data Source	Medicaid	Medicaid	Medicaid	Medicaid	Medicaid
Data Source Year	2017 (CY)	2018 (CY)	2019 (CY)	2020 (CY)	2021 (CY)
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	69.4	70.6	71.8	73.0

Field Level Notes for Form 10 SPMs:

None

SPM 4 - Number of Asthma Emergency Room Visits per 1,000 for Children age 2-17 with a primary diagnosis of asthma

Measure Status:	Active

State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator	9.2	3.5
Numerator	10,974	4,213
Denominator	1,195,993	1,193,543
Data Source	Health Services Cost Review Commission	Health Services Cost Review Commission
Data Source Year	2018	2021
Provisional or Final ?	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	8.5	7.2	6.7	6.2

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2021**
	Column Name:	**State Provided Data**

Field Note:
We hypothesize that the rate has decreased due to the COVID-19 Pandemic.

SPM 5 - Cross-Cutting Measure: Percentage of MCHB committees/workgroups that include community members/persons with lived experience

Measure Status:	Active		
Annual Objectives			
	2023	**2024**	**2025**
Annual Objective	27.0	36.0	45.0

Field Level Notes for Form 10 SPMs:

None

Form 10
Evidence-Based or –Informed Strategy Measures (ESMs)

State: Maryland

ESM 3.1 - Percentage of Level III & IV Perinatal Referral Centers who received their re-designations based on the 2019 MD Perinatal System Standards

Measure Status:	Active

State Provided Data			
	2019	2020	2021
Annual Objective			93.7
Annual Indicator	0	15.4	46.2
Numerator	0	2	6
Denominator	14	13	13
Data Source	Program Data	Program Data	Program Data
Data Source Year	2019	2020	2021
Provisional or Final ?	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	62.0	85.0	100.0	100.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
Of note during 2021, there were 13 Level III and IV Perinatal Referral Standards.

ESM 4.1 - Number of birthing hospitals designated as breastfeeding friendly

Measure Status:	Active

State Provided Data			
	2019	2020	2021
Annual Objective			10
Annual Indicator		10	10
Numerator			
Denominator			
Data Source		MDH Breastfeeding Policy Committe	MDH Breastfeeding Policy Committee
Data Source Year		FY 2020	FY2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	11.0	12.0	13.0	15.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**
	Field Note: Due to the COVID-19 Pandemic outreach to the hospitals was severely limited during FY 2020.	
2.	**Field Name:**	**2021**
	Column Name:	**State Provided Data**
	Field Note: Due to emphasis on addressing COVID, the number of baby-friendly hospitals remain the same.	

ESM 5.1 - Percentage of infants less than 6 months who are placed on their backs to sleep

Measure Status:	Inactive - Replaced		
State Provided Data			
	2019	**2020**	**2021**
Annual Objective			80.3
Annual Indicator	78.2	81.6	80.3
Numerator	48,293	50,368	48,530
Denominator	61,753	61,754	60,415
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2019	2020
Provisional or Final ?	Final	Final	Final

Field Level Notes for Form 10 ESMs:

None

ESM 5.2 - Number of home visiting or care coordination clients, providers, and other Title V program participants that received infant safe sleep counseling and information

Measure Status:			Active
Annual Objectives			
	2023	**2024**	**2025**
Annual Objective	6,900.0	7,000.0	7,100.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2021**
	Column Name:	**State Provided Data**

Field Note:
For 2021, the number was 6,728

ESM 6.1 - Number of parents who receive information/education on the importance of developmental screenings from Home Visiting and Care Coordination Title V providers

Measure Status:	Active

State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	2,832	1,181	1,201	1,220	1,239
Annual Indicator	1,162	1,035	1,022	749	2,325
Numerator					
Denominator					
Data Source	MCHB Data	MCHB Data	MCHB	MCHB Data	MCHB Data
Data Source Year	2017	2018	2019	FY 2020	2021
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	1,259.0	1,278.0	1,278.0	1,300.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
Home Visiting services through the Local Health Departments was severly limited during the COVID-19 Pandemic. As a result, fewer families were provided with developmental screening education.

ESM 10.2 - Number of adolescent (12-17) who receive well visits through school based health centers

Measure Status:	Active

State Provided Data			
	2019	2020	2021
Annual Objective			45,000
Annual Indicator		37,578	798
Numerator			
Denominator			
Data Source		MCHB Data	MCHB Data
Data Source Year		FY 2020	FY2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	60,000.0	75,000.0	90,000.0	110,000.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**
	Field Note: School closures due to the COVID-19 Pandemic, limited the number of well visits completed at school based health clinics during FY 2020	
2.	**Field Name:**	**2021**
	Column Name:	**State Provided Data**
	Field Note: The numbers dramatically decreased due to COVID. Many schools were operating virtually and therefore school health services and school-based clinics were not open.	

ESM 11.1 - Number of CYSHCN who receive patient and family-centered care coordination services

Measure Status:	Active

State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	0	61	5,300	5,400	5,500
Annual Indicator	60	5,362	5,770	1,463	1,502
Numerator					
Denominator					
Data Source	OGPSHCN Data	OGPSHCN Data	OGPSHCN Data	OGPSHCN Data	OGPSHCN Data
Data Source Year	FY 2017	FY 18	FY 19	FY 2020	FY 2021
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	5,600.0	5,700.0	5,800.0	6,000.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**
	Field Note: This number, is based on several grantees who have not yet separated out care coordination from transition services.	
2.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: Total number of children who received basic or complex care coordination through Nurse Care Coordinators at the 24 local health departments in the state.	

ESM 12.1 - Number of CYSCHN and their families who participate in health care transition planning activities

Measure Status:				Active	
State Provided Data					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	0	61	62	63	64
Annual Indicator	60	5,697	1,308	416	81
Numerator					
Denominator					
Data Source	MCHB Data	OGPSHCN	OGPSHCN	OGPSHCN Data	OGPSHCN Data
Data Source Year	FY 2017	FY2018	FY 2019	FY 2020	FY 2021
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	65.0	66.0	67.0	1,300.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**
	Field Note: Includes count of children who have received transition services. This number includes reports from several grantees who did not separate out care coordination from transition services.	
2.	**Field Name:**	**2019**
	Column Name:	**State Provided Data**
	Field Note: Previous data included counts for both care coordination and transition services. Changes have occurred that has grantees providing data on each service separately to better assess progress in meeting the measure.	
3.	**Field Name:**	**2021**
	Column Name:	**State Provided Data**
	Field Note: The 2021 numbers are significantly low because of COVID.	

ESM 13.1.1 - Percentage of pregnant individuals aged 21 and older on medical assistance in Maryland who receive a preventive dental visit

Measure Status:	Active

State Provided Data			
	2019	2020	2021
Annual Objective			28.4
Annual Indicator	28.2	28.8	21.6
Numerator	7,979	8,346	6,666
Denominator	28,259	28,939	30,925
Data Source	Office of Oral Health Legislative Report	Office of Oral Health Legislative Report	Office of Oral Health Legislative Report
Data Source Year	CY 2018	CY 2019	CY2020
Provisional or Final ?	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	29.9	31.4	32.5	34.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2019**
	Column Name:	**State Provided Data**
	Field Note: Data is from CY 2018. Source Office of Oral Health's Legislative Report	
2.	**Field Name:**	**2021**
	Column Name:	**State Provided Data**
	Field Note: Numbers impacted by the COVID-19 Pandemic	

ESM 14.1.1 - Number of pregnant individuals who use the statewide tobacco QuitLine

Measure Status:				Active	
State Provided Data					
	2017	**2018**	**2019**	**2020**	**2021**
Annual Objective	167	136	137	139	140
Annual Indicator	135	131	99	86	67
Numerator					
Denominator					
Data Source	MDH CTPC Quitline Data	MDH CTPC Quitline Data	MDH CTPC Quitline Data	Quit Line Data	Quit line Data
Data Source Year	FY17	FY 18	FY 19	FY 2020	FY2021
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	**2023**	**2024**	**2025**
Annual Objective	142.0	143.0	143.0	143.0

Field Level Notes for Form 10 ESMs:

None

Form 10
State Performance Measure (SPM) Detail Sheets

State: Maryland

SPM 1 - Rate of overdose mortality for women ages 15-49
Population Domain(s) – Women/Maternal Health

Measure Status:	Active
Goal:	To reduce the number of overdose fatalities for women age 15-49
Definition:	**Unit Type:** Rate **Unit Number:** 100,000 **Numerator:** # of overdose fatalities for women age 15-49 **Denominator:** # of women age 15-49
Data Sources and Data Issues:	VSA Data and Health Services Cost Review Commission (HSCRC)
Significance:	There were 38 pregnancy-associated deaths in 2018. Twelve of the 38 total deaths (32 percent) resulted from substance use and unintentional overdose deaths. In nine of the 12 cases, two or more drugs were found by postmortem toxicology testing. From 2010 to 2018 of opioid identified postmortem, pregnancy-associated unintentional overdose deaths in Maryland, Fentanyl or fentanyl analogs have been the most frequently detected opioid.

SPM 2 - Excess rate between Black Non-Hispanic Severe Maternal Morbidity (SMM) events to White Non-Hispanic SMM events per 10,000 delivery hospitalizations
Population Domain(s) – Women/Maternal Health

Measure Status:	Active
Goal:	A 20% reduction in Black Non-Hispanic SMM events by 2026
Definition:	**Unit Type:** Rate **Unit Number:** 10,000 **Numerator:** # of Black Non-Hispanic SMM events **Denominator:** # of Black Non-Hispanic delivery hospitalizations
Data Sources and Data Issues:	Health Services Cost Review Commission (HSCRC)
Significance:	Reduce and eliminate the racial disparities in SMM. This is part of the Statewide Integrated Health Improvement Strategy that is part of the Maryland Total Cost of Care Model.

SPM 3 - Receipt of Primary Care During Early Childhood
Population Domain(s) – Child Health

Measure Status:	Active
Goal:	All children in Maryland will be screened for developmental needs
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** % of Medicaid patients age 15 months who had 5 or more well child visits during the first 15 months of life **Denominator:** % of Medicaid patients age 15 months
Data Sources and Data Issues:	Medicaid data
Significance:	Early identification of developmental disorders is critical to the well-being of children and their families. It is an integral function of the primary care medical home. The percent of children with a developmental disorder has been increasing, yet overall screening rates have remained low. The American Academy of Pediatrics recommends screening tests begin at the nine month visit. MCHB chose NPM 6 to measure developmental screening using a parent completed screening tool, however developmental screening is also appropriate in the primary care setting for infants and young children. MCHB will focus on receipt of primary care for young children as a precursor to developmental screening in the primary care setting. MCHB will partner with Medicaid and local health departments to track data and develop future strategies.

SPM 4 - Number of Asthma Emergency Room Visits per 1,000 for Children age 2-17 with a primary diagnosis of asthma
Population Domain(s) – Child Health, Adolescent Health

Measure Status:	Active
Goal:	Reduce the number of ED visits for children age 2-17 with asthma
Definition:	**Unit Type:** Rate **Unit Number:** 1,000 **Numerator:** # of children age 2-17 with primary diagnosis of asthma during an ED visit **Denominator:** # of children age 2-17
Data Sources and Data Issues:	Maryland Health Care Cost Review Commission
Significance:	Asthma is a priority for MDH and is one of the largest racial and ethnic health disparities in terms of ED visit rates. Asthma is responsible for more Emergency Department (ED) visits than some other major chronic disease such as hypertension and diabetes ED visits.

SPM 5 - Cross-Cutting Measure: Percentage of MCHB committees/workgroups that include community members/persons with lived experience
Population Domain(s) – Cross-Cutting/Systems Building

Measure Status:	Active
Goal:	To have at least 50% of MCHB State Committees/workgroups include community members/persons with lived experiences by SFY2025
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Number of MCHB commissions/workgroups that include persons with lived experience or community members **Denominator:** Number of MCHB commissions that Title V staff coordinate
Data Sources and Data Issues:	Title Data
Significance:	Working towards MCHB policies and practices are centered on equity and anti-racism principles will support Title V activities achieve inclusion and equity. The Title V staff would like to see more MCHB commissions/workgroups that include persons with lived experience or community members.

Form 10
State Outcome Measure (SOM) Detail Sheets

State: Maryland

No State Outcome Measures were created by the State.

Form 10
Evidence-Based or –Informed Strategy Measures (ESM) Detail Sheets

State: Maryland

ESM 3.1 - Percentage of Level III & IV Perinatal Referral Centers who received their re-designations based on the 2019 MD Perinatal System Standards
NPM 3 – Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)

Measure Status:	Active
Goal:	To have 100% of Level III & IV Perinatal Referral Centers receive their re-designations based on the 2019 MD Perinatal System Standards
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Number of Level III & IV Perinatal Referral Centers who receive their re-designations **Denominator:** Total Number of Level III & IV Perinatal Referral Centers
Data Sources and Data Issues:	Programmatic Data
Significance:	Infants who are born at facilities that are equipped to meet the need of both the infant and the birthing individual is important to improve both maternal and neonatal outcomes. Infants born in appropriate level hospitals have a decreased risk of adverse outcomes. Since the mid-1990s, Maryland has developed voluntary standards for Maryland hospitals providing obstetric and neonatal services. The Standards have been incorporated into regulations for designation of perinatal referral centers (Level III, and Level IV) by the Maryland Institute for Emergency Medical Service Systems (MIEMSS). The re-designation of the Perinatal Referral Center ensures that these Centers are equipped to meet the need of both the infant the birthing individual

ESM 4.1 - Number of birthing hospitals designated as breastfeeding friendly
NPM 4 – A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months

Measure Status:	Active
Goal:	Increase the number of birthing hospitals promoting breastfeeding
Definition:	**Unit Type:** Count **Unit Number:** 32 **Numerator:** Number of birthing hospitals that achieve Baby-Friendly accreditation status **Denominator:**
Data Sources and Data Issues:	The information is from the Breastfeeding Policy Committee that tracks and monitors the number of hospitals that have received the baby-friendly designation.
Significance:	Increased support from hospitals will have a positive impact on the number of women who initiate breastfeeding

ESM 5.1 - Percentage of infants less than 6 months who are placed on their backs to sleep
NPM 5 – A) Percent of infants placed to sleep on their backs B) Percent of infants placed to sleep on a separate approved sleep surface C) Percent of infants placed to sleep without soft objects or loose bedding

Measure Status:	Inactive - Replaced
Goal:	Increased numbers of infants will be placed on their backs to sleep. Challenges to safe sleep practices will be addressed
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Number of infants less than 6 months placed on their backs to sleep **Denominator:** Total number of infants less than six months old
Data Sources and Data Issues:	PRAMS, home visiting programs assessing safe sleep environments
Significance:	Reduction in infant mortality

ESM 5.2 - Number of home visiting or care coordination clients, providers, and other Title V program participants that received infant safe sleep counseling and information
NPM 5 – A) Percent of infants placed to sleep on their backs B) Percent of infants placed to sleep on a separate approved sleep surface C) Percent of infants placed to sleep without soft objects or loose bedding

<table>
<tr><td>Measure Status:</td><td>Active</td></tr>
<tr><td>Goal:</td><td>To overall see an increase percentage of infants placed to sleep on their backs, on a separate approved sleep surface, and placed to sleep without soft objects or loose bedding with increased safe sleep counseling and information</td></tr>
<tr><td>Definition:</td><td>
<table>
<tr><td>Unit Type:</td><td>Count</td></tr>
<tr><td>Unit Number:</td><td>10,000</td></tr>
<tr><td>Numerator:</td><td>Number of home visiting or care coordination clients, providers, and other Title V program participants that received infant safe sleep counseling and information</td></tr>
<tr><td>Denominator:</td><td></td></tr>
</table>
</td></tr>
<tr><td>Data Sources and Data Issues:</td><td>Title V Data Source</td></tr>
<tr><td>Evidence-based/informed strategy:</td><td>The American Academy of Pediatrics recommend that infants sleep on their back, on a firm surface without any loose bedding or soft objects. The strategy is to provide infant safe sleep counseling and information to families as well as providers who work with families. According to Ashley et al, receiving provider advice was associated with increased use of safe sleep practices (Prevalence and Factors Associated With Safe Infant Sleep Practices. Pediatrics November 2019). By providing information and counselling to families and providers who can provider counseling, this may increase the number of infants who are sleeping safely.</td></tr>
<tr><td>Significance:</td><td>This ESM measures the number of families and providers who are trained on the importance of infant safe sleep, how infants can sleep safely. To change the culture of infant safe sleep, it is important for all families to know how infants can sleep safely.</td></tr>
</table>

ESM 6.1 - Number of parents who receive information/education on the importance of developmental screenings from Home Visiting and Care Coordination Title V providers
NPM 6 – Percent of children, ages 9 through 35 months, who received a developmental screening using a parent-completed screening tool in the past year

Measure Status:	Active
Goal:	Increase the number of parents who receive education about developmental screening tools from Home Visiting and Care Coordination Title V providers
Definition:	**Unit Type:** Count **Unit Number:** 5,000 **Numerator:** Home Visiting, Care Coordination, and other Title V program clients/parents who receive education about developmental screening tools **Denominator:**
Data Sources and Data Issues:	MCHB Data
Significance:	Early identification of developmental disorders is critical to the well-being of children and their families. It is an integral function of the primary care medical home. The percent of children with a developmental disorder has been increasing, yet overall screening rates have remained low. The American Academy of Pediatrics recommends screening tests begin at the nine month visit. Title V funds local health departments to educate parents of children at risk for developmental delays or behavioral health issues about developmental screening. Education is primarily focused on parents of children who are receiving local health department case management for elevated blood lead levels or Infants & Toddlers Program services.

ESM 10.2 - Number of adolescent (12-17) who receive well visits through school based health centers
NPM 10 – Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year.

Measure Status:	Active
Goal:	Increase the number of adolescents receiving annual well visits
Definition:	**Unit Type:** Count **Unit Number:** 750,000 **Numerator:** Number of adolescents 12-17 receiving an annual well visit **Denominator:**
Data Sources and Data Issues:	MCHB Data
Evidence-based/informed strategy:	Adolescents receiving well visits through school based health clinics
Significance:	Preventive well visits for adolescents promote healthy behaviors, help reduce risk taking behaviors and can detect conditions that may interfere with an adolescent's physical, social and emotional growth and well-being.

ESM 11.1 - Number of CYSHCN who receive patient and family-centered care coordination services
NPM 11 – Percent of children with and without special health care needs, ages 0 through 17, who have a medical home

Measure Status:	Active
Goal:	Increase the number of CYSHCN who receive patient and family-centered care coordination services (CCS).
Definition:	**Unit Type:** Count **Unit Number:** 70,000 **Numerator:** Number of CYSHCN who received CCS **Denominator:**
Data Sources and Data Issues:	DHMH/MCHB Data
Significance:	The American Academy of Pediatrics (AAP) specifies seven qualities essential to medical home care: accessible, family-centered, continuous, comprehensive, coordinated, compassionate and culturally effective. CYSHCN who receive quality care coordination services are less likely to experience medication errors, unnecessary or repetitive diagnostic tests, unnecessary emergency room visits, and ultimately experience better health outcomes.

ESM 12.1 - Number of CYSCHN and their families who participate in health care transition planning activities
NPM 12 – Percent of adolescents with and without special health care needs, ages 12 through 17, who received services to prepare for the transition to adult health care

Measure Status:	Active
Goal:	Increase the number of CYSHCN and their families who participating in transition planning activities
Definition:	**Unit Type:** Count **Unit Number:** 50,000 **Numerator:** Number of YSHCN and families that participate in transition planning activities. **Denominator:**
Data Sources and Data Issues:	DHMH/MCHB Data
Significance:	According to American Academy of Pediatrics, Supporting the health care transition from adolescence to adulthood in the medical home, as teens grow into adulthood, their health care needs change. During this transition, most teens may begin to take more responsibility for their health care and most will need to leave their pediatricians for adult health care providers. As teens with special health care needs become adults, receiving proper health care can be a challenge. Youth participating in their Health Care Transition Planning is part of the process of becoming independent and learning to manage one's own health while preventing periods of gaps in services. Losing access to primary care, even for a short time, can affect the long-term health of a youth with special health care needs.

ESM 13.1.1 - Percentage of pregnant individuals aged 21 and older on medical assistance in Maryland who receive a preventive dental visit
NPM 13.1 – Percent of women who had a preventive dental visit during pregnancy

Measure Status:	Active
Goal:	To increase the number of pregnant individuals who have a preventive dental visit during pregnancy
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Number of pregnant women with Medicaid who have a dental visit during pregnancy **Denominator:** Total number of pregnancy women with Medicaid
Data Sources and Data Issues:	Medicaid Data from Office of Oral Health
Significance:	Preventive dental visits are indicative of overall health of both mother and infant.

ESM 14.1.1 - Number of pregnant individuals who use the statewide tobacco QuitLine
NPM 14.1 – Percent of women who smoke during pregnancy

Measure Status:	Active
Goal:	By 2022, increase by 5% the number of pregnant smokers who call the Quitline annually.
Definition:	**Unit Type:** Count **Unit Number:** 200 **Numerator:** # of pregnant individuals who use the Maryland tobacco quitline **Denominator:**
Data Sources and Data Issues:	2016-2022 MDH Center for Tobacco Prevention and Control Quitline Data
Significance:	Women who smoke during pregnancy are more likely to experience a fetal death or deliver a low birth weight baby. Further, secondhand smoke (SHS) is a mixture of mainstream smoke (exhaled by smoker) and the more toxic side stream smoke (from lit end of nicotine product) which is classified as a “known human carcinogen” by the US Environmental Protection Agency, the US National Toxicology Program, and the International Agency for Research on Cancer. Adverse effects of parental smoking on children have been a clinical and public health concern for decades and were documented in the 1986 U.S. Surgeon General Report. The MDH Center for Tobacco Prevention and Control launched a Pregnancy Rewards Program in 2014, which offers pregnant and postpartum women (up to six months) rewards for series of completed calls with a Quit Coach. Though initially requiring referral by physician, that barrier was removed and now a pregnant smoker can simply call and let the Quitline know that she is pregnant and interested in the rewards/incentive program. This ESM will measure the impact of the Pregnancy Rewards Program and accompanying media campaigns/health communication interventions on the number of pregnant Quitline callers.

Form 11
Other State Data

State: Maryland

The Form 11 data are available for review via the link below.

Form 11 Data

Form 12
MCH Data Access and Linkages

State: Maryland

Annual Report Year 2021

	Access				Linkages	
Data Sources	(A) State Title V Program has Consistent Annual Access to Data Source	(B) State Title V Program has Access to an Electronic Data Source	(C) Describe Periodicity	(D) Indicate Lag Length for Most Timely Data Available in Number of Months	(E) Data Source is Linked to Vital Records Birth	(F) Data Source is Linked to Another Data Source
1) Vital Records Birth	Yes	Yes	Annually	10		• PRAMS
2) Vital Records Death	Yes	No	Annually	10	No	
3) Medicaid	Yes	No	Quarterly	6	No	
4) WIC	Yes	Yes	More often than monthly	2	No	
5) Newborn Bloodspot Screening	Yes	Yes	More often than monthly	0	No	
6) Newborn Hearing Screening	Yes	Yes	More often than monthly	0	No	
7) Hospital Discharge	Yes	Yes	Quarterly	4	No	
8) PRAMS or PRAMS-like	Yes	Yes	Annually	24	Yes	

Form Notes for Form 12:

None

Field Level Notes for Form 12:

None