Maternal and Child Health Services Title V Block Grant

Michigan

Created on 5/16/2019 at 10:41 AM

FY 2020 Application/ FY 2018 Annual Report

Table of Contents

Section	Page
I. General Requirements	**4**
I.A. Letter of Transmittal	4
I.B. Face Sheet	5
I.C. Assurances and Certifications	5
I.D. Table of Contents	5
II. Logic Model	**5**
III. Components of the Application/Annual Report	**6**
III.A. Executive Summary	6
III.A.1. Program Overview	6
III.A.2. How Federal Title V Funds Support State MCH Efforts	10
III.A.3. MCH Success Story	10
III.B. Overview of the State	11
III.C. Needs Assessment	18
FY 2020 Application/FY 2018 Annual Report Update	18
FY 2019 Application/FY 2017 Annual Report Update	25
FY 2018 Application/FY 2016 Annual Report Update	31
FY 2017 Application/FY 2015 Annual Report Update	36
Five-Year Needs Assessment Summary (as submitted with the FY 2016 Application/FY 2014 Annual Report)	38
III.D. Financial Narrative	52
III.D.1. Expenditures	54
III.D.2. Budget	59
Budget (FY 2020 Application Year)	59
III.E. Five-Year State Action Plan	62
III.E.1. Five-Year State Action Plan Table	62
III.E.2. State Action Plan Narrative Overview	63
III.E.2.a. State Title V Program Purpose and Design	63
III.E.2.b. Supportive Administrative Systems and Processes	65
III.E.2.b.i. MCH Workforce Development	65
III.E.2.b.ii. Family Partnership	67
III.E.2.b.iii. States Systems Development Initiative and Other MCH Data Capacity Efforts	69
III.E.2.b.iv. Health Care Delivery System	70
III.E.2.c State Action Plan Narrative by Domain	73
Women/Maternal Health	73

Perinatal/Infant Health 96
Child Health 133
Adolescent Health 159
Children with Special Health Care Needs 179
Cross-Cutting/Systems Building 202
III.F. Public Input 204
III.G. Technical Assistance 205
IV. Title V-Medicaid IAA/MOU **206**
V. Supporting Documents **207**
VI. Organizational Chart **208**
VII. Appendix **209**
Form 2 MCH Budget/Expenditure Details 210
Form 3a Budget and Expenditure Details by Types of Individuals Served 216
Form 3b Budget and Expenditure Details by Types of Services 218
Form 4 Number and Percentage of Newborns and Others Screened Cases Confirmed and Treated 221
Form 5 Count of Individuals Served by Title V & Total Percentage of Populations Served by Title V 224
Form 6 Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX 229
Form 7 State MCH Toll-Free Telephone Line and Other Appropriate Methods Data 231
Form 8 State MCH and CSHCN Directors Contact Information 233
Form 9 List of MCH Priority Needs 236
Form 9 State Priorities-Needs Assessment Year - Application Year 2016 237
Form 10 National Outcome Measures (NOMs) 239
Form 10 National Performance Measures (NPMs) 278
Form 10 State Performance Measures (SPMs) 291
Form 10 Evidence-Based or –Informed Strategy Measures (ESMs) 297
Form 10 State Performance Measure (SPM) Detail Sheets 310
Form 10 State Outcome Measure (SOM) Detail Sheets 314
Form 10 Evidence-Based or –Informed Strategy Measures (ESM) Detail Sheets 315
Form 11 Other State Data 324

I. General Requirements

I.A. Letter of Transmittal

STATE OF MICHIGAN
DEPARTMENT OF HEALTH AND HUMAN SERVICES
LANSING

GRETCHEN WHITMER
GOVERNOR

ROBERT GORDON
DIRECTOR

May 1, 2019

Grants Management Officer
Maternal and Child Health Bureau
HRSA Grants Application Center
901 Russell Avenue, Suite 450
Gaithersburg, MD 20879

Dear Grants Management Officer:

With this letter of transmittal, I am pleased to submit Michigan's application for the Title V Maternal and Child Health Services Block Grant. The 2020 Application and 2018 Annual Report have been submitted online through the Title V Information System (TVIS) as required.

If you have any questions concerning this application, please contact me at 517-284-4028 or BieryL@michigan.gov.

Sincerely,

Lynette Biery, Director
Bureau of Family Health Services
Michigan Department of Health and Human Services

333 SOUTH GRAND AVENUE • PO BOX 30195 • LANSING, MICHIGAN 48909
www.michigan.gov/mdhhs • 517-373-3740

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 2018 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: December 31, 2020.

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: December 31, 2020.

III. Components of the Application/Annual Report

III.A. Executive Summary

III.A.1. Program Overview

Michigan's Title V Maternal and Child Health (MCH) program[1] supports a wide range of critical MCH programs and services across the state. Its overarching goal is to improve the health and well-being of the state's mothers, infants, children, and adolescents—including children with special health care needs (CSHCN). The Michigan Department of Health and Human Services (MDHHS) administers the Title V block grant through the Bureau of Family Health Services (BFHS) within the Population Health Administration. The Children's Special Health Care Services (CSHCS) Division, which is housed in the Bureau of Medicaid Care Management and Quality Assurance within the Medical Services Administration, serves as the Title V CSHCN program.

The BFHS and the CSHCS Division provide leadership on MCH programs and policies, including direct oversight of statewide multisystem collaborative initiatives that have been instrumental to achieving success. In 2017, Michigan created a Maternal Infant Strategy Group (MISG) to provide leadership to align maternal and infant health goals and strategies across private and public stakeholders and to provide guidance on operationalizing a health equity lens in MCH programs. The multisystem decision makers seated on the MISG have set *zero preventable deaths and zero health disparities* as the vision for Michigan's Mother Infant Health and Equity Improvement Plan, known as the Improvement Plan. In 2018, input into the Improvement Plan was solicited from established partners (local public health, managed care plans, universities, Medicaid, Michigan Department of Education, and MDHHS program areas such as epidemiology, mental health and substance abuse, chronic disease, communicable disease, injury prevention, health disparities reduction and minority health) as well as families and partners from key social determinants of health sectors. Local communities are currently being engaged to identify strategies that best fit their needs and to set community-specific, measurable outcomes. The Improvement Plan incorporates many of Michigan's Title V priority areas.

Michigan's current state priorities were determined by the five-year needs assessment completed in 2015. Per Title V requirements, the assessment was used to identify needs for preventive and primary care services for women, mothers, infants, and children as well as services for CSHCN. Leaders with expertise in each of the Title V population domains were engaged in the planning and implementation processes. The goals of the assessment were to:

- Engage stakeholders to assess needs, strengths, and capacity;
- Utilize existing data and stakeholder expertise to identify strategic issues to improve health in each of the population domains; and
- Identify priority unmet needs in each population domain and strategies for addressing these needs.

Based on the needs assessment findings, the following state priority needs were identified:

- Reduce barriers, improve access, and increase the availability of health services for all populations
- Support coordination and linkage across the perinatal to pediatric continuum of care
- Invest in prevention and early intervention strategies
- Increase family and provider support and education for Children with Special Health Care Needs
- Increase access to and utilization of evidence-based oral health practices and services
- Foster safer homes, schools, and environments with a focus on prevention
- Promote social and emotional well-being through the provision of behavioral health services

National Performance Measures (NPMs) and State Performance Measures (SPMs) were chosen to align with the identified priority needs. State action plans were then developed which include Evidence-based or -informed Strategy Measures (ESMs). Performance monitoring and program planning for NPMs and SPMs occurs on an ongoing basis. For example, MCH program staff review program results, client and family feedback, best practices, and emerging evidence to identify improvements to programs and policies. In 2018, program staff created logic models that identified goals, barriers, resources, evidence-based strategies, outputs, and outcomes to inform the Title V state action plans.

Based on the new Title V Guidance issued December 31, 2017, and in conjunction with ongoing needs assessment activities, Michigan reevaluated its original NPMs and SPMs and made adjustments to better align with current program and funding priorities. Detailed state action plans (which include program objectives, strategies, and performance data) are included in Section III.E. A brief summary by population domain is below.

Women/Maternal Health

The first goal in this population domain is to increase the percent of women with a past year preventive medical visit. Although 67.0% of women between the ages of 18 and 44 years received a preventive medical visit in Michigan during 2013, significant disparities exist, with only 47.3% of women who were uninsured receiving a preventive medical visit[2]. Thus, a key role for MDHHS is to help women access insurance and connect with primary care providers. The Title V plan focuses on ensuring women have the reproductive and health care services they need to achieve optimal health, including planning for pregnancy. Key objectives are to maintain a high percentage of women who use a most effective or moderately effective contraceptive method and to increase the percentage of women who discuss reproductive life planning with a health professional.

The second goal in this domain is to increase the percent of women with a preventive dental visit during pregnancy. The needs assessment found that only 44.5% of women had their teeth cleaned during their most recent pregnancy[3]. Michigan has seen improvement on this measure, with the most recent data indicating that 53.6% of women received a preventive dental visit.[4] Strategies to address this issue include increasing access to the WIC oral health module; training medical and dental providers who treat pregnant women; and participating in pilot programs to provide oral health services in OB units of FQHCs.

Perinatal/Infant Health

The first perinatal/infant health goal is to increase the percent of very low birth weight infants born in a hospital with a Level III+ NICU. While Michigan has seen improvements over time—from 78.0% in 2008 to 90% in 2017[5]—the needs assessment revealed challenges in Michigan's perinatal to pediatric continuum of care, such as racial disparities in first trimester prenatal care, preterm births, and infant mortality. Regional perinatal care systems are a key strategy to assure the most vulnerable infants and mothers receive appropriate services. Therefore, Michigan is supporting and expanding regional perinatal care systems; promoting the use of evidence-based programs such as home visiting and CenteringPregnancy; and expanding quality improvement efforts to prevent and respond to perinatal substance use.

The second goal is to increase the percent of infants who are ever breastfed and the percent of infants breastfed exclusively through six months. While breastfeeding rates have increased in Michigan over the past several years, they are still short of the Healthy People 2020 objectives (81.9% of infants ever breastfed and 25.5% of infants exclusively breastfed through six months). In Michigan, 75.9% of infants are ever breastfed and 22.6% are exclusively breastfed through six months[6]. To impact breastfeeding rates, MDHHS is implementing strategies to increase the number of Baby-Friendly© hospitals and to reduce the gap in breastfeeding rates between non-Hispanic white and

non-Hispanic black women.

A third goal is to increase the percent of infants placed to sleep in safe sleep environments. This goal includes infants being placed to sleep on their backs, alone, without objects in their crib, bassinet, or pack and play. In 2017, the SUID Case Registry Project reported that 123 infants in Michigan died of sleep-related causes. For several years, sleep-related death has been the leading cause of death for infants 28 days to one year old and is considered the most preventable. According to the SUID Case Registry Project, three out of four sleep-related infant deaths in Michigan occurred in an unsafe sleep location. While Michigan has seen a steady increase in the percent of infants placed to sleep on their backs, progress in sleeping without soft objects and in their own sleep space has remained challenging. MDHHS strategies to impact safe sleep include training home visitors to have effective conversations about safe sleep; training staff at birthing hospitals on safe sleep; and supporting the use of SOPHE SCRIPT and other smoking cessation activities. Additionally, a key goal is to reduce the gap between non-Hispanic white women and non-Hispanic black women who implement safe sleep guidelines.

Child Health

Michigan continues to focus on increasing the percent of children who have a preventive dental visit. In 2012, fewer children had preventive dental visits as compared to 2007[7]. To address this issue, Michigan is working to expand the SEAL! Michigan program; to increase the number of children who receive dental sealants through schools; and to collaborate with school nurses and other school professionals on oral health issues and education.

A second goal is to increase the percent of children less than 72 months of age who receive a venous lead confirmation testing within 30 days of an initial positive capillary test. Between 1998 and 2016 Michigan made progress reducing lead poisoning in the state, with the percentage of birth to six-year-old children in Michigan with blood lead levels $\geq$ 5 ug/dL decreasing from 44.1% to 3.6%[8]. However, some communities still experience higher rates of lead poisoning. Many primary care providers and WIC clinics use point-of-care capillary testing machines to test blood lead levels, which are prone to false positives. Therefore, elevated capillary results need to be confirmed with a venous test to facilitate clinical and environmental follow-up. Progress has been made, with MDHHS data indicating a rise in venous confirmation testing within 30 days of an initial elevated capillary test from 16.1% in 2013 to 43.35% in 2018. MDHHS is focusing on children enrolled in Medicaid Health Plans and is leading efforts related to surveillance data, nurse case management, and home abatement.

MDHHS is working to increase the percentage of children who are up-to-date with all recommended vaccines, with a focus on children 19-35 months of age. Within some populations, Michigan has experienced declining immunization rates and has not met Healthy People 2020 goals. For example, the estimated percent of 19 to 35-month-olds in Michigan who received a full schedule of age-appropriate immunizations was 69.9% in 2017[9]. Michigan continues to experience challenges keeping children on schedule, including increased parental hesitancy toward vaccines. As of January 2019, only 55.3% of Michigan 7-month-olds were up-to-date with all age-appropriate recommended vaccines[10]. Strategies to address these challenges include a statewide “I Vaccinate” media campaign and working with private providers and local health departments to examine vaccination rates and to identify effective, targeted vaccination practices.

Adolescent Health

A goal in the adolescent health population domain is to increase the percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year. High-quality preventive care can help to address adolescent health issues (such as healthy lifestyles and access to care) and build on Michigan’s success in other areas, such as the declining teen pregnancy rate. Among youth ages 12-17 years, 81% had one or more preventive visits in the previous 12 months[11]. However, from 2013-2016, only 52.45% of youth ages 12-17 years with Medicaid received a

comprehensive well-care visit within the previous 12 months[12]. MDHHS is working to target this disparity by increasing the percent of adolescents enrolled in Medicaid with a preventive medical visit; training health care providers on motivational interviewing; and increasing the percent of clients in Child and Adolescent Health Centers who have documented follow-up after a positive depression screen.

A second goal in this population domain is to increase the percent of adolescents who have received a completed HPV vaccine series. As of December 31, 2018, 73.5% of adolescents 13 through 17 years of age are up-to-date with immunizations, but that percentage drops to 39.1% when HPV series completion is included[13]. While the other adolescent vaccine coverage rates are well into the 70th percentile, HPV completion remains extremely low. To boost HPV completion rates and protect more adolescents from HPV-related cancers and diseases, MDHHS generated letters to parents of adolescents with overdue HPV immunizations. MDHHS continues to work with local health departments, providers and health systems to implement quality improvement measures to improve HPV vaccination rates. BFHS is also strengthening partnerships with internal and external stakeholders, including the American Cancer Society and the MDHHS Cancer Program, to conduct targeted outreach to increase awareness of HPV vaccination and prevention of HPV-related cancers and diseases.

Children with Special Health Care Needs

A goal in Michigan is to increase the percent of adolescents with special health care needs who receive services necessary to make transitions to adult health care. The needs assessment found that the percentage of CSHCN receiving the services needed for transition to adult health care was below the Healthy People 2020 target. To improve transitions to adult care, Michigan is expanding the use of transition planning; increasing youth, family, and provider awareness of the transition process; and increasing the percent of CSHCS clients aged 18 to 21 who transfer from a pediatric to an adult provider.

Lastly, a key goal is to increase the percent of CSHCN enrolled in CSHCS who receive timely medical care and treatment without difficulty. While access to public and private health insurance has improved under the Affordable Care Act, CSHCN require and use more health care services than other children. These health care costs can pose significant challenges and burdens for families, even if they have access to private insurance. CSHCS helps to cover the costs of medical services and treatment including prescription and pharmacy services, medical supplies and equipment, and disease treatment and management. In FY2018, 46,816 clients were served in the CSHCS program. Strategies to provide high-quality services include covering specialty care and treatment costs for qualifying conditions; expanding the use of telemedicine; and partnering with CSHCN and their families to identify gaps and needs.

---

[1]For the purposes of this application, the Title V MCH Program includes 1) programs and services supported by the Title V block grant; 2) programs and services included in the total state match; and/or 3) programs and services under the direction of the Title V MCH director or CSHCN director.

[2] Michigan Behavioral Risk Factor Surveillance System

[3] Michigan PRAMS

[4] Michigan PRAMS

[5] Linked birth certificate and hospital data on NICU levels from American Academy of Pediatrics

[6] National Immunization Survey 2017 Breastfeeding Report Card

[7] National Survey of Children's Health (NSCH), 2011/2012

[8] 2015 Data Report on Childhood Lead Testing and Elevated Blood Lead Levels: Michigan

[9] National Immunization Survey

[10] Michigan Care Improvement Registry (MCIR)

[11] NSCH, 2016

[12] Michigan Medicaid Data Warehouse, 2016

[13] MCIR

III.A.2. How Federal Title V Funds Support State MCH Efforts

The Title V block grant provides a critical source of funding for MCH priority needs in Michigan, along with state MCH funds and other federal funds. As per federal requirements, a minimum of 30% of Title V funding supports services for children with special health care needs (CSHCN) and a minimum of 30% of funding supports preventive and primary care services for children. In Michigan, Title V funding is used to support medical care and treatment for CSHCN as well as a variety of services for children and adolescents including immunizations, oral health and dental sealants, lead poisoning prevention, fetal alcohol syndrome disorder, and pregnancy prevention. Services for women and infants are supported by Title V funding, including regional perinatal care systems, infant safe sleep, and maternal and infant mortality surveillance. Approximately 3% of Title V funding is used for administrative costs of the block grant. Title V funding also supports the MCH work of 45 local health departments (LHDs), which collectively receive approximately one-third of Michigan's Title V dollars. LHDs serve as Michigan's local public health "arm" and focus on Michigan's identified NPMs and SPMs, as well as locally identified MCH priority needs.

III.A.3. MCH Success Story

The MDHHS Children and Youth with Epilepsy Project is a three-year, HRSA-funded grant implemented under the leadership of Michigan's Children's Special Health Care Services (CSHCS) program. The project has developed a strong network of providers that are working collaboratively to strengthen the system of care for children and youth with epilepsy. Currently, more than 4,300 children and adolescents with a qualifying diagnosis of epilepsy are enrolled in the CSHCS program. Approximately 20% of these enrollees live in rural Michigan counties, where access to pediatric epilepsy specialists and other resources is limited or non-existent.

Although many successes have been realized, a significant achievement is the project's ability to bring together providers from competing health systems to systemically address issues of care for children and youth with epilepsy. The collaboration consists of four pediatric epilepsy centers representing Michigan's prominent children's hospitals and medical centers, six primary care clinics, and parent representatives. The team is applying a continuous quality improvement framework to tackle issues related to:

- Seizure Action Plans
- Care coordination within the patient-centered medical home
- Transition infrastructure
- Telemedicine and access to specialty care

Using a Plan-Do-Study-Act (PDSA) model, the project has facilitated small changes within clinics and centers that are making a big impact on improving the care management of children and youth.

III.B. Overview of the State

Geography, Demographics, and Economy

Michigan encompasses 56,804 square miles of land and is the only state made up of two peninsulas. Composed of 83 counties, Michigan is the 11th largest state by total square mileage and the eighth largest state by population. According to the U.S. Census Bureau, Michigan saw its seventh straight year of population growth. Nearly 10 million people live in the state in 2019, up 0.2 percent from the previous year. Michigan has seen a steady decrease in birth rates over the past 20 years, including a decline in teen births. The majority of Michigan's population resides in the southern half of the Lower Peninsula, with approximately half of the population residing in Southeast Michigan. The state's largest cities are Detroit, Grand Rapids and Warren. Over 1.7 million people live in rural areas. The median age of the population is 39.5 years of age. Out of the total population, approximately 22% are age 0-17 and 78% are age 18 and over. Michigan's population is 78.9% Caucasian, 13.9% Black or African American, 2.8% Asian and Pacific Islander, 2.7% two or more races, 1.1% other races, and 0.5% Native American. Out of the total population, 4.95% identify as Hispanic or Latino.

Michigan's economy has seen improvements over the past nine years, with the seasonally adjusted unemployment rate decreasing from 14.9% in June 2009 to 4.5% in June 2018. The median household income in Michigan in 2017 was $69,664 (U.S. Census Bureau). However, the state still faces significant challenges that impact the maternal and child health (MCH) population. For instance, certain areas of the state continue to experience higher unemployment. Additionally, according to the 2017 ALICE (Asset Limited, Income Constrained, Employed) report, 62% of jobs in Michigan were low wage jobs, paying less than $20 per hour; out of those jobs, two-thirds paid less than $15 per hour.

Poverty has also remained a significant issue, especially for Michigan's children. According to Kids Count in Michigan (2018), 23.3% of children (444,100) ages 0-17 live in poverty. Statewide, the percentage of students eligible for free or reduced price lunches has steadily increased in recent years. With a 30% increase over a nine-year span, 50.3% of students in 2017 were eligible for free or reduced-price lunches.

Of additional concern are findings from the 2017 ALICE report which found that even in households with earnings *above* the federal poverty level (FPL), 40% of households struggle with basic necessities such as housing, child care, food, health care and transportation. In addition to households *below* the FPL in Michigan, this equates to more than 1.54 million households struggling to meet basic needs.

Given this environment, family support programs continue to be an important source of assistance. For example, 29.7% of pregnant mothers enrolled in Michigan's Women, Infants, and Children (WIC) program during their first trimester in 2018. In 2017, out of mothers enrolled in WIC, 83.2% lived at or below 150% of the FPL.

Agency Roles and Priorities

The Title V program is administered by the Bureau of Family Health Services (BFHS) in coordination with the Children's Special Health Care Services (CSHCS) Division which are both housed in the Michigan Department of Health and Human Services (MDHHS). The included organizational chart illustrates the placement of BFHS and CSHCS within the Population Health Administration and the Medical Services Administration, respectively. MDHHS was created in 2015 through the merger of the Michigan Department of Community Health and the Michigan Department of Human Services. As such, MDHHS oversees a wide range of health and human service programs, including but not limited to public health; environmental health; communicable and chronic disease; Medicaid and other health care coverage; food and cash assistance; migrant and refugee services; child support; juvenile justice;

children and adult protective services; and foster care and adoption.

Title V aligns with the MDHHS mission to provide opportunities, services, and programs that promote a healthy, safe, and stable environment for residents to be self-sufficient. Michigan's MCH work has aligned with several MDHHS recent scorecard metrics, including:

- Percent of pediatric immunization rates of 19-36 month old children completed for 4:3:1:3:3:1:4 series
- Percent of children participating in rural evidence-based home visiting who have received their last recommended well-child visit, as defined by the American Academy of Pediatrics Bright Futures schedule
- Number of students in grades K-12 screened for sealants through SEAL! Michigan Program
- Percent of adolescents 13 through 17 years of age who complete the HPV vaccination series
- Number of primary care visits through Child and Adolescent Health Centers

In 2018, Michigan began developing the 2019 Mother Infant Health & Equity Improvement Plan (known as the Improvement Plan) which serves as the next iteration of the infant mortality reduction plan. The Improvement Plan builds upon previous work and existing partnerships and expands to partners and strategies that can enhance our ability to address the root causes of maternal and infant outcomes—social determinants of health and drivers of health inequity. The collective vision of "Zero preventable deaths and Zero health disparities" will be achieved by working with local communities and Michigan's families to 1) align public and private sector interventions, 2) integrate interventions across the mother infant dyad, and 3) explicitly address disparities by employing Population Health Model techniques that ensure the most marginalized populations receive high-impact interventions.

The Improvement Plan was developed collaboratively by the Maternal Infant Strategy Group and MDHHS Bureau of Family Health Services. In 2018, stakeholder input and engagement were garnered around the state at Town Halls in Grand Rapids, Kalamazoo, Detroit, Ann Arbor, Grayling, Marquette, Saginaw, Bad Axe, and Caro. The Maternal Infant Health and Equity Collaborative, health care providers, hospitals, local health departments, health plans, universities, professional organizations and associations, business, community leaders and—most importantly—the voices of Michigan families have been infused into the Improvement Plan. Efforts to collect and integrate community and family feedback continued after the Town Halls with the development of the Ambassador Program. Ambassadors play an important role in providing feedback that is used to ensure the Improvement Plan is adapted for their community and to identify barriers to implementation. Ambassadors include mother, fathers, grandparents, aunts, uncles, and other caregivers who share their lived experience and act as advocates in their communities.

Implementation of the Improvement Plan is multi-faceted to increase its reach and impact. It includes alignment of internal programs within MDHHS to increase the awareness, reach, and availability of public health resources; implementation of quality improvement projects within each of Michigan's Regional Perinatal Quality Collaboratives (RPQCs); and external implementation through community partners and maternal infant health providers. Within each RPQC, the Improvement Plan outlines a Population Health Model strategy to address disparities and implement evidence-based interventions tailored to populations with the highest likelihood of adverse health outcomes.

Early childhood system building is also an MDHHS priority. The Office of Great Start (OGS) within the Michigan Department of Education leads the integration of the state's health, development and early learning investments for prenatal to age 8. BFHS collaborates with OGS and other partners to support the development of early childhood systems that are designed around the needs of children and families. One example of Michigan's cross-systems work is the launch of a new Statewide Home Visiting Advisory in 2019 that is charged with building an integrated home visiting system that provides Michigan's families with the right model, at the right time, in the right place.

Strengths and Challenges that Impact the MCH Population

Many strengths and opportunities are being leveraged to support and expand Michigan's MCH infrastructure and delivery system. Strengths include collaboration and coordination across state and local public health systems; a commitment to eliminating preventable infant, maternal, and child deaths; recognition and expansion of the significant impact of early life experiences on health and wellness across the life course; integration of the patient-centered medical home model; and strong leadership and expertise within public health systems. MDHHS also has a long-standing relationship with Michigan's local health departments (LHDs). Michigan's 45 LHDs serve 83 counties and the City of Detroit. LHDs act on behalf of the state health department to deliver public health prevention and control programs throughout Michigan. This local oversight and delivery of public health services provides strong, locally-based leadership of public health programs while maintaining state-level oversight.

Michigan's Home Visiting Initiative (MHVI) highlights the state's commitment to prevention, early childhood, and collaboration between public health, healthcare, and other sectors that impact health outcomes. Michigan's system of evidence-based Home Visiting models includes the Maternal Infant Health Program (MIHP), a model available to every pregnant woman and infant receiving Medicaid, as well as Nurse-Family Partnership, Healthy Families America, Early Head Start-Home Based, Parents as Teachers, and Family Spirit. Infant Mental Health and Healthy Start are promising home visiting models in Michigan. By leveraging federal and state funding, Michigan is creating a system of home visiting services to meet the diverse and complex needs of families with young children, particularly in communities facing elevated risks. In 2017, MHVI served over 34,000 families to improve maternal and child health, development, and family safety, and to create pathways for families to access the resources they need. The reauthorization of MIECHV made it possible to continue creating a robust system of supports for families and children. Furthermore, collaboration with the Behavioral Health and Developmental Disabilities Administration has increased awareness and assessment of strategies to support families enrolled in MHVI.

Another strength is the launch of MI Bridges as part of MDHHS's Integrated Service Delivery (ISD). The ISD is intended to reform how MDHHS interfaces with customers through technology and by making the service delivery system more focused on customer needs. MI Bridges enables each user to have an individual account to find resources such as transportation, food, and utilities assistance. Individuals with existing cases can review and access their benefits information, including renewal date and benefit amount. Individuals can also apply for or renew benefits, upload documents and verifications, and share household and benefit information with relevant community partners. In 2019, MDHHS plans to strengthen integration with 2-1-1 and community-based partners.

Despite these strengths and the state's health care infrastructure, significant challenges also exist. Both nationally and in Michigan, health care costs are driven by competing factors such as payment systems, malpractice regulations, chronic disease incidence, nursing care costs, emergency room "super utilizers," population demographics, prevalence of adverse health behaviors and the absence of access to hospitals and physicians in rural areas. According to U.S. Census Bureau data, many geographic regions in Michigan face provider shortages with the greatest provider shortage occurring among nurse practitioners. According to HRSA data from the Kaiser Family Foundation, Michigan has 366 primary care Health Professional Shortage Areas (HPSA) that would require 647 practitioners to remove the HPSA designation.

Access to all forms of health care is a problem for many Michigan residents, particularly those living in rural areas. The ratio of population to primary care providers in Michigan overall is 1240:1. However, in some rural counties the ratio was greater than 6500:1. According to Kids Count 2017, 3.0% of children aged 0-17 in Michigan did not have health insurance. While 3.0% are uninsured, 35% are publicly insured only and another 5% are covered by both public and private payers. The greatest *number* of uninsured children resides in large urban counties, while the greatest *proportion* of uninsured children resides in low-income rural counties with relatively high unemployment rates. Lack of providers, health care facilities and lack of transportation all underscore the need for safety net services such as those provided to the MCH population by LHDs and programs supported by MDHHS.

Particularly in rural areas and the Upper Peninsula, transportation continues to be a challenge. This includes not only the method of transportation, but also the time and distance that needs to be covered to reach services. Securing transportation providers and appropriate levels of reimbursement is also challenging for the CSHCS population. Families who need to take a child to specialized care often travel long distances with overnight stays. This requires extended time away from work as well as additional child care and other expenses.

Another factor is the complexity of embracing an upstream approach to health and wellness to impact the systemic conditions that contribute to poor health outcomes. The knowledge that health begins during preconception—and optimal health and development must occur during the earliest stages of life to improve adult health—is still being established in the broader population. Additionally, redirecting resources to early life stages is difficult given the acute needs of individuals who require costly and often long-term care. Among key stakeholders who work with Michigan's most at-risk families, there is a growing understanding of and commitment to reducing early life adverse experiences and strengthening protective factors. However, the challenge is to translate these concepts into actionable strategies that compel resource and policy support.

Addressing social determinants of health holds the same challenge. It is increasingly understood that access to education, adequate and sustainable income, transportation, and social and cultural supports are critical to achieving and maintaining health. However, knowing how to impact these factors in communities—and having the resources to do so—is not easy. Furthermore, the layered funding that communities receive from federal, state, local and private sources can be difficult to align or sustain.

Finally, economic disadvantage is dispersed inequitably among racial and ethnic groups in our state, particularly for African American children, who are roughly five times more likely to live in poverty than an Asian child and three times more likely than a White child. Half of the state's African American children and one-third of Hispanic children live in poverty. Poverty is linked with conditions such as substandard housing, homelessness, inadequate nutrition and food insecurity, inadequate child care, lack of access to health care, unsafe neighborhoods and under-resourced schools. Poorer children and teens are also at greater risk for poor academic achievement, school dropout, behavioral and social-emotional problems and physical health problems (such as higher rates of asthma, higher exposure to environmental contaminants such as lead, exposure to violence and developmental delays). These effects are compounded by the barriers children and families encounter when trying to access health care.

Components of the State's Systems of Care

Michigan's health care system includes 147 hospitals (including 21 hospitals with Neonatal Intensive Care Units); 45 Federally-Qualified Health Centers with over 260 delivery sites; over 100 school-based/school-linked health centers; 30 Family Planning agencies providing services at 93 clinic sites; and 195 rural health clinics.

Health Care Reform

Since its passage in 2010, the Affordable Care Act (ACA) has impacted how health care is accessed and delivered across the country. In Michigan, the impact has been particularly significant since the implementation of the Medicaid expansion in 2014. Given the current uncertainty surrounding health care legislation, Michigan continues to monitor activities related to ACA and other possible changes to health care access and delivery. MDHHS remains committed to assuring that access to health care continues to stabilize and improve even as payment systems and providers may change.

Health care reform via ACA has impacted Michigan's MCH population. ACA coverage expansions provided Michigan consumers with two new options: the Healthy Michigan Plan (HMP) and the Health Insurance Marketplace

(Marketplace). In January 2014, eligible individuals above 133% of the FPL could enroll in private health insurance coverage through the Marketplace. In April 2014, Michigan expanded its Medicaid program to cover residents aged 19 to 64 who were at or below 133% of the FPL, and who were not previously eligible for traditional Medicaid. Between the HMP and the Marketplace, Michigan insured over 700,000 people in less than a year, exceeding initial enrollment expectations.

As of February 2019, 535,310 beneficiaries had HMP coverage. HMP benefits include preventive/wellness services, chronic disease management, prenatal care, oral health and family planning services. Most HMP beneficiaries are required to pay some level of cost-sharing in the form of monthly contributions and co-pays based on income. Some populations are excluded from cost sharing, such as individuals enrolled in CSHCS, under 21 years of age, pregnant women, and those with no income. Enrollees who complete a health risk assessment and agree to maintain or address healthy behaviors, as attested by their primary care provider, are eligible for cost-sharing reductions.

For CYSHCN, ACA consumer protections have improved access to private insurance by eliminating preexisting condition exclusions and discrimination based on health status, the two most frequently encountered enrollment barriers for families. The ACA also expanded access to parent employer coverage for adults 19-26. The HMP covers approximately 969 individuals who are dually enrolled in CSHCS. LHDs, Family Resource Centers and designated state staff work with families and community partners to help families understand and access all available private and publicly-funded resources to meet individual needs.

CYSHCN often require and use more health care services than other children. Specialty care and extensive, on-going or long-term treatments and services may be required to maintain or improve health status. Financing these costs can pose significant challenges and burdens for families even with access to private insurance. Family health care costs can include deductibles, cost sharing and premium payments. In addition, private insurance may not include any covered benefit for a specific, medically necessary service. In other cases, only a limited benefit may be available through insurance. Although ACA eliminated annual and lifetime dollar limits, other annual limits exist and benefits may be exhausted for the current contract year even though needs continue. As such, CSHCS helps to limit costs to families and continues to be a significant resource for achieving adequate, appropriate health and specialist care. Steady CSHCS enrollment following ACA's implementation reflects the value of CSHCS to families even when private insurance is available.

Finally, ACA provided significant funds through HRSA to expand access to primary care by increasing the number of Community Health Centers in Michigan. The number of Federally Qualified Health Centers (FQHCs) grew as additional centers were funded and look-alike sites were approved. According to the Michigan Primary Care Association, Michigan has 45 Health Centers that provide care at over 260 delivery sites and are health care homes to more than 680,000 individuals.

In addition to ACA, Michigan entered into a four-year cooperative agreement with the Center for Medicare and Medicaid Innovations to test its State Innovation Model (SIM) for health care payment and delivery system transformation. The final product of the SIM grant planning process, the *Blueprint for Health Innovation*, is guiding the state as it strives for better care coordination, lower costs and improved health outcomes. The Blueprint focuses on transforming service delivery and payment models by concentrating on patient-centered medical homes and integration among health care and community resources. Its goals are better health, better care, and lower costs. An updated summary of Michigan's SIM work was released in October 2018, and the Award Year 4 Update was submitted in December 2018.

Integration of Services

Michigan's Title V and Title XIX programs share the common goal to improve the overall health and well-being of the

MCH population through implementation of affordable health care delivery systems, expanded coverage, and implementing strategies to address social determinants of health and reduce health disparities. Areas of collaboration include maternal and infant care, adolescent health, perinatal care, developmental screening and referral, home visitation, oral health, and CSHCS. Like programs located within the BFHS, Michigan Medicaid employs a population health management framework to build a Medicaid managed care delivery system that maximizes the health status of beneficiaries, improves beneficiary experience, and lowers cost. Medicaid supports 11 contracted Medicaid Health Plans (MHPs) in achieving these goals through evidence-based and value-based care delivery models, supported by health information technology, and robust quality strategies to prevent chronic disease and coordinate care.

The BFHS and Michigan Medicaid jointly manage several programs for the Medicaid-eligible MCH population. One of the largest collaborations is the Maternal Infant Health Program (MIHP), Michigan's largest population-based home visiting program available to all Medicaid-eligible pregnant women and infants up to age one. Effective January 1, 2017, MIHP services provided to beneficiaries enrolled in an MHP are administered by the MHPs.

Another area of coordination is for CSHCN, as more than 80% of individuals with both CSHCS and Medicaid coverage are enrolled in an MHP. MHPs are responsible for the medical care and treatment of CSHCS members while assistance with community-based services beyond medical care and treatment is provided through the LHD's CSHCS office. MHPs are responsible for coordinating and collaborating with LHDs and the Children's Multidisciplinary Specialty Clinics to make a wide range of essential health care and support services available to enrollees. MHPs are also responsible for the coordination and continuity of care for enrollees who require integration of medical, behavioral health and/or substance abuse services.

MDHHS recognizes the importance of integrating both physical health and behavioral health services to effectively address enrollee needs and improve health status. To meet this goal, MHPs are required to work with MDHHS to develop initiatives to better align services with Community Mental Health Services Programs/Prepaid Inpatient Health Plans to support behavioral health integration. The MHPs must also provide or arrange for the provision of community health worker (CHW) or peer-support specialist services to enrollees who have significant behavioral health issues and complex physical co-morbidities. CHWs serve as a key resource for services and information needed for enrollees to have healthier, more stable lives. Examples of CHW services include conducting home visits; participating in office visits; arranging for social services; and helping enrollees with self-managementskills.

As part of Public Act 107 of 2017, the Michigan legislature directed MDHHS to "implement up to 3 pilot projects to achieve fully financially integrated Medicaid behavioral health and physical health benefit and financial integration demonstration models. These demonstration models shall use single contracts between the state and each licensed Medicaid health plan that is currently contracted to provide Medicaid services in the geographic area of the pilot project." In March 2018, MDHHS announced three pilot sites: Muskegon County Community Mental Health and West Michigan Community Mental Health; Genesee Health System; and Saginaw County Community Mental Health Authority. Known as the Section 298 Initiative, this work continued under Section 298 of the FY 2019 Appropriations Act. In November 2018, a Section 298 Progress Report was released.

In October 2016, the Healthy Kids Dental program was expanded statewide to cover all children with Medicaid under the age of 21. It currently provides dental services to approximately 1 million youth. As of October 2018, eligible beneficiaries are offered a choice of two statewide HKD dental health plans (DHPs). In July of 2018, MDHHS also expanded managed care dental coverage for non-Healthy Michigan Plan Medicaid eligible pregnant women through a Comprehensive Health Care Program (CHCP) 1915(b) waiver amendment. This managed care dental benefit is intended to provide greater access to dental services and comprehensive prenatal care. BFHS and MSA are coordinating outreach and engagement efforts for these oral health programs via multiple avenues including MIHP

and other home visiting networks.

Additionally, as a result of collaborative efforts between BFHS, MSA and other state partners, MDHHS updated its hospital reimbursement policy for Long Acting Reversible Contraceptives (LARCs) including intrauterine and implant devices. Beginning in October 2018, Michigan Medicaid provides specific reimbursement for immediate postpartum LARC services, in addition to the standard DRG-based payment for childbirth services.

Health Services Infrastructure

MDHHS has developed multiple health information systems to support the care and services provided to Michigan residents. The Michigan Care Improvement Registry (MCIR) allows for the identification of children who are not up-to-date on Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) well child visits according to the American Academy of Pediatrics Bright Futures Recommendations for Preventive Pediatric Health Care periodicity schedule. All MHPs have access to MCIR, and it is an approved data source for Medicaid Healthcare Effectiveness Data and Information Set (HEDIS) immunization and lead testing data. MIHP providers also have access to MCIR to facilitate referral and access to appropriate preventive services.

MDHHS also developed and implemented CareConnect360 (CC360), a statewide web-based care management system that allows for the bi-directional exchange of health care information. CC360 allows for the identification and coordination of services to Medicaid enrollees with significant behavioral health issues and complex physical co-morbidities to facilitate sharing of cross-system information between plans and the Community Mental Health/Prepaid Inpatient Health Plans. CC360 makes it possible to assess and analyze healthcare program data, manage and measure programs, and improve enrollee health outcomes.

State Statutes Relevant to Title V

The Michigan Public Health Code, Public Act 368 of 1978, governs public health in Michigan. The law indicates that the state health department shall "continually and diligently endeavor to prevent disease, prolong life, and promote the public health through organized programs" (MCL 333.2221). Furthermore, it shall "promote an adequate and appropriate system of local health services throughout the state and shall endeavor to develop and establish arrangements and procedures for the effective coordination and integration of all public health services including effective cooperation between public and nonpublic entities to provide a unified system of statewide health care" (MCL 333.2224).

In FY 2018, state funding for MCH and CSHCS programs was appropriated through Public Act 107 of 2017 (House Bill 4323). CSHCS is mandated by the Michigan Public Health Code, Public Act 368 of 1978, in cooperation with the federal government under Title V of the Social Security Act and the annual MDHHS Appropriations Act. State general fund dollars for MCH programs are itemized in Sec. 117 of Public Act 107 of 2017, whereas CSHCS is addressed in Sec. 119. Additional MCH details are provided in Sec. 1301-1309. These sections identify how funding shall be used; MDHHS and contractor requirements; and requirements that some appropriated funding be used to implement evidence-based programs to reduce infant mortality. Statutory requirements in the FY 2018 omnibus budget for CSHCS included criteria in Sec. 1360 for MDHHS to provide services; and in Sec. 1361, the authorization that some of the appropriated funding be used to develop and expand telemedicine capabilities.

III.C. Needs Assessment

FY 2020 Application/FY 2018 Annual Report Update

Michigan's Title V program engages in ongoing needs assessment activities to identify evolving needs and system capacity. This section highlights those activities as well as emerging public health issues.

Ongoing Needs Assessment

Local Maternal Child Health (LMCH) Needs Assessment

Michigan's 45 LHDs receive Title V funds to address local MCH needs. LMCH grants play an important role in supporting LHD infrastructure and the delivery of programs and services. In 2017, MDHHS and the Michigan Public Health Institute (MPHI) facilitated an LMCH needs assessment. Each LHD was offered $15,000 to complete an LMCH needs assessment, in conjunction with training and technical assistance. In total, 36 LHDs and the Northern Michigan Public Health Alliance (which consists of six LHDs) completed the assessment. In 2018, agencies used their findings in strategic prioritization and in workplans organized by national and state performance measures.

Each LHD must complete an LMCH plan to receive Title V funds. The LMCH plan was realigned in FY 2017 with the state's new MCH priorities and performance measures while also allowing for continuity of services and to meet local needs. The LMCH plan was further updated for FY 2019 to align with the LMCH needs assessment format. Sections on family engagement, priority issues, evidence-based/informed strategies, goals and measurable objectives were added or strengthened.

Summary of Findings

At the conclusion of the LMCH needs assessment process, LHDs identified how they completed each step of the process, their identified needs, and the priorities selected with community partners. The information was uploaded into NVivo for detailed content analysis. The analysis focused on identifying themes across strategic priorities and describing other key features of the needs assessment. Although all 45 health departments started the assessment process, due to time and capacity constraints, final documentation was submitted by 42 LHDs. Top themes fell into categories depicted in Figure 1.

Figure 1. Top Themes in LMCH Needs Assessment

Community Resources	Access to Care	Prenatal Care	Mental Health	Healthy Lifestyle
Ensure Culturally Appropriate Resources; Increase Awareness of Existing Resources; Reduce Barriers to Resources	Address Lack of Available Providers; Decrease Barriers to Transportation; Identify Medicaid Related Barriers; Improve Navigation of Services and Systems; Minimize Barriers to Accessing Care	Improve Access to Prenatal Care; Increase Utilization of Services; Promote Healthy Birth Weight; Provide Education; Reduce Barriers to Prenatal Care	Access, Utilization and Awareness of Mental Health Services; Use of Telehealth; Expanding Behavioral Health Services	Decrease Barriers to Accessing Healthy Foods; Decrease Childhood Obesity Rates; Implement Healthy Nutritional Practices in Schools
Other Themes				
Reproductive Health, Education & Awareness, Tobacco Use, Breastfeeding, Child Abuse & Neglect, Substance Abuse, Social Support, Maternal Child Health System, Poverty, Oral Health, Preventable Mortality, Safety, Transportation, Health Equity, Childcare access, Healthy Environment				

Access to care was the most frequently identified strategic priority. Needs focused on lack of available providers, barriers to transportation, Medicaid-related barriers, and navigation of services and systems. The next most frequent priority focused on community resources. Although access to care and community resources were common priorities, one of the most striking lessons was the wide variation across jurisdictions in the needs that emerged as

priorities. Local data led to identification of highly varied needs, and very different priorities were selected in different communities.

These strategic priorities are guiding LMCH programs, initiatives, and activities. Additionally, findings from the LMCH needs assessment will be used at the state level to inform Michigan's next five-year needs assessment, helping to ensure Michigan uses local input to inform identification of needs and strengths across the state.

Preparing for the Five-Year Needs Assessment

In 2018, Michigan began developing plans for the next Title V five-year needs assessment. A Planning Committee was formed, consisting of the Title V Director, the CSHCN Director, the Title V coordinator, MCH epidemiologists, and other key MCH staff. The group considered lessons learned from the previous needs assessment cycle and identified three key pillars to inform the design of the 2020 needs assessment:

1. A health equity and health disparities lens;
2. A data-driven approach, expanding the types of data used; and
3. A diverse group of stakeholders.

The Planning Committee also established a purpose and set of goals to guide the assessment. The purpose of Michigan's needs assessment is "to identify the strengths and needs of the MCH population, including children with special health care needs, in order to improve the health of the MCH population." The goals include:

- Use multiple types of data to understand health outcomes, health behaviors, and health disparities, as well as underlying causes that drive inequity.
- Strengthen partnerships and strategies for achieving health equity.
- Engage diverse populations and system partners in describing and understanding the needs and strengths of the MCH population.
- Identify state priority needs and performance measures that will be the focus of Title V for 2020-2025 and create state action plans to address each need.
- Identify opportunities to address needs beyond the scope of Title V.

The Planning Committee selected the National Association of City and County Health Officials' Mobilizing for Action through Planning and Partnerships (MAPP) model. Using all four MAPP assessments will support the goal of using multiple types of data to understand health outcomes, and the model's orientation to partnership and tools around equity supports a health equity approach.

The Planning Committee also developed a detailed workplan that identifies each step of the needs assessment process. The needs assessment formally began in February 2019 with the Stakeholder Group kick-off.

Performance Monitoring

The Title V Steering Committee reviews Michigan's NPMs and SPMs on an annual basis. State epidemiologists present data, comparing Michigan and national data over time and in relation to Michigan's annual objectives. Currently of note are the following:

- Positive trends in measures related to infants placed to sleep on their backs, follow-up for elevated blood lead levels, preventive dental care during pregnancy, and HPV vaccinations.
- Relatively flat trends in measures related to well-women visits, risk-appropriate deliveries, breastfeeding initiation and duration, and immunization rates among children 19 to 36 months.

- Changes in survey questions and methodology make it more difficult to understand trends for several measures, including adolescent well-visits and transition. The National Survey of Children's Health (NSCH) was revised and previous data are not comparable to current data. Pregnancy Risk Assessment and Monitoring System (PRAMS) items related to infant safe sleep were modified and are no longer comparable to prior data.
- While most NPM objectives were calculated by extending the formulas for 2019-2023 through 2024, in the case of PRAMS and NSCH indicators with only a single available data year, MCH epidemiologists determined reasonable relative annual changes and calculated targets based on those percentages. As additional data years become available, objectives will be calculated using more informative models.

In 2018, MCH epidemiologists also met with program staff who work on specific NPMs and SPMs. The initial goal was to identify any data needs, gaps, or other challenges within programs. The long-term goal is to help impact performance metrics and improve program outcomes. State epidemiologists will continue to support data-driven assessment and planning, particularly throughout Michigan's next five-year needs assessment cycle.

Changes in Health Status and Needs

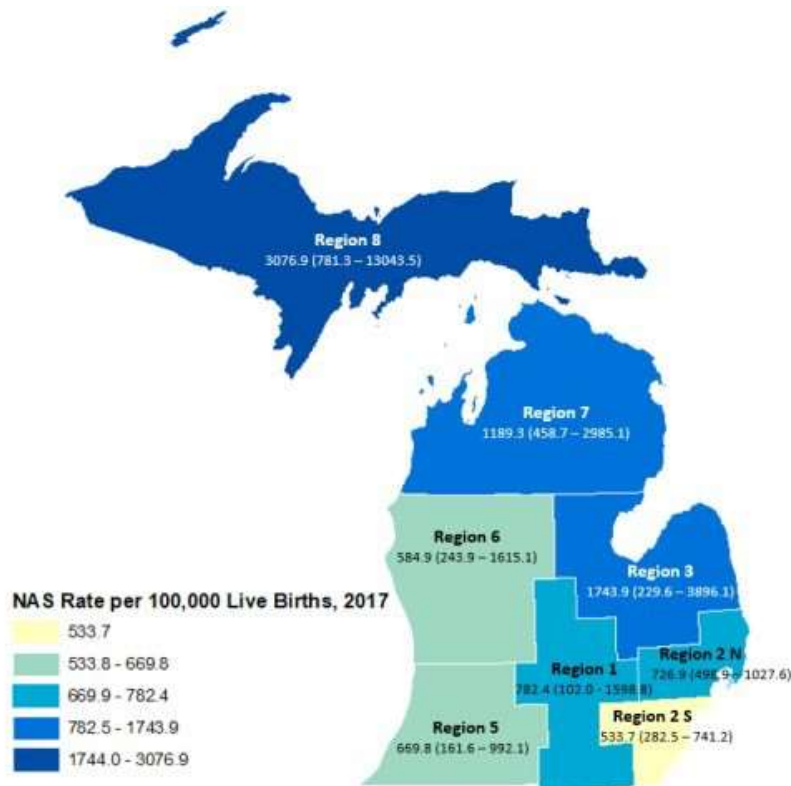
MDHHS continues to closely monitor infant and maternal mortality and has seen the following trends and emerging concerns. The infant mortality rate in Michigan for 2017 was 6.8 deaths per 1,000 live births, which has remained stable over the past five years (range 6.6 to 7.0 per 1,000 live births since 2013). Racial and ethnic disparities remain a major contributor to the persistence of these rates. The Black infant mortality rate has consistently been approximately three times that of the White infant mortality rate (most recently, 14.6 versus 4.8 per 1,000 live births in 2017). The pregnancy-related mortality rate in Michigan for 2011-2015 was 11.6 maternal deaths per 100,000 live births[1]. As with infant mortality, disparities between Black and White mothers are striking, with the Black pregnancy-related mortality rate more than three times that of the White rate (27.7 versus 8.1 per 100,000 live births). In addition to those maternal deaths caused by pregnancy-related issues, addressing pregnancy-associated mortality[2] remains an important component of Title V work: 45% of all pregnancy-associated injury deaths from 2011-2015 were caused by accidental poisoning/drug overdose. Michigan's maternal mortality committees have focused their efforts on developing recommendations to help prevent current and expecting mothers from developing opioid use disorders.

Emerging Public Health Issues

As discussed above, infant and maternal mortality remain two critical public health issues in Michigan. Other public health issues include **substance use challenges, lead exposure, per and polyfluoroalkyl substances (PFAS), and vaccine hesitancy** as discussed below.

Michigan continues to experience an increase in opioid use during pregnancy and, as a result, an increase in the number of infants diagnosed with Neonatal Abstinence Syndrome (NAS). Figure 2 details the incidence of NAS by region. As illustrated by the map, rural areas of Michigan have been hardest hit by this epidemic.

Figure 2. Map of 2017 NAS Rates by Perinatal Region



Prepared by the MCH Epidemiology Section
Data Source: MDHHS Division for Vital Records and Health Statistics. Michigan Resident Live Birth File linked to the Michigan Inpatient Hospital Database, 2017.
Michigan Resident Inpatient Files, created using data from the Michigan Inpatient Database obtained with permission from the Michigan Health & Hospital Association Service Corporation
Neonatal Abstinence Syndrome Symptomatic and needed pharmacologic treatment (ICD-10-CM P96.1)
The NAS rates of perinatal regions and the ranges of NAS rates of counties in the specific perinatal region are shown in the map.

The number of drug exposed infants increased by 67% from FY 2010 to FY 2013, from 2,589 to 3,866 infants[3]. Additionally, infants hospitalized and treated for drug withdrawal symptoms has increased[4]. In 2010, 478 infants in Michigan had a diagnosis code of 779.5 (ICD-9-CM) and needed treatment for withdrawal from a drug, not specifically identified as opioids. In 2017, the number of infants with a diagnosis code of P96.1 (ICD-10-CM) increased to 932 infants. This represents a jump from 41.67 per 10,000 live births in 2010 to 83.58 in 2017. The opioid epidemic has also impacted maternal deaths, as illustrated by Table 1.

Table 1. Opioid-Related* Maternal Deaths in Michigan (2007-2016)

Year	Opioid Deaths	Total Maternal Deaths	% of Maternal Deaths
2007	2	67	3%
2008	4	44	9%
2009	5	52	10%
2010	8	70	11%
2011	10	70	14%
2012	13	58	22%
2013	6	59	10%
2014	16	81	20%
2015	18	78	23%
2016	20	97	21%
Total	**102**	**676**	**15%**

*Includes prescription and illegal overdoses; identified by underlying cause of death on death certificate (ICD-10 codes X40-X44, X60-X64, X85, Y10-Y14) with the contributing cause of death as opioids (T40.0-T40.4, T40.6). Source: Division for Vital Records and Health Statistics, MDHHS, 2007-2016.

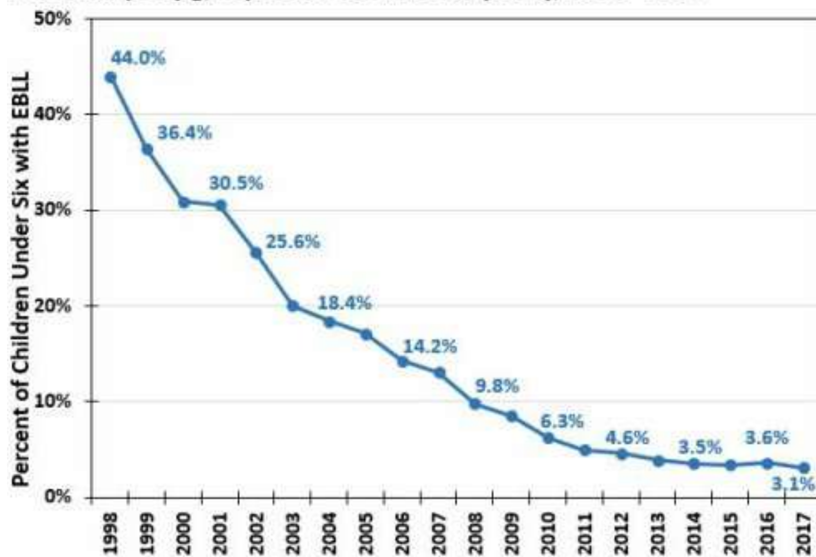
MDHHS remains committed to promoting opioid use disorder prevention for pregnant and parenting women and women of childbearing age; increasing screening and identification; maintaining data collection and reporting; optimizing resource allocation to target resources to those in greatest need; developing a quality improvement system; and improving workforce development and training programs.

On November 6, 2018, Michigan voters approved Proposal 1, creating the Michigan Regulation and Taxation of Marihuana Act (MRTMA). This Act delegates responsibility for marijuana licensing, regulation and enforcement to the Michigan Department of Regulatory Affairs (LARA). LARA's Bureau of Marijuana Regulation (BMR) is responsible for the oversight of medical and adult-use (recreational) marijuana in Michigan. The MRTMA permits the personal possession and use of marijuana by persons 21 years of age or older. Moving forward, MDHHS will assess and assure public health education and messaging for the MCH population.

Michigan has a strong foundation of family support services within community and clinical settings to address substance use. Home visiting services are critical in addressing perinatal substance use disorders among pregnant and parenting women. Home visitor education and training has been inclusive of motivational interviewing and other evidence-based interventions. Healthcare professionals remain abreast of Perinatal Substance Use Disorder (PSUD) and NAS and the importance of linking families to ongoing support services after hospital discharge. However, substance use prevention and response efforts pose staffing challenges to an already taxed public health, nursing, and behavioral health workforce.

Lead has continued to be a priority public health issue in Michigan. MDHHS staff coordinate initiatives to prevent lead poisoning through case management services available through local health departments; surveillance systems for blood lead testing data; lead abatement services in homes; and lead educational materials for health care providers, child care providers, schools, and families of young children. As illustrated in Figure 3, the percent of tested Michigan children under age six with an elevated blood lead level has decreased since reporting began in 1998.

Figure 3. Percent of Tested Michigan Children Under Age Six with Elevated (≥ 5 µg/dL) Blood Lead Levels (EBLL), 1998 - 2017



Source: MDHHS Health Data Warehouse, as of September 17, 2018

Michigan is also addressing PFAS, an emerging class of contaminants. Although the health impacts are not well understood, the better-studied PFAS chemicals appear to have greater health impacts during early life with higher exposure through breastfeeding because the substances bioaccumulate. The state's activities to address PFAS include:

- Identifying sources of these contaminants.
- Sampling private drinking water wells near known sources.
- Providing alternate water (e.g., certified water filter) when private wells are impacted.
- Sampling public water supplies and schools/daycare centers with drinking water wells.
- Investigating other potential PFAS sources (e.g., fire-fighting foam, biosolids, surface water discharges) and exposures (e.g., recreating in surface water, eating fish and deer).
- Developing public health screening levels for some PFAS and future development of regulatory levels including enforceable drinking water standards for PFAS.

Vaccine hesitancy was identified by the WHO as a threat to global health in 2019. Pockets of low vaccination coverage have allowed serious and highly contagious diseases like measles to make a resurgence in countries where it had previously been eliminated. The U.S. is currently experiencing multiple measles outbreaks, including one in Michigan.

Michigan has a strong and active anti-vaccine community that has branded itself as "pro vaccine choice." This group has provided anti-vaccine public comments during the Advisory Committee on Immunization Practices meetings at CDC headquarters. The anti-vaccine community has continually fought Michigan administrative rules on immunization education required to obtain a non-medical immunization waiver for school entry and introduced new legislation to eliminate public health's right to exclude unvaccinated children from school and daycare during vaccine-preventable disease outbreaks.

MDHHS Division of Immunization works diligently to correct anti-vaccine messages. One strategy is through the I Vaccinate media campaign in partnership with the Franny Strong Foundation. The I Vaccinate campaign is a parent-

to-parent network to provide accurate vaccine information. MDHHS also works through the Parent Information Network, the Alliance for Immunizations in Michigan, the Michigan Advisory Committee on Immunizations, and other stakeholder groups to combat vaccine hesitancy. The division has a strong educational program to provide immunization education to healthcare providers via education modules, conferences, and webinars.

---

[1] Includes maternal deaths while pregnant or within 1 year of the end of a pregnancy from any cause related to or aggravated by the pregnancy or its management. Data source: MDHHS, Michigan Maternal Mortality Surveillance Program, 2018.
[2] Includes maternal deaths while pregnant or within 1 year of the end of a pregnancy due to a cause unrelated to pregnancy.
[3] Data from Michigan's Services Worker Support System (SWSS).
[4] Data from Michigan Inpatient Hospitalization Files.

FY 2019 Application/FY 2017 Annual Report Update

Michigan's Title V program engages in ongoing needs assessment activities to identify emerging needs, changing conditions, and system capacity. In FY 2017, Michigan's Title V program strengthened its needs assessment processes by:

1. Expanding performance monitoring to include more routine monitoring at the division and program levels;
2. Supporting local health departments through a local MCH needs assessment process; and
3. Developing logic models by Title V population domain.

Expanding Performance Monitoring Processes

Starting in FY 2017, the Title V Steering Committee reviews Michigan's NPMs and SPMs on an annual basis during its spring meeting. State epidemiologists present available data, comparing Michigan and national data over time and in relation to Michigan's annual objectives. The second of these meetings took place in March 2018. Steering Committee members viewed data and asked clarifying questions. Of note are the following:

- Overall, the state is continuing to see positive trends in measures related to risk-appropriate deliveries, breastfeeding initiation and duration, infants placed to sleep on their backs and without objects in their cribs, follow-up for elevated blood lead levels, preventive dental care during pregnancy, and HPV vaccinations.
- The state is experiencing relatively flat trends in measures related to well-women visits, infants placed to sleep alone in a crib or pack-n-play, and immunization rates among children 19 to 36 months.
- Changes in survey questions and methodology make it more difficult to understand trends for several measures, including adolescent well-visits and transition. For example, the National Survey of Children's Health (NSCH) was revised and previous data are not comparable to current data.
- Given changes to and increased flexibility in the new Title V Guidance, Michigan retired three performance measures in 2018. Due to space limitations in this section, rationale is discussed in the state action plans by population domain.
- Michigan's original five-year targets were set for 2015-2020. Per HRSA requirements, new targets must extend beyond the original five-year cycle and project five years out. An MCH epidemiologist annually reviews and sets these new targets. Methodologies are included in the Supporting Documents. In particular, new 2019-2023 targets were established for all measures using the new NSCH.

In addition to continuing the high-level review of Michigan's progress toward its NPMs and SPMs, in 2017 MCH epidemiologists and Title V staff met individually with program staff who work on specific NPMs and SPMs. Participants discussed current data and performance monitoring activities as well as any data needs or gaps. Information on the Federally-Available Data (FAD) and stratifier data was also shared, as available. The initial goal was to identify any data needs, data gaps, or other challenges within program areas and how to address those issues. The long-term goal is to help impact performance metrics and improve program outcomes. State epidemiologists will continue to support data-driven assessment and planning, particularly as Michigan moves into its next five-year needs assessment cycle.

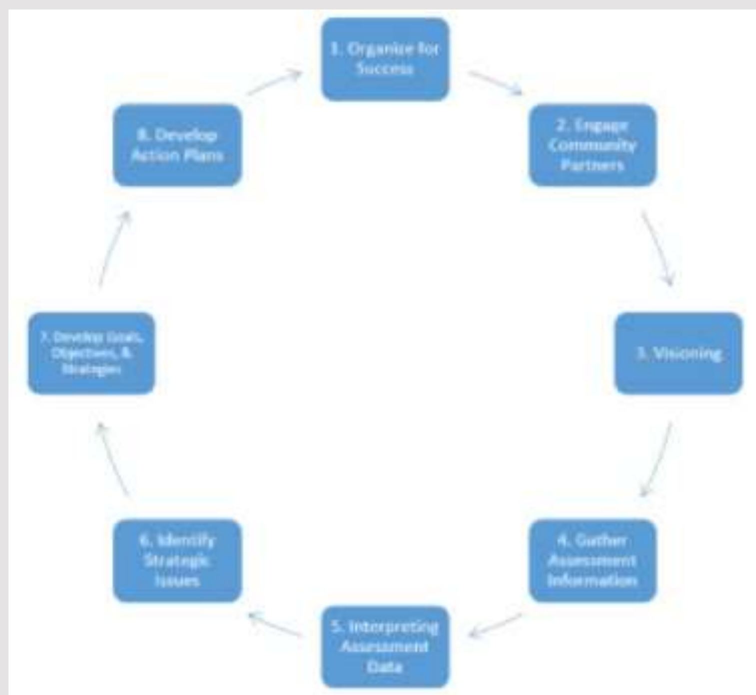
Local MCH Needs Assessment

Michigan's 45 local health departments (LHDs) each receive Title V funds to address local MCH needs. These Local Maternal and Child Health (LMCH) grants play an important role in building LHD infrastructure and supporting the statewide delivery of MCH programs and services. After the five-year needs assessment was completed in 2015, the Title V Steering Committee determined that it was important both to support LHDs in realigning with the state's new priorities and performance measures and to assure continuity of infrastructure, programs, and services at the local level.

To achieve these goals, Michigan's LHDs were offered $15,000 grants in conjunction with training and technical assistance, to complete local MCH needs assessments from January to December 2017. The design of the needs assessment was informed by NACCHO's Mobilizing Action through Planning and Partnerships (MAPP) framework, the Public Health Accreditation Board's (PHAB) Standards and Measures, the National Public Health Performance Standards Program

(NPHPSP), the MCH Essential Services, and a variety of other community health improvement tools. Additionally, the LMCH needs assessment was designed using the life course approach. The assessment included eight steps as depicted in Figure 1.

Figure 1. Needs Assessment Process



The process was introduced one step at a time. LHDs received training via webinar and then implemented what they learned before receiving training on the next step. Additionally, LHDs submitted documentation after each step and received feedback on strengths and opportunities to expand their assessment approach. This strategy was selected to make the process more manageable, to support the LHDs in spreading activities over the available months, and to support capacity building.

Assessment activities included looking at population-level data, gathering community input, and assessing system capacity to deliver MCH services. Information gathered from community input (e.g., through focus groups, input walls, brief interviews, photovoice projects, etc.) offered valuable insights that influenced the way LHDs articulated their strategic issues and selected priorities.

To date, 41 of Michigan's 45 LHDs completed the full needs assessment. In order to gather feedback on the strengths and limitations of the process, LHDs were invited to complete an online survey. The survey had a 76% response rate. The findings suggested that respondents found the webinars helpful; felt the communication they received from their technical assistance providers was timely and appropriate; found the needs assessment tool easy to understand; and were satisfied with the process. Additionally, two-thirds of participants reported that the needs assessment led to identifying new MCH priorities within their communities. While feedback was overall positive, respondents indicated that they need more support in 1) moving from assessment to planning; 2) identifying evidence-based strategies; and 3) using data to inform how they use Title V funding at the local level. MDHHS has identified several strategies to address these needs:

- The LMCH plan, which LHDs complete to describe how they will use Title V funds, was revised to align with the needs assessment to make the translation from needs assessment to planning more straightforward.
- All LHDs were invited to participate in a webinar that provided a detailed overview of each component of the LMCH plan and how it related to the needs assessment, and offered guidance on areas that can be especially challenging, such as writing SMART objectives, distinguishing outcomes and outputs, and selecting effective

strategies that go beyond health education.
LHDs are receiving detailed feedback on their LMCH plans.
Additional training, both in-person and web-based, is planned to help move from assessment to planning and selecting evidence-based strategies.

Local MCH needs assessment findings will be used at the state level to inform Michigan's next five-year needs assessment, which is due in 2020. Michigan is currently in the process of completing a detailed analysis of findings, focusing on what can be learned from the selected priorities and the community input gathered at the local level. Preliminary results suggest that over one-third of LHDs selected at least one priority that does not align with a current Title V NPM or SPM. Furthermore, the most commonly identified local priority that aligned with an NPM was breastfeeding, with 21 health departments prioritizing a breastfeeding related strategic issue.

Logic Models by Population Domain

To better understand and articulate goals and objectives across the size and complexity of the Title V program, in 2018 Michigan undertook a logic model process. Title V and program staff at the state level worked together to develop logic models for state level activities by population domain and individual performance measures. This process began with Title V staff creating draft logic models based on state action plans, and convening program staff by population domain to review each component of the logic model and make updates based on plans for FY 2019. The logic models will be treated as living documents, changing as the needs of the population change and as strategies are strengthened or refined. Additionally, they were used to support writing the state action plan sections of the Title V application.

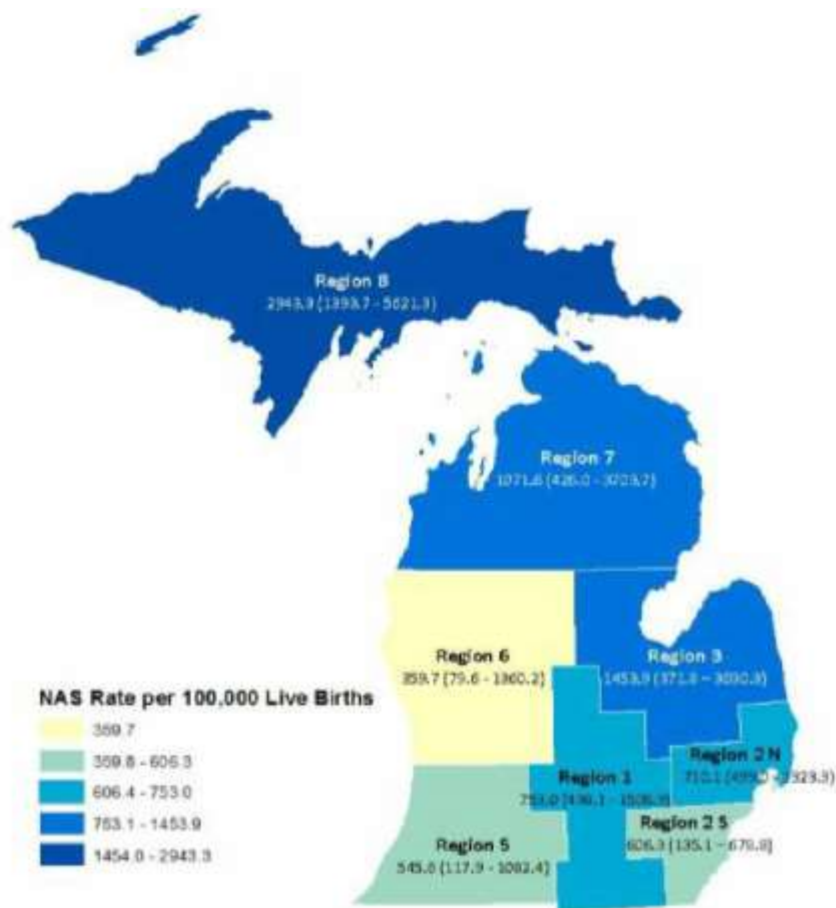
Changes in Health Status and Needs

As discussed above, Michigan continues to monitor all NPMs and SPMs on an annual basis. Other key MCH data are also observed. In particular, MDHHS continues to closely monitor both infant and maternal mortality and has seen the following trends and emerging concerns. The infant mortality rate in Michigan for 2016 was 6.4 deaths per 1,000 live births—the state's lowest rate since 2011. While we have made great strides with overall infant mortality over the last decade, racial and ethnic disparities—particularly among Black, non-Hispanic and American Indian/Alaskan Native populations—persist and remain a major focus of our work. The maternal mortality rate within Michigan for 2011-2013 was 8.5 maternal deaths per 100,000 live births[1]. Due to the nationwide opioid epidemic, addressing maternal mortality remains an important component of our Title V work. Michigan's maternal mortality committees have centered their efforts on developing recommendations that will help prevent current and expecting mothers from developing opioid use disorders. Racial and ethnic disparities remain a concern with maternal mortality as well. Operationalization of these data, as well as the needs assessment findings discussed above, is addressed throughout the application.

Emerging Public Health Issues

As discussed above, infant and maternal mortality remain two critical public health issues in Michigan. In addition, two emerging public health issues have been opioid use and the hepatitis A outbreak. Michigan continues to experience an increase in opioid use during pregnancy and, as a result, an increase in the number of infants diagnosed with Neonatal Abstinence Syndrome (NAS). Figure 2 details the incidence of NAS by region. As illustrated by the map, rural areas of Michigan have been hardest hit by this epidemic.

Figure 2. Map of 2016 NAS Rates by Perinatal Region



The number of drug exposed infants increased by 67% from FY 2010 to FY 2013, from 2,589 to 3,866 infants[2]. Additionally, infants hospitalized and treated for drug withdrawal symptoms has increased[3]. In 2010, 478 infants in Michigan had a diagnosis code of 779.5 (ICD-9-CM) and needed treatment for withdrawal from a drug, not specifically identified as opioids. In 2016, the number of infants with a diagnosis code of P96.1 (ICD-10-CM) increased to 863 infants. This represents a jump from 41.67 per 10,000 live births in 2010 to 76.12 in 2016. The opioid epidemic has also impacted maternal deaths, as illustrated by Table 1.

Table 1. Opioid-Related* Maternal Deaths in Michigan (2007-2015)

Year	Opioid Deaths	Total Maternal Deaths	% of Maternal Deaths
2007	2	67	3%
2008	4	44	9%
2009	5	52	10%
2010	8	70	11%
2011	10	70	14%
2012	13	58	22%
2013	6	59	10%
2014	16	81	20%
2015	18	78	23%
Total	**82**	**578**	**14%**

*Includes prescription and illegal overdoses; identified by underlying cause of death on death certificate (ICD-10 codes X40-X44, X60-X64, X85, Y10-Y14) with the contributing cause of death as opioids (T40.0-T40.4, T40.6). Source: Division for Vital Records and Health Statistics, MDHHS, 2007-2015.

To improve systems collaboration and policy development, MDHHS participated in the Substance Abuse and Mental Health Services Administration (SAMHSA) 2017 Policy Academy: Improving Outcomes for Pregnant and Postpartum Women with Opioid Use Disorders and Their Infants, Families and Caregivers. The Michigan Policy Academy team included representation from multiple systems[4]. Michigan's goals include the following: promote opioid use disorder prevention for pregnant and parenting women, and women of childbearing age; increase screening and identification of opioid use disorder; maintain data collection and reporting on opioid use disorder; optimize resource allocation to target resources to those in greatest need; develop a quality improvement system; and improve workforce development and training programs.

Michigan has a strong foundation of family support services within the community and hospital setting. Home visiting services are critical in addressing opioid use disorders among pregnant and parenting women. Home visitor education and training has been inclusive of motivational interviewing and other evidence-based interventions. Hospital personnel have been trained in the identification of NAS and the importance of linking families to ongoing support services after hospital discharge.

Another emerging public health issue is the hepatitis A outbreak. Since the outbreak began in 2017, Michigan has experienced the largest hepatitis A outbreak in the United States during the post-vaccination era, with over 800 cases and 25 deaths. What began in Southeast Michigan as a clustered outbreak with a few cases in the most populated, largest counties has now spread across the western and northern parts of the state. Transmission appears to be through direct person-to-person spread and illicit drug use. In response to the outbreak, public health officials have been working to promptly identify cases and contacts, provide education, and ensure access to vaccination for vulnerable populations. Multiple state agencies have been engaged including Medicaid, Department of Corrections, Department of Housing, HIV, Communicable Disease, Epidemiology, Local Health Services, Labs, Communications, Community Mental Health, Substance Use Disorders plus many external partners including Michigan Hospital Associations, HUD, and Michigan Association of Local Public Health. Michigan activated the Community Health Emergency Communications Center to centralize all communications regarding the outbreak and assist with education and information distribution. All LHD jurisdictions beginning with the Southeast outbreak areas were supplied with additional state support and funding as well as public vaccine to aid in responding to the outbreak. The Centers for Disease Control has been in communication throughout the duration of the response as an ongoing consult to MDHHS.

[1] Includes maternal deaths during pregnancy or within 42 days postpartum. Data source: Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2018.

[2] Based on data from Michigan's Services Worker Support System (SWSS).

[3] Based on data from Michigan Inpatient Hospitalization Files.

[4] Membership includes Behavioral Health Treatment, Maternal and Child Health/Public Health, Child Welfare, Justice and Medicaid.

FY 2018 Application/FY 2016 Annual Report Update

Michigan's Title V program engages in ongoing needs assessment activities in order to identify emerging needs, changing conditions, and system strengths. In FY 2016, Michigan's Title V program selected three priorities for ongoing needs assessment to be carried out in FY 2017:

1. Develop a process for tracking performance data on an annual basis;
2. Facilitate needs assessments with local health departments; and
3. Assess family and consumer engagement across MCH programs, as a step toward increasing stakeholder input.

Priority 1: Performance Monitoring

In March 2017, the Title V Steering Committee—which is comprised of managers and program staff who oversee Title V priority areas and performance measures, including the director of the Family Center for Children and Youth with Special Health Care Needs—convened to review Michigan's Title V performance measures. This process was designed to inform ongoing decision making and to help monitor the implementation and progress of state action plans.

MCH Epidemiology staff presented available data on each NPM[1], SPM, and ESM. The presentation compared Michigan and national data over time, to the extent possible, as well as progress toward annual objectives. Additionally, the presentation highlighted the Federally Available Data (FAD) as a resource for exploring stratifier information for each NPM and NOM.

After viewing the data, the group discussed takeaways and ideas for enhancing the performance monitoring process in future years. The following main points emerged:

1. The State appears to be making progress toward annual goals for several of the NPMs and SPMs (e.g., breastfeeding, vaccination, dental visits in pregnancy).
2. The State's progress toward a few annual goals appears to be slower than anticipated (e.g., well woman visits and developmental screening).
3. For some measures, it is difficult to assess progress because data are collected infrequently (e.g., measures using the National Survey of Children's Health).
4. For many measures, the lag time between when data are collected and when data are available makes it difficult to contextualize current performance.
5. In addition to a broad review of performance data, it may be helpful to implement a more comprehensive review of data specific to each performance measure or program area.

Priority 2: Local MCH Needs Assessments

Michigan's 45 local health departments (LHDs) each receive Title V block grant funds to address locally identified MCH needs. These Local Maternal and Child Health (LMCH) grants play an important role in building LHD infrastructure and supporting the delivery of programs and services. After the five-year needs assessment was completed in 2015, the Title V Steering Committee determined that an important next step was to support LHDs in realigning with the state's new priorities and performance measures while also supporting continuity of local infrastructure, programs, and services.

An internal LMCH workgroup was convened to design an LMCH needs assessment process in partnership with the Michigan Public Health Institute (MPHI) to help LHDs identify:

- MCH strengths and areas for improvement in their community;
- Disparities in MCH outcomes;

The perspective of community partners and families regarding MCH needs;

Strengths and gaps in the community's MCH infrastructure;

Priority MCH needs;

Clear goals and SMART objectives that respond to priority MCH needs; and

Strategies for improving MCH infrastructure and outcomes.

The design of the needs assessment was informed by NACCHO's Mobilizing Action through Planning and Partnerships (MAPP) framework, the Public Health Accreditation Board's (PHAB) Standards and Measures, the National Public Health Performance Standards Program (NPHPSP), the MCH Essential Services, and a variety of other community health improvement tools and resources. Additionally, the LMCH needs assessment incorporates the life course framework, which understands health as the product of exposures and experiences from preconception through each stage of life.

The LMCH needs assessment process began in January 2017 and will conclude in September 2017. Although this activity was not required, all 45 LHDs chose to participate. The LMCH needs assessment was designed to be flexible and based on local capacity. LHDs were provided with $15,000 in one-time funding to support this activity. The LMCH workgroup recognized that the budget may not fully fund all assessment activities, and that LHDs vary in their assessment and planning needs. As such, at each stage of the assessment, a range of approaches were offered. However, LHDs were asked to include four critical components in their needs assessments:

1. Engage partners in the process, especially families and consumers most impacted by health inequities;
2. Use multiple types of data to identify both strengths and needs;
3. Engage in the process without pre-determined outcomes, such that evidence is used to select priorities and set objective targets; and
4. Ground strategies for improvement in evidence-based public health practice.

The LMCH needs assessment includes eight steps that align with the MAPP framework, which was selected because it is comprehensive and widely used. The steps are depicted in Figure 2.

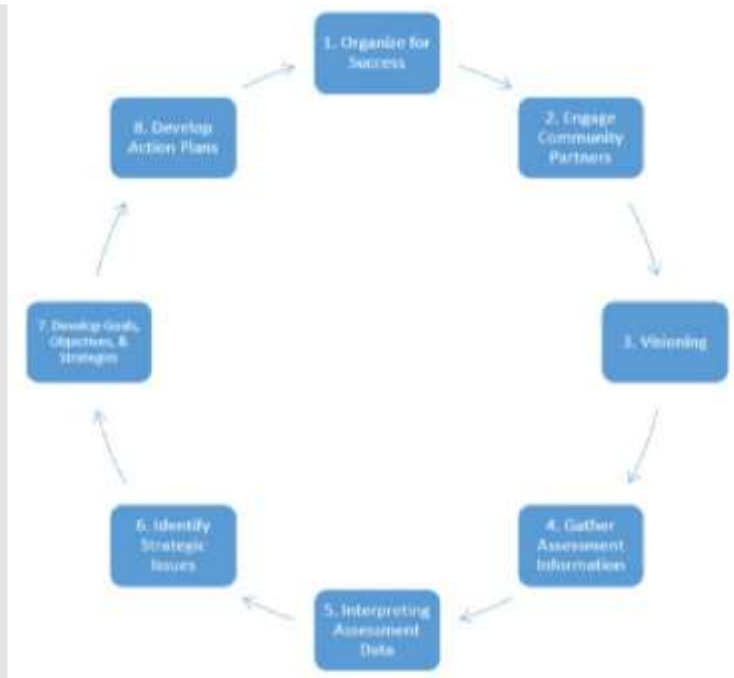


Figure 2: Steps in the Needs Assessment Process

LHDs were guided through each stage by Michigan's LMCH Needs Assessment Tool and through a series of webinars and targeted technical assistance. To make the process more manageable and to support capacity building, the process was introduced one step at a time. After each step, LHDs received feedback on strengths and opportunities to expand their assessment approach.

During the first step of the process, Organize for Success, LHDs developed a strategy for completing the assessment. They worked through a timeline, identified who would lead the process, and determined who would participate. Some LHDs formed a new group for the purposes of this assessment, whereas others accessed an existing group of MCH partners. LHDs also put a plan in place to support families and consumers as partners in the assessment process.

During the second step, LHDs engaged their partners. They considered traditional and non-traditional partners, and they expanded existing partnerships based on gaps that they identified during this step. LHDs developed or adapted invitation materials and formally reached out to partners for their participation. They also reached out to family members and consumers to invite their participation in the process.

The third step, Visioning, involved bringing together community partners to develop a shared vision for MCH for their community. Some groups decided to adapt existing vision statements, whereas others completed a visioning process.

Currently, LHDs are in the process of completing the assessments and interpreting their findings (steps 4 and 5). The first assessment involved gathering input from community members. LHDs were provided with an orientation to several methods of direct data collection, including community input walls, focus groups, intercept interviews, and photovoice. The second assessment involved reviewing MCH measures across the life course. The LMCH workgroup, MPHI, and MCH Epidemiology staff selected measures that included Michigan's NPMs and SPMs as well as other important measures including health outcomes, health behaviors, the service system, and social determinants of health. These measures were pulled at the state level and at either the county, LHD, or regional level. Measures were provided to LHDs in an Excel file and through supplemental documents. The third assessment, which was optional, asked LHDs to examine their MCH service system. LHDs were provided with a tool that asks LHDs and their partners to discuss their local MCH system's capacity to deliver the 10 essential MCH services. The tool was set up as a discussion guide that would lead to a description of current status, strengths, and opportunities for improvement.

Through the LMCH needs assessment process, Michigan's Title V program expects LHDs will:

1. Align local MCH priorities with Michigan's MCH priorities and NPMs and SPMs submitted to HRSA for the 2016-2020 block grant cycle;

2. Develop local MCH plans with measureable objectives and evidence-based strategies to address local MCH needs as well as Michigan's Title V priorities and performance measures; and

3. Determine the most effective use of Title V dollars, particularly in relation to core public health functions and infrastructure.

Priority 3: Family and Consumer Engagement

Michigan's Title V program is committed to increasing stakeholder input in programs and services, especially from consumers and families. MDHHS recognizes that understanding issues and challenges from the service recipients' perspective helps programs strengthen services and achieve better outcomes. Many MCH programs currently involve families and consumers (on advisory committees, through program improvement efforts, etc.). However, systematic information about the levels and methods of family and consumer engagement used by MCH programs has not historically been gathered. Additionally, limited information was gathered directly from families and consumers in Michigan's last five-year needs assessment.

To address this gap and strengthen future engagement processes, in 2016 Michigan's Title V program decided to conduct an assessment of current family and consumer engagement across Michigan's MCH programs. To obtain this "baseline" information, a Family and Consumer Engagement Survey[2] was disseminated in March 2017 to MCH program managers. The survey solicited feedback on current practices, challenges, and benefits of engagement. Survey methods and preliminary results are presented in the Family/Consumer Partnership section of this application. The full survey results will be used to assess strengths in engaging families and consumers, as well as barriers and opportunities for improvement.

FY 2018 Needs Assessment Plans

In FY 2018, Michigan's Title V program will build on the progress and initiatives that have been implemented to date. Anticipated activities include:

1. Track performance data and work with program staff to identify program-specific data that would support evaluation or improvement efforts.

2. Summarize LHD needs assessment results to better understand needs and gaps in maternal and child health across the state.

3. Use results from the 2017 Family and Consumer Engagement Survey to inform next steps and strategies for increased stakeholder input within MCH programs.

Performance Monitoring

In FY 2018, the Steering Committee will again convene to review Michigan's performance measures—including NPMs, SPMs, ESMs, and other relevant data. This review and subsequent discussions will provide information about successes, challenges, and emerging issues that could inform Michigan's MCH priorities and state action plans. Additionally, Title V leadership and MCH epidemiology staff will work with program areas to identify data sets (e.g., FAD or life course metrics) that would be useful for further program assessment.

LMCH Needs Assessment

Michigan's Title V program will receive comprehensive LMCH needs assessment results by December 2017. Results will describe assessment findings related to needs and strengths and will identify priority MCH health issues for each local health department in the state. The Title V Steering Committee plans to use this information at the state level to better support LHDs and to enhance Michigan's next Title V five-year statewide needs assessment.

Family and Consumer Engagement

The Family and Consumer Engagement Survey closed in April 2017. In total, 37 MCH program areas completed the survey. In the fall of 2017, survey results will be reviewed in collaboration with program staff and partners, to identify strengths, gaps and opportunities for improvement in FY 2018 and beyond. Methods for increasing family and consumer engagement will be identified or developed in FY 2018, depending on resource availability. For example, activities may include training or technical assistance for program staff; targeted support and resources for MCH programs that wish to strengthen family or consumer engagement; and sharing of best practices. A long-term goal is to increase family and consumer input in Michigan's MCH programming and ongoing needs assessment process. It is anticipated that information from the survey, as well as activities implemented in 2018, will inform and strengthen Michigan's next statewide needs assessment.

---

[1] Data and charts from TVIS web reports were utilized. Additional charts were created by MCH Epidemiology staff.

[2] The survey was adapted with permission from a survey developed by the Association of Maternal and Child Health Programs.

FY 2017 Application/FY 2015 Annual Report Update

In FY 2016, Michigan's Title V needs assessment activities focused on gathering information about local health departments' maternal and child health (MCH) needs and priorities for use of block grant funds. Michigan's 45 local health departments each receive Title V Block grant funds to address locally identified MCH needs. These Local Maternal and Child Health (LMCH) grants play an important role in building local health department infrastructure and supporting the delivery of programs and services. After the five-year needs assessment was completed in 2015, the Title V Steering Committee (which evolved out of the Needs Assessment Planning Committee, as discussed in the Needs Assessment Summary section, and includes key MDHHS leadership from across the MCH population domains) determined that it was important to support local health departments in realigning with the state's new priorities and performance measures, and to assure continuity of infrastructure, programs, and services at the local level.

In order to achieve these goals, an internal LMCH workgroup was convened to complete a LMCH needs assessment. This group completed two types of assessment activities. First, it reviewed LMCH-funded activities to identify areas of alignment and variance with the state's revised priorities, NPMs, and SPMs. The workgroup reviewed all 45 LMCH plans and budgets and completed a crosswalk between the activities in these plans and the state's priorities and performance measures. The group also examined the degree to which funding was focused on building infrastructure to deliver the 10 essential services or was focused on delivering direct or enabling programs and services. Second, the LMCH workgroup held discussions with local health departments, both individually and collectively, to share information; gather input regarding the new priorities and performance measures; and obtain feedback and suggested revisions to the new annual plan format and narrative.

The workgroup found that LMCH plans substantially aligned with the state's priorities and performance measures. However, several local health departments were using LMCH funds to support improving immunization rates within their communities. Although the importance of improving immunization rates was recognized, it was not identified as a priority during the 2015 needs assessment. Yet Michigan's immunization rate has been declining among some populations; the state has a high percentage of kindergarten exemptions for vaccines required for school entry; and the state has a low rate of adolescents who have completed the HPV series.

The workgroup also found that LMCH plans emphasized using funding to deliver programs and services, and less on building public health infrastructure. Given high levels of community need, declining public health funding, the lack of flexible funding for local health departments, and the relatively recent expansion of health insurance coverage, it was clear that LMCH funds have served a critical role in assuring MCH services. However, as Title V continues to evolve at the federal and state level, it was also clear that local health departments will need support in assessing changing community needs and in rebuilding their public health infrastructure to meet those needs.

In summary, two main outcomes emerged from FY 2016 needs assessment activities:

1. Based on state data and local priorities, the Title V Steering Committee added a State Performance Measure (SPM) focused on immunizations. Described in detail in its associated state action plan, the measure will track: A) Percent of children 19 to 36 who have received a completed series of recommended vaccines, and B) Percent of adolescents 13 to 18 years of age who have received a completed series of the HPV vaccine. The decision to focus on these two measures was made in coordination with Title V leadership and Division of Immunization staff.
2. Moving forward, Michigan's Title V program plans to offer one-time "transition" funding to local health departments to assist them in transitioning to the new state priorities and performance measures, as needed. This transition funding will support local capacity building, strengthen the statewide needs assessment, and provide a foundation for thinking beyond direct services to systems-level solutions to community health issues and needs. This proposal is discussed in more detail below.

2017 Plans

In order to assure Michigan's Title V priorities continue to align with the most important needs in our state, the Steering Committee discussed a variety of options for FY 2017 needs assessment activities. The group sought ideas that 1) would generate meaningful and timely information that could be used to refine priorities or action plans, 2) could be carried out efficiently, and 3) would engage a wide variety of stakeholders in the process. The Steering Committee selected three main strategies for ongoing needs assessment that will be initiated in FY 2017:

1. Develop a process for tracking and monitoring performance data on an annual basis;
2. Facilitate transition planning with local health departments; and
3. Increase stakeholder input by developing or strengthening strategies, systems and processes to regularly hear from state and local partners and consumers about needs and strengths of the MCH system.

Performance Monitoring

In FY 2017, the Steering Committee will engage with MDHHS's Life Course Metrics project to identify a core set of measures, which include Michigan's NPMs and SPMs, to track annually. The Life Course Metrics project is led by Michigan's MCH director. The intent of this effort is to identify core measures across the life course and at the population, community, and

system level that can be used to inform decision making at the state and local level. Working with the Life Course Metrics team, the Steering Committee will identify a process for monitoring Michigan's current NPMs and SPMs. On an annual basis, the Title V Steering Committee will review performance on these measures. These conversations will focus on identifying emerging issues that could inform Michigan's priorities and opportunities for adjusting Michigan's action plans to improve progress toward outcomes.

Facilitate Transition Planning with Local Health Departments

Michigan's Title V program plans to provide one-time funding to the state's 45 local health departments that receive Title V block grant funding to undergo a local transition process tailored to the health department's needs. For example, the process will support capacity building at the local level; inform the state level needs assessment; and support alignment of LMCH plans with Michigan's Title V priorities, performance measures, and emphasis on system building. In addition to funding, the state Title V program will support the local transition process by providing instruction via webinar and phone consultation on each step of the process and providing local health departments with key MCH data. Local health departments will also be expected to pull from existing community needs assessment results and any supplemental local data to determine priority needs of their MCH population. Health departments will be encouraged to engage families and consumers in the process, and to use this input to more deeply and comprehensively understand unmet need in their communities.

Through a facilitated transition and needs assessment process, Michigan's Title V program expects local health departments will:

i. Align local MCH priorities with Michigan's key MCH priorities and NPMs and SPMs submitted to HRSA for the 2016-2020 block grant cycle;

ii. Develop local MCH plans with measureable objectives and evidence-informed or evidence-based strategies to address Michigan's Title V priorities, NPMs, and SPMs;

iii. Allocate more Title V dollars for capacity building around core public health functions and infrastructure development; and

iv. Ensure funds used for direct and enabling services are gap-filling.

Notably, the transition process was already begun in FY 2016. The internal LMCH workgroup drafted a revised LMCH application, which was shared with a small group of local health department representatives for review and revision before broader distribution occurred. This revised LMCH local plan format and guidance will be fully operationalized with FY 2017 contracts, utilizing measurable objectives and activities to address Michigan's Title V priorities, NPMs, and SPMs (as well as locally-identified MCH needs). DFCH representatives presented the revised local plan at several statewide local health department workgroups that regularly convene throughout the year. The response to the new format was positive. Local health departments were invited to join a webinar in May 2016 to review the new plan format and guidance.

Strengthen Stakeholder Input

While the Needs Assessment Planning Committee convened a broad group of stakeholders to help identify strengths and needs of the MCH population in the five-year needs assessment, a future goal is to increase family and consumer partnerships to allow for more consumer feedback. Strategies to address this gap will be developed in FY 2017. Steering Committee members will develop or build on existing strategies, systems, and processes to regularly hear from community and state family leaders, community members, and state and local partners about needs and strengths of the MCH system. The Steering Committee will develop multiple methods for gathering input that work best for each priority area, MCH program, and consumer population, depending on time and resource availability. Methods may include but are not limited to: consumer satisfaction surveys, town hall meetings, focus groups, key informant interviews, and direct observations. Gathering consumer input will help to identify gaps or barriers in the MCH system that prevent women, mothers, and children, including those with special health care needs, from achieving health and wellness. The Steering Committee will use data collected through these methods to identify emerging priorities and improve state action plans.

Five-Year Needs Assessment Summary
(as submitted with the FY 2016 Application/FY 2014 Annual Report)

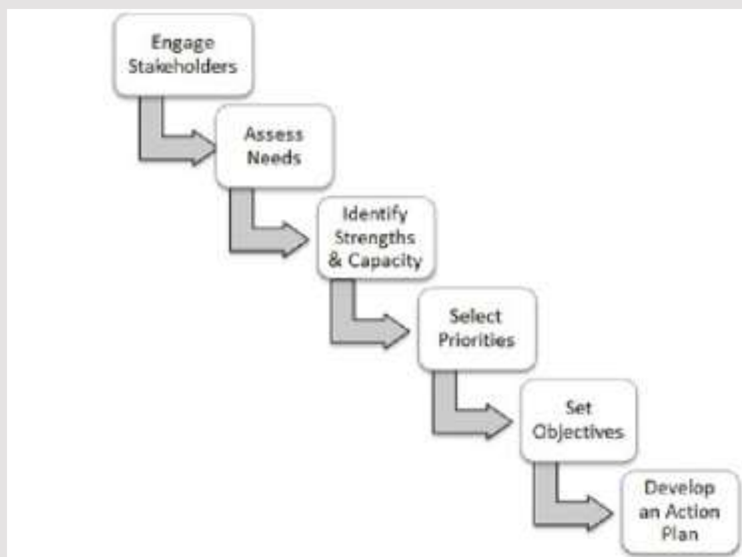
II.B.1. Process

MDHHS completed a statewide five-year needs assessment in order to identify needs for preventive and primary care services for women, mothers, infants, and children as well as services for children with special health care needs (CSHCN). The findings of the needs assessment drove the identification of strategic issues (i.e., the fundamental or critical challenges that must be addressed to improve maternal and child health outcomes), priority needs, and a five-year action plan. The needs assessment was led by Michigan's Title V Director and the Bureau of Family, Maternal and Child Health (BFMCH). As noted, the BFMCH organizational structure aligns with a life course approach. Leadership with expertise in each of the six population health domains identified in the Title V MCH Block Grant Guidance were engaged in needs assessment planning and implementation. The six population health domains that guided the structure of the Needs Assessment Planning Committee (NAPC) and the needs assessment process included women/maternal health, perinatal/infant health, child health, CSHCN, adolescent health, and cross-cutting/life course. The goals of the needs assessment process were to:

- Engage a diverse group of stakeholders to assess both needs and system strengths and capacity;
- Utilize existing data and stakeholder experience and expertise to identify strategic issues or unmet needs, that, if addressed, would improve health in each of the six population health domains; and
- Identify priority unmet needs in each of the population health domains and strategies for addressing those needs.

The needs assessment process was modeled after the Health Resources and Services Administration (HRSA) Maternal and Child Health Bureau's conceptual framework for the Title V needs assessment. HRSA's framework is designed to improve outcomes for MCH populations and strengthen partnerships. The HRSA framework maintains that stakeholder engagement is necessary, and that needs assessment should be an ongoing activity. While HRSA's framework includes 10 steps, Michigan's needs assessment was abbreviated to align with time and resource constraints. Michigan's process is illustrated in Figure 1 and described below.

Figure 1. Michigan's Needs Assessment Process



Engage Stakeholders

The NAPC included a team of individuals representing key leadership (and the aforementioned population domains) across the BFMCH. The NAPC was responsible for determining the goals of the needs assessment, identifying major steps of the needs assessment process, providing feedback on planning documents, assuring the completion of each stage of the process, and selecting strategic priorities. Core MDHHS representation on the NAPC is listed in Table 1.

Table 1. Core MDHHS Representation on NAPC
Bureau of Family, Maternal, and Child Health
Division of Family and Community Health
Children's Special Health Care Services Division
Family Center for Children and Youth with Special Health Care Needs
Women and Maternal Health Section
Early Childhood Health Section
Child, Adolescent, and School Health Section
Division of Life Course Epidemiology and Genomics
Maternal and Child Health Epidemiology Section

In order to assure broad stakeholder representation in the needs assessment process, the NAPC convened three stakeholder workgroups that reflected the six population health domains. The first group included maternal/women's health and perinatal /infant health stakeholders. The second group included child and adolescent health stakeholders. The third group included children and youth with special health care needs (CYSHCN) stakeholders. Stakeholders were identified by members of the NAPC who worked most closely with each population group. Each stakeholder group included state and local MCH staff; state and local MCH system partners; consumers and/or parent representatives; and partners with expertise in health equity. Stakeholders were invited to participate in the process to identify strategic issues facing each population group based on data and their experience and expertise in the MCH system.

Assess Needs

The primary types of information used to identify unmet needs included population health data, program evaluation data and consumer input data. Due to time and resource constraints, other features of the MCH system—namely program and workforce capacity, organizational relationships, and family and consumer partnerships—were discussed and assessed, but not formally evaluated. In future needs assessment processes, Michigan plans to incorporate additional types of data.

In order to identify population health data to include in the needs assessment, a comprehensive list of health status measures was compiled by population group. The list included the NPMs and National Outcome Measures (NOMs) in the Title V MCH Block Grant Guidance, as well as Michigan's Life Course Metrics. The list was prioritized by the NAPC through a survey process.

Using these measures, the Maternal and Child Health Epidemiology Section within the Bureau of Epidemiology and the Children's Special Health Care Services (CSHCS) Policy and Program Development Section led the compilation and presentation of data. From the prioritized list, epidemiology staff reviewed health status data by race/ethnicity, trends and geography. A variety of different sources were used, such as the Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), the Youth Risk Behavior Surveillance System (YRBSS), Vital Records, the National Immunization Survey (NIS), the American Community Survey (ACS), the National Survey of Children's Health (NSCH), the National Survey of Children with Special Healthcare Needs (NSCSHN) and the Pregnancy Risk Assessment Monitoring System (PRAMS). Epidemiology staff then selected indicators that suggested an unmet need (based on several factors). These indicators were reviewed by program staff, who suggested additional indicators to include.

Additionally, an online survey was developed to gather existing evaluation and consumer feedback information. Members of the NAPC reached out to program staff to complete the survey. Participants were asked to report on any program evaluation findings or consumer feedback data collected in the past five years that suggested unmet needs related to maternal and child health.

Next, the three stakeholder groups—which included a total of 84 participants—were convened to review the data and

participate in a consensus workshop designed to identify strategic issues. Core indicators were presented to the stakeholders and additional metrics and analysis were provided as data sheets. The presentations and data sheets formed the basis of a rich discussion of emerging issues, unmet needs, data gaps and disparities. Stakeholders were engaged throughout the process and provided information from their own perspective and experience. Throughout the presentations, participants were asked to note the unmet needs suggested by the data as well as their own experiences. After discussing the data, participants were asked to write down the 7-10 unmet needs they felt were most critical to improving health for the population group over the next five years. Participants then worked in small groups to build consensus around 6-8 unmet needs. After the small groups reached consensus, the entire workgroup built consensus around a set of strategic issues that reflected the unmet needs. Each of the three workgroups developed between 10 and 15 strategic issues, for a total of 37 strategic issues across the six MCH population domains. Out of these strategic issues, the NAPC selected Michigan's state priorities.

Examine Strengths and Capacity

To inform the process of identifying strategic issues, each stakeholder group also participated in a focused conversation designed to gather information about system strengths and capacity. Each of the three workgroups was asked to reflect on the ways the MCH system supports each population group by identifying the following:

- Accomplishments of MCH programs in improving health status in the past five years
- Strengths of the MCH system for promoting health
- Programs and services that are working well
- Programs and services that have greatest capacity to address MCH health needs

Feedback from each group was captured and summarized.

Select Priorities

The NAPC was responsible for reviewing the strategic issues identified by stakeholder workgroups and selecting strategic priorities. In April 2015, the NAPC selected the strategic priorities that will guide the implementation of the Title V Block Grant. The list of strategic issues was first narrowed by the leadership group by considering the following factors:

- The strategic issue could be addressed through means other than Title V Block Grant funding,
- The strategic issue was not within the control or influence of the state MCH program, or
- The strategic issue was not aligned with programmatic, state and federal priorities.

After narrowing the list, the remaining strategic issues were prioritized using a matrix methodology. Each issue was rated against two scales. The first scale was related to the difficulty of achieving change through a focused programmatic effort and the second was related to the potential to achieve an improved outcome or impact. Members of the leadership group were asked to focus on the population domain they were most familiar with and rate the issue on each scale. They were asked to consider system strengths and capacity, their organizational structure and relationships, and existing priorities. Based on the matrix rating and their own expertise, the NAPC selected seven strategic priorities.

Select Performance Objectives

The NAPC selected NPMs based on the final priorities and the strategies that might be used to address those priorities. The selection of NPMs was also informed by current performance on the measure. Additionally, the NAPC identified priorities that will require state performance measures (SPMs) starting in FY 2017. Annual objectives (i.e., targets) for the five-year period were calculated by MCH epidemiology staff, with feedback from program staff. That process is discussed in Section II.D.

Develop an Action Plan

NAPC members were responsible for overseeing development of action plans for the strategic priorities that were related to their population domain. For example, staff within the Child, Adolescent, and School Health Section developed an action plan for priorities and NPMs related to adolescent health. In order to facilitate this process, a guidance document and an example action plan were created and provided to staff. Several strategic issues identified by the workgroups were considered important overarching principles and were woven throughout the action plan for each population domain.

II.B.2. Findings

Michigan's priorities were selected based on identifying MCH population needs, the capacity of Michigan's MCH and CSHCN programs, and partnerships that expand the reach of these programs. A summary of the findings that supported the selection of priorities is presented here.

II.B.2.a. MCH Population Needs

MCH population needs were identified based on reviewing key measures in each of the six MCH population domains; gathering evaluation and consumer feedback findings; and accessing the expertise and experience of key stakeholders using the process described above. A summary of system strengths and unmet needs for each population health domain is presented. This is not a comprehensive description of all the data that were reviewed as part of the needs assessment.

Women/Maternal Health: The MDHHS Maternal and Child Health Epidemiology Section and the Women and Maternal Health Section reviewed 27 measures of women's and maternal health. Measures that suggested an unmet need were identified and presented to key stakeholders. Additionally, stakeholders identified areas of strength and system capacity. Areas of unmet need suggested by the data and based on the experience of stakeholders were related to smoking and alcohol use, as well as access to and coordination of care and services.

In Michigan, the overall percent of women aged 18-44 who smoked cigarettes every day or some days decreased from 23.9% in 2011 to 22.1% in 2013 (MI BRFSS). This trend was not significant and smoking rates remained above the U.S. rate of 18.7%. Additionally, disparities continued to be high with more than 30% of women who have a high school education or less reporting current smoking. About 20% of women 18-44 reported binge drinking in the last 30 days in 2013, a slight but insignificant increase from 2011 (MI BRFSS). The rate of binge drinking among women in Michigan exceeded the U.S. rate of 17.2%.

Data from the needs assessment revealed strengths as well. The percent of women 18-44 who reported having a preventive medical visit in the past year increased significantly from 62.2% in 2011 to 67.0% in 2013 (MI BRFSS). This exceeded the U.S. rate of 66.1%. However, disparities persisted in this indicator, with 47.3% of women who were uninsured receiving a preventive medical visit.

Additionally, stakeholders identified system strengths that could provide the foundation for improving access to care and service coordination. Stakeholders noted an increase in collaboration and integration of services in and between health departments, hospitals and state and local community-based organizations. Stakeholders also felt that programs for women have an increased awareness and capacity for addressing social determinants of health, adverse childhood experiences and health inequities.

Using the consensus process described above, stakeholders used the data presented and their experience and expertise to identify strategic issues that, if addressed, would improve women/maternal health in Michigan over the next five years. Strategic issues are presented in Table 2.

Table 2. Strategic Issues Identified by MCH Stakeholders		
Population Domain	Strategic Issues	
Women/Maternal Health	i.	Support coordination and linkage across the perinatal to pediatric continuum of care
	ii.	Integrate CHWs to improve systems navigation
	iii.	Improve access to and education about reproductive life planning
	iv.	Assure quality accountable MIHP services
	v.	Support access to appropriate obstetrical care
	vi.	Access to and integration of improved health services including substance use, IPV, and mental health
Perinatal/Infant Health	i.	Support coordination and linkage across the perinatal to pediatric continuum of care
	ii.	Community level support for breastfeeding
	iii.	Take a family-centered approach
	iv.	Engage and support fathers
	v.	Increased parenting support and strategies to facilitate bonding
	vi.	Assure quality accountable MIHP services
Child Health	i.	Invest in prevention and early intervention strategies (e.g., screening)
	ii.	Foster safer homes, schools and environments with a focus on prevention
	iii.	Invest in high quality early childhood programs and services (e.g., quality child care)
	iv.	Implement a coordinated approach to health promotion that contributes to development and academic success
Adolescent Health	i.	Support evidence-based bullying prevention programs
	ii.	Foster positive adolescent sexual health education and development
	iii.	Implement a coordinated approach to health promotion that contributes to development and academic success
	iv.	Ensure social and emotional well-being through the provision of a continuum of behavioral health services
	v.	Reduce barriers, improve access, and increase availability of health services
Children and Youth with Special Health Care Needs	i.	Better utilization of data measuring performance and outcomes
	ii.	Assure that all components of a medical home are put into practice
	iii.	Increase coordination and collaboration in Systems of Care
	iv.	Assure residents in all areas of the state have access to appropriate primary and specialty providers
	v.	Care based on need not funding or program criteria
	vi.	Remove barriers to access to improve health equity
	vii.	Bridge mental, behavioral, developmental, and physical health
	viii.	Lack of early and continuous screening
	ix.	Lack of transition planning over the life course
	x.	Increase family/provider support and education
	xi.	Improve quality of life, healthy development and healthy behaviors across the life course
Cross-cutting/Life Course	i.	Provide culturally and linguistically competent services to address disparities and achieve health equity
	ii.	Promote equity in funding, services, and health outcomes
	iii.	Foster safer homes, schools and environments with a focus on prevention (e.g., opportunities for physical activity, lead poisoning prevention, preventing toxic stress & ACEs)
	iv.	Improve quality of life, healthy development, and healthy behaviors across the life course
	v.	Collaborate to improve access to basic needs
	vi.	Early initiation and promotion of health education across the lifespan (e.g., obesity, smoking, parent education)
	vii.	Support families to navigate the system
	viii.	Ensure social and emotional well-being through the provision of a continuum of behavioral health services
	ix.	Increase access to and utilization of evidence-based oral health practices
	x.	Support the emotional health of the frontline workforce
	xi.	Reduce barriers, improve access, and increase availability of health services

Perinatal/Infant Health: A total of 61 perinatal and infant health measures were reviewed. Measures that suggested an unmet need were prioritized and presented to stakeholders. Based on the data and the experience of key stakeholders, areas of unmet need included access to and coordination of care and services; health risks during pregnancy; disparities in infant mortality and safe sleep; and breastfeeding.

Disparities were identified across several measures of health during pregnancy. In 2012, about 77% of women reported receiving prenatal care in the first trimester, exceeding the U.S. rate of 73.1% reported in 2010 (CDC NCHS) and approaching the Healthy People 2020 target of 77.9%. However, while about 80% of White women reported receiving care in the first trimester, only 67% of Black women and 69% of Hispanic women reported receiving first trimester prenatal care in 2012 (MI Resident Live Birth File). (Note: Rates reported as White and Black include only non-Hispanic White and non-Hispanic Black populations.)

Among women who had a live birth and were enrolled in Medicaid, Black women reported a diagnosis of hypertension during pregnancy at higher rates than all other racial/ethnic groups (9.6% Black, 6.4% White, 6.1% Hispanic, and 5.9% Native American women; Michigan Medicaid 2013). Native American (7.1%) and Black (8.4%) women receiving Medicaid were twice as likely to experience obesity during pregnancy as White (4.8%) and Hispanic (4.3%) women (Michigan Medicaid, 2013).

More White women reported smoking during the last three months of pregnancy than any other racial/ethnic group. In 2011, 16.8% of White women smoked during the last three months of pregnancy compared to 12.6% of Black women (PRAMS). However, the percent of women reporting that smoking was allowed in the home after delivery was much higher for Black women than White women (16.8% vs. 6.3% respectively, PRAMS). Overall, 14.7% reported smoking during the last three months of pregnancy and 8.4% reported that smoking was allowed in the home after delivery. Michigan's rates of smoking during pregnancy and in the home exceed U.S. rates, as reported by 25 states. In 2011, about 10.2% of women in the U.S. reported that they smoked during the last three months of pregnancy and 4.8% of women reported that smoking was allowed in the home after delivery (PRAMS).

Michigan has the 8th highest pregnancy-related mortality rate in the country. The Michigan pregnancy related mortality rate was 22.2 per 100,000 live births compared to the U.S. rate which was 15.6 per 100,000 live births (NVSS 1999-2010). The Healthy People 2020 target for reducing the rate of maternal mortality is 11.4 per 100,000 live births.

While the infant mortality rate steadily decreased in Michigan from 8.2 per 1,000 live births in 2000 to its lowest rate of 6.6 per 1,000 live births in 2011, the 2013 rate of 7.0 per 1,000 live births exceeded both the Healthy People 2020 target (6.0 per 1,000) and the U.S. rate (6.0 per 1,000). Additionally, racial disparities in infant mortality persisted. In 2013, the Black infant mortality rate was 13.1 per 1,000 live births compared to the White infant mortality rate which was 5.7 per 1,000 live births (MI Resident Birth and Death Files).

In 2013, the sleep-related infant death rate for Black infants (20.6 per 10,000 live births) was twice the rate of all sleep-related infant deaths in Michigan (10.3 per 10,000 live births) and nearly three times the rate of sleep-related infant deaths for White infants (7.6 per 10,000) (MI Resident Infant Mortality File). Although in 2011 78.7% of Michigan infants slept on their back, which exceeded the Healthy People target of 75.9%, the percent of infants who slept in safe sleep environments was only 37.8% (MI PRAMS). Only 29.4% of Black mothers reported their infants sleep in safe sleep environments compared to 39.9% reported by White mothers (MI PRAMS). Furthermore, Black mothers had the lowest reported percent of infants who are put to sleep on their backs (59.5%) compared to Hispanic mothers (79.5%) and White mothers (83.4%) (MI PRAMS).

In 2011, the total percent of infants ever breastfed in Michigan was 79.8% compared to 83.9% of infants in all PRAMS states (PRAMS). Michigan's rate of breastfeeding did not meet the Healthy People target for breastfeeding initiation, which is 81.9% of infants. Black mothers and mothers with the lowest level of education had the lowest rates of breastfeeding. About 65.1% of Black mothers reported ever breastfeeding their infant compared to 84.0% of White mothers and 88.2% of Hispanic mothers (MI PRAMS). About 60.9% percent of mothers with less than a high school education and 75.6% of mothers with a high school diploma reported ever breastfeeding their infants compared to 92.4% of mothers with college degrees (MI PRAMS). In 2011, the percent of infants breastfed exclusively through six months in Michigan was 16.2% compared to 18.8% in the U.S. (CDC NIS). Michigan's rate of exclusive breastfeeding through six months falls below the Healthy People target of 25.5%.

Stakeholders discussed strengths of the system for improving perinatal outcomes including increased access to health insurance, expanding home visiting services, and increased engagement of community health workers to connect families with resources. They also noted increased collaboration and integration of services for mothers and babies, movement toward more holistic care, greater utilization of quality improvement methods, and an increased focus on social determinants of health.

Based on the data presented and the experience and knowledge of the stakeholders, strategic issues were identified for improving perinatal and infant health, which appear in Table 2.

Child Health: The MDHHS Maternal and Child Health Epidemiology Section and the Child Health Section reviewed 39 measures of child health; those that suggested an unmet need were identified and presented to key stakeholders. Areas of improvement suggested by the data relate to early development and school performance, as well as child maltreatment. System strengths suggested by measures related to immunization and lead poisoning prevention were also highlighted.

In Michigan, in 2011, 25.3% of parents of children aged 10-71 months who had a health care visit in the past 12 months reported completing a standardized developmental screening tool (NSCH). The U.S. rate in the same year was 37.2%. Additionally, 58.6% of children aged 0-17 received care within a medical home, while only 33.7% of Black children received

care within a medical home (NSCH). The U.S. rate in 2011 was 54.4%, while the Healthy People 2020 target is 63.3%.

In order to understand school performance, the NSCH promoting school success summary measure was reviewed. To meet all criteria in the measure, children had to have positive responses on the following: 1) Usually/always engaged in school; 2) Participate in extracurricular activities; 3) Usually/always feel safe at school. In 2011, 64.3% of parents reported their children are experiencing school success; however, school success was less frequently reported by Black parents (40.9%). The percent of children experiencing school success in the U.S., in 2011, was 61.0%. State data on school performance were reviewed as well. Third grade reading proficiency as measured by a state-based standardized test (the Michigan Education Assessment Program) is one measure on Michigan's dashboard. In 2013-14, 61.3% of children were proficient in reading by the end of third grade. However, in the same year only about 37.3% of Black or African American children were reading proficiently.

According to data reported by Kids Count (datacenter.kidscount.org), in 2008 there were 11 substantiated cases of child maltreatment per 1,000 children aged 0-17, compared to 15 cases per 1,000 children in 2012. The U.S. rate in 2012 was nine substantiated cases per 1,000 children, while the Healthy People 2020 target is 8.5 maltreatment victims per 1,000 children. In Michigan, in 2012, 42% of victims of child maltreatment were aged 0-4 and 31% were aged 5-10. In 2012, 84% of victims were victims of neglect, 40% were victims of emotional abuse and 25% were victims of physical abuse.

The needs assessment revealed areas of strength as well. Since 2010, the percentage of 19-36 month old children who have received the full schedule of age appropriate immunizations rose steadily from 60% in 2010 to 74% in 2014 (MCIR). Additionally, rates of lead testing increased and the percent of tested children with blood lead levels greater than 5 ug/dl decreased from 9.8% in 2008 to 4.6% in 2012 among tested children less than six years of age (Childhood Lead Poisoning Prevention Program). However, testing rates in certain areas of the state were low and lead poisoning rates remained high such as the city of Detroit, which had over half the state's lead poisoning cases in 2012.

Child health stakeholders reported that evaluation, quality improvement, interdepartmental collaboration, and a commitment to evidence-based practice were system strengths for promoting child health. Furthermore, stakeholders identified developmental screenings, evidence-based home visiting programs, school-based services, and maternal child health nutrition programs as services that have the greatest capacity to improve child health.

Using a consensus process, stakeholders used the data as well as their experience and expertise to identify strategic issues that, if addressed, would improve child health in Michigan over the next five years. Strategic issues are listed in Table 2.

Adolescent Health: The MDHHS Maternal and Child Health Epidemiology Section and the Adolescent Health Section reviewed 42 measures. Measures that suggested an unmet need were presented to stakeholders. Opportunities for improvement as suggested by the data included bullying, suicide mortality rates, healthy lifestyles and access to care. System strengths related to motor vehicle accident mortality, adolescent condom use and teen birth rate were also highlighted.

The Youth Risk Behavior Survey (YRBS) provides data on bullying on school property among adolescents. Michigan saw an increase on this measure from 22.7% in 2011 to 25.3% in 2013 (YRBS). This exceeded the 2013 U.S. rate of 19.6% and the Healthy People 2020 target of 17.9%. Additionally, the percent of adolescents who felt sad or hopeless has remained stable from 27.4% in 2009 to 27.0% in 2013 (YRBS). The U.S. percent in the same year was 29.9%. According to data reported by the MI Resident Death File, the suicide mortality rate for adolescents aged 15-19 increased from 6.8 per 100,000 in 2007 to 10.5 per 100,000 in 2013. The national rate of adolescent suicide mortality was 8.3 per 100,000.

The percent of adolescents aged 12 through 17 with a preventive medical visit in the past year was 85.6% in 2012 (NSCH). This exceeded the national rate of 81.7%. Additionally, 58.6% of children aged 0-17 received care within a medical home, which also exceeded the U.S. rate in 2011 of 54.4%. However, only 39.1% of Hispanic children and 33.7% of Non-Hispanic Black children received care within a medical home compared to 68.0% of Non-Hispanic White children (NSCH). The Healthy People 2020 target for this measure is 63.3%.

The needs assessment revealed areas of strength as well. In 2009, 11.5% of sexually active adolescents in Michigan reported not using any form of contraception at last sexual encounter, compared to 8.9% of adolescents in 2013 (YRBS). The U.S. rate in 2013 was 13.7%. Additionally, since 2009 the live birth rate per 1,000 females aged 15-19 decreased from 31.9 to 23.6 in 2013 (MI Resident Live Birth File). According to the National Center for Health Statistics, the U.S. rate was

26.5 per 1,000 adolescents in 2013. Furthermore, the percent of live births among females aged 15-19 that were repeat births decreased slightly from 17.7% in 2009 to 16.4% in 2013 (MI Resident Live Birth File). According to the National Center for Health Statistics, 17% of births to 15-19 year-olds in the U.S. were to females who already had one or more babies.

Additionally, both motor vehicle and homicide mortality rates have decreased among adolescents aged 15-19. The motor vehicle accident mortality rate decreased from 14.4 per 100,000 individuals aged 15-19 in 2009 to 8.5 per 100,000 in 2013 (MI Resident Death File). According to the MI Resident Death File, in 2009 there were 13.3 homicides per 100,000 individuals aged 15-19, compared with 8.3 homicides per 100,000 in 2013.

Adolescent health stakeholders reported that evaluation and interdepartmental collaboration were system strengths for promoting adolescent health. Stakeholders identified school-based health programs, reproductive health education, and behavioral and mental health programs as services that have the greatest capacity to improve adolescent health.

Using a consensus process, stakeholders used the data as well as their experience and expertise to identify strategic issues that, if addressed, would improve child health in Michigan over the next five years. Strategic issues are listed in Table 2.

Children and Youth with Special Health Care Needs: The Policy and Program Development Section within MDHHS CSHCS Division reviewed 45 measures and identified measures to present to stakeholders. Areas of improvement suggested by the data related to medical home, transition services, developmental screening and adequate insurance coverage. System strengths suggested by measures related to early and continuous screenings and shared decision-making were also highlighted.

According to the NSCH 2011/2012, 47.8% of MI CSHCN had a medical home compared to 46.8% in the U.S. However, only 35.1% of CSHCN with more complex needs had a medical home compared to 61.4% of non-CSHCN and 68.2% of CSHCN with less complex health needs (NSCH). The Healthy People target for the percent of CSHCN having a medical home is 54.8%.

In addition, in 2011, 33.9% of CSHCN with more complex needs had difficulty getting needed referrals compared to 19.8% of non-CSHCN (NSCH). In the U.S. during the same period, 26.4% of CSHCN with more complex needs had difficulty getting needed referrals compared to 18.5% of non-CSHCN (NSCH). In 2011, 52.6% of CSHCN with more complex needs received effective care coordination, and 77.2% of CSHCN with less complex needs received effective care coordination (NSCH). Non-CSHCN reported effective care coordination at 72.9% during the same time period (NSCH). While 45.2% of non-CSHCN met the quality of care summary measure (which includes children having adequate insurance, receiving ongoing and coordinated care within a medical home, and at least one preventative health care visit in the past 12 months) only 24.2% of CSHCN with more complex medical needs met all quality of care criteria (NSCH). In comparison, 27.7% of U.S. CSHCN with more complex medical needs met all quality of care criteria.

In 2009, 47.5% of parents of CSHCN aged 12 months to 5 years in Michigan who had a health care visit in the past 12 months reported completing a standardized developmental screening tool (NSCHCN). In comparison, only 37.4% of all U.S. parents of CSHCN reported completing the standardized developmental screening tool in the same year. Additionally, in Michigan, 79.3% of CSHCN were screened early and continuously, which was higher than the U.S. rate of 78.6% (NSCSHN). However, only 61.1% of Hispanic children were screened early and continuously compared to 76.8% of Non-Hispanic Black children and 80.5% of Non-Hispanic White children.

In 2010, 41.2% of children in Michigan with special health care needs aged 12-17 received the services needed for transition to adult health care, work and independence compared to 40.0% of CSHCN aged 12-17 receiving services needed for transition in the U.S. (NSCHCN). The Michigan rate, however, does not meet the Healthy People 2020 target which is 45.3%. Furthermore, only 15.1% of Hispanics and 27.7% of Blacks reported receiving necessary services needed for transition (NSCHCN).

CSHCN stakeholders reported family-professional partnerships and local health departments (LHDs) as system strengths for promoting the health of children and youth with special health care needs. Furthermore, stakeholders identified comprehensive medical homes, telemedicine and transition services as having the greatest capacity to improve the health of CSHCN.

Stakeholders used the data as well as their experience and expertise to identify the strategic issues that, if addressed, would improve health for CYSHCN in Michigan over the next five years, which appear in Table 2.

Cross-Cutting/Life Course: The MDHHS Maternal and Child Health Epidemiology Section reviewed 35 cross-cutting measures. Selected measures were presented to all three stakeholder groups. Data related to the identified priorities across populations are reported.

In Michigan, the overall percent of individuals with annual household incomes below the federal poverty level (FPL) increased from 14.4% in 2008 to 17.0% in 2013 (ACS). In 2013, 34.6% of Black individuals and 26.7% of Hispanic individuals reported annual incomes below the FPL compared with 13.0% of White individuals (ACS). In 2013, about 15.8% of individuals in the U.S. were living below the FPL (ACS).

The overall percent of children with no health insurance in Michigan significantly decreased from 5.2% in 2008 to 4.0% in 2013 (ACS). However, 10.5% of Native American children were uninsured and 5.6% of Hispanic children were uninsured. According to the ACS, about 7.1% of children nationally were uninsured in 2013.

Overall, 13.3% of women reported that their household sometimes or often doesn't have enough food to eat; however, this value varied by race and insurance status. About 22.9% of Black women reported not having enough food to eat compared to 11.1% of White women (MI BRFSS). More than 25% of uninsured women reported not having enough food to eat in 2013 compared to about 11% of insured women (MI BRFSS).

In 2011-12, 77% of all students in Michigan graduated within four years compared to 81% of all high school students in the U.S. (datacenter.kidscount.org). Michigan's four-year graduation rate is also lower than the Healthy People target of 82.4%. White (82.1%) and Asian (87.9%) students graduated at higher rates in four years than Hispanic (67.3%), Native American (64.1%) and Black (60.5%) students (Michigan Department of Education).

In Michigan, in 2011, 86.9% of households with children aged 0-17 reported that they felt their child was safe in their community as compared with 86.6% of U.S. households (NSCH). Feelings of safety were less frequently reported by Black households (64.8%) and Hispanic households (73.9%).

Oral health measures were also reviewed. In 2011, although 57.7% of women reported having their teeth cleaned in the 12 months prior to pregnancy compared to 56.6% of all total reporting states, there were disparities on this measure (PRAMS). Hispanic women least frequently reported having their teeth cleaned (43.2%), followed by Black women (46.9%). 61.9% of White women reported having their teeth cleaned (MI PRAMS). Additionally, in 2008, 44.5% of women in Michigan reported having their teeth cleaned during their most recent pregnancy (MI PRAMS). However, only 24.5% of Black women reported having their teeth cleaned during pregnancy, compared to 50.7% of White women.

The number of children aged 1 to 17 with at least one oral health problem in the past 12 months decreased from 25.4% in 2007 to 15.7% in 2012 despite the fact that the percent of children who had preventive dental visits in the past year decreased from 83.0% to 77.4% during the same period (NCHS). However, 28.1% of Black children had one or more oral health problem compared to 12.9% of White children (NSCH). Only 71.3% of Black children had a preventive dental visit compared to 81.2% of White children. In comparison, in the U.S., the percent of children with at least one oral health problem was 18.7% and the percent of children with a preventive dental visit was 77.2% (NSCH).

Cross-cutting strategic issues that, if addressed, would impact health outcomes across the life course were identified by the three stakeholder groups. These appear in Table 2.

II.B.2.b Title V Program Capacity

While the needs assessment process did not include a formal assessment of program capacity, assessment and discussions occurred internally within BFMCH. Key components of Michigan's Title V program capacity are described below. In the future, BFMCH will also consider options for completing a formal assessment of its MCH program capacity and workforce.

II.B.2.b.i. Organizational Structure

The Title V program is operated by the BFMCH within MDHHS. The Bureau Director is also the Title V Director. The Bureau includes the Division of Family and Community Health (DFCH), Children's Special Health Care Services (CSHCS) Division, and the WIC Division. Structurally, the Title V Director reports to the Senior Deputy Director for Population Health and Community Services who reports to the Director of MDHHS (see attached organization chart). The MDHHS Director reports directly to the Governor. The BFMCH is responsible for the administration of programs carried out with allotments under Title V. The mechanisms by which the BFMCH administers Title V in Michigan are described throughout this grant.

II.B.2.b.ii. Agency Capacity

BFMCH has a longstanding history and proven capacity to promote and protect the health of all mothers and children, including CYSHCN. The majority of Title V services and programs are delivered through DFCH, while services focused on children and youth with special needs are administered by CSHCS. Collaboration between CSHCS and DFCH is meant to assure that attention to services for CYSHCN are integrated into all Title V programs, as CYSHCN have similar child and adolescent health issues as their peers.

The DFCH is responsible for assessing need; recommending policy; developing and promoting best practices and service models; and advocating for the development of capacity within communities to provide high quality, accessible, culturally competent services. DFCH focuses on improving the health, well-being, functioning and quality of life for infants, children, adolescents, women of childbearing age and their families. The maternal and child health programs in this division focus on health status assessment, priority health issue identification, and development and support of programs and systems that address these health issues in the context of health care reform, systems integration and life course theory.

The life course approach is the model for the DFCH organizational structure and strategic plan and is central to the MDHHS goal “to protect, preserve and promote health with special attention to the needs of the vulnerable and underserved.” Priority is placed on increasing health promotion and prevention activities to improve socio-environmental, medical and behavioral health by integrating public health, mental health, substance abuse and Medicaid services for all ages. Although each section concentrates on their respective stage of the life course, they coordinate, complement and build on adjacent life stages.

DFCH provides ongoing public health focus, capacity building, technical assistance, epidemiologic support and infrastructure-building activities across five of the six population health domains. Specifically, Title V services are prioritized and maintained through the following sections:

Women and Maternal Health Section: Provides leadership, expertise, program management and public health focus for the Women/Maternal Health and Perinatal/Infant Health population domains. The focuses are preconception, interconception, maternal and perinatal health for women, newborns and infants.

The *Reproductive and Preconception Health Unit* focuses on preconception and interconception health planning and promotion through the delivery of equitable, quality contraceptive and reproductive health services. This program makes available general reproductive health assessment, comprehensive contraceptive services, health education and counseling, and referrals to other needed services. Services provided by a network of local providers are available to the general population; however, the primary target population is low-income men and women. The unit has recently become the epicenter of statewide breastfeeding promotion and planning and is a major promoter of prenatal smoking cessation.

The *Health Equity and Perinatal Systems Unit* has two focuses: promote and guide the division-wide effort on achieving health equity and promote a healthy perinatal period with positive pregnancy outcomes. The target populations are pregnant and postpartum women and their newborns through their first year of life. Current efforts work to reduce infant mortality and morbidity; eliminate infant mortality disparity; and implement risk-appropriate community perinatal care systems. Historically, this unit has also been responsible for conducting MCH Block Grant subrecipient consulting and monitoring to Michigan’s local public health system on the appropriate use of these funds.

The *Maternal Health Unit* monitors and assures fidelity to Michigan’s statewide home visiting program for Medicaid beneficiaries, the Maternal & Infant Health Program (MIHP). The program’s certified local provider network provides assessment, case management and support services to pregnant women and infants to improve birth outcomes. Additionally, this unit provides oversight and supports state efforts to reduce maternal mortality, morbidity and eliminate disparity; and to prevent and identify Fetal Alcohol Syndrome Disorders. This unit also links with perinatal oral health

planning and promotion.

Early Childhood Health Section: Provides leadership, expertise, program management, and public health focus for the Infant Health and Child Health population domains.

The *Infant Health Unit* is responsible for infant health promotion and initiatives to reduce fetal and infant deaths; increase the percentage of infants sleeping in safe environments; promote screening and evidence-based treatment for known chronic conditions in newborns; and increase the proportion of newborns that receive hearing screens, evaluations and services. This unit oversees the Early Hearing Detection and Intervention Program which includes screening, diagnosis and intervention for newborns with congenital hearing loss; the Safe Delivery Program which by state law allows for the anonymous surrender of an infant within 72 hours of birth to an Emergency Service Provider; and the Infant Death Prevention and Bereavement Program. The Michigan Fetal Infant Mortality Review (FIMR) Program aims to reduce infant mortality by informing target communities about risk factors and issues contributing to poor pregnancy outcome and infant health and safety issues. FIMR brings together multidisciplinary community teams to review confidential, de-identified cases of infant and fetal death for the purpose of making recommendations to improve care, services and resources for women and families.

The *Early Childhood Systems Unit* administers programs and initiatives that improve early child wellness across all domains of development; increase family ability to understand and promote child wellness; support the development of an integrated and comprehensive early childhood system that spans public/private organizations and includes promotion, prevention and intervention activities; and collects and analyzes data to improve systems and service outcomes. Initiatives within the unit include: Childhood Lead Poisoning Prevention, Parent Leadership in State Government initiative, and the Trauma-Informed System ECCS grant. This unit serves as a liaison between Public Health and Part C/Early On and Race to the Top, which are administered by the Michigan Department of Education (MDE). The unit collaborates with internal and external partners on initiatives to improve early childhood systems coordination and seeks to include and empower parents as partners in decision making, community collaboration and communication.

The *Home Visiting Unit* administers the MIECHV grant and state dollars with the goal of strengthening home visiting infrastructure to achieve positive outcomes for children and families. The unit engages stakeholders in a collaborative process to build a more effective and efficient system as well as improve and expand home visitation services within high-need communities. MDHHS recognizes the need to coordinate with all home visiting models, including Healthy Start. The MDHHS annual home visiting conference brings together all of the models currently in Michigan for “Model Day,” creating an opportunity for continued collaboration. Additionally, the unit plans for a Model Consultant position that will be charged with supporting the Healthy Start model among other models in Michigan as part of the Home Visiting Initiative.

Child, Adolescent and School Health (CASH) Section: Improves the health and well-being of Michigan’s school-aged children, adolescents and young adults by addressing a range of adolescent and school health issues and providing leadership, expertise, program management and public health focus for the Child Health and Adolescent Health population domains.

The *Child & Adolescent Health Systems Unit* oversees three federal teen pregnancy prevention programs including the Personal Responsibility & Education Program (PREP), the Title V State Abstinence Education Program (which funds the Michigan Abstinence Program) and Pregnancy Assistance Funds used to implement the Michigan Adolescent Pregnancy and Parenting Program. All three programs work collaboratively with state and local partners including MDE, the former Department of Human Services, faith-based organizations, schools, LHDs and other stakeholders. This unit will also house a DFCH position dedicated to the MCH Block Grant and an MCH liaison position with the State Innovation Grant.

The *Child & Adolescent Health Center (CAHC) Unit* oversees Michigan’s school-based/school-linked health center program, funding 100 health centers and related programs in medically underserved, high-need communities. CAHCs provide comprehensive primary care and behavioral health services, health education, Medicaid outreach and enrollment, and screening/case finding to K-12 students and young adults up to age 21. This unit also oversees the state’s school nurse program, mental health in schools initiative, adolescent health demonstration grants and a new telehealth pilot. MDHHS and MDE co-manage the CAHC program and have two shared staff members, the State School Nurse Consultant and the State School Mental Health Consultant.

The *School Health Unit* provides a range of public health and education programs aimed at school-aged children. This unit

works extensively with MDE, collaboratively overseeing initiatives such as Coordinated School Health and Michigan's comprehensive school health education program, the Michigan Model for Health. This area also houses the preschool and school-aged Hearing & Vision Screening Program, which provides early screening and follow up to eligible children throughout the state. This unit coordinates extensively with local schools, intermediate school districts, early childhood partners, and health organizations to bring services to where kids spend much of their day—at school.

CSHCS Division: CSHCS focuses on identifying and addressing the health needs of CYSHCN. CSHCS achieves this aim by partnering with families, community providers and other state agencies to ensure that quality services are accessible to children with special needs and their families. CSHCS creates and administers policies, provides oversight and support to local partners, promotes evidence-based care models, and facilitates positive change through the extensive involvement of family advocates. CSHCS's goal is to help children with special needs achieve optimal health and an improved quality of life.

II.B.2.b.iii. MCH Workforce Development and Capacity

Michigan has many long-standing leaders in the MCH field who provide strategic leadership and oversight to the various programs and initiatives that reside in the Department. Currently, 1.5 State civil servant positions are supported by Title V funding. These positions are located in the BFMCH and support Title V administratively. Senior level leadership and program staff includes:

- ***Rashmi Travis***, ***MPH, CHES, Director, Bureau of Family, Maternal and Child Health*** has 12 years of local public health experience and currently serves as Bureau Director at the state level. She possesses a dual bachelor's degree in Microbiology and Communications and a Master's of Public Health Degree with a concentration in Behavioral and Community Health Sciences. She is a Certified Health Education Specialist.
- ***Brenda Fink***, ***A.C.S.W., Director, DFCH*** has over 35 years of clinical and administrative public sector experience at both local and state levels, directed toward improving the lives of at-risk children, families and adults. Ms. Fink is administratively responsible for managing the majority of Michigan's MCH services and initiatives using a life course approach that seeks to address equity and social determinants of health.
- ***Lonnie Barnett***, ***MPH, Director, CSHCS Division*** has over 20 years of state and local public health experience in a variety of areas including community health assessment, planning, policy and primary care systems development. Mr. Barnett has served as the Title V CYSHCN Director since 2011.
- ***Stan Bien***, ***MPA, Director, WIC Division*** has over 37 years of state-level experience in public health, administration and nutrition programs. Mr. Bien was appointed by USDA and U.S. Secretary of Agriculture to the National WIC Advisory Council and elected by his peers to chair the council. He was elected to the Executive Committee of the National WIC Association and recently served as its Treasurer.
- ***Sarah Davis, MPA, Departmental Specialist, Bureau of Family, Maternal & Child Health*** has 15 years of work experience in the public and private sectors, including eight years of state-level experience in the child abuse and neglect prevention field.
- ***Paulette Dunbar-Dobynes***, ***Women and Maternal Health Section Manager*** has over 30 years of state-level experience working in maternal and child health, overseeing a range of programs such as Title X Family Planning, the Maternal & Infant Health Program, Infant Mortality Prevention and Maternal-Infant Death Review.
- ***Nancy Peeler***, ***Early Childhood Section Manager*** has over 30 years of experience working in research impacting early childhood development, and in local and state-level service and early childhood system design and implementation.
- ***Carrie Tarry***, ***MPH, Child, Adolescent & School Health Section Manager*** has over 15 years of state-level experience working in child health, adolescent and school health, and teen pregnancy prevention programs and initiatives.
- ***Patti McKane, MCH Epidemiology Section Manager*** has over five years of state-level experience with epidemiologic analysis and interpretation to inform and guide MCH program leaders and policymakers about the health of MCH populations.

The following individuals (including parents, CSHCN and their families) also serve critical roles in supporting Title V work:

- ***Karen Wisinski, Early Hearing Detection Intervention Parent Consultant, Infant Health Unit, Early Childhood***

Section, is the parent of a child who is hard of hearing and is dedicated to guiding families through diagnosis, acceptance, intervention and advocacy related to their children's deafness or hearing loss.

- ***Candida Bush, Certified Family Life Educator, Director, Family Center for CYSHCN*****,** is a parent of two children with special health care needs and has over 25 years of experience working to support, empower and increase access to services for CYSHCN.
- ***Bambi VanWoert, Parent Consultant, Family Center for CYSHCN****,* has over 25 years in the dental and health care fields and has extensive training in Autism strategies. She is a caregiver to a child with Autism.
- ***Kristy Medes, Parent Consultant, Family Center for CYSHCN,*** is a parent of two children with special health care needs and has over 10 years of experience working with families and children to connect them with community-based resources and supports.
- ***Lisa Huckleberry, Parent Consultant, Family Center for CYSHCN,*** is a parent of a child with special health care needs and has over 10 years of experience advocating, educating and supporting individuals with special health care needs.
- ***Amanda Larraga, Secretary/Administrative Assistant, Family Center for CYSHCN*****,** is a parent of a child with special health care needs and has over three years of experience working to raise awareness and increase services to children with special health care needs.

Several projected shifts are expected to occur over the next five years related to the MCH workforce, including the need to build additional state infrastructure across key areas of maternal and child health such as administration and program coordination, epidemiologic support and data analysis. Key positions that were historically established as full-time contractual staff may also be moved into civil servant positions. More details on the MCH workforce are included in Section II.F.2.

MDHHS promotes and provides culturally competent services through several mechanisms, many of which are coordinated through the Practices to Reduce Infant Mortality through Equity (PRIME) initiative. PRIME supports MCH staff training to understand equity concepts and to focus programming and policy to consider historic, social, economic and environmental factors that impact MCH outcomes. Additionally, PRIME developed and piloted Health Equity Learning Labs with WIC staff with a goal of incorporating equity thinking, perspectives and action into daily work responsibilities. After participating in a Lab, WIC staff developed a plan to increase outreach to the American Indian community. The plan is currently being piloted.

The PRIME Local Learning Collaborative (LLC) was established in 2011 and includes members from Healthy Start projects, local health departments and community-based organizations. The LLC was formed to share local lessons learned from addressing racism and health equity to improving maternal and infant health. The LLC has disseminated information on their experiences with other stakeholders throughout Michigan. LLC members have also provided input in shaping the practices and policies developed in PRIME for application at the state level.

PRIME also conducted Michigan’s first PRAMS survey for mothers of American Indian infants. The process included development of MOUs for each tribe and data agreements with the Inter-Tribal Council of Michigan (ITCM) and the Great Lakes Inter-Tribal Epidemiology Center. Cultural sensitivity training was developed in collaboration with ITCM and provided to staff that made calls to mothers, which resulted in a 50% response rate. PRIME also disseminated Michigan’s first Health Equity Status Report highlighting 14 indicators related to the social context in which women and children live.

The Health Disparities Reduction and Minority Health (HDRMHS) Section also promotes the provision of culturally competent services. HDRMHS sponsored a BRFS for Arab/Chaldean Americans, Hispanic/Latinos and Asian Americans. HDRMHS was awarded an Office of Minority Health grant that led to a ‘Developing Culturally and Linguistically Appropriate Services through the Lens of Health Equity’ workshop available to MDHHS staff and partners. To strengthen broad community partnership and address some aspect of racial and ethnic health disparities, HDRMHS funds agencies through its Capacity Building Grant Program. It also developed a Health Equity Toolkit to increase awareness around health and racial equity.

MDHHS is supporting the provision of culturally competent services through initiatives such as a data inventory and quality improvement project to standardize collection and use of race, ethnicity, sex, language and disability status data. The project has expanded to include six additional measures including a postpartum care measure. Additionally, MDHHS Human Resources includes a question on health equity in hiring, and developed managerial annual performance evaluations that include a measure related to inclusion of equity work or addressing disparities.

MCH programs also implement specific strategies to provide culturally competent services. For example, the Home Visiting

Program developed contractual requirements to use specific data analysis (Kitagawa) to develop outreach plans to enroll the most at-risk moms. This method uses data analysis of infant mortality disparities to identify minority populations with the greatest need and aids in setting recruitment goals.

II.B.2.c. Partnerships, Collaboration, and Coordination

While the needs assessment did not include a formal assessment of partnerships, BFMCH has continuous internal discussions and will consider options for completing a formal assessment of its MCH partnerships in the future. Currently, the ability to meet MCH population needs with a coordinated approach is facilitated by the organizational structure of BFMCH, which allows for collaborative work and sharing of best practices across divisions and programs. In addition to CSHCS, the DFCH manages programs within the scope of reproductive health; perinatal and infant health; and child, adolescent and school health. The BFMCH is located in the Population Health and Community Services administration, as are the Bureau of Local Health and Administration Services (Vital Records and Health Statistics, Chronic Disease and Injury Control which is where the oral health office resides) and the Bureau of Disease Control, Prevention and Epidemiology (Immunizations, Lifecourse Epidemiology and Genomics, Communicable Disease). Other administrations within MDHHS include Health Services and Family Support where the state Medicaid program is housed and the Behavioral Health Services Administration.

MDHHS has long-standing relationships with numerous public and private organizations and service providers to carry out the scope of work within the MCH Block Grant. MDHHS contracts with LHDs, making Title V MCH Block Grant funds available to address identified MCH needs within their jurisdictions through local program implementation and direct service delivery. MDE is a close partner in numerous programs supporting early childhood, school health and child and adolescent health at the state, intermediate and local school district levels. MDE and MDHHS have a long history of integrating funding around early childhood, Child and Adolescent Health Centers, and Hearing and Vision school-based screenings. They have created shared state-level positions to address school nursing and social-emotional health support needs in local districts. MDHHS also has strong collaborative partnerships with the Michigan Family to Family Health Information Center and Parent to Parent of Southwest Michigan.

MDHHS also partners with many non-governmental organizations. Advocacy organizations such as the Michigan Association for Local Public Health, Maternal and Child Health Council, Early Childhood Investment Corporation, School-Community Health Alliance of Michigan, Michigan Association of Health Plans, Michigan Health and Hospital Association, Michigan Family Voices, Michigan Alliance for Families and Michigan Primary Care Association provide a voice for policy and funding considerations. Provider organizations such as the Michigan chapters of the American College of Obstetrics and Gynecology, American Academy of Pediatrics and Society of Adolescent Medicine enhance advocacy efforts and offer services (e.g., education and training). Several Michigan universities partner in program evaluation and in pilot projects to expand services, including projects in telemedicine and telepsychiatry. Tribal, youth-serving, faith-based, community-based and other non-profit organizations are often recipients of grant funds for service delivery and create linkages to service recipients, allowing MDHHS to engage the consumer voice through consumer representation on various permanent and ad-hoc advisory boards, councils and task forces.

III.D. Financial Narrative

	2016		2017	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	$18,734,500	$18,705,857	$19,025,100	$20,986,297
State Funds	$42,520,600	$41,384,612	$50,849,000	$40,501,426
Local Funds	$0	$0	$0	$0
Other Funds	$1,008,900	$478,187	$450,000	$562,110
Program Funds	$67,996,600	$62,550,223	$68,027,100	$63,683,177
SubTotal	$130,260,600	$123,118,879	$138,351,200	$125,733,010
Other Federal Funds	$309,508,839	$303,421,934	$320,292,289	$289,596,875
Total	$439,769,439	$426,540,813	$458,643,489	$415,329,885

	2018		2019	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	$18,959,000	$18,718,089	$19,193,200	
State Funds	$45,199,700	$33,539,006	$46,999,800	
Local Funds	$0	$0	$0	
Other Funds	$500,000	$394,249	$500,000	
Program Funds	$68,201,100	$62,748,608	$68,309,200	
SubTotal	$132,859,800	$115,399,952	$135,002,200	
Other Federal Funds	$373,642,410	$257,083,069	$381,595,500	
Total	$506,502,210	$372,483,021	$516,597,700	

	2020	
	Budgeted	**Expended**
Federal Allocation	$19,316,300	
State Funds	$48,158,300	
Local Funds	$0	
Other Funds	$500,000	
Program Funds	$68,599,500	
SubTotal	$136,574,100	
Other Federal Funds	$344,942,800	
Total	$481,516,900	

III.D.1. Expenditures

Financial Narrative Overview

Title V federal funding, in conjunction with non-federal state monies and other federal funds, are obligated and expended to support Michigan's MCH priority needs and Title V requirements. Over one-third of Title V funding supports Children with Special Health Care Needs (CSHCN) and an additional one-third supports the MCH work of 45 local health departments across the state. The remaining one-third of Title V funding supports other MCH priorities such as immunization, childhood lead poisoning prevention, oral health, infant safe sleep and breastfeeding initiatives, regional perinatal care systems, reproductive health, infant and maternal mortality reduction strategies, health equity initiatives, and PRAMS. State general funds are used for Michigan's required state match. To ensure alignment with Title V requirements, Title V leadership and the MDHHS Budget liaison meet throughout the year to review Michigan's MCH expenditures. Expenditures for FY 2018 and budget plans for FY 2020 are discussed in Sections III.D.1 and III.D.2, respectively.

Expenditures (FY 2018 Annual Report Year)

In FY 2018, Title V funds were spent on an array of MCH programs and initiatives. The following narrative corresponds with the budget forms included in this application and annual report.

Form 2

Michigan's Title V state match (as reflected on Form 2, line 3, "State MCH Funds" in Annual Report Expended) exceeds federal match and Maintenance of Effort requirements. Approximately 77% of Michigan's state match is comprised of state general funds for CSHCS medical care and treatment. The remaining 23% includes state general funds that support health and wellness initiatives, family planning local agreements, prenatal care and outreach, non-emergency medical transportation for CSHCN, and bequests for care and services for CSHCN. Fluctuations in actual State MCH Funds expended can occur each year based on significant one-time costs for CSHCS medical care and treatment. Form 2, line 5, "Other Funds" in the Annual Report Expended represents the Children with Special Needs Fund. Approximately $1 million was authorized for FY 2018, but CSHCS only spends the earnings of the fund, which in FY 2018 was $394,249. Program Income (Form 2, line 6) includes WIC rebates and newborn screening follow-up.

As illustrated in Form 2, line 9, "Other Federal Funds," Michigan's MCH work was supported by a variety of other federal funds in FY 2018 including: Women, Infants and Children (WIC); State Systems Development Initiative; Title XIX (Medicaid); Oral Health; Vaccines for Children; and Title X (Family Planning). MCH priorities across the Title V population health domains were supported by federal and state dollars in FY 2018. For example, in the Title V child health domain, a state priority is to foster safer homes, schools and environments with a focus on prevention. Michigan's performance measures for this state priority focus on safe sleep environments and lead poisoning prevention. Other federal awards help to support this Title V priority such as the CDC Childhood Lead Poisoning Prevention Program (CLPPP), PRAMS, DHHS Support for Expectant and Parenting Teens, and USDA WIC funding. In the perinatal/infant health domain, a state priority is to support coordination and linkage across the perinatal to pediatric continuum of care. Federal grants such as the CDC Early Hearing Detection and Intervention (EHDI) State Program; HRSA Maternal, Infant and Early Childhood Home Visiting Program (MIECHV); and HRSA Universal Newborn Hearing, Screening and Intervention help support this priority and related work.

30/30/10 Requirement

Michigan tracks expenditures to comply with the Title V 30/30/10 legislative requirements. That is, a minimum of 30%

of total funding must be expended for CSHCN; a minimum of 30% of total funding must be expended for preventive and primary care for children ages 1-21; and a maximum of 10% of total funding can be expended for Title V administration. In FY 2018, expenditures were tracked by CSHCN; preventive and primary care for children ages 1-21; pregnant women, mothers and infants; and other. Earmarked expenditures track the required amount, variance, percent of total and percent required to assure legislative compliance. In FY 2018, 37.3% of Title V expenditures were for medical care and treatment for CSHCN; 30.7% of expenditures were for preventive and primary care for children 1-21; and 3% of expenditures were for Title V administrative costs. The remaining 29% of expenditures were for pregnant women, mothers, infants and others. Funding for these populations supported work related to safe sleep, fetal alcohol syndrome disorder (FASD), Local Maternal and Child Health (LMCH), pregnancy prevention, Regional Perinatal Quality Collaboratives, and surveillance mechanisms such as Pregnancy Risk Assessment Monitoring System, maternal mortality surveillance and fetal and infant mortality reviews.

To assure the 30/30/10 requirement is properly documented and to record expenditures by the MCH Pyramid of Services, the Local MCH (LMCH) program has specific budget project titles in the Electronic Grants Administration & Management System (EGrAMS). The FY 2018 budget project titles included the following five categories:

- Direct Services Children – MCH
- Enabling Services Children – MCH
- Direct Services Women – MCH
- Enabling Services Women – MCH
- Public Health Functions & Infrastructure – MCH

Expenditures for CSHCN also have specific project titles in EGrAMS to record and document expenditures for medical care, treatment, case management services, outreach and advocacy.

For the 30% children requirement, Michigan tracks related expenditures including immunizations for children and adolescents, oral health services for school-age children, Family Planning for adolescents, teen pregnancy prevention, LMCH, and childhood lead poisoning prevention and case management, as well as special projects such as services for children with FASD.

In Form 2, Annual Report Expended, the following line items were greater or less than 10% of the Annual Report Budgeted, due to the following reasons:

- Line 1A, Preventive and Primary Care for Children, FY 2018 Annual Report Expended, was lower than budgeted due to decreased Title V expenditures for Family Planning Local Agreements because of the need to spend down Title X federal funding within the budget period.
- Line 1C, Title V Administrative Costs, FY 2018 Annual Report Expended, was slightly higher than originally budgeted due to increased personnel costs to support Title V administrative activities.
- Line 3, State MCH Funds, FY 2018 Annual Report Expended, was lower than budgeted due to lower than anticipated Children's Special Health Care Services general funds available for the Title V state match.
- Line 5, Other Funds, FY 2018 Annual Report Expended, was lower than budgeted due to lower than anticipated revenue from the Children with Special Needs Fund.

Local MCH

Title V funding is allocated to each of the 45 local health departments (LHDs) in Michigan through the LMCH program. Each LHD receives a fixed amount of funds, with allocations ranging from $15,490 to $1,709,654. LMCH funds are available to support one or more of the Title V national and state performance measures plus

locally-identified needs. Each LHD completes a work plan for every national, state and/or local performance measure selected. Activities within the work plan are categorized by the MCH Pyramid of Services.

Table 1 summarizes LHD spending in FY 2018 by the MCH Pyramid of Services (i.e., direct, enabling, and public health services and systems). For purposes of reporting to the Michigan legislature, “Children” in Table 1 is defined as children birth-9 years plus adolescents 10-19 years.

Table 1. LMCH Spending by MCH Pyramid of Services

MCH Category	Number of LHDs Selecting	Amount Expended	Number of Clients Served
Direct Services Children	17	$1,665,457	114,369
Direct Services Women	5	$225,003	2,891
Enabling Services Children	24	$1,002,486	35,536
Enabling Services Women	31	$1,908,126	39,594
Public Health Functions & Infrastructure	34	$1,973,759	2,568,606
Total		**$6,774,831**	**2,760,996**

For FY 2018, each LHD was encouraged to select at least one NPM in addition to SPMs and/or locally-identified measures. Eleven LHDs chose one performance measure, 13 chose two performance measures, 11 chose three performance measures, five chose four performance measures, and three chose five performance measures. One LHD chose 6 performance measures and one LHD chose 7 performance measures. Table 2 summarizes the number of LHDs choosing each performance measure and the amount expended. This table reflects Michigan’s “original” NPMs and SPMs established in 2015, which were active in FY 2018.

Table 2. LMCH Spending by Performance Measure

Performance Measure	Number of LHDs selecting	Amount Expended	Number of Clients Served
NPM 1 (Well-woman Visit)	4	$242,421	3,235
NPM 3 (Risk-appropriate Perinatal Care)	1	$28,659	239
NPM 4 (Breastfeeding)	18	$528,581	8,022
NPM 6 (Developmental Screening)	2	$439,913	2,612
NPM 10 (Adolescent well-visit)	6	$142,539	17,376
NPM 11 (Medical Home)	1	$2,174	165
NPM 12 (Transition)	3	$74,187	606
NPM 13 (Preventive Dental Visit)	7	$195,137	76,131
SPM 1 (Lead Poisoning Prevention)	14	$803,030	12,649
SPM 2 (Safe Sleep Environment)	11	$486,440	40,498
SPM 3 (Depression across the Life Course)	6	$121,651	5,489
SPM 4 (Provision of Medical Services and Treatment for CSHCN)	4	$151,566	1,148
SPM 5 (Immunizations)	13	$1,118,091	64,401
Local Performance Measure defined by LHD	21	$2,440,442	2,528,425
TOTAL		**$6,774,831**	**2,760,996**

Form 5

Form 5 reflects the number and percent of the MCH population served by the Title V program in Michigan, as defined by both Title V funding and Title V state match. As reflected in Form 5a, the estimated total count of individuals served via direct and enabling services (i.e., the top two levels of the MCH Pyramid of Services) was 417,034. This count includes individuals who received a service funded by total federal and non-federal dollars as reported on Form 2, line 8. For FY 2018 reporting, data on individuals served were collected from Local MCH, Nurse Family Partnership, Rural Home Visiting, 3rd grade sealants program, childhood lead support and education, safe sleep program, Family Planning, FASD, immunizations, Michigan Adolescent Pregnancy and Parenting Program (MI-APPP), Taking Pride in Prevention, and CSHCS medical care and treatment. Form 5b provides an estimate on the total percentage of populations who received a Title V-supported service in each of the MCH population groups across all three levels of the MCH Pyramid of Services (i.e., direct, enabling, and public health services and systems). This estimate includes all individuals and populations served by the total federal and state match as reported in Form 2, line 8. As reported on Form 5b, the Title V program served an estimated 80% of pregnant women, 100% of infants, 40% of children, 40% of CSHCN and 37% of others which includes males and non-pregnant women of childbearing age. For more details, see the Form 5 field notes.

Michigan is exploring ways to expand the reach of Title V. For example, Regional Perinatal Quality Collaboratives (RPQCs) began work in one region of the state in 2015. Currently, seven RPQCs represent eight of the 10 Prosperity Regions in Michigan. In FY 2018, four of the RPQCs received direct financial support from Title V. The RPQCs are serving as the backbone organizations for implementation of the Mother Infant Health and Equity

Improvement Plan.

Payer of Last Resort

Michigan strongly supports Title V regulations to use Title V funds as the payer of last resort. The comprehensive contract for each local health department includes contractual language which emphasizes this payment structure for programs that provide direct or enabling services to individuals such as LMCH, lead poisoning prevention, and CSHCS programs. The remaining Title V funds are used for systems-level work in infrastructure or related to the ten essential services which are non-claims related reimbursement.

Challenges

For many years, Title V supported a variety of MCH projects and served as a gap-filling funding source. With the Title V transformation and the most recent five-year needs assessment, new state priorities were identified. Previous state priorities may not have reemerged as top priority needs, but still require funding to maintain the level of service provision. Likewise, some of the current state priorities are underfunded in relation to other emerging or priority needs. Some priority areas currently rely on other funding sources such as state general funds and competitive grants.

III.D.2. Budget

Budget (FY 2020 Application Year)

Together with state general funds and other federal funds, the Title V MCH block grant is used to address the state's MCH priority needs, improve performance related to the targeted MCH outcomes, and expand systems of care for the MCH and CSHCN populations. Michigan's Title V Leadership Team—which includes the Title V MCH director, Title V CSHCN director, and key Title V administrative staff—meets on a regular basis to discuss all aspects of Title V, including the budget and how federal and non-federal funds are used to address the state's MCH needs. Table 1 illustrates projected Title V expenditures for FY 2020. Funding projections are primarily based on the state's legislatively-approved Executive Budget.

Table 1. Title V Appropriations

Appropriation Name	FY 2020 Projected Expenditures
Local MCH Services (Local Health Departments)	$7,018,100
Medical Care and Treatment for CSHCN	$6,889,000
Family Planning Local Agreements	$1,672,700
Childhood Lead Poisoning Prevention Program	$1,079,800
Immunization Program	$640,200
MCH Special Projects	$574,100
Administration	$449,300
Dental Programs	$335,400
Sudden Infant Death Syndrome Prevention	$321,300
Pregnancy Prevention Services	$185,500
Bequests for Care and Services	$105,200
Indirect	$45,700
Total	**$19,316,300**

Through state-level programs and initiatives as well as local health department activities, these appropriations will be used to support work related to the following National Performance Measures (NPMs):

- NPM 1 (Well-woman Visit)
- NPM 3 (Risk-appropriate Perinatal Care)
- NPM 4 (Breastfeeding)
- NPM 5 (Safe Sleep)
- NPM 10 (Adolescent Well-visit)
- NPM 12 (Transition)
- NPM 13 (Preventive Dental Visit)

At the state level, NPMs 4, 10, and 12 do not have direct Title V allocations in FY 2020. This is in part due to the most critical MCH needs being addressed by Title V funding, and the need to fill funding gaps that would otherwise exist without Title V funding. Activities related to NPM 10 are largely supported through state general funds for Child and Adolescent Health Centers, which are administered by the Bureau of Family Health Services (BFHS). NPM 4 and NPM 12—which are housed within the BFHS and CSHCS, respectively—currently have program staff designated to the associated state-level work. In FY 2020, the Title V program will revisit these NPMs to determine whether

additional Title V support is needed. Upon preliminary analysis, health departments have identified program work at the local level for all NPMs in FY 2020.

Title V funds will also be used at the state systems level to directly support the work of Michigan's State Performance Measures (SPMs):

- SPM 1 (Lead Poisoning Prevention)
- SPM 2 (Immunizations—Children)
- SPM 3 (Immunizations—Adolescents)
- SPM 4 (Medical Care and Treatment for CSHCN)

At the state level, all SPMs have continuing line item allocations in the FY 2020 Title V budget, as reflected in Table 1. The SPMs are numbered differently than in the past because Michigan transitioned its "original" SPM 2 (Safe Sleep) to an NPM in 2018. Additionally, the original SPM 3 (Depression across the Life Course) was retired in 2018 and its adolescent focus was integrated into NPM 10. In part, the decision to make changes to the selected NPMs and SPMs in 2018 was to better align with the Title V budget and budget priorities. Local health departments will also be implementing work on the SPMs, as indicated in their local MCH (LMCH) work plans.

The state programs and activities that will support work on the above NPMs and SPMs in FY2020 are detailed in the individual state action plans. The 2017 LMCH Needs Assessment results informed the creation of FY 2020 LMCH plans for each local health department, including a focus on the state's identified NPMs and SPMs as well as distinct local priorities and needs. At the writing of this application, FY 2020 LMCH plans were submitted and are currently under review.

30/30/10 Requirement

Michigan's commitment to adhere to the 30/30/10 Title V legislative requirement was discussed in the preceding Expenditures section. For FY 2020, this commitment is again reflected in Form 2 (Lines 1A, 1B, and 1C) in the Application Budgeted. For FY 2020, 34% of the total Title V budget is designated for preventive and primary care for children; 36.2% is designated for Children with Special Health Care Needs; and 2.8% is designated for administrative costs. Title V leadership will hold budget discussions throughout the fiscal year (in coordination with the MDHHS Budget liaison) to assure that the budget and spending are on track, and to address any new or unplanned MCH needs.

Form 2

MDHHS meets and monitors the required Title V state match which is a $3 match in non-federal funds for every $4 of federal Title V funds expended. Michigan exceeds the required match in expenditures and budgeting. Michigan's "State MCH Funds" (Form 2, line 3) of $48,158,300—which is considered the state's applied Maintenance of Effort for Title V—is composed of state general funds for the following appropriations: medical care and treatment for CSHCN; health and wellness initiatives; Family Planning local agreements; prenatal care and outreach; CSHCS administration; non-emergency medical transportation; and bequests for service. The majority of this match (approximately 80%) is related to medical care and treatment for CSHCN and other CSHCS-related funds. Along with other federal funds, these state MCH dollars provide a critical component of Michigan's MCH infrastructure. In Form 2, line 5, "Other Funds" reflects income from the Children with Special Needs (CSN) Fund. Michigan's "Program Income" (Form 2, line 6) includes WIC rebates and Newborn Screening follow-up. The majority of this program income is related to WIC rebates. Other federal funds anticipated in FY 2020 are indicated in Form 2, line 9.

Form 3a and 3b

Each year, Michigan's Title V administrative staff also completes an extensive assessment of "Types of Individuals Served" and "Types of Services" provided by Title V funding at the state and local level, as reflected in Form 3a and 3b, respectively. Title V block grant funds support essential services as identified in the Title V MCH Pyramid of Services (i.e., direct services, enabling services, and public health services and systems). As explained in the Expenditures section, budget categories in the EGrAMS system for LMCH reflect the Pyramid or Services categories. Additionally, local health departments are required to set up work plans and activities based on both the NPM/SPM and service categories. For state level activities, all state Title V budgets and expenditures are assessed to determine where activities fall in the Pyramid of Services.

For example, one way Michigan's Title V state priority need to "Reduce barriers, improve access, and increase the availability of health services for all populations" aligns with the top level of the pyramid (direct services) through SPM4, which focuses on medical care and treatment for CSCHN. The state priority to "Support coordination and linkage across the perinatal to pediatric continuum of Care" aligns with both the middle (enabling services) and bottom level (public health services and systems) of the pyramid through NPM 4 and NPM 3, respectively. State level activities for NPM 4 (Breastfeeding) focus on breastfeeding education and support to help improve breastfeeding initiation and duration rates. State level activities for NPM 3, which focus on risk-appropriate perinatal care, are being implemented through Regional Perinatal Quality Collaboratives and other systems-level work.

III.E. Five-Year State Action Plan

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

State: Michigan

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

Partnership and Leadership Roles

MDHHS has a longstanding history that aligns with the Title V goal to "promote and improve the health and well-being of the nation's mothers and children, including children with special needs, and their families." The Title V program is administered by the Bureau of Family Health Services (BFHS) which includes the Division of Maternal and Infant Health, the Division of Child and Adolescent Health, and the Division of Immunization. The Children's Special Health Care Services (CSHCS) Division, which is housed in the Bureau of Medicaid Care Management and Quality Assurance within the Medical Services Administration, serves as the Title V CSHCN program and is active in Michigan's Title V leadership. Title V activities and services in Michigan align with the broader purpose of Title V, including:

- Assuring access to quality MCH services for mothers and children
- Reducing the infant mortality rate
- Increasing the number of children appropriately immunized against disease
- Providing access to rehabilitative services for children who need specialized medical care and treatment
- Providing prenatal, delivery, and postpartum care for low-income, at-risk women
- Providing preventive and primary care services for low-income children

To achieve these and other MCH goals, the BFHS and CSHCS serve as coordinators and conveners of initiatives and partnerships that support and guide Michigan's MCH work. In 2017, the BFHS created a new Maternal Infant Strategy Group (MISG). The purpose of the MISG is to strategically align maternal and infant health goals and strategies across private and public stakeholders to improve health outcomes for mothers and infants and to provide guidance on operationalizing a health equity lens in all MCH programs. The multisystem decision makers seated on the MISG have set zero preventable deaths and zero health disparities as the vision for Michigan's Mother Infant Health and Equity Improvement Plan, which was unveiled for public comment in February 2019. The MISG is providing key strategic planning to facilitate the systems changes needed to align maternal and infant health goals and strategies, facilitate collaboration among stakeholders, and provide guidance on achieving health equity.

The BFHS also coordinates the Maternal Infant Health and Equity Collaborative, Michigan Alliance for Innovation in Maternal Health, Michigan Collaborative for Contraceptive Access Project, Michigan Oral Health Coalition, Safe Sleep Advisory Council, Michigan Home Visiting Conference, Michigan Breastfeeding Network, and many other program-specific initiatives. It also funds and coordinates Regional Perinatal Quality Collaboratives. CSHCS coordinates the CSHCS Advisory Committee (CAC), which is comprised of professionals and family members who are involved in the care of children with special needs. The CAC makes policy recommendations and promotes public awareness of CSCHS.

The Title V program works with and provides leadership to a broad range of partners including community health service systems such as local public health and Federally Qualified Health Centers; the private sector, especially managed care plans, nonprofit organizations, and MCH advocates; faith-based organizations; and universities. Within MDHHS, program and policy activities are coordinated with Medicaid, MIChild, mental health and substance abuse, chronic disease, communicable disease, injury prevention, child welfare, public health preparedness and others. Title V is also part of the interdepartmental Great Start Operations Team (GSOT) to address early childhood services integration and coordination. MDHHS, the Department of Education, and the Early Childhood Investment Corporation convene via the GSOT to provide strategic direction and systems-building expertise for programs that serve Michigan's young children and their families.

Title V Framework

Michigan's Title V program recognizes that a wide range of factors—including but beyond access to healthcare—shapes health outcomes. Therefore, our work to achieve optimum health for all Michigan families requires developing and applying a health equity lens; recognizing the impact of social determinants of health; implementing evidence-based programs and practices; addressing behavioral and physical health; and focusing on outcomes. The life course model, which emphasizes that early life experiences have a lasting impact on health and development, is also recognized. While each MCH program area concentrates on its respective stage of the life course, programs also coordinate with and complement adjacent life stages.

In 2018, MCH programs that support Michigan's NPMs and SPMs participated in a facilitated logic model process to strengthen the Title V program work. The goal of the process was to create logic models that illustrate the relationship between goals, strategies, outputs, and outcomes. Participants worked within their relevant population domain to assess current work plans and to create SMART objectives. The resulting logic models were updated in 2019 and used to inform the writing of state action plan tables and narratives.

Foundation for Family and Community Health

The Title V program's commitment to the MCH population is broad-based and aligns with the MDHHS vision to "develop and encourage measurable health, safety and self-sufficiency outcomes that reduce and prevent risks, promote equity, foster healthy habits, and transform the health and human services system to improve the lives of Michigan families."

The public health functions of assessment, policy development, and assurance are shared between MDHHS and local health departments. Legal and legislative requirements support quality services through codification (the Michigan Public Health Code) and MCH fiscal obligations are supported through the annual budget process. The Title V program supports coordinated, comprehensive systems of care at the state and local levels, as described in the Health Care Delivery System section. The creation of MDHHS in 2015—which resulted from a merger of the Departments of Community Health and Human Services—reflects the state's commitment to effective, customer-focused systems that support physical and behavioral health and safety.

The state's MCH work utilizes research- and evidence-based practices and relies on national care standards from the American College of Obstetrics and Gynecology, American Academy of Pediatrics, American Dental Association, the Centers for Disease Control and Prevention, and others. Our commitment to continuous quality improvement is reflected in the monitoring of population data; investigation of health issues, such as the Hepatitis A and measles outbreaks; and education and empowerment around public health issues such as safe sleep, breastfeeding, and immunizations. To assure assessment across population groups—especially those with negative disparities—monitoring of subpopulation groups is conducted to capture data by geography, race, ethnicity, age, and other demographics. The MCH program also recommends and develops policy; promotes best practices and service models among local public health and clinical care systems; advocates for increased capacity within communities to provide high quality, accessible, culturally competent services; and supports the MCH workforce.

III.E.2.b. Supportive Administrative Systems and Processes

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

In this five-year cycle, Michigan has focused workforce development efforts on strengthening infrastructure across key maternal and child health (MCH) areas. It has historically been challenging to maintain or grow the MCH workforce across key positions in administration, program support, and epidemiology. To address these challenges, high-need MCH positions have been filled. In FY 2019, the Department is also working on new initiatives related to equity in hiring.

Since 2016, state-level MCH positions (only one of which uses Title V funding) have been backfilled or newly created, including:

- **Director, Bureau of Family Health Services (BFHS)**, provides leadership and oversight of Michigan's Title V block grant as well as administration of the Division of Maternal and Infant Health, Division of Child and Adolescent Health, and Division of Immunization.
- **Director, Division of Child and Adolescent Health**, provides management and direction for programs and services related to child, adolescent, and school health; early childhood; home visiting; local MCH; and oral health.
- **Director, Division of Maternal and Infant Health**, provides management and oversight for key maternal and infant health programs including Title X, Maternal Infant Health Program, safe sleep, and Regional Perinatal Quality Collaboratives.
- **Maternal Child Health Strategist**, researches and launches new, innovative initiatives that align priorities across BFHS and Title V to create synergy and integrate clinical care and public health.
- **CSHCS Policy and Program Development Section Manager**, provides oversight to staff responsible for medical transition services, specialty clinics, insurance premium payment benefit and billing assistance.
- **MCH Nurse Consultant**, provides oversight and coordination of MCH services funded through 45 local health departments.
- **Safe Sleep Program Coordinator,** provides oversight of Michigan's statewide program to develop and promote a consistent, comprehensive strategy to educate and support families, caregivers, and professionals to prevent infant sleep-related deaths.
- **Lead Prevention Program Coordinator**, facilitates planning, implementation and evaluation of Michigan's Childhood Lead Poisoning Prevention Program.
- Several key positions were filled over the past year, including the Early On Coordinator, Home Visiting Epidemiologist, and Health Equity Coordinator.

To recruit and retain qualified MCH staff, BFHS has worked more closely with MDHHS Human Resources to increase efficiencies within the hiring process. Standardized BFHS Hiring Procedures are used by all BFHS hiring managers and additional technical assistance has been provided throughout the hiring process. Strategies to publicize vacant positions include more broadly circulating civil servant positions through established MCH listservs or Indeed.com; when hiring affiliates, additional advertisement and targeted postings may be used.

The MDHHS Population Health Administration is launching a new Diversity Hiring Initiative (DHI). The DHI was modeled after a successful pilot between the Office of Workforce Development and Transformation and Human Resources which established a race equity team to assist hiring managers with the process of screening, interviewing, scoring and selecting job candidates in an equitable way. Race equity team members received training and one representative is appointed to each hiring panel to work with the hiring manager, participate during interviews and make recommendations on diversity, equity and inclusion. The goal of the new DHI is to develop a new equitable hiring protocol, create accountability through an objective scoring rubric and minimum

requirements, and ultimately have a workforce that is more reflective of the diversity of our state and communities.

Training and growth opportunities for Title V program staff, including family leaders from the Family Center, are continuously assessed to identify areas for professional development. Two key opportunities included the *Health Equity Learning Labs* and *Guiding NEAR* training. Three divisions within the BFHS and Children's Special Healthcare Services have participated in a multi-session Health Equity Learning Lab series in which program areas assessed existing policies, procedures, hiring practices, and informal processes to determine whether they are reflective of health equity and social justice principles. Staff then identified areas for growth and convened small teams to work on actionable items to ensure that internal processes and policies reflect a focus on health equity and reducing health disparities.

The Guiding NEAR training provides a deep dive into NEAR science (neuroscience, epigenetics, ACEs and resilience) and its application. It is designed for emerging leaders in state government who will apply the learning to state policy and practice. The goal is to work with stakeholders to design programs and services that interrupt the progression of adversity for Michigan residents. Leaders from chronic disease, behavioral health, Children's Service Agency, Children's Special Health Care Services, and BFHS plus staff from the Department of Education (MDE) and Department of Corrections attended this interdepartmental training and have been meeting quarterly.

Beyond these trainings, MCH staff participate in a wide range of conferences and professional development opportunities. For example, MDHHS hosts annual conferences that MCH staff attend, including Moving toward Solutions: Addressing Teen Pregnancy Prevention in Michigan, WIC Conference, Michigan Home Visiting Conference, Teen Parent Summit, and Maternal Infant Health Summit. In 2018, the Family Center hosted its first face-to-face annual meeting for the Family Leadership Network and will host a second meeting in 2019. An MCH team from Michigan, which included a Parent Consultant and youth advocate, participated in the annual AMCHP conference. In FY 2019, Michigan also offered two trainings on family partnership for MCH staff.

Finally, Michigan utilizes innovative financing mechanisms to support administrative and program staff who work on a variety of MCH initiatives. For example, administrative match is leveraged for state staff working on Medicaid-financed programs including the Child and Adolescent Health Centers, Local Health Department Medicaid Outreach, Maternal Infant Health Program and others. Additional administrative match opportunities are being considered by MSA. Shared positions between MDHHS and MDE have enabled a funding structure to support staff that benefit both agencies including Michigan's State School Nurse Consultant and a state-level Mental Health Consultant. MCH funding also supports epidemiology staff who are housed in the Bureau of Epidemiology and Genomics but directly support and work with MCH programs.

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

MDHHS strives to put the MCH service recipient at the center of programs and services. MDHHS respects the dignity of each individual and their respective culture and language, and considers these factors in program development and service provision. MCH programs understand the benefits of family and consumer partnership and engagement, including the ability to better identify and address unique population needs. Ultimately, understanding these needs helps to improve program outcomes and eliminate barriers to service.

Strategies and the impacts of family partnerships are discussed throughout the Title V state action plans. Specific examples of partnerships within Michigan's MCH programs include the following:

- The Early Hearing Detection and Intervention (EHDI) program utilizes the Michigan Hands and Voices Guide By Your Side™ (GBYS) program. GBYS enables families who recently learned of a child's hearing loss to meet with parents of a child who is deaf or hard of hearing. Families are involved in updating EHDI materials, which are available in Spanish and Arabic. Efforts to promote health equity include diverse parent representation on advisory committees and members who are Deaf or Hard of Hearing (D/HOH) and parents of children who are D/HOH. Parents share their family stories at EHDI hospital site visits and trainings. EHDI also sponsors an annual scholarship for a parent to attend the National EHDI conference. Arabic and Spanish speaking guides are also available to meet with families.
- The Michigan Infant Safe Sleep (ISS) State Advisory Committee includes parents as active partners. Parents and caregivers share their stories at public events and help create training videos, educational materials and programming. MDHHS provides funding to 15 local health departments (LHDs) and the Inter-Tribal Council to develop and implement community-based safe sleep activities. LHDs involve parents as parent educators and speakers. The ISS Program recently conducted focus groups with parents and other caregivers to gather information on attitudes and beliefs about safe sleep messaging. In FY 2019, the ISS Program is contracting with two community-based agencies to obtain additional community input and to develop prototype materials. The ISS Program also plans to utilize the MIHEIP Ambassador Program to gain more family input and extend the program's reach.
- The Parent Leadership in State Government (PLISG) initiative is an interagency effort designed to recruit, train and support parents so their voices can help shape programs and policies at the state and local level. The PLISG is financially supported by Title V. Since 2007, several state agencies including MDHHS have collaboratively funded the PLISG. The PLISG Board includes representatives from funding agencies plus parent representatives. At least 51 percent of board members must be parents of children ages 0-18 who have been or are eligible to utilize specialized public services. A primary role of the PLISG is to deliver the "Parents Partnering for Change" leadership training which targets parents whose children use specialized services. Training topics include leadership skills; how to use your voice and tell your story; effective meetings; and handling conflict.
- Michigan's Maternal, Infant, and Early Childhood Home Visiting (MIECHV) grants have integrated parent and caregiver involvement. MIECHV patterned its approach on previous state-level collaboration with parents for Part C, Great Start Parent Coalitions, and Project LAUNCH. MIECHV communities receive funding to convene a home visiting Local Leadership Group (LLG). The LLGs are comprised of representatives from Head Start, substance abuse, child abuse and neglect councils, public health, mental health, education, Great Start staff, and parents who have participated in home visiting. Parents participate in MIECHV quality improvement teams and help to ensure the consumer voice is part of decision making and policy development.

Children’s Special Health Care Services (CSHCS) uses a multifaceted approach to ensure that services reflect the needs of the population served. A critical component to administering services is the intentional involvement of families of children and youth with special health care needs (CYSHCN) in decision making. To achieve this goal, CSHCS works closely with the Family Center for CYSHCN and the CSHCS Advisory Committee (CAC). The CAC is comprised of professionals and family members who are involved in the care for children with special needs. The CAC makes policy recommendations to the CSHCS Division and promotes awareness to assure that services reflect the voices of CYSHCN and their families. The primary responsibilities of the CAC are to support and maintain clarity of the mission, philosophy and service goals of CSHCS; promote public awareness of the CSHCS program; and identify strengths and gaps in services.

The Family Center provides families with an even greater opportunity to contribute to CSHCS programs and policies. The Family Center's primary purposes are to help shape CSHCS policies and procedures by bringing a family perspective and to help families in Michigan navigate the systems of care for CYSHCN. Through its statewide Parent-to-Parent Support Network, the Family Center also provides emotional support and information to families of children with special needs. Families can access support through the Family Phone Line, which is a service provided to any family that has a child with special needs. Parent Consultants within the Family Center offer immediate help to families navigating systems of care which includes identifying needs; referral to resources; and connecting parents to educational and emotional supports. The Family Center’s newly formed statewide Family Leadership Network provides a diverse community-based perspective on programs and policies as well as a platform for the development of new family leaders. The Family Center works in partnership with many statewide and local organizations, including the Michigan Family to Family Health Information Center and Michigan Family Voices.

As illustrated by this discussion, parent and family engagement is intentional and integrated in many MCH programs. To further support family partnership, in 2017 the Title V program conducted a survey of state-level MCH programs to obtain “baseline” information about engagement efforts and to identify priority areas for increased support. The survey had a total of 37 responses representing MCH programs within BFHS, CSHCS, and the Childhood Lead Poisoning Prevention Program. Responses included (but were not limited to) MCH program areas that align with a Title V performance measure and/or receive Title V funding.

Extended results of the survey were included in the FY 2018 and FY 2019 Title V applications. The survey provided insight into levels and types of engagement, the benefits of engagement, and barriers. Survey results illustrated that 58.3% of respondents currently involved families/consumers but wanted to strengthen involvement; an additional 19.4% of respondents did not have current family/consumer involvement but wanted involvement in the future. Survey respondents indicated an array of benefits from engagement, with the majority (80%) indicating an increased awareness or understanding of family/consumer issues and needs.

The top identified training or technical assistance needs were “Strategies to recruit and engage culturally diverse, underrepresented, or underserved families” (43.2%) and “Opportunities to build partnerships with family/consumer organizations” (37.8%). In response to these identified needs, Title V partnered with two organizations in FY 2019 to present two family engagement workshops. The first workshop, presented by Patient and Family Partnerships, focused on effective engagement across the service population and strategies for recruitment and retention. The second workshop, presented by Michigan Family Voices, focused on opportunities and benefits of partnering with family leadership organizations.

The Title V program has also taken steps to increase peer-to-peer sharing and support. In March 2018, the Family Center director presented information to the Title V Steering Committee about the purpose and structure of the Family Center; ways to engage families; the family/professional partnership model; and possibilities to provide consultation to other MCH programs.

III.E.2.b.iii. States Systems Development Initiative and Other MCH Data Capacity Efforts

Michigan's goals and objectives for the State Systems Development Initiative (SSDI) project align with state priorities to enhance data and analytic capacity to identify priorities; to inform program resource allocation, needs assessment and program evaluation; and to provide MCH programs and state and local workgroups with in-depth data analysis and interpretation to guide efforts to improve health among MCH populations.

Michigan's SSDI activities are primarily aimed at building on existing coordination with the state Title V program and capitalizing on MCH epidemiology resources to inform the Title V block grant. The MCH Epidemiology Section Manager meets regularly with core Title V staff to make sure that epidemiologic needs are being met. Epidemiologists within the MCH Epidemiology Section work closely with Title V staff to provide epidemiologic support to the ongoing Title V needs assessment and regularly review and update Title V performance measures and annual objectives. The first MCH Program/Epi Collaboration Meeting was held in 2018 which allowed MCH program areas to meet with each MCH epidemiologist to brainstorm around future MCH-related projects. The MCH Epidemiology Section also assists in evaluation of the effectiveness of the selected performance measures and provides recommendations to the Title V program regarding if or how these measures should be modified.

Having direct and timely access to MCH health data is another important component of the Title V performance monitoring process. Michigan Vital Records files (Live Birth, Fetal Death, linked infant death/live birth files, linked Maternal Mortality Files) and other data sources housed in the Division for Vital Records and Health Statistics (DVRHS), such as the Michigan Birth Defects Registry and Michigan Inpatient Database, remain important data sources for monitoring maternal and child health, as well as providing adequate Title V performance monitoring. The MCH Epidemiology Section has established a data sharing agreement with DVRHS which allows for direct access to these data files. Access and use of national survey data as well as state and program data has steadily improved over the course of the SSDI project.

As part of the Michigan SSDI project, the MCH Epidemiology Section routinely assesses its access to needed MCH data linkages. Based on the results of these data linkage assessments, MCH Epidemiology and MCH program staff will meet to develop a list of linkages that are still needed to further support the Title V program. Barriers that currently prevent these linkages from being established will be documented. Furthermore, to monitor progress toward goals, trends and subgroup analysis must be analyzed, interpreted and communicated not only to Title V staff but to MCH stakeholders working to reduce infant mortality and other adverse birth outcomes in their communities. To aid this process, the MCH Epidemiology Section Manager routinely evaluates MCH Epidemiology Section staff position descriptions to ensure there is adequate support for the continued analysis, interpretation and evaluation of the Title V state and national performance measures.

Even with the large number of linked data files that are currently available to the MCH Epidemiology Section, there is always room to expand our data capacity. The MCH Epidemiology Section is currently working to establish several new MCH-related data linkages, including Birth Defects Registry data linked to Medicaid, CSHCN, and PRAMS as well as Medicaid data linked to Vital Records and Immunizations. The MCH Epidemiology Section will also work with the DVRHS to improve the timeliness of the link between Birth Defects Registry and birth certificate data. Two emerging focus areas for the MCH Epidemiology Section are neonatal abstinence syndrome (NAS) and maternal mortality. NAS data from the Michigan Inpatient Database (MIDB) has recently been made available to the MCH Epidemiology Section through an agreement between MDHHS and the Michigan Health and Hospital Association. The MCH Epidemiology Section analyzes NAS data from the MIDB in accordance with Title V and MCH program needs. Furthermore, the MCH Epidemiology Section Manager has initiated discussions with appropriate MCH program staff regarding the development of expanded maternal mortality and home visiting data systems.

III.E.2.b.iv. Health Care Delivery System

BFHS and the Medical Services Administration (MSA), which administers the Michigan Medicaid Program (Medicaid), have a longstanding collaborative relationship to provide quality care and services to Michigan residents and share the common goals of improving the health and well-being of the MCH population. This partnership allows Michigan to effectively utilize federal and state resources and create efficiencies to help ensure that women and children are provided with preventive and chronic health services, treatment and follow-up care.

As of February 2019, 1,766,762 beneficiaries were enrolled in the Medicaid Health Plans (MHPs) and 517,916 beneficiaries were enrolled in fee-for-service. Medicaid employs a population health management framework to maximize the health status and experience of beneficiaries and to lower cost. Medicaid supports contracted MHPs in achieving these goals through evidence- and value-based care delivery models; health information technology; strategies to prevent chronic disease; and coordination of care along the continuum of health that includes assessing social determinants of health such as transportation, housing, and food access. Medicaid requires MHP annual reporting of the Healthcare Effectiveness Data and Information Set and employs a Pay for Performance Incentive Program that includes access, process and outcome metrics for women and children. The MHP governing body must either have a minimum of 1/3 of its governing body be representatives of its membership consisting of Medicaid enrollees *or* the plan must establish a consumer advisory council that reports to the governing body. The council must include at least one Medicaid enrollee, one family member or legal guardian of an enrollee and one consumer advocate.

BFHS collaborates with Medicaid, MHPs, local public health, and community providers in the following areas: maternal and infant care and services; adolescent health; perinatal and postpartum care; well-child care including developmental screening and referral; Children's Special Health Care Services (CSHCS); foster care; dental care; and home visiting programs.

One of the largest program collaborations is the Maternal Infant Health Program (MIHP), Michigan's largest population-based home visiting program available to all Medicaid-eligible pregnant women and infants up to age one. In FY 2018, MIHP provided services to 15,968 women and 20,599 infants. The goal of MIHP is to promote healthy pregnancies, positive birth outcomes and healthy infant growth and development with the long-term goal of reducing infant mortality and morbidity. MIHP is jointly managed by the BFHS and MSA. BFHS is responsible for developing MIHP procedures, certifying and monitoring providers, and providing technical assistance to providers. MSA is responsible for promulgating Medicaid policies, helping providers implement Medicaid policies, monitoring contracts with MHPs and making payments to Medicaid providers. MIHP has shown favorable effects on prenatal care, birth outcomes (e.g., prematurity, low birth weight), postpartum care, and well-child visits during the first year of life.

Since FY 2013, individuals with both CSHCS and Medicaid coverage are enrolled in an MHP. In FY 2018, 19,500 of the approximately 35,000 CSHCS enrollees are dually enrolled in an MHP. MHPs are responsible for the medical care and treatment of CSHCS members while assistance with community-based services beyond medical care and treatment is provided through the local health department (LHD) CSHCS office. MHPs are responsible for coordinating and collaborating with LHDs and the Children's Multidisciplinary Specialty Clinics to make a wide range of essential health care and support services available to enrollees. MHPs are also responsible for the coordination and continuity of care for enrollees who require integration of medical, behavioral health and/or substance abuse services. A Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey for special populations including CSHCS has been included in the MHP Performance Bonus, and CSHCS integration has been a component of the MHP onsite compliance review process. In the past year, CSHCS has also performed a separate site review with MHPs focusing on transition, family engagement, durable medical equipment, and grievance and appeal.

MDHHS implemented the Healthy Kids Dental (HKD) program for children enrolled in Medicaid and CHIP. HKD provides a wide range of dental coverage and support services to qualifying individuals including infants, children and pregnant women under the age of 21. Effective October 1, 2018, eligible beneficiaries are offered a choice of two statewide HKD dental health plans (DHPs). In July of 2018, MDHHS expanded managed care dental coverage for non-Healthy Michigan Plan Medicaid eligible pregnant women. This managed care dental benefit is intended to provide greater access to dental services and comprehensive prenatal care. BFHS and MSA coordinate oral health outreach and engagement efforts via multiple avenues including MIHP and other home visiting networks. Healthy Michigan Plan beneficiaries receive dental benefits through the MHP's dental provider network.

Other MCH collaborative efforts have included: improving standardized developmental screening rates through cross-agency collaboration between BFHS, MSA and the Michigan Department of Education (Part C Early Intervention Program), health systems, and local public health; clarifying standardized screening payment codes to allow increased numbers of screenings per day; modifying payment policies for preventive services to improve data quality; reinforcing evidence-based guidelines by aligning Medicaid policy with American Academy of Pediatrics guidelines for preventive services; and collaborative MHP activities to improve lead screening rates.

BFHS and Medicaid also actively collaborate on quality improvement initiatives, such as:

- *Centers for Medicaid and Medicaid Services (CMS) Adult Medicaid Quality (AMQ).* This grant project addressed early elective deliveries and resulted in a revision of MIHP maternal plans of care to ensure all pregnant women receive education on the importance of delivering at 39 weeks.
- *Center for Medicaid and CHIP Services' (CMCS) Maternal and Infant Health Initiative–A Focus on Women's Health*. The initiative aims to increase the rate of postpartum visits by 10% and improve the content of postpartum care. Medicaid facilitated the collaborative efforts with technical support from BFHS in partnership with four MHPs.
- *Adult Medicaid Quality: Improving Maternal and Infant Health Outcomes in Medicaid and CHIP.* This grant collects and reports data on the "Use of Contraceptive Methods in Women" measure. The project goal is to increase the use of effective methods of contraception among all women in Medicaid and CHIP to improve pregnancy planning and birth spacing. The initiative aligns with Michigan's Mother Infant Health & Equity Improvement Plan (MIHEIP), the CDC 6/18 Initiative and Michigan's Title X Program Family Planning activities including Long Acting Reversible Contraceptives (LARCs).
- *Medicaid Low Birth Weight (LBW) Pay for Performance Project*. In 2017, Medicaid identified LBW as a multi-year MHP Pay for Performance Project. The initiative aligns with MIHEIP and statewide Regional Perinatal Quality Collaborative efforts. In Michigan, deaths due to prematurity (birth prior to 37 weeks gestation) and/or LBW (less than 5.5 pounds) are the leading causes of infant mortality.
- *Michigan Collaborative for Contraceptive Access (MICCA) Demonstration Project*: In October 2018, Michigan Medicaid began reimbursing for immediate postpartum LARC services in addition to the standard DRG-based payment for childbirth services. BFHS is supporting a multi-hospital initiative to implement immediate postpartum LARC services. The two-year collaborative supports hospitals by providing evidence-based tools and strategies, technical assistance and coaching. The goals are to improve prenatal contraceptive counseling rates, increase access to immediate postpartum LARCs and ensure exceptional patient experience of care.

In 2017, BFHS and CSHCS met with MDHHS legal counsel to review the existing Title V/Medicaid agreement that is contained within the Medicaid State Plan (specifically Section F. Medical Assistance and Title V Projects). It was determined that the existing document broadly outlines the relationship between the two entities, which are both

housed within the same state department.

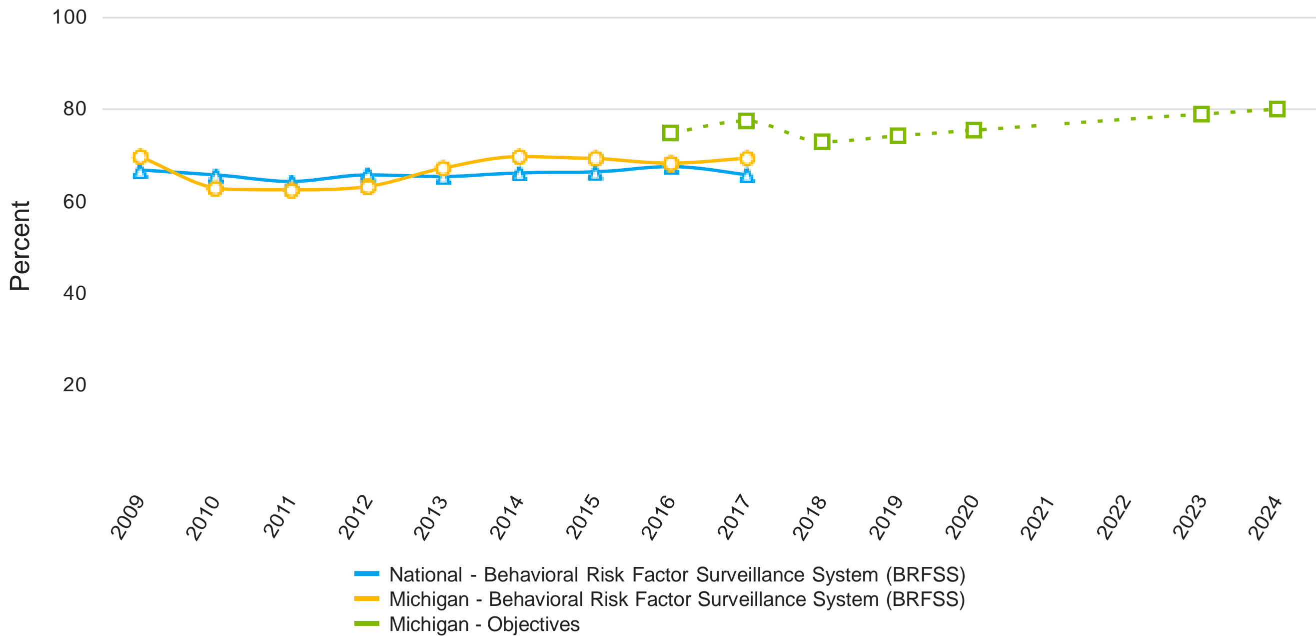
III.E.2.c State Action Plan Narrative by Domain

Women/Maternal Health

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 2 - Rate of severe maternal morbidity per 10,000 delivery hospitalizations	SID-2015	138.6	NPM 1
NOM 3 - Maternal mortality rate per 100,000 live births	NVSS	Data Not Available or Not Reportable	NPM 1
NOM 4 - Percent of low birth weight deliveries (<2,500 grams)	NVSS-2017	8.8 %	NPM 1
NOM 5 - Percent of preterm births (<37 weeks)	NVSS-2017	10.2 %	NPM 1
NOM 6 - Percent of early term births (37, 38 weeks)	NVSS-2017	24.8 %	NPM 1
NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths	NVSS-2016	6.1	NPM 1
NOM 9.1 - Infant mortality rate per 1,000 live births	NVSS-2016	6.4	NPM 1
NOM 9.2 - Neonatal mortality rate per 1,000 live births	NVSS-2016	4.2	NPM 1
NOM 9.3 - Post neonatal mortality rate per 1,000 live births	NVSS-2016	2.2	NPM 1
NOM 9.4 - Preterm-related mortality rate per 100,000 live births	NVSS-2016	233.9	NPM 1
NOM 10 - The percent of infants born with fetal alcohol exposure in the last 3 months of pregnancy	PRAMS-2015	6.2 %	NPM 1
NOM 11 - The rate of infants born with neonatal abstinence syndrome per 1,000 hospital births	SID-2016	7.7	NPM 1
NOM 14 - Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year	NSCH-2016_2017	8.1 %	NPM 13.1
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	NSCH-2016_2017	91.4 %	NPM 13.1
NOM 23 - Teen birth rate, ages 15 through 19, per 1,000 females	NVSS-2017	16.4	NPM 1
NOM 24 - Percent of women who experience postpartum depressive symptoms following a recent live birth	PRAMS-2017	12.9 %	NPM 1

National Performance Measures



Federally Available Data			
Data Source: Behavioral Risk Factor Surveillance System (BRFSS)			
	2016	**2017**	**2018**
Annual Objective	74.6	77.2	72.7
Annual Indicator	69.0	68.2	69.1
Numerator	1,141,612	1,123,599	1,142,535
Denominator	1,654,185	1,648,059	1,652,472
Data Source	BRFSS	BRFSS	BRFSS
Data Source Year	2015	2016	2017

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	74.0	75.2	76.4	77.6	78.7	79.8

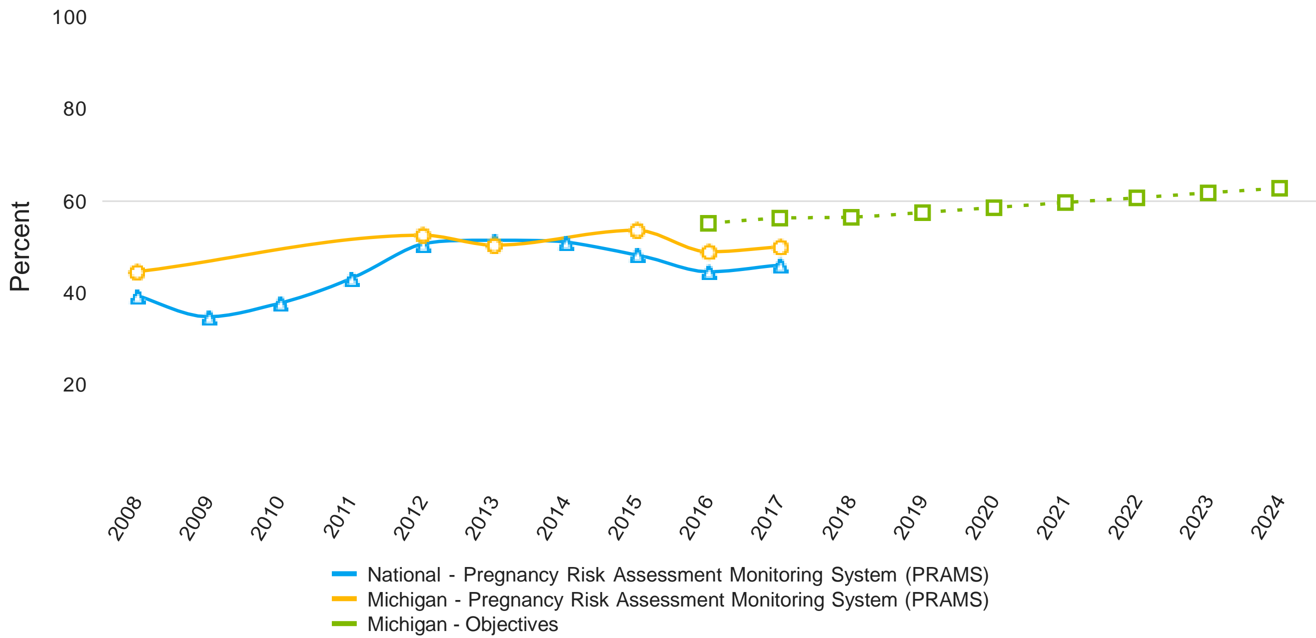
Evidence-Based or –Informed Strategy Measures

ESM 1.1 - Percent of women aged 18-44 who have ever discussed reproductive life planning during a visit with a doctor, nurse, or other health professional

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		61.3	62.3
Annual Indicator	60.3	64.3	66.2
Numerator	846,111	914,885	936,099
Denominator	1,404,213	1,423,068	1,413,029
Data Source	Michigan Behavioral Risk Factor Surveillance Syste	Michigan Behavioral Risk Factor Surveillance Syste	Michigan Behavioral Risk Factor Surveillance Syste
Data Source Year	2015	2016	2017
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	63.3	64.3	65.3	66.3	67.3	68.3



Federally Available Data			
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)			
	2016	**2017**	**2018**
Annual Objective	55.1	56.2	56.4
Annual Indicator	50.3	53.6	49.8
Numerator	54,731	57,883	53,356
Denominator	108,763	108,083	107,079
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2013	2015	2017

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	57.4	58.5	59.6	60.6	61.7	62.7

Evidence-Based or –Informed Strategy Measures

ESM 13.1.1 - Number of medical and dental professionals who receive perinatal oral health education through MDHHS

Measure Status:	Active

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	390.0	410.0	430.0	450.0	470.0	490.0

State Action Plan Table

State Action Plan Table (Michigan) - Women/Maternal Health - Entry 1

Priority Need

Reduce barriers, improve access, and increase the availability of health services for all populations

NPM

NPM 1 - Percent of women, ages 18 through 44, with a preventive medical visit in the past year

Objectives

A) Increase the percent of females aged 15 to 44 who use a most or moderately effective contraceptive method from 81% to 84% by 2020

B) Increase the percent of women who report ever having discussed reproductive life planning during a visit with a doctor, nurse, or other health professional from 64% to 65% by 2020

C) Increase the percent of women with a past year preventive medical visit from 68% to 75% by 2020

Strategies

A1) Support the provision of contraception to low-income, uninsured, and underinsured women in the Family Planning Program A2) Host at least one clinical practicum on the insertion and removal of long-acting reversible contraceptives (LARC) for Title X and other health care providers A3) Support urban and rural hospitals' provision of immediate post-partum LARC via the Michigan Collaborative for Contraceptive Access A4) Promote contraceptive and reproductive health services offered by the Family Planning Program in communities with high infant mortality with significant African American and Hispanic populations A5) Utilize the Family Planning Program's competitive local request for proposal (RFP) to improve access to reproductive health services within communities with high minority populations and infant mortality rates

B1) Discuss reproductive life planning (RLP) with at least 60,000 women in the Family Planning Program B2) Assist Medicaid with pay-for-performance (P4P) client-centered contraceptive counseling for Health Plans B3) Expand use of client-centered RLP and contraceptive counseling among programs that serve at-risk women B4) Disseminate preconception health messages on MDHHS social media accounts B5) Offer at least one reproductive justice-focused pregnancy intention training to Family Planning and other healthcare providers

C1) Assess racial/ethnic health care access disparities in Michigan C2) Promote referrals to primary care providers within Family Planning clinics C3) Partner with Medicaid and Medicaid Health Plans to educate Family Planning providers on policy issues C4) Disseminate well-woman and preventive health messages on MDHHS social media accounts

ESMs	Status
ESM 1.1 - Percent of women aged 18-44 who have ever discussed reproductive life planning during a visit with a doctor, nurse, or other health professional	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 10 - The percent of infants born with fetal alcohol exposure in the last 3 months of pregnancy
NOM 11 - The rate of infants born with neonatal abstinence syndrome per 1,000 hospital births
NOM 23 - Teen birth rate, ages 15 through 19, per 1,000 females
NOM 24 - Percent of women who experience postpartum depressive symptoms following a recent live birth

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

Priority Need

Increase access to and utilization of evidence-based oral health practices and services

NPM

NPM 13.1 - Percent of women who had a preventive dental visit during pregnancy

Objectives

A) Increase the number of medical and dental providers trained to treat, screen and refer pregnant women and infants to oral health care services

B) Increase the number of pregnant women receiving oral health care services

Strategies

A1) Offer and evaluate training for medical and dental professionals A2) Disseminate Perinatal Oral Health Guidelines and promotional and educational materials A3) Develop and implement a communication plan that promotes Medicaid policy changes A4) Develop and promote materials around oral health and health equity for providers

B1) Analyze PRAMS data to assess racial and ethnic healthcare access B2) Begin to develop a plan from the PRAMS racial and ethnic healthcare access to address oral health and health equity issues B3) Collaborate with partners to facilitate alternative models of prenatal oral health care B4) Provide education to women via the Perinatal Oral Health WIC Module

ESMs	Status
ESM 13.1.1 - Number of medical and dental professionals who receive perinatal oral health education through MDHHS	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

Introduction to State Action Plans

The following state action plans provide comprehensive information—including objectives, strategies, activities, and performance metrics—on Michigan's Title V maternal and child health (MCH) priority areas. Per Title V requirements, the state action plans are organized within five population domains: women/maternal health; perinatal/infant health; child health; adolescent health; and children with special health care needs (CSHCN). Within these population domains, the state action plans focus on the following federally-defined National Performance Measures (NPMs) and state-defined State Performance Measures (SPMs):

- NPM 1 (Well-woman Visit)
- NPM 3 (Risk-appropriate Perinatal Care)
- NPM 4 (Breastfeeding)
- NPM 5 (Safe Sleep)
- NPM 10 (Adolescent Well-visit)
- NPM 12 (Transition)
- NPM 13 (Preventive Dental Visit for Women and Children)
- SPM 1 (Childhood Lead Poisoning Prevention)
- SPM 4 (Medical Care and Treatment for CSHCN)
- SPM 5 (Immunizations—Children)
- SPM 6 (Immunizations—Adolescents)

These NPMs and SPMs were chosen based on Michigan's five-year needs assessment and were refined in 2018 based on changes to the Title V Guidance and ongoing needs assessment activities, as discussed in last year's application.

Michigan's Title V program continues to engage in a process of regularly examining goals, objectives, and strategies associated with each NPM and SPM. As a result of this process, some program areas made changes to FY 2020 state action plans and associated objectives and/or strategies, especially to address health disparities and health equity. Therefore, the FY 2018 annual reports (based on previous state action plans) may contain different objectives and strategies than the current plans. Lastly, methodologies for updated NPM annual objectives are included in the Supporting Documents.

Women/Maternal Health Overview

The health of women and mothers is the focus of the Division of Maternal and Infant Health within BFHS, which oversees the Reproductive Health Unit and Michigan's Title X program. Title V funds directly support several programs and services designed to improve women's pre- and inter-conception health. Much of these resources are directed toward family planning. However, Title V funds are also used to understand and address women's health issues more broadly, especially as they relate to maternal mortality and factors such as race, class, and gender inequity that drive disparities. In order to address non-reproductive health needs of women, Michigan leverages other federal funds, such as the Preventive Health and Health Services Block Grant (CDC), and partners with the chronic disease, cancer prevention, and injury and violence prevention programs within MDHHS. Additional partnerships that impact women's health include local health departments, Family Planning service providers, and the Michigan Primary Care Association.

Michigan's approach to women's health emphasizes improving access to health services for this population, including reproductive and oral health services, based on the concept that access to care can be preventative across a variety of health needs and concerns. While severe maternal morbidity (138.61 per 10,000, HCUP-SID, 2015 Q1-Q3) has been consistently lower in Michigan as compared with the national average, the risk is much higher among non-Hispanic Black women (221.16). Similarly, maternal mortality (19.38 per 100,000, NVSS, 2012-2016) is lower in Michigan than the national average, but the risk among non-Hispanic Black women (38.71) is much higher. These disturbing statistics have led Michigan to place greater focus on understanding and addressing the unjust and unfair conditions that place non-Hispanic Black women at much greater risk for disease and death before and after childbirth.

Although surveillance data tends to focus on indicators of a healthy pregnancy and healthy infant, wellness in pregnancy and at birth reflect women's health status prior to conception. While 8.53% of infants (NVSS) reported in 2016 were born with a low birth weight, 14.55% of babies born to non-Hispanic Black mothers had a low birth weight. Similarly, while 10.14% of infants (NVSS) reported in 2016 were born preterm, the percentage was much higher among non-Hispanic Black mothers (14.39). These data also suggest that Michigan is far from achieving equity in health among women in our population and improving women's health status must focus on addressing the conditions that lead to unjust outcomes for Black women. Oral health is also a concern In Michigan where 10.36% of children, including 7.44% of children under five years of age, have tooth decay or cavities (NSCH, 2016). Another trend that Michigan is attending to closely is the dramatic rise in rates of infants born with neonatal abstinence syndrome, which increased from 2.0 per 1,000 in 2008 to 8.3 per 1,000 in 2015. Partners at the state and local level are designing and implementing strategies to understand and address thiscrisis.

Well-Woman Visit (FY 2018 Annual Report)

In 2018, MDHHS focused on strategies to improve the quality of family planning counseling and access to long-acting reversible contraceptives (LARC) through quality improvement efforts and provider professional development. MDHHS's Family Planning Program facilitated a Contraceptive Access Learning Collaborative with six local agencies to measure contraceptive performance and conduct quality improvement efforts. Local agencies averaged an 85% increase in LARC use from baseline to end point. MDHHS Bureau of Family Health Services and the Family Planning Program participated in the Medicaid policy discussions that led to the unbundling of LARC devices from the maternity Diagnosis Related Group payment allowing for separate reimbursement, effective October 1, 2018. Family Planning promoted its Contraceptive Counseling Module Series garnering 61 completions with 58 individuals requesting continuation education credits. In FY 2019, Medicaid Health Plans will receive pay-for-performance credit in their contracts for completing the series. During FY 2018, MDHHS held two clinical practicums on the insertion and removal of LARC training 24 local providers, 13 of which resided in the Upper Peninsula, a low LARC access region.

MDHHS also worked to increase quality of services and access to women in need, with a focus on family planning services. Family Planning's Medical Advisory Committee promoted and disseminated the Before, Between, and Beyond Pregnancy educational modules and the National Preconception-Interconception Care Clinical Toolkit to local agencies and other health care providers. Suzanne Woodard, University of North Carolina Center for Maternal & Infant Health and Janis Bierman, March of Dimes, presented a keynote and breakout session at the annual Family Planning Conference on preconception health and community messaging. Family Planning collaborated with Behavioral Health to equip case managers with the knowledge and skills to effectively asses substance misuse clients' pregnancy intentions, counsel on contraceptive options, and provide referrals for pregnancy prevention services. During the FY 2018 Open Enrollment Period, local Family Planning agencies assisted and enrolled clients in Medicaid or Medicaid Health Plans or the Marketplace and referred clients to an entity with the capacity for enrollment assistance. Local agencies continued to connect Family Planning clients to primary care providers within

the community, as needed. MDHHS continued to find opportunities for local Family Planning agencies to foster relationships with Medicaid Health Plans.

Objective A: By 2020, maintain 84% of females aged 15-44 who use a most effective or moderately effective contraceptive method.

Having access to a full range of effective contraceptive methods allows each woman the opportunity to choose the method that is right for her to successfully delay or prevent pregnancy. In 2018, 78% of female Family Planning clients aged 15 to 44 years old chose a most (i.e., sterilization, vasectomy, or LARC) or moderately effective (i.e., pills, patch, ring, cervical cap, or diaphragm) method, with 16% choosing LARC. Most or moderately effective (MME) method use peaked at 86% for Family Planning in 2016 and has declined approximately two percentage points each year while LARC use (12%, 2016) has increased by the same amount each year for this age group. To increase contraceptive access to individuals at greater risk of unintended pregnancy, a number of local agencies have integrated their Family Planning and STD clinics, which has resulted in more comprehensive services for men and women. At the same time, this has also resulted in an increase of females aged 15 to 44 who report male condoms as their primary method of contraception. In FY 2018, MDHHS worked toward increasing access to MME methods while balancing individuals' contraceptive needs and preferences.

From April 2018 to September 2018, MDHHS facilitated a Contraceptive Access Learning Collaborative (CALC) with six local agencies to measure performance and conduct quality improvement (QI) on two contraceptive care measures (i.e., most or moderately effective methods and LARCs) endorsed by the National Quality Forum. The goals were to 1) support local agency performance on two contraceptive measures; 2) increase local agency capacity to conduct QI; and 3) foster collaboration between MDHHS and local agencies. CALC participants received resources on contraceptive access best practices; shared improvement strategies, challenges, and successes with peers; collected and used performance measurement data for QI; and received one-on-one technical assistance from MDHHS. An in-person kick-off meeting was held April 20, 2018 to introduce the Contraceptive Access Change Package, review baseline contraceptive performance data, foster peer collaboration, and develop sub-recipient performance improvement plans. From May 2018 to September 2018, CALC participants and MDHHS met virtually each month to discuss QI project progress and have an in-depth discussion on a contraceptive best practice. CALC participants also submitted their performance improvement plans on a monthly basis which documented their project progress and tracked contraceptive performance. Improvements in LARC access occurred as a result of this project. At baseline (January-December 2017) CALC participants averaged 6% LARC use among females aged 15-44 years old, and at end point (January-December 2018), sub-recipients averaged 8% LARC use, an 85% increase. MDHHS is in the process of developing a CALC infographic to share best practices, lessons learned, and next steps with its network and partners.

During FY 2018, MDHHS's Family Planning Program explored the feasibility of a Contraceptive Access Workgroup with state and local stakeholders. In doing so, it determined an existing group of state and local partners and stakeholders was pursuing the goal of increasing access to immediate post-partum LARC insertion through Medicaid policy changes. Given the work that was already underway, the Family Planning Program participated in existing Medicaid policy discussions, as appropriate. After several months of negotiations, this workgroup was successful in unbundling LARC devices from the maternity Diagnosis Related Group payment, allowing for separate reimbursement for LARC devices when provided immediately post-partum in an in-patient hospital setting prior to discharge. Medicaid issued the notice of policy change on August 31, 2018 with an effective date of October 1, 2018. This workgroup has since transformed into the Michigan Collaborative for Contraceptive Access (MICCA), a partnership between MDHHS (Bureau of Family Health Services), the University of Michigan, and the Institute for Health Policy at Michigan State University. In FY 2019, MICCA will focus on expanding access to immediate post-partum LARC in Michigan hospitals. MDHHS's Family Planning Program provides staff support to the project. The

MDHHS Family Planning Advisory Council also meets regularly to discuss contraceptive access issues. As a result of these two groups already existing, the idea of an additional Contraceptive Access Workgroup was put on hold.

MDHHS continued to promote its Contraceptive Counseling modules to providers from Medicaid and Medicaid Health Plans, Maternal and Infant Health, Home Visiting, and Adolescent Health programs. During FY 2018, 61 users completed the Contraceptive Counseling modules, with 46 participants requesting social work or nursing continuing education credits and 12 requesting certified or master certified health education specialist continuing education credits. Of those who completed the modules during FY 2018, 58 completed the course evaluation. Most respondents felt the stated course objectives were met, found the course easy to use and well organized, and thought the course was interesting, helpful, and relevant to their job. MDHHS continues to promote the Contraceptive Counseling modules to new providers including Medicaid and Medicaid Health Plans. With a variety of online ways to access continuing education content, it is a challenge to get non-Family Planning providers, like primary care providers, to complete the course. In FY 2019, MDHHS is partnering with Medicaid Managed Care to offer the modules to the Medicaid Health Plans for pay-for-performance credit in contracts. MDHHS plans to review the modules annually to assess if updates are needed.

During FY 2018, MDHHS held two clinical practicums on the insertion and removal of LARC, training 24 local providers. In June 2018, MDHHS collaborated with the University of Michigan to conduct a regional LARC clinical practicum and lecture series in Michigan's Upper Peninsula, a low access LARC area. The practicum and lecture series were offered in Marquette, with 13 local providers in attendance. During the practicum, providers were trained on the insertion and removal of LARC methods such as intrauterine devices (IUD) and implants to support greater access to these methods with the aim of improving provider skills and comfort. The lecture series was designed to increase provider knowledge of contraceptive best practices and clinical special topics. The practicum and lecture series supported continuing education credits, with 100% of attendees indicating the content was relevant to their learning needs. Attendees reported increased knowledge on all contraceptive methods, improved LARC insertion skills, and increased comfort with LARC. When attendees were asked how this training would change their daily practice, several indicated it enhanced their ability to provide client-centered contraceptive counseling and enabled them to offer LARC on-site rather than by referral. Prior to the regional LARC clinical practicum, only two of the six Upper Peninsula Family Planning providers in attendance offered a LARC on-site (hormonal implants). Following the practicum, three providers now offer all LARC on-site (i.e., hormonal implants and IUDs, non-hormonal IUDs). A fourth provider is in-process and plans to offer all LARC on-site. Most importantly, three of the six UP Family Planning providers in attendance now offer same-day LARC insertion. To increase provider professional development surrounding LARC, a clinical practicum was offered at the annual Family Planning Conference; 11 Family Planning providers were trained on the insertion and removal of Kyleena® by Brent Davidson, MD, Vice Chair, Women's Health Henry Ford Medical Group and MDHHS Family Planning Program Medical Director. All attendees agreed the information was relevant, and that Dr. Davidson was knowledgeable and effective.

During FY 2018, Family Planning staff met with staff from the Maternal Infant Health Program (MIHP) to discuss areas for improvement within MIHP's Family Planning module and opportunities to revise module content so that it aligned with national standards of care and contraceptive best practices. Based on conversations between staff, MIHP's Family Planning Plan of Care was updated to assess pregnancy intention, discuss future goals (e.g., school, career, lifestyle), and include client-friendly contraceptive resources. MIHP also updated contraceptive resources on their website for their provider network as a result of contraceptive resources shared by the Family Planning Program. The Family Planning Program tabled at the 2018 Home Visiting Conference where over 500 home visitors were in attendance, including MIHP. Educational materials on contraceptive methods, preconception health, sexually transmitted infections, and healthy relationships were made available, along with MDHHS's Family Planning clinic directory.

Objective B: By 2020, increase by 5% the proportion of Michigan women who report ever having discussed reproductive life planning during a visit with a doctor, nurse, or other health professional.

This objective is also Michigan's ESM for the well-woman visit performance measure. Based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Michigan's FY 2018 reporting data indicates that 66.2% of women discussed reproductive life planning during a visit with a doctor, nurse, or other health professional. This was an increase over the previous reporting year, which was 64.3%. To continue to make progress on this objective, the Family Planning Program invited Suzanne Woodard, University of North Carolina Center for Maternal & Infant Health and Janis Bierman, March of Dimes, to present at the annual Family Planning Conference on preconception health and community messaging. During their morning keynote, *Preconception Health & Health Care Initiative: "Show Your Love Today" Program – Nationally Elevating Local Work*, the Before, Between, and Beyond Pregnancy educational modules and the National Preconception-Interconception Care Clinical Toolkit were promoted. This keynote was attended by approximately 110 conference participants. Session evaluations indicated an overwhelming majority of participants "strongly agreed" or "agreed" the presenters were knowledgeable, organized, and effective. Dr. Davidson, MDHHS Family Planning Medical Director, presented a lunch keynote on *Creating a Reproductive Life Plan (RLP) and Contraceptive Options for the Plan*, which sought to increase knowledge on the key components of an RLP, discuss the connection between RLP and preconception health care, and enhance providers' RLP counseling knowledge. This keynote was attended by approximately 105 participants. Session evaluations indicated an overwhelming majority of participants "strongly agreed" or "agreed" the presenters were knowledgeable, organized, and effective. In addition, Family Planning's Medical Advisory Committee promoted and disseminated the Before, Between, and Beyond Pregnancy educational modules and Preconception-Interconception Care Clinical Toolkit to local agencies. The MDHHS Family Planning program disseminated these resources to key contacts within Medicaid, clinical Home Visiting Programs, and healthcare organizations.

During FY 2018, the Family Planning Program started collaborating with the MDHHS Behavioral Health Program with the goal to equip case managers with the knowledge and skills to effectively asses substance misuse clients' pregnancy intentions and counsel on contraceptive options, in addition to facilitating the appropriate contraceptive care referral for pregnancy prevention. Family Planning presented to case managers during their October 2018 staff meeting. The presentation covered all FDA-approved contraceptive methods, medical condition considerations for contraception, and the shared decision-making model for contraceptive counseling. Case manager and client-friendly resources were also included within the presentation. Family Planning staff are creating and/or locating a job aid for case managers to improve confidence in assisting substance misuse clients in identifying a method of contraception that best fits their life and needs. Family Planning's clinic directory has been shared with Behavioral Health case managers and local clinics were notified that substance misuse clients may be referred for contraception. In FY 2019, Family Planning will continue working with the Behavioral Health Program, as well as explore opportunities for collaboration with Michigan's Adolescent Pregnant and Parenting Program, WIC, and local breastfeeding support groups.

Objective C: By 2020, increase by 5% the proportion of Michigan women who report having a routine check-up within the past year.

This objective is Michigan's National Performance Measure for the Women/Maternal Health domain. Based on the Behavioral Risk Factor Surveillance System (BRFSS), Michigan's FY 2018 reporting data indicates that 69.0% of women aged 18-44 years old had a preventive visit in the past year. This was an increase over the previous reporting year, which was 68.2%. To continue making progress on this objective, in FY 2018 Medicaid outreach opportunities were promoted among local Family Planning agencies. During the Open Enrollment Period, local Family Planning agencies assisted and enrolled clients in Medicaid or Medicaid Health Plans, the Marketplace, and other health insurance plans. For agencies without on-site enrollment, clients were referred to appropriate

organizations in the community. Local agencies also participated in enrollment events by distributing health insurance brochures and related educational materials. Medicaid outreach training and technical assistance opportunities were curtailed late in FY 2018 due to the restructuring of the Medicaid Outreach Consultant position and policy changes to Medicaid outreach reimbursement. In FY 2019, Medicaid plans to offer regional training opportunities to local health departments on outreach reimbursement policy changes. During 2018, 32% (n=62,707) of Family Planning clients reported utilizing public health insurance such as Medicaid or Healthy Michigan Plans (i.e., Medicaid Expansion).

Local Family Planning agencies were reviewed and monitored on the development of medical and social service referral agreements and collaboration at the local level, as well as their assessment of client needs for primary care or other services. Primary care providers are included as a minimum program requirement for client encounters and established medical referral agreements. Of the agencies reviewed during FY 2018, 100% had incorporated asking clients whether they were in need of primary care services into their Electronic Health Record systems and had current referral agreements with primary care providers within their community. Referrals to primary care providers were promoted on an as-needed basis.

During FY 2018, MDHHS used several tactics to assist local Family Planning providers in fostering relationships with Medicaid Health Plans. Local agencies are encouraged to establish formal arrangements with Health Plans. If that is not possible, then agencies are encouraged to foster informal relationships. MDHHS also focused efforts on receiving regular Medicaid updates, providing input on Medicaid's common formulary, and providing 340B prices on medications (i.e., antibiotics and contraceptives) to set reimbursements. In FY 2018, regular Medicaid updates were received during Family Planning's statewide Advisory Council. Local Family Planning agencies had the opportunity to provide input on the common formulary on a quarterly basis, and 340B medications prices were provided to Medicaid on a quarterly basis. Lastly, a *Partnering with Medicaid* breakout session was provided at the annual Family Planning Conference. MDHHS and Institute for Health Policy staff described Medicaid Health Plan population health and quality improvement initiatives, provided an overview of required performance measures, and identified opportunities for collaboration. Approximately 30 attendees participated in this session. Session evaluations indicated the majority of attendees "strongly agreed" or "agreed" the presenters were knowledgeable, organized, and effective.

Oral Health – Women/Maternal Health (FY 2018 Annual Report)

The MDHHS Oral Health Program (OHP) provides population-based oral health prevention efforts and effective utilization of the dental workforce in implementing and improving oral health access. With the increased awareness of the impact of oral health to overall health, the OHP has increased its collaborations with community partners to improve oral health through prevention activities and direct access programs. This remains evident in the activities of NPM 13 in FY 2018. In the original Title V Guidance, this two-part NPM was originally in the Cross-cutting/Life Course population domain. Starting in 2018, the two parts of the measure were separated between the Women/Maternal Health and the Child Health population domains. Therefore, the original objectives related to Women/Maternal Health (which are now integrated into the NPM 13.1 state action plan) are reported here.

Objective A: Increase the number of medical and dental providers trained to treat, screen, and refer pregnant women and infants to oral health care services.

During FY 2018, the Perinatal Oral Health Action Plan continued to be implemented to support better health status for women and girls. A main strategy continued to be the training and education of Michigan health professionals, particularly those who practice in and serve communities and women adversely impacted by health disparities. The

number of medical and dental professionals who receive perinatal oral health education through MDHHS is the ESM for this NPM. In FY 2018, the Perinatal Oral Health Program trained 648 health professionals in the medical and dental fields through lectures, webinars, conference calls and other training events. This number does not include the hundreds of additional professionals trained by partners, coalitions, and other Michigan entities. Michigan-specific Perinatal Oral Health Guidelines continue to be promoted, along with other educational materials. A partnership to teach a lecture on perinatal oral health to Nurse Midwifery and Nurse Practitioner students has continued with the university of Michigan School of Nursing, with lectures occurring each semester as part of the curriculum. This course contains a hands-on component as well as practical application in how to integrate oral health within your future practice. In addition, an interactive piece called “Why is Grace in the Emergency Room” helps initiate discussion on the social determinants of health and health equity. Positive student feedback continues to be measured at 99% with over 250 advanced practice nurses trained to date.

Objective B: Increase the number of pregnant women receiving oral health care services.

In FY 2017, MDHHS awarded grant funds to the University of Detroit Mercy (UDM) School of Dentistry to implement a dynamic medical dental integration program. The project officially launched in FY 2018. This partnership with the University of Detroit Mercy School of Dentistry, the Michigan Primary Care Association (MPCA) and the OHP identified a current successful pilot program in a Michigan FQHC. That model of care, which placed a dental hygienist directly within an OBGYN unit in an FQHC, was expanded to six participating FQHC sites in Michigan communities. In FY 2018, this nationally recognized project led to several thousand educational encounters, over a thousand referrals for needed treatment, and hundreds of cleanings for pregnant women. In addition, the model was proven to be financially sustainable within an FQHC setting and will be further expanded in coming years.

In FY 2018, the wichealth.org module was utilized not only in Michigan but other states that participate with wichealth.org. Wichealth.org provides stage-based, client-centered, WIC nutrition education and an anticipatory guidance model in which WIC clients could complete educational lessons in English or Spanish to receive their WIC benefits. Including Michigan, 15 states have selected the module for use at the end of FY 2018. Nearly 20,000 lessons were completed nationally since its inception. During the FY 2018 reporting period, over 11,000 lessons were completed nationally, with nearly 3,000 of those completed in Michigan. WIC serves a diverse population and targets those within a lower social economic demographic. By developing education in partnership with WIC, the Oral Health Program has been able to reach populations that may have the most need and may experience the most health disparities. The module has also been developed in Spanish to better serve WIC clients and continues to be utilized, with over 1,000 Spanish language lessons completions documented.

The Perinatal Oral Health Initiative has a Perinatal Oral Health Advisory Committee that continued to meet in FY 2018 to review current program practices as well as guide future priority areas. The committee is comprised of payers, MCH organizations and representatives, clinicians, and oral and maternal health focused organizations. This committee contributes to the promotion of perinatal oral health as well as program planning and evaluation, targeting Michigan’s most underserved areas.

Well-woman Visit (FY 2020 Application)

Michigan's first National Performance Measure (NPM) for the Women and Maternal Health Domain is "Percent of women with a past year preventive medical visit." According to the Michigan Behavioral Risk Factor Surveillance System (BRFSS), in 2017 69% of women aged 18 to 44 years had a preventive visit in the past year. Using predictive modeling, MDHHS set an ambitious 2020 target of 75% for this NPM due in part to a steep increase from 2012 to 2013. The increase has since plateaued and while it seems unlikely that MDHHS will meet the 75% target by 2020, MDHHS will continue to monitor and support activities to break the plateau. FY 2020 objectives are concentrated on improving the following areas: 1) contraceptive access; 2) preconception and interconception health; and 3) health care access. Associated strategies span individual, provider, organizational, and community levels. Most notably, consumers will be engaged through MDHHS social media accounts with messages to promote preconception health, well-woman visits, and other preventive health screenings. Messages may coincide with national health observance months like Women's Health Month in May.

While MDHHS will employ a breadth of strategies to achieve FY 2020 objectives for the well-woman NPM, systematic barriers persist. The current political climate surrounding women's health care and uncertainty of the Affordable Care Act does not encourage women to seek health care services nor does it foster a culture of preventive health care. Even though the Affordable Care Act has enabled millions more Americans access to affordable health insurance, social determinants of health hinder low-income and working poor families from moving beyond reactionary health care. While more Michiganders have a primary care provider, the focused attention on chronic disease makes it difficult to adequately address pregnancy intention and provide the client-centered contraceptive counseling patients deserve. In the reproductive health realm, because of annual Pap guideline changes coupled with the increased use in long-acting reversible contraceptives (LARC), it is challenging to entice women of reproductive age, especially young women, to attend an annual check-up when a Pap and a prescription for a method is no longer needed.

Title V funding supplements Title X Family Planning Program service delivery in Michigan. Acknowledging that the public health realm alone cannot move the needle on this NPM, MDHHS works to involve partners including hospitals, private providers, health plans and non-profit agencies. The second annual Maternal Infant Health Summit, *Integrating Public Health & Clinical Care,* was held in March 2019 to create synergy and align priorities between public and private agencies, as well as provide educational opportunities for clinicians, public health professionals, and other healthcare professionals. The Summit is a continued partnership between the MDHHS Maternal Infant Strategy Group, the Maternal Infant Health and Equity Collaborative, and the Alliance for Innovation on Maternal Health and is a strategic approach to improving maternal and infant health.

Additionally, MDHHS collaborated with statewide partners to develop a comprehensive statewide population health plan, the 2019 Mother Infant Health and Equity Improvement Plan (MIHEIP), to build upon existing maternal and infant health efforts with an enhanced focus on the root causes of maternal and infant outcomes—social determinants of health and drivers of inequality. The Improvement Plan's vision, *Zero preventable deaths. Zero health disparities,* will be achieved by working within local communities and with Michigan families to 1) align public and private sector interventions, 2) integrate interventions across the mother infant dyad, and 3) address disparities employing Population Health Management techniques that ensure the most marginalized populations receive high-impact interventions. Healthy mothers, babies, and families are the foundation of a healthier and economically robust Michigan. Objectives and strategies for NPM 1 align with MIHEIP due to the emphasis on preventing unintended pregnancy, promoting healthy birth spacing and addressing women's chronic disease issues prior to pregnancy. These are key interventions to preventing maternal and infant deaths.

Objective A: Increase the percent of females aged 15 to 44 who use a most or moderately effective contraceptive method from 81% to 84% by 2020.

Contraception is a highly effective clinical preventive service that assists women in achieving their reproductive health goals, such as preventing teen and unintended pregnancy and achieving healthy spacing of births. While there is no single method of contraception that is right for everyone, the type of contraceptive method used by a woman is strongly associated with her risk of unintended pregnancy. Having access to a full range of effective contraceptive methods allows each woman the opportunity to choose the method that is right for her to successfully delay or prevent pregnancy. In 2018, 78% of female Family Planning clients aged 15 to 44 years old chose a most (i.e., sterilization, vasectomy, or LARC) or moderately effective (i.e., pills, patch, ring, cervical cap, or diaphragm) method, with 16% choosing LARC. Most or moderately effective (MME) method use peaked at 86% for Family Planning in 2016 and has declined approximately two percentage points each year while LARC use (12%, 2016) has increased by the same amount each year for this age group. To increase contraceptive access to individuals at greater risk of unintended pregnancy, a number of local agencies have integrated their Family Planning and STD clinics, which has resulted in more comprehensive services for men and women. At the same time, this has also resulted in an increase of females aged 15 to 44 who report male condoms as their primary method of contraception. MDHHS will continue to work toward increasing access to MME methods while balancing individuals' contraceptive needs and preferences.

The first strategy will support the provision of contraception to low-income, uninsured, and underinsured women in the Family Planning Program. This strategy addresses health disparities and equity by prioritizing women of reproductive age who might not otherwise have access to no-cost or low-cost contraception. A strong focus will be working to assure Michigan's Family Planning network of 31 local agencies and 92 clinical sites offer a broad range of FDA-approved contraception and client-centered counseling according to national standards of care from *Providing Quality Family Planning Services: Recommendations of CDC and the U.S. Office of Populations Affairs*. Family Planning providers are required to have a broad range of contraceptives available including LARCs. In FY 2020, MDHHS will monitor local agency provision of contraception through comprehensive site visits and semi-annual Family Planning Annual Report (FPAR) submissions. MDHHS collects Family Planning client input annually through a statewide consumer survey administered at each clinic site. Results of the statewide survey will be presented at the program's Advisory Council meeting and shared with partners. Local Family Planning agencies routinely collect consumer input for continuous quality improvement.

The second strategy is to host at least one clinical practicum on the insertion and removal of LARC for Title X and other health care providers. Local providers have indicated routine training on LARC as an area of need. In FY 2020, the MDHHS Family Planning Program will offer at least one clinical practicum. The clinical practicum will be promoted with Medicaid Health Plan providers and Federally Qualified Health Centers. Additional training opportunities will be offered to statewide clinical programs and health care organizations, as needed. Additionally, the MDHHS Family Planning Program can assist local providers by connecting them with pharmaceutical companies for individual or regional trainings.

The third strategy, support urban and rural hospitals' provision of immediate post-partum LARC via the Michigan Collaborative for Contraceptive Access, will focus on building an implementation toolkit, offering toolkit application support, and studying successful hospitals. The benefits to participating hospitals include webinars and peer mentorship, one-on-one TA/coaching, site-specific evaluation plans, data monitoring, site-specific reports, and salary support for project management. In FY 2020, MDHHS will be a key partner assisting with implementation, evaluation, and technical assistance efforts. At least one webinar will address health equity by educating participating providers in the demonstration projects on the history of reproductive coercion experienced primarily by women of color and low-income white women and how that should be considered when conducting contraceptive

counseling.

The fourth strategy, promote contraceptive and reproductive health services offered by the Family Planning Program in communities with high infant mortality rates with significant African American and Hispanic populations, will focus on elevating community awareness about nearby Family Planning clinics. In FY 2020, MDHHS will administer the awareness campaign at least once using multiple media modalities such as audio streaming (e.g., Spotify), Digital (e.g., mobile web/Hispanic mobile), and Google Adwords. The campaign will target low-income and uninsured individuals who are 20 to 35 years old. Key social media metrics will be gathered, such as reach and engagement, to evaluate community awareness efforts.

The fifth strategy, utilize the Family Planning Program's competitive local request for proposal (RFP) to improve access to reproductive health services in communities with high minority populations and infant mortality rates, will focus on local RFP promotion and provider recruitment. In FY 2020, the Family Planning Program will promote its local RFP with state, local, and non-traditional partners to increase provider interest in applying for Title X funds to expand reproductive healthcare access to marginalized and vulnerable populations across the state. Multiple modalities will be used for promotion.

Objective B: Increase the percent of women who report ever having discussed reproductive life planning during a visit with a doctor, nurse, or other health professional from 64% to 65% by 2020.

Family Planning providers and other health care professionals recommend women and men of reproductive age who want to achieve or prevent a pregnancy consider making a reproductive life plan. Reproductive life plans assist individuals in thinking about when and under what conditions they would like to become pregnant or, conversely, thinking about how pregnancy will be prevented, with the primary focus on increasing the overall health and well-being of the individual regardless of reproductive intentions. This objective is also Michigan's Evidence-Based Strategy Measure (ESM) for this performance measure, which is focused on developing quality health care services. Given the majority of women of reproductive age either want to prevent or achieve pregnancy, focusing on strategies aimed at increasing preconception health (such as reproductive life planning) is a smart investment. According to the 2017 Michigan BRFSS, 66.2% of Michigan women aged 18 to 44 reported ever having discussed reproductive life planning during a visit with a doctor, nurse or other health professional, indicating an increase over the previous reporting year, which was 64.3%. Despite the increase from previous reporting years, Family Planning providers and other health care professionals are experiencing barriers to addressing prevention across the life span, preconception health, and contraceptive care with women of reproductive age.

The first strategy, to discuss reproductive life planning with at least 60,000 women in the Family Planning Program, will focus on determining clients' need for contraception and preconception health services by assessing when they would like to become pregnant, the number of children they would like to have, and how long they want to wait to become pregnant. Clients are asked a version of these questions at each encounter as documented in the medical record. In FY 2020, MDHHS will monitor local agency assessment of clients' reproductive life plans through comprehensive site visits. This strategy addresses health disparities and equity by focusing services in Family Planning clinics with priority populations of low-income women and men, teens, and uninsured/underinsured individuals.

The second strategy—assist Medicaid with pay-for-performance (P4P) client-centered contraceptive counseling for Health Plans—will focus on incentivizing Medicaid Health Plan contracted providers to enhance their knowledge and skills related to client-centered contraceptive counseling using Family Planning's Contraceptive Counseling Modules. In FY 2019, Family Planning was prepared to support the enhancement of Medicaid Health Plan providers' contraceptive counseling skills to increase access to effective contraceptives through a pilot project in partnership

with Michigan Medicaid Managed Care. This pilot project has been put on hold, as Medicaid shifted its focus to pay-for-performance, a more feasible strategy. In FY 2020, Family Planning will monitor contracted provider completions of the modules and share with Medicaid, review provider feedback for continuous quality improvement, and maintain the clinical accuracy.

The third strategy—expand use of client-centered reproductive life plan and contraceptive counseling among programs that serve at-risk women— will focus on enhancing service providers' ability to counsel clients on pregnancy intention, being healthy prior to pregnancy, and pregnancy spacing for optimal health. Additionally, service providers will be able to make the appropriate contraceptive care referrals for pregnancy prevention. In FY 2020, efforts will focus on incorporating lessons learned from FY 2019 to refine tools and service provider talking points and partnering with state (e.g., Michigan Adolescent Pregnant and Parenting Program, WIC) or local programs (e.g., Breastfeeding Coalitions). Ideally, this intervention will be integrated into existing service delivery components with minimal disruption to the fidelity of evidence-based or evidence-informed service models. State and local level programs situated within high infant mortality communities will be prioritized. This strategy addresses health disparities and equity by equipping staff in programs that serve at-risk women with the ability to help their clients identify the most appropriate contraceptive method for them.

The fourth strategy, disseminate preconception health messages on MDHHS social media accounts, will focus on developing or using existing social media and promotional tools to increase community awareness about the benefits of being healthy prior to pregnancy. Additionally, MDHHS will include information on state and local resources, as appropriate. In FY 2020, MDHHS's social media presence will be aligned with national health observances such as National Women's Health Week. MDHHS will collaborate with state and local partners to amplify social media messaging. Key social media metrics such as reach and engagement will be used to evaluate community awareness efforts.

The fifth strategy, offer at least one reproductive justice-focused pregnancy intention training to Family Planning and other healthcare providers, will focus on shifting how providers conceptualize unintended pregnancy, assess pregnancy intention, and counsel on contraception to better balance client preferences with public health goals. In FY 2020, MDHHS will utilize its training and events schedule to offer this professional development opportunity to Family Planning and other healthcare providers. Participant evaluations will be used to assess the training and provider needs.

Objective C: Increase the percent of women with a past year preventive medical visit from 68% to 75% by 2020.

Access to comprehensive quality health care services assists individuals in participating in routine preventive appointments—thereby improving the ability to address health issues as they arise—and fosters positive long-term health outcomes. According to the 2017 Michigan BRFSS, 69% of Michigan women aged 18 to 44 reported having a preventive visit during the past year, indicating that barriers to obtaining health insurance, accessing health care services, and finding a trusted provider still exist.

The first strategy, assess racial/ethnic health care access disparities in Michigan, will focus on analyzing state surveillance data and (to the extent possible) statewide program data to evaluate gaps in health care access experienced by women of color. In FY 2020, Family Planning's epidemiologist will analyze relevant data sources; findings will be shared with state and local partners and stakeholders; and strategies will be developed to address social determinants of health using state, regional, and local collaboratives/coalitions. This strategy addresses health disparities by identifying differences in access to care for Michigan women by racial/ethnic backgrounds. Relevant program and statewide data sources (e.g., FPAR, Michigan BRFSS) will be used to assess disparities in health

care access.

The second strategy, to promote referrals to primary care providers within Family Planning clinics, will focus on enhancing Family Planning client referrals to primary care providers. In FY 2020, local Family Planning agencies will continue to assess client need for primary care referrals, update referral agreements with primary care providers as necessary, and strengthen linkages. The MDHHS Family Planning Program will continue to strengthen state and local level relationships with primary care organizations, particularly Federally Qualified Health Centers, by using appropriate training opportunities offered by the Michigan Primary Care Association and the annual Family Planning Conference.

The third strategy—partner with Medicaid and Medicaid Health Plans to educate Family Planning providers on policy issues—will focus on receiving regular Medicaid updates, providing input on Medicaid's common formulary, and providing 340B prices on medications (i.e., antibiotics and contraceptives) to set reimbursements. In FY 2020, regular Medicaid updates will be received during Family Planning's statewide Advisory Council. Local Family Planning agencies will have the opportunity to provide input on the common formulary on a quarterly basis, and 340B medication prices will be provided to Medicaid on a quarterly basis. Additional opportunities to partner with Medicaid and Medicaid Health Plans will be pursued as appropriate.

The fourth strategy, to disseminate well-woman and other preventive health messages on MDHHS social media accounts, will focus on developing or using existing social media and promotional tools to increase community awareness about the importance of annual visits, as well as the benefits of other preventive health screenings such as hypertension, depression, and HIV. MDHHS will also include information on state and local resources, as appropriate. In FY 2020, MDHHS's social media presence will be aligned with national health observances (e.g., Cervical Health Awareness Month). MDHHS will collaborate with state and local partners to amplify social media messaging. Social media metrics such as reach and engagement will be used to evaluate community awareness efforts.

Oral Health – Women/Maternal Health (FY 2020 Application)

Through the need's assessment process, the state priority need "Increase access to and utilization of evidence-based oral health practices and services" was originally selected for the cross cutting/life course domain. NPM 13 was selected to address this priority need: A) Percent of women who had a dental visit during pregnancy and B) Percent of children, ages 1-17, who had a preventive dental visit in the past year. Given the changes to the Title V NPM framework in 2018, this NPM is now discussed across two different population domains (Women/Maternal Health and Child Health) since Michigan retained both components of the NPM.

Leadership for Michigan's MCH oral health programs and initiatives is located within the Oral Health Unit. The Oral Health Unit and Perinatal Oral Health Initiative is housed within the Bureau of Family Health Services in the Population Health Administration, allowing for collaboration, particularly on issues related to women's oral health. The Perinatal Oral Health Initiative partners not only with state programs such as the Maternal Infant Health Program and WIC, but also with Michigan medical and dental schools, nurse practitioner programs, community organizations and local health departments, focusing on partnerships that serve the neediest Michigan populations and promote health equity. The Perinatal Oral Health Initiative also partners with Medicaid in the new, enhanced dental benefit for pregnant women.

In FY 2020, the Perinatal Oral Health Initiative will maintain educational efforts for the health community and expecting mothers while also exploring additional data to help implement new programs that further address oral health

disparities and access to care issues. Current PRAMS data indicate that disparities exist. The proportion of women having their teeth cleaned before pregnancy decreases nearly 10 percent during pregnancy. Over half of mothers (60.3%) who did not have a cleaning during pregnancy had dental insurance, indicating that education and awareness remain challenges. Existing strategies that continue to educate providers as well as new strategies that focus on alternative practice models and recent Medicaid enhancements will continue to be harnessed to address these disparities. Mapping where the oral health disparities are located and looking at the oral health available will help identify where planning needs to address.

Objective A: Increase the number of medical and dental providers trained to treat, screen, and refer pregnant women and infants to oral health care services.

In FY2020, the MDHHS Oral Health Program will continue to expand efforts to train and educate the medical and dental communities on the importance of perinatal oral health, as well as methodologies and best practices to integrate perinatal oral health into practice. Data collected from a statewide provider survey indicates that many medical providers (82%) acknowledged that perinatal oral health was an important consideration for optimal obstetric management; however, only one-fifth (22%) of providers stated that they routinely examined the patient's oral cavity during pregnancy. Routine oral health assessments by a dentist were also infrequently recommended (28%). These data indicate a need to promote the practices of oral health screening and referral for preventive and restorative dental services among perinatal care providers. In addition, there is a need to provide resources that assist in facilitation of referrals.

The evidence-based or -informed Strategy Measure (ESM), which is the number of medical and dental professionals who receive perinatal oral health education through MDHHS, is part of this objective. Departmental trainings and workshops will increase provider knowledge of perinatal oral health as well as provider comfort in discussing the importance of oral health with patients. A database of training records is utilized, with the output defined as the number of medical and dental professionals trained by MDHHS. The Perinatal Oral Health Initiative will continue to encourage provider feedback and engagement regarding these trainings. This strategy aligns with the MIHIEP through its focus on early, comprehensive prenatal care.

Another strategy is dissemination of the Perinatal Oral Health Guidelines as well as promotional and educational materials. This effort aligns with the MIHIEP by addressing the need to screen for preexisting conditions and target those most at risk for adverse health outcomes. Together with a variety of medical and dental professionals and other stakeholders, MDHHS developed Perinatal Oral Health Guidelines to create a unifying voice that emphasizes the importance of perinatal oral health to perinatal care and dental providers. The guidelines provide state-specific resources and tools; provide a summary of the issues surrounding perinatal oral health; and promote the consistent delivery of medical and dental service. In FY 2020, these guidelines will be updated and further promoted across the state. Additions to the guidelines will focus on health equity and proposed recommendations as to how to begin to address this issue between providers and pregnant women.

MDHHS will continue to develop and distribute promotional and education materials that promote dental visits during pregnancy and infant oral health to health entities across the state. In FY 2019, new opioid guidance regarding pregnancy and oral health for dentists was developed in partnership with the National Maternal and Child Oral Health Resource Center and is being promoted throughout the state. These materials will continue to be developed in partnership with stakeholders and distributed to local health departments, Federally Qualified Health Centers (FQHCs), WIC clinics, dental offices, medical offices (including obstetric providers) and other entities. The promotion of these materials has been a successful strategy and with consistent requests for more materials, this strategy will continue in FY 2020. Any new materials created will be viewed with a health equity lens and materials will begin to reflect that lens.

The final strategy will include the continuation of communication efforts for dental health providers surrounding changes in Medicaid benefits for pregnant women. In FY 2019, MDHHS allotted funds to increase the adult dental Medicaid benefit for pregnant women within the state. This increase in benefit carved dental benefits into Medicaid health plans and increased the availability of dental providers, addressing a critical need in access to care and increasing the number of pregnant women with a dental visit. There have been challenges regarding the rollout of this benefit, and continuing communication efforts will be made in FY2020 to help educate the public and professionals. In addition, utilization data will become available in FY2020 to help measure the impact of the benefit and guide further educational efforts. This strategy aligns with the MIHIEP by focusing on data-driven solutions, addressing the need for comprehensive care, and reducing poor health outcomes.

Objective B: Increase the number of pregnant women receiving oral health care services.

In FY2020, the OHP will analyze PRAMS data to assess disparities in healthcare access by race and ethnicity. In addition, new questions will be added to PRAMS to further determine the scope of the access issue and provide further data to the OHP. These data will be examined by geographic area as well, leading to targeted interventions. The targeted interventions will be viewed through a health equity lens and will be adjusted according to the population and groups they address. This strategy aligns with the MIHIEP focus on data integration and population identification components.

In FY 2020, the Michigan Initiative for Maternal and Infant Oral Health (MIMIOH) will continue to expand to new sites. Its goal is to improve the oral health of mothers and children in under-served areas and to examine alternative models of care. The MDHHS grant-funded effort began as a one-year project at six sites in partnership with the University of Detroit Mercy School of Dentistry and the Michigan Primary Care Association, with the aim to examine the feasibility and impact of placing a registered dental hygienist within an OBGYN medical clinic. The completion of this one-year grant led to partners receiving additional funding from Delta Dental to identify and implement into new settings. FY 2019 efforts currently include strategically planning a more robust, sustainable model while concurrently expanding and improving the current program. Outputs and measures include project sustainability and the number of patients seen via this alternative model of care. This collaborative model of care also allows for feedback and engagement not only from providers but from the patients served. These efforts will be continued in FY 2020 while also looking to expand into the pediatric departments of the FQHCs and exploring the possibility of integration directly within family practice settings.

In FY 2020, the MDHHS Oral Health Program will continue to provide education to women via the Perinatal Oral Health WIC Module. This module (delivered through wichealth.org) has served as a training mechanism to mothers across Michigan and on a national level. Wichealth.org provides stage-based, client-centered, WIC nutrition education and an anticipatory guidance model in which WIC clients can successfully complete educational lessons in English and Spanish, with women completing lessons to receive their WIC benefits. Women receive personalized feedback and educational materials as well as nurse follow up on any questions raised during the training. This model allows for consumer engagement and feedback from participants. By partnering with WIC, the Oral Health Program can target a diverse range of women who may struggle with health disparities. This strategy will continue to be evaluated through the number of women who complete the perinatal oral health module. Since its inception, nearly 20,000 lessons have been completed nationally. Developing the modules in other languages or being able to provide the interpretative services will help with addressing language barriers of other populations.

Perinatal/Infant Health

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths	NVSS-2016	6.1	NPM 3
NOM 9.1 - Infant mortality rate per 1,000 live births	NVSS-2016	6.4	NPM 3 NPM 4 NPM 5
NOM 9.2 - Neonatal mortality rate per 1,000 live births	NVSS-2016	4.2	NPM 3
NOM 9.3 - Post neonatal mortality rate per 1,000 live births	NVSS-2016	2.2	NPM 4 NPM 5
NOM 9.4 - Preterm-related mortality rate per 100,000 live births	NVSS-2016	233.9	NPM 3
NOM 9.5 - Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births	NVSS-2016	94.4	NPM 4 NPM 5

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

	2016	2017	2018
Annual Objective	89.4	90.1	90.1
Annual Indicator	89.2	88.9	86.7
Numerator	1,547	1,511	1,462
Denominator	1,735	1,699	1,687
Data Source	2015 Michigan Resident Live Birth File	2016 Michigan Resident Live Birth File	2017 Michigan Resident Live Birth File
Data Source Year	2015	2016	2017
Provisional or Final ?	Final	Final	Final

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	91.5	92.1	92.7	93.2	93.7	94.1

Evidence-Based or –Informed Strategy Measures

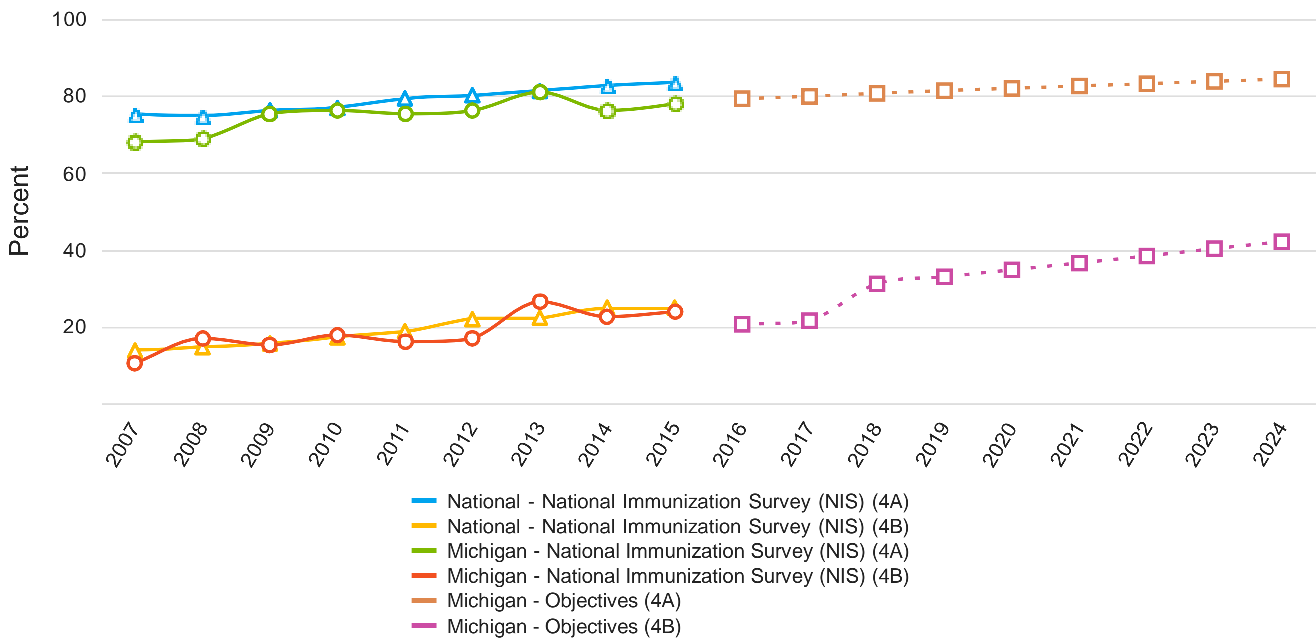
ESM 3.1 - Number of CenteringPregnancy sites in Michigan

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		12	12
Annual Indicator	14	12	14
Numerator			
Denominator			
Data Source	Centering Health Institute	Centering Health Institute	Centering Healthcare Institute
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	12.0	12.0	12.0	16.0	16.0	16.0

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)			
	2016	**2017**	**2018**
Annual Objective	79.1	79.7	80.5
Annual Indicator	80.8	75.9	77.7
Numerator	82,892	86,976	88,168
Denominator	102,591	114,556	113,401
Data Source	NIS	NIS	NIS
Data Source Year	2013	2014	2015

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	81.2	81.8	82.4	83.0	83.6	84.2

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

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2016	**2017**	**2018**
Annual Objective	20.6	21.5	31.1
Annual Indicator	26.6	22.6	23.9
Numerator	25,900	25,415	25,921
Denominator	97,537	112,351	108,464
Data Source	NIS	NIS	NIS
Data Source Year	2013	2014	2015

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	32.9	34.7	36.5	38.3	40.2	42.0

Evidence-Based or –Informed Strategy Measures

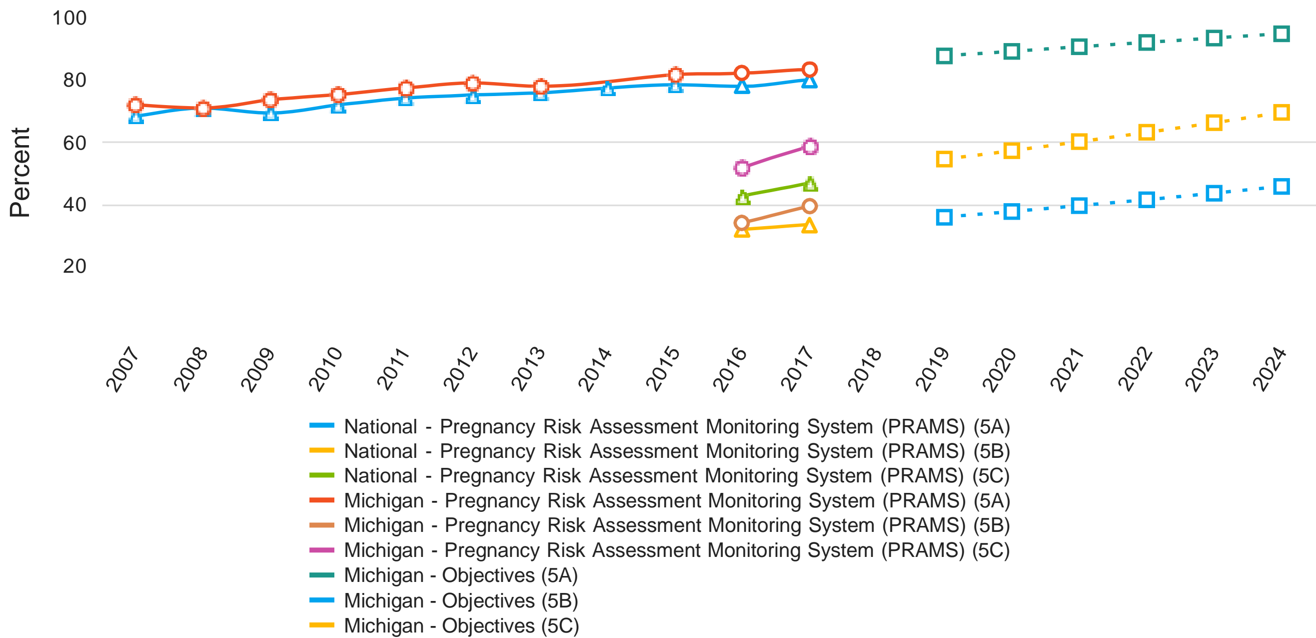
ESM 4.1 - Percent of Baby-Friendly designated birthing hospitals in Michigan

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		17	20
Annual Indicator	14.3	14.5	19.5
Numerator	12	12	16
Denominator	84	83	82
Data Source	Baby-Friendly USA, Inc.	Baby-Friendly USA, Inc.	Baby-Friendly USA, Inc.
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	23.0	26.0	29.0	31.0	33.0	35.0

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
Annual Objective		
Annual Indicator	81.4	83.3
Numerator	86,585	87,247
Denominator	106,318	104,718
Data Source	PRAMS	PRAMS
Data Source Year	2015	2017

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	87.6	89.0	90.5	91.9	93.3	94.7

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
Annual Objective	
Annual Indicator	39.2
Numerator	39,142
Denominator	99,861
Data Source	PRAMS
Data Source Year	2017

State Provided Data		
	2017	**2018**
Annual Objective		
Annual Indicator	74.7	34
Numerator	77,520	34,751
Denominator	103,790	102,182
Data Source	PRAMS	PRAMS
Data Source Year	2015	2016
Provisional or Final ?	Final	Final

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	35.7	37.5	39.4	41.3	43.4	45.6

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
Annual Objective	
Annual Indicator	58.3
Numerator	58,277
Denominator	99,994
Data Source	PRAMS
Data Source Year	2017

State Provided Data		
	2017	2018
Annual Objective		
Annual Indicator	74.6	51.8
Numerator	78,063	52,803
Denominator	104,629	101,994
Data Source	PRAMS	PRAMS
Data Source Year	2015	2016
Provisional or Final ?	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	54.4	57.1	60.0	63.0	66.1	69.4

Evidence-Based or –Informed Strategy Measures

ESM 5.1 - Number of birthing hospitals trained on infant safe sleep

Measure Status:	Active

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	8.0	16.0	24.0	32.0	40.0	48.0

ESM 5.2 - Number of Maternal Infant Health Program (MIHP) agencies that have staff trained to use motivational interviewing with safe sleep

Measure Status:	Active

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	85.0	90.0	95.0	105.0	110.0	105.0

State Action Plan Table

State Action Plan Table (Michigan) - Perinatal/Infant Health - Entry 1

Priority Need

Support coordination and linkage across the perinatal to pediatric continuum of care

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

A) By 2020, support the implementation and evaluation of Regional Perinatal Quality Collaboratives (RPQCs) in all ten regions

B) By 2020, increase Risk Appropriate Care for infants from baseline data indicators by 20%: Very Low Birth Weight (VLBW); Low Birth Weight (LBW); and prematurity

C) By 2020, expand quality improvement efforts related to the prevention and response of Perinatal Substance Use via the Regional Perinatal Quality Collaboratives (RPQCs)

Strategies

A1) Provide financial and staff support to assist Regional Perinatal Quality Improvement Initiatives A2) Assess for, and pursue, expansion of RPQC quality improvement efforts in other regions in Michigan A3) Promote department directives (especially to address health disparities and inequities in low/very low birth weight and prematurity) to ensure alignment with statewide maternal infant health strategies, including the Mother Infant Health and Equity Improvement Plan (MIHEIP)

B1) Promote case management/care coordination for at-risk pregnant women in Michigan through evidence-based programs such as CenteringPregnancy©; CenteringParenting©; maternal, infant and early childhood home visiting (MIECHV); and maternal infant health program (MIHP) B2) Participate in The American College of Obstetricians and Gynecologists (ACOG) Alliance for Innovation on Maternal Health (AIM) B3) Lead statewide maternal and infant vitality efforts through the statewide Mother Infant Health and Equity Improvement Plan (MIHEIP)

C1) Promote opioid use disorder prevention and increase screening and identification of women (especially those of childbearing age) for opioid use disorder through Regional Perinatal Quality Collaboratives. Data stratification will allow the RPQCs to identify disparities and inequities in PSUD populations C2) Enhance capacity to provide treatment for women identified as affected by opioid use disorder through cross-sector partnerships within each regional perinatal quality collaborative C3) Improve workforce development and training programs to improve education and training related to Neonatal Abstinence Syndrome (NAS) and maternal care perinatally and postpartum via regional perinatal quality collaboratives

ESMs	Status
ESM 3.1 - Number of CenteringPregnancy sites in Michigan	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 (Michigan) - Perinatal/Infant Health - Entry 2

Priority Need

Support coordination and linkage across the perinatal to pediatric continuum of care

NPM

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

Objectives

A) Increase percentage of Baby-Friendly designated birthing hospitals to 26% by 2020

B) Reduce the disparity in breastfeeding initiation between non-Hispanic white women and non-Hispanic black women from an average of 12.1% to 11.9% by 2020

Strategies

A1) Support Michigan birthing hospitals' individual goals to continue movement along the Baby-Friendly pathway as identified through MIHEIP implementation A2) Continue and expand breastfeeding supportive practices by providing trainings and/or materials to 15 birthing hospitals A3) Encourage key partners to develop one specific strategy to support efforts to increase the number of Baby-Friendly hospitals

B1) Increase training opportunities to improve the number, availability, and racial and cultural diversity of breastfeeding professionals B2) Facilitate collaborative community efforts in two communities to impact low breastfeeding initiation rates among women of color B3) Learn approaches to address disparities in breastfeeding rates by meeting annually with statewide groups that are explicit to supporting breastfeeding for non-white women

ESMs	Status
ESM 4.1 - Percent of Baby-Friendly designated birthing hospitals in Michigan	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 - Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

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

Priority Need

Foster safer homes, schools, and environments with a focus on prevention

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

A) Increase percent of infants put to sleep on a separate approved sleep surface to 37.5% by 2020

B) Increase percent of infants placed to sleep without soft objects or loose bedding to 57.1% by 2020

C) Reduce the gap between non-Hispanic white women and non-Hispanic black women in following safe sleep guidelines by 2020

Strategies

A1, B1) Support safe sleep activities of local health departments and the Inter-Tribal Council of Michigan A2, B2) Support providers who educate families on safe sleep and facilitate new partnerships to make it possible for families to receive infant safe sleep education at all potential touchpoints A3, B3) Develop and disseminate safe sleep messages based in best practices and families' experiences A4, B4) Develop and disseminate tools for providers to have effective, non-judgmental, and culturally-sensitive conversations about safe sleep A5, B5) Support promotion of protective factors (i.e. smoking cessation, breastfeeding, immunizations)

C1) Provide training and support to local health departments on health equity C2) Dedicate at least one infant safe sleep webinar annually to the topic of health equity C3) Send at least one message on the topic of health equity via the Infant Safe Sleep for Professionals list per quarter

ESMs	Status
ESM 5.1 - Number of birthing hospitals trained on infant safe sleep	Active
ESM 5.2 - Number of Maternal Infant Health Program (MIHP) agencies that have staff trained to use motivational interviewing with safe sleep	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 - Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

Perinatal/Infant Health Overview

Perinatal and infant health is a central focus of BFHS, which supports programs designed to ensure infants are born healthy and ready to thrive. The Perinatal and Infant Health Section within BFHS oversees many programs including the Regional Perinatal Quality Collaboratives, Maternal Infant Health Program (MIHP), Infant Safe Sleep, Fetal Infant Mortality Review, Safe Delivery, and the Early Hearing Detection and Intervention program. MIHP provides Medicaid-funded home visits to women while pregnant and infants in their first year of life, and other infant health services focused on needs such as infant mortality prevention, safe sleep, breastfeeding, and vision and hearing screening. Title V funds a variety of programs and initiatives related to perinatal and infant health, including projects related to sudden infant death syndrome, prenatal care outreach, fetal alcohol syndrome, PRAMS, and infant and maternal mortality reduction. Title V also funds regional perinatal quality collaboratives across the state that are using quality improvement methods to test strategies for reducing infant mortality and improving infant health. Other federal funding is also used to identify and meet the needs of this population, such as WIC (USDA), Universal Newborn Hearing Screening and Intervention (HRSA), and PRAMS (CDC). Perinatal and infant health is promoted through a network of partnerships, including those with health care providers, labor and delivery hospitals, the Maternal Infant Strategy Group, the Michigan Association for Infant Mental Health, and universities.

Michigan's approach for perinatal and infant health emphasizes implementing strategies that prevent infant mortality, which is a critical indicator of the degree to which a community takes care of its women and children. In Michigan, the infant mortality rate has decreased from 7.5 deaths per 1,000 births in 2009 to 6.8 per 1,000 births (NVSS) in 2017. A similar trend has been documented nationwide. However, the risk doubles to 14.6 among non-Hispanic Black babies and is substantially greater (9.0) for babies born to mothers who are under 20 year of age. These data suggest that, while we are better prioritizing the needs of women and children in general, the needs of Black families and young families remain unmet. Another critical signal of wellbeing in the perinatal period and an important factor in the health of infants is postpartum depression. From 2012 through 2017, Michigan PRAMS reports the proportion of mothers reporting postpartum depression symptoms has remained constant at 13.5%. However, 18.2% of women with Medicaid prenatal care experienced depression symptoms postpartum compared to 9.0% for those without Medicaid, suggesting that women living with limited incomes face stressors around childbirth that women with greater resources are more protected from experiencing.

Risk-appropriate Perinatal Care (FY 2018 Annual Report)

Building on Michigan's existing perinatal care system, FY 2018 resulted in ongoing Regional Perinatal Quality Collaborative quality improvement efforts in northern lower, west, southeast, southwest and the Upper Peninsula of Michigan and efforts to begin expansion into the Saginaw/Bay and Thumb areas of Michigan. Regional Perinatal Quality Collaborative efforts have served as the backbone of addressing risk-appropriate care for mothers, infants and perinatal substance use. In FY 2018, Title V federal funding was used to support four Regional Perinatal Quality Collaboratives. Title V funding was also used to support other activities related to maternal health, including the Michigan Maternal Mortality Surveillance (MMMS) Program and the Pregnancy Risk Assessment Monitoring System (PRAMS). Focus remained on linking families to the evidence-based CenteringPregnancy and CenteringParenting prenatal and postnatal care models and evidence-based home visiting, which have been proven to improve birth outcomes.

The importance of comprehensive system linkages and quality improvement remain the driving force behind Michigan's efforts to improve maternal, infant and family health. In FY 2018, partnerships and collaborations were solidified and strengthened with Healthy Start projects; WIC clinics; Maternal, Infant and Early Childhood Home Visiting (MIECHV) Programs; local health departments (LHDs) receiving Title V funding; and many other maternal

and child health partners.

Objective A: By 2020, support the implementation and evaluation of Regional Perinatal Care Systems in five pilot communities or regions.

In FY 2018, Regional Perinatal Quality Collaborative projects encompassed seven of the ten Michigan-designated Prosperity Regions. Perinatal Quality Collaboratives are in southeast, west, northern Lower, southwest, the Saginaw/Bay area and the Upper Peninsula of Michigan. Each regional project is charged with utilizing quality improvement methodology aimed at improving maternal and infant health. All projects are required to review available birth outcome data (stratified by race, ethnicity, age and socioeconomic status) to identify inequities and gaps in care; both of which shape the focus of each region's quality improvement project(s). Additionally, every region is to address the social determinants of health as the root cause of health inequity. Each regional collaborative is composed of diverse regional partners vested in improving maternal and child health outcomes. Birthing hospitals, LHDs, Medicaid Health Plans, Healthy Start projects, evidence-based home visiting programs, Great Start Collaborative representatives and Community Foundations are just a sample of the stakeholders and members of the Regional Perinatal Quality Collaborative projects. The most important stakeholders, however, are the families residing in each region. Family input on the regional efforts, as well as barriers and inequities experienced, has been garnered in the form of focus groups, attendance at regional meetings and regional "town hall" meetings.

Southeast Michigan (inclusive of Wayne, Oakland and Macomb counties) is home to 24 of Michigan's 81 birthing hospitals. Of these 24 birthing hospitals in southeast Michigan, ten are neonatal intensive care units (NICUs) and represent just under half of the NICUs in Michigan. In calendar year 2017, 45,691 (41%) of the births in Michigan occurred in southeast Michigan. Prior to designing their quality improvement project, the southeast Michigan team received data related to zip codes in the City of Detroit with the highest infant mortality rates. In an effort to address these areas of high infant mortality, the team designed its quality improvement project around increasing referrals and utilization of evidence-based home visiting from three prenatal care clinics and a NICU in the City of Detroit. These clinics, NICU and home visiting agencies serve the areas of the City identified as 'hot spots' for infant mortality.

West Michigan contains 13 rural and urban counties, nine LHDs, 12 birthing hospitals, two NICUs and a reported 19,377 births in calendar year 2017. This regional quality collaborative has divided into two workgroups: one to increase substance use screening in pregnant women and one to increase utilization of evidence-based home visiting services. Each workgroup is hoping to implement their interventions in both rural and urban settings. The populations of focus for these two workgroups were identified through stratification of data and noting that certain geographic areas of the region had poorer birth outcomes and more cases of infant morbidity.

Northern Lower Michigan is made up of 21 counties, nine birthing hospitals, and one NICU. In calendar year 2017, 4,693 live births were reported. This region is working to increase substance use screening in pregnant women through an electronic screening tool, ensure women with Perinatal Substance Use Disorder (PSUD) are linked to appropriate providers for treatment and increase referrals and utilization of home visiting programs. Northern Lower Michigan identified a need for PSUD screening, based on data related to smoking in pregnancy, Neonatal Abstinence Syndrome cases and after surveying prenatal clinics on their use of screening tools.

The Upper Peninsula is 16,377 square miles, has 15 counties, eight birthing hospitals, and one NICU. In calendar year 2017, 2,664 live births were reported. Recent Neonatal Abstinence Syndrome (NAS) data reflects the highest rates occurring in the Upper Peninsula. Given these results, along with the high number of women who smoke while pregnant, the team decided to focus their efforts on increasing substance use screening in pregnant women,

increase care coordination of PSUD treatment and obstetric care, reduce stigma related to care of babies with Neonatal Abstinence Syndrome (NAS) and implement the Society for Public Health Education (SOPHE) Smoking Cessation and Reduction in Pregnancy Treatment (SCRIPT) program at several agencies throughout the region.

Southwest Michigan is comprised of seven counties, nine birthing hospitals, and one NICU. In calendar year 2017, 8,964 live births were reported. In 2016, it was reported that only 66% of pregnant women began prenatal care in the first trimester. This data was a key driver in the decision to work on increasing early entry into prenatal care in this region.

Outreach to the Saginaw/Bay and Thumb areas in Michigan began in FY2018 with stakeholders in each region meeting to discuss operationalizing a Regional Perinatal Quality Collaborative. The Saginaw/Bay area is made up of eight counties, five birthing hospitals and one NICU. In calendar year 2017, 5,884 live births were reported. In 2017, 16-34% of pregnant women in this region reported smoking while pregnant. These are some of the highest numbers in the state. The Thumb area is made up of seven counties, eight birthing hospitals and two NICUs. In calendar year 2017, 8,930 live births were reported. In 2016, this area of the state had the second highest NAS rates for Michigan at 1,454 per 100,000 live births. Launching Regional Perinatal Quality Collaboratives in both the Saginaw/Bay and Thumb areas in Michigan will prove beneficial toward the overall improvement of maternal and infant health.

Objective B: By 2020, increase Risk Appropriate Care for mothers and infants from baseline data indicators by 20%.

The ESM for this NPM, which aligns to this objective, is the number of CenteringPregnancy sites in Michigan. Ongoing support of this evidence-based strategy measure is a key component to assuring risk-appropriate care for Michigan mothers and infants. CenteringPregnancy is an evidence-based prenatal model that has proven health outcomes including reductions in preterm and low birth weight infants. The CenterPregnancy model is patient-driven, resulting in a patient/clinician partnership that values the voices of women during pregnancy and interconception. In FY 2018, through the partnership of MDHHS and the Michigan Primary Care Association,14 CenteringPregnancy sites were supported. The Michigan Primary Care Association contracted with the Centering Health Institute to offer training and technical assistance for new and existing CenteringPregnancy sites. To date, one CenteringParenting site exists in Michigan.

In calendar year 2017, 88% of low birth weight (LBW) babies were born at hospitals offering neonatal intensive care units (NICU) or special care nurseries (SCN). In 2017, 9,577 babies were born with LBW and of those, 8,415 were born at a facility with a NICU or SCN. In the same year, 90% of very low birth weight (VLBW) babies were born at hospitals offering a NICU. There were 1,619 babies born with VLBW in 2017, and of those, 1,457 were born at a facility with a NICU.

NICUs of Michigan most closely correlate with Level III nurseries and SCNs of Michigan most closely correlate with Level II nurseries. Based on data received from MDHHS Vital Statistics, the majority of LBW and VLBW babies were born at hospitals that best medically meet their needs. However, more work needs to be done to understand why 12% of LBW babies are born at hospitals without NICUs and SCNs, why 10% of VLBW babies are born at hospitals without NICUs, and how we can ensure that all LBW and VLBW babies are born at hospitals that best meet their needs. Stratification of data may give insight into any inequities or barriers that exist for pregnant women who delivered LBW or VLBW babies at hospitals without NICUs or SCNs.

Objective C: By 2020, expand quality improvement efforts related to the prevention and response of Perinatal Substance Use.

The MDHHS-supported Michigan Collaborative Quality Initiative is a voluntary quality collaborative of approximately

25 Michigan birthing hospitals. In FY 2018, the Michigan Collaborative Quality Initiative held monthly webinars to share best practices and discuss collaborative efforts and collected data to monitor improvements regarding NAS, breast milk use for very low birth weight babies, and infection rates of infants cared for in Neonatal Intensive Care Units.

The Regional Perinatal Quality Collaborative of northern lower Michigan, as mentioned above, implemented quality improvement efforts aimed at increasing the number of prenatal substance use screenings and conducted brief interventions and referrals via the innovative use of handheld technology while patients waited at prenatal appointments. These efforts are slated to continue in FY 2019. West Michigan has been working to implement a paper version of an evidence-based screening tool and the Upper Peninsula and Thumb area will be piloting the innovative screening technology, referenced above, in FY2019. All Regional Perinatal Quality Collaborative projects have also been instrumental in ensuring that education and outreach efforts to address Perinatal Substance Use have occurred in the forms of SOPHE SCRIPT training and use of Finnegan scoring of infants to identify NAS.

Michigan also participated in the *2017 Policy Academy: Improving Outcomes for Pregnant and Postpartum Women with Opioid Use Disorders and their Infants, Families and Caregivers* hosted by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Center on Substance Abuse and Child Welfare (NCSACW). The Policy Academy resulted in a unified cross-departmental approach to address and prevent perinatal substance use. The linking of efforts, both internally and externally to MDHHS, resulted in increased communication and more streamlined efforts to positively impact the lives of those affected by Perinatal Substance Use Disorder (PSUD). Furthermore, this partnership led the MDHHS Office of Recovery Oriented Systems of Care to provide funding for the Regional Perinatal Quality Collaborative in the Saginaw/Bay region, with the caveat that quality improvement efforts must focus on PSUD.

Breastfeeding (FY 2018 Annual Report)

Breastfeeding initiation continues to rise in Michigan. PRAMS data indicate that in 2004, 71% of Michigan mothers initiated breastfeeding. By 2017 that rate has increased to 87.6%. From 2004-2009 initiation was relatively stable, ranging between 69% and 73% with no clear trend. From 2009-2017 sustained growth in initiation occurred, from 73.2% to 87.6% of mothers, gaining an additional 1.8% of the total population of moms who initiated each year (a 14.5% gain across 8 years).

From 2009-2017, the gains seen at the state level have been evenly distributed between non-Hispanic white and non-Hispanic black mothers. From 2009-2014 initiation grew from 64.9% of black mothers to 77.3% (+12.4%), almost identical to the change from 74.5% to 86.3% seen among white mothers (+11.8%). However, from 2014 to 2017, initiation among black mothers has remained unchanged (77.3% to 77.2%) compared to increases among white mothers (86.3% to 90.1%). We celebrate the overall increase of initiation for all mothers but continue to seek ways to better support breastfeeding among non-Hispanic black mothers. Starting in 2016, PRAMS asks mothers why they did not initiate breastfeeding. Among mothers who choose not to initiate the top reasons included not wanting to breastfeed, not liking breastfeeding and having other children to care for. Mothers completing the survey could choose multiple reasons. Non-Hispanic black mothers reported more reasons for not initiating than non-Hispanic white mothers.

Families and consumers have significant input into local breastfeeding activities through breastfeeding coalitions and peer support groups. At the state level, families and consumers were invited to participate in the breastfeeding regional summits and their input was utilized in the writing of Michigan’s first breastfeeding state plan.

In 2018, Michigan's Title V program went through a facilitated logic model process which resulted in changes to FY 2019 state action plans and associated objectives. Therefore, the FY 2018 Breastfeeding annual report (based on previous action plans) may contain different objectives and strategies than the new FY 2020 application narrative.

Objective A: By 2018, develop a system for state breastfeeding plan implementation, along with a method to measure progress.

The first State of Michigan Breastfeeding Plan was published in October 2017. Creation of the plan utilized a collaborative approach and included input from key stakeholders including employers, health care professionals, health care systems, public health professionals, community organizations and community members including mothers and families. In FY 2018, MDHHS promoted the plan widely including a press release, distribution among partners and listservs and posting on the MDHHS website. The plan's executive summary was presented at over 20 statewide presentations and a radio interview promoting the plan was aired on "Morning Edition", "All Things Considered" and "Current State."

MDHHS then moved into implementation. A statewide work group was formed to collaborate, implement strategies, and determine a method to measure progress on the plan. The group meets quarterly and includes internal and external state-level partners. Nineteen members of the group completed a Collaboration Multiplier to assess their role in each of the strategies outlined in the plan. The Plan is discussed at all workgroup meetings and the group agreed to update the Collaboration Multiplier routinely to gather information from external partners on accomplishments and progress toward meeting the Plan's goals and objectives.

Objective B: By 2020, increase Baby-Friendly hospitals to 20% across Michigan.

Increasing the number of Baby-Friendly designated birthing hospitals is the ESM for this NPM. In FY 2018, the number of Baby-Friendly designated birthing hospitals increased from 12 to 14 of the 83 Michigan birthing hospitals or 17% across Michigan. Additional birthing hospitals are currently on the path to Baby-Friendly designation.

The first strategy to achieve this objective was to use Michigan's mPINC scores to target educational and outreach efforts by Prosperity Region. A statewide assessment of hospital maternity care practices was completed in close collaboration with our maternal child health epidemiologist team. The team used Michigan's mPINC scores to focus our education and outreach towards Prosperity Regions that had the greatest opportunity for improvement. Michigan's mPINC scores revealed that the state needed to focus on staff training and discharge planning. As a result, the MDHHS Breastfeeding Coordinator provided presentations to hospitals and coalitions on a variety of topics including safe sleep, breastfeeding and marijuana use, and community support. To address discharge training, the coordinator worked to connect hospital staff with the community and trained pediatric practices on supporting breastfeeding in their practices.

The second strategy was to use a collaborative approach to move hospitals toward Baby-Friendly status. In FY 2017, eight birthing hospitals were awarded mini-grants from MDHHS to assist in Baby-Friendly Hospital Initiative implementation. All the awarded hospitals chose to work on staff training and formed a collaborative called the Quality Improvement Jumpstart or QI Jumpstart. The goal of QI Jumpstart was to propel hospitals toward the implementation of hospital-based maternity care practices with the creation of QI culture and the provision of training and tools. Two of the funded hospitals did not have the capacity to complete the grant objectives, and therefore, withdrew. An additional three hospitals were added to the original group of six for total of nine. From January 2017 to September 2017, staff from these nine Michigan birthing hospitals participated in monthly collaborative webinars to allow for group learning; monthly office hours to provide technical assistance, accessed customized materials from Coffective designed to assist with QI work and all-staff activities; and received training on strategies for effective and

efficient data collection and reporting. The results achieved were outstanding as four hospitals moved on to the Baby-Friendly pathway (D1 designation), two hospitals moved from D1 to D2 designation, and one hospital plans to apply soon. Although the mini-grants were not available in FY 2018, the hospitals continued the collaborative approach in FY 2018 and met through the QI Jumpstart Collaborative using the format described above. The MDHHS Breastfeeding Coordinator offered technical support and participated in the monthly webinars and calls. The Coordinator also collaborated with the hospitals by presenting and exhibiting at the Mother Baby Summit.

Objective C: By 2020, determine all available resources to accurately measure breastfeeding initiation, duration, and exclusivity rates and measure racial and ethnic differences.

The MDHHS Breastfeeding Coordinator formed a workgroup (described above in strategy one) with data partners in the Maternal and Infant Health Division and the Maternal Child Health Epidemiology Section to obtain input on a baseline for breastfeeding data collection in Michigan. The workgroup determined that many of Michigan's breastfeeding stakeholders were unaware of data parameters or how to access data. Research was completed on accurate data sources including MI PRAMS, Vital Records, mPINC, WIC Hospital Practice Survey 2016, WIC ad hoc rate and duration report, WIC Pediatric Nutrition Surveillance Survey (PedNSS), Metabolic screening, Center for Disease Control (CDC) National Immunization Survey and Morbidity and Mortality Weekly Report (MMWR). The second strategy to create and disseminate a breastfeeding data source document was completed and has been shared extensively across Michigan at local breastfeeding coalition meetings, to local maternal and child health providers and to QI Jumpstart Collaborative hospital participants. It was also posted on the Michigan Breastfeeding Network website. The third strategy to create an annual data sheet highlighting Michigan's breastfeeding statistics was put on hold as partners were routinely using the one-page infographic published in the Breastfeeding State Plan. MDHHS may revisit this strategy in the future or continue to update the infographic with current data.

Objective D: Reduce the gap between non-Hispanic white and non-Hispanic black women in breastfeeding initiation from 9% in 2014 to 8% in 2020, and in 3-month duration from 20.5% in 2014 to 19.5% in 2020.

As stated earlier, breastfeeding initiation rates have increased among all women. However, the gap between non-Hispanic white and non-Hispanic black women in breastfeeding initiation increased from 9% in 2014 to 12.9% in 2017 (PRAMS). The gap between non-Hispanic white and non-Hispanic black women in breastfeeding duration at 3 months increased from 20.5% in 2014 to 24.5% in 2017. PRAMS data indicate that mothers who receive breastfeeding information from multiple sources are more likely to initiate breastfeeding. MDHHS will continue to encourage consistent breastfeeding supportive messaging across the state with a focus on communities of color.

In FY 2018, the MDHHS Breastfeeding Coordinator reviewed data analyzed by the MDHHS PRAMS epidemiologist for possible contributors to breastfeeding disparity as described in strategy one. Disparities in access to breastfeeding support and care were identified. The Great Lakes Breastfeeding Webinar series is one tool used in strategy two to improve the diversity of breastfeeding professionals in Michigan and to improve access to support across communities. The webinar series offers monthly continuing education at no cost to participants and without transportation barriers. The series is widely promoted throughout the state including in communities of color. Webinar topics use a health equity approach and speakers of color are prioritized. A Certified Lactation Consultant Training was also held in the City of Flint to increase the diversity of breastfeeding professionals in that area. The third strategy to support the development of peer support groups that are culturally representative of their communities was not accomplished, as MDHHS did not obtain a grant opportunity to support this activity.

Objective E: By 2020, increase the percentage of mothers who discussed feeding only breastmilk to their babies with their health care worker from almost 44% in 2013 to 48% as measured by PRAMS.

Multi-year PRAMS data from 2012-2014 revealed that 45.3% of all Michigan mothers discussed feeding only breast milk with their provider. Disparities continue to exist with 48.3% of non-Hispanic white mothers discussed feeding only breast milk to their infant with their provider compared to 38.5% of non-Hispanic black mothers. This question was removed from the Phase 8 PRAMS survey, so this objective will not be included in future state action plans. However, activities continued to support progress toward this objective in 2017 and 2018.

The Michigan Women, Infants and Children (WIC) Supplemental Food Program completed a survey of 922 hospital staff in February 2017. This survey provided a baseline understanding of current hospital practices, perceptions about mothers' willingness and preparedness to receive evidence-based care, staff perceptions about relationships with community organizations (including referrals), and interest in broader collective impact and quality improvement efforts. In FY 2018, the MDHHS Breastfeeding Coordinator used the survey results to inform education and outreach efforts including presentation and materials content and focused coalition building in Muskegon and Saginaw.

The second strategy was to facilitate collaboration between home visiting, WIC and hospitals to ensure consistent messaging using evidence-based maternity care materials. Education and tools for providers who work with pregnant women and families were provided through multiple venues, including the home visiting conference, the Great Lakes Breastfeeding Webinars, presentations for child care providers, and coalitions. WIC has been working diligently on increasing collaboration between home visiting, WIC and hospitals through the WIC hospital survey and implementation strategies and four Building Bridges for Breastfeeding Duration trainings offered in 2018. The purpose was to bring together the hospital and community to build a bridge of support for the mother-baby dyad after discharge. In addition, this strategy is being accomplished using Coffective evidence-based, prenatal educational materials among maternal and child health programs.

Safe Sleep Environments (FY 2018 Annual Report)

In Michigan's original five-year plan, the priority area to "Foster safer homes, schools and environments with a focus on prevention" was linked to promotion of infant safe sleep environments through the following two-part SPM:

1. The percent of infants put to sleep alone in their crib, bassinet or pack and play.
2. The percent of infants put to sleep without objects in their crib, bassinet or pack and play.

HRSA added two PRAMS measures to the original NPM, that previously only measured the percent of infants placed to sleep on their backs. Given this change, Michigan converted its original SPM to the new NPM for FY 2019. Michigan did not choose "infants being placed to sleep on the back" as a performance measure because it exceeded the Healthy People 2020 goal of 75.9%.

Michigan's safe sleep strategies and activities promote three key messages to parents and caregivers: infants should sleep 1) alone, 2) on the back, and 3) in a crib, bassinet or pack and play. These behaviors are critical to the prevention of sleep-related infant death. Of the leading causes of infant death, sleep-related causes are considered the most preventable. In FY2018, Title V federal funding was used for activities that support Michigan's safe sleep work, including the Pregnancy Risk Assessment Monitory Survey (PRAMS), infant mortality communication, Fetal Infant Mortality Reviews, and funding to local health departments.

Data from the Michigan Pregnancy Risk Assessment Monitoring Survey (PRAMS) for 2016 show that the percentage of parents and caregivers practicing these behaviors has decreased compared to 2015. However, it is important to note that all PRAMS states began asking different safe sleep questions in 2016, so it is difficult to compare these questions over time. The proportion of Michigan mothers meeting Michigan's SPMs is lower than in

prior years, except for back sleeping, but the measurement now provides a more comprehensive picture of infant sleep practices.

In 2016, 83.2% of Michigan infants were usually sleeping on their back. In addition, 34% of infants were placed to sleep on a separate approved sleep surface. In prior years, this measure was based on only two sleep risk factors—does the infant sleep in his or her own crib and does the infant sleep with other people. Starting in 2016, this measure is based on the combination of five different sleep risk factors: always or often 1) sleeps alone in own bed; 2) in a crib, bassinet or pack and play; 3) does not sleep on a twin or larger mattress; 4) does not sleep on couches, sofas, armchairs; and 5) does not sleep in a car set or swing. Asking whether infants sleep in a car seat or swing—a new question—has had an especially large impact on this measure. Also in 2016, many more mothers reported that their infants had at least one soft item in the sleep space. This increase may be due to changes in the wording of the question regarding blankets (any blanket versus only plush or thick blankets). The proportion of infants sleeping with no soft objects (pillows, bumpers, blankets, toys) is 51.8%. Although the number is lower than the number reported in the past, in 2016, Michigan had the highest proportion of mothers reporting that their infants do not sleep with soft objects (compared to 28 other PRAMS states reporting this data).

In FY 2018, MDHHS continued its work to identify the touchpoints where a family could and should receive infant safe sleep information. For example, we built upon connections with existing partners, such as WIC, home visiting programs, and the Regional Perinatal Quality Collaboratives and explored ways to enhance partnerships with others such as MDHHS Tobacco Prevention and Immunizations. Challenges exist in ensuring that families are receiving consistent infant safe sleep messages at all potential touchpoints. For example, families sometime receive inconsistent messages from health care providers and family members, who may have been taught and used outdated infant sleep techniques.

While two distinct objectives for infant safe sleep have been identified, the strategies to address them are combined since the safe sleep behaviors are so closely related.

Objective A: By 2020, increase the percent of infants put to sleep alone in their crib, bassinet or pack and play by 4%.

Objective B: By 2020, increase the percent of infants put to sleep without objects in their crib, bassinet or pack and play by 4%.

In FY 2018, activities occurred within six strategies:

1. Increase the capacity of communities to implement infant safe sleep education, awareness and outreach activities to promote infants being placed to sleep alone in their cribs, bassinets or pack and plays with no objects.
2. Facilitate new collaborations with non-traditional partners so the safe sleep message spreads in communities that may not have been reached previously.
3. Develop and implement more effective core messages that are best-practice driven, reflect the needs and choices of families, align safe sleep implementation within a real-life context and provide messaging that is appropriate and relevant to diverse population groups.
4. Provide education and tools for providers who work with pregnant and parenting families (in programs such as home visiting, WIC, child care, prenatal care, etc.) to have effective conversations about infant safe sleep.
5. Produce a safe sleep report.
6. Reduce the racial disparity related to unsafe sleep practices.

All strategies were designed to meet these objectives. In the FY 2018 application, the sixth strategy, to reduce racial disparities, was tied to activities in the other five strategies and was not singled out. However, in FY 2019, additional efforts are being implemented to specifically address racial disparities and health equity. Specifically, providing training and support to local health departments (LHDs) on health equity; dedicating at least one infant safe sleep webinar annually to the topic of health equity; and sending at least one message on the topic of health equity via the Infant Safe Sleep for Professionals list per quarter. Finally, additional strategies and partnerships to integrate infant safe sleep program activities within the Mother Infant Health and Equity Improvement Plan (MIHEIP) and the MIHEIP Ambassador Program are being explored.

To continue and further expand a program initiated in 2013, funding in the form of mini-grants was provided to 15 local health departments (LHDs) and the Inter-Tribal Council of Michigan in FY 2018. The LHDs and Inter-Tribal Council of Michigan represent Michigan communities with the highest numbers of Sudden Unexpected Infant Deaths (SUIDs). Grant funding is provided in the amount of $22,500 for all grantees, except for Wayne County ($45,000) and the City of Detroit ($90,000) due to the higher number of SUIDs in these communities. The mini-grants allow communities to develop local programming which is culturally relevant and informed by the community. For example, activities range from providing safe sleep education sessions at home or in a community setting; purchasing billboards; providing group classes; conducting community awareness events; translating safe sleep materials; and promoting protective behaviors such as breastfeeding and smoking cessation. A portion of the grant funds can be used to purchase pack and plays or sleep sacks. In FY 2018, grantees provided infant safe sleep education to nearly 5,800 individuals (parents, caregivers, professionals and community members) through classes and workshops. Over 12,000 people were provided infant safe sleep information at community events such as health fairs. Analysis of pre/post test scores of people who attended classes and workshops revealed that infant safe sleep knowledge and intention to practice safe sleep behaviors increased after attendance.

The faith-based collaboration that was initiated in FY 2016 in Detroit expanded in FY 2017 through collaboration between the Detroit Health Department, the MDHHS Infant Safe Sleep Program and the MDHHS Office of Community and Faith Engagement. The plan for FY 2018 was to add at least four faith-based organizations in each of four high-risk SUIDs counties. However, due to staffing limitations at both the Office of Community and Faith Engagement and local health departments, Oakland County Health Division and Wayne County Health Department (serving out-Wayne County) began faith-based work in FY 2018. In addition, the work of the Detroit Health Department was expanded. At the end of FY 2018, at least 20 faith-based organizations were involved in these efforts which included hosting infant safe sleep educational sessions, distributing safe sleep messages in church bulletins, holding prayer times for infants and posting infant safe sleep educational material in nurseries and public spaces. Additional, non-traditional partners will be explored in FY 2019 through the work of the Mother Infant Health and Equity Improvement Plan (MIHEIP) Ambassador Program.

The third strategy was to develop and implement more effective core messages that are best-practice driven, reflect the needs and choices of families, align safe sleep implementation within a real-life context and provide messaging that is appropriate and relevant to diverse population groups. This strategy was informed from the results of focus groups, conducted in FY 2018, to identify preferences for safe sleep message type and delivery. Focus group results, innovative infant safe sleep research and programming were shared with the MDHHS media team. Several meetings were held, and preliminary recommendations were reviewed in January 2018. It was determined that additional community input, including input from communities that experience health inequities, was needed before moving forward with the development of new safe sleep messages and educational products. In FY 2019, the Infant Safe Sleep team is contracting with two community-based agencies to obtain the needed additional community input and to develop prototype materials. After initial development of messages and methodologies, market testing will be done so that refinements can be made prior to large scale dissemination.

The fourth strategy, to provide education and tools for providers who work with pregnant and parenting families to have effective conversations about infant safe sleep, is part of ongoing programmatic efforts. Program staff provide in-person training at conferences and professional trainings. In addition, three safe sleep trainings are available online, to ensure maximum reach. Providing technical assistance to the infant safe sleep grantees is another critical component of this work, as the grantees provide education for local groups such as hospitals, home visiting collaboratives, child care centers, and community agency staff.

In FY 2018, nearly 300 individuals attended an in-person safe sleep training and over 9,700 individuals completed one of the three online infant safe sleep trainings online. Providers are also supported with access to free educational materials to use in their work with families; 323,268 educational items were distributed by MDHHS in FY 2018. During FY 2017, an infant safe sleep email listserv for professionals was established and has grown to nearly 1,700 members. A quarterly webinar series on infant safe sleep was established in FY 2017, continued in FY 2018, and will continue through FY 2019.

Another focus for FY 2018 was to provide training and tools for providers to have more effective conversations with parents/caregivers about infant safe sleep. A “Safe Sleep 201” training for home visitors and child welfare workers that was piloted in FY 2017 was rolled out at the end of FY 2018. Both an in-person and online version of this training are currently available. This training is based on the principals of motivational interviewing and teaches professionals how to have more effective conversations with families around safe sleep, start where the family is at to address the challenges families face in following the guidelines, and reduce the risks in the sleep environment while educating families that following the AAP recommendations is the safest way for baby to sleep. The training also encourages professionals to include family members and other caregivers in the conversation to address the issue of when family members provide outdated advice. In addition, an Infant Safe Sleep Resource Book and Picture Ring were developed and finalized in FY 2018. These resources will be provided to anyone taking the “Safe Sleep 201” training, though this may be expanded to all home visitors and other professionals in FY 2019.

The fifth strategy was the production of an annual safe sleep report. Work on the Infant Safe Sleep Report was largely done in FY 2017; however, the final report was released in January 2018. The report “Infant Safe Sleep in Michigan: A Comprehensive Look at Sleep-Related Deaths” compiled data, research and information regarding local and statewide safe sleep initiatives into one comprehensive document. Racial disparities were also highlighted throughout the report. In FY 2019, the MIHEIP will be finalized. A standalone report on infant safe sleep will not be completed annually, as the sleep-related infant death data and safe sleep efforts will be rolled into any reports developed as part of the MIHEIP.

The final strategy focuses on the need to reduce the racial disparity that exists in sleep-related infant deaths in Michigan. As noted in the narrative above, each strategy integrates the need to address racial disparity. Approaches will vary according to activity but may involve allocating more resources to areas that experience greater racial disparity and gaining a better understanding of messages that may be more effective with different racial or ethnic groups.

Family input is another important component of program activities. One parent regularly attends quarterly meetings of the Michigan Infant Safe Sleep State Advisory Committee and is an active promoter of infant safe sleep in her community. Several other parents are on the distribution list for the meetings and/or are in contact with MDHHS Infant Safe Sleep Program staff about their interest in becoming involved. In FY 2019, family/parent involvement will be expanded. For example, the Infant Safe Sleep Program plans to utilize the MIHEIP Ambassador Program to gain more family input and extend the program’s reach.

Risk-appropriate Perinatal Care (FY 2020 Application)

The state priority need to support coordination and linkage across the perinatal to pediatric continuum of care was selected for the Perinatal/Infant Health domain, as a result of the five-year needs assessment process. The percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU) (NPM 3) was selected as one of two measures to address this priority need.

Infants born prematurely and of VLBW or low birth weight (LBW) are at a greater risk of longer hospital stays, compromised health statuses, developmental delays and even death in comparison to their full-term, healthy weight counterparts. Black, Native American, Middle Eastern and Hispanic babies are particularly impacted by health inequities specifically related to gestation and birth weight. In 2017, 13% of all live births in Michigan occurred prior to 37 weeks gestation and 1.5% of all live births were born with VLBW. As was seen in 2016, the disparity between Black infants and White infants for prematurity, VLBW, and LBW is still apparent. Much like in 2016, the percentage of Black VLBW infants (3.1%) was triple that of White VLBW infants (1.1%) in 2017. The percentage of Black LBW infants (11.5%) was double that of White LBW infants (6.2%) in 2017[1]. This persistent disparity indicates the need for innovation and collective efforts to move the percentages in a downward trend.

The aim of the Michigan Regional Perinatal Quality Collaboratives (RPQCs) is to develop innovative strategies to regionally address the drivers of preterm birth rates, as well as VLBW and LBW. RPQCs ensure that their strategies closely align with the strategies and goals outlined in Michigan’s Mother Infant Health and Equity Improvement Plan (MIHEIP), which was drafted under the guidance of the Maternal Infant Strategy Group in 2019. The RPQCs are also tasked with addressing disparities in birth outcomes and health care inequalities through involvement of cross-sector local and statewide stakeholders, as well as implementing the MIHEIP utilizing the Population Health Model. Utilization of this model will allow the RPQCs to stratify the available data and tailor the implementation of evidence-based interventions to populations, or geographic areas, within the region that are identified as at risk for adverse birth outcomes. Several RPQCs have begun to address perinatal substance use through increased prenatal screening, increasing treatment capacity in their respective region and increased educational opportunities, including implicit bias and stigma reduction, related to Neonatal Abstinence Syndrome (NAS). Addressing the existing health inequities and disparities in Michigan will result in the overall reduction of Michigan VLBW, LBW and preterm birth rates. At the same time, striving to increase the percentage of preterm and VLBW infants born in a risk-appropriate care hospital will decrease the risk of neonatal, infant and maternal mortality.

Objective A: By 2020, support the implementation and evaluation of Regional Perinatal Quality Collaboratives (RPQCs) in all ten regions.

RPQCs have been launched in eight regional areas in Michigan. These areas have varied demographic composition and include rural and urban communities. Key stakeholders include, but are not limited to, the following: families, birthing hospitals, insurance payers, local health departments (LHDs), medical providers, health systems, home visiting programs and other community agencies. The two newest RPQCs were launched in the Saginaw Bay area and the Thumb area, both located on the east side of Michigan, in FY 2018 and FY 2019, respectively. In FY 2020, the final two RPQCs will be launched; one in the Lansing area and one in the far southeastern area of Michigan.

Regional Perinatal Quality Collaborative efforts in northern Lower Michigan are focused on increasing substance use screenings and treatment referrals of pregnant women, as well as establishing a sustainable home visiting program that is available to all pregnant/postpartum women and their infants, regardless of their insurance or income status. Substance use screening efforts achieved at two prenatal care sites in the region in FY 2019 are expected to fuel

expansion of the screening tool use at other obstetric clinics in FY 2020. As a result of data stratification, the Region will identify and focus tailored efforts to populations/geographic areas identified most at-risk for perinatal substance use, as well as areas and populations experiencing a disproportionate number of infant and maternal deaths or morbidities. It is expected that the Region will work to implement additional evidence-based interventions, if indicated by the data.

Southeast Michigan has focused its RPQC efforts on increasing the utilization of evidence-based home visiting programs in Detroit to move the needle on infant deaths, especially those related to sleep-related causes. It is anticipated that information gathered in FY 2019 will encourage the collaborative to continue to expand the best practices to other home visiting agencies and birthing hospitals in the region. Additionally, the RPQC in this region continues to educate its members on implicit bias and health equity. Focusing efforts, including education, on implicit bias and health equity, especially related to policies and practices of member agencies, is only one step in addressing the root cause of disproportionate rates of infant mortality in this Region. Additional data stratification will highlight specific areas and populations in which the Region will need to focus efforts, including tailored implementation of evidence-based interventions.

Quality improvement efforts of the West Michigan RPQC have focused on increasing referrals and utilization of evidence-based home visiting programs, as well as on increasing substance use screening in pregnant women. Prior analysis of data revealed specific geographic locations in the region with a disproportionate number of infant morbidities. This data served as the initial basis of where to focus efforts in the Region. Results of these continued efforts, focused in both urban and rural areas of the region, will direct FY 2020 activities. Additional data stratification results shared with the Region will also direct FY2020 efforts.

The Upper Peninsula RPQC efforts have focused on increasing utilization of substance use screenings and treatment referrals of pregnant women, coordination of obstetric care and substance use treatment for women with Perinatal Substance Use Disorder (PSUD), continued education of staff on evidence-based treatments/interventions for Neonatal Abstinence Syndrome (NAS) and stigma reduction, and establishing a universal home visiting program that is available to all pregnant/postpartum women and their infants. Substance use screening efforts achieved at a prenatal care site in the region is expected to drive expansion of the screening tool to other prenatal care sites in FY 2020. PSUD and NAS have been a priority of this RPQC due to having the highest NAS rates in Michigan. As stratified data becomes available, the RPQC will analyze the results and identify any additional populations or geographic locations with disparate outcomes.

The RPQC of southwest Michigan recently re-focused its efforts and is currently working to increase referrals and utilization of evidence-based home visiting programs. Evidence-based home visiting programs are designed to serve specific subsets of the population that tend to experience higher rates of adverse outcomes. However, the region will further tailor efforts to the population/community identified in the data stratification process. Results of FY 2019 efforts are also expected to direct subsequent efforts in FY 2020.

Regional Perinatal Quality Collaborative efforts were initiated in FY 2019 in the Saginaw/Bay and Thumb areas of Michigan. In 2017, the Saginaw/Bay area had high percentages of pregnant women reporting smoking in pregnancy[2] and in 2016, the Thumb (and surrounding area) had the second highest NAS rate in Michigan[2]. This data helped shape the focus of each respective region's quality improvement efforts in FY 2019 and will continue to steer their work in FY 2020. As with the other RPQCs, these regions will utilize stratified data to further define their population of focus, as well as to tailor implementation of evidence-based interventions.

All RPQC initiatives are to be inclusive of active and authentic family engagement. Input from families is valued and often garnered through in-person participation at regional meetings, focus group participation and patient feedback surveys. To further encourage authentic family engagement, in FY 2020 each RPQC is required to gather feedback

from families at least twice during the fiscal year; whether it be through participation at regional meetings or through community events or groups.

In FY 2020, each funded RPQC will continue efforts aimed at the improvement of maternal, infant and family outcomes, as a means of decreasing the percentage of infants born prematurely, born with very low or low birth weights, and born exposed to harmful substances such as opioids, alcohol, and tobacco. The RPQCs will implement evidence-based interventions and other key strategies outlined in the MIHEIP through utilization of the Population Health Model. Each RPQC is expected to narrow their focus and tailor interventions to the populations in their region that are at greatest risk for adverse outcomes. The Population Health Model will guide each region in their continued efforts to address health disparities and inequities, especially as related to prematurity, very low or low birth weights and babies born exposed to substances. Furthermore, continued expansion of RPQCs to all regions within the state is planned for FY 2020.

Objective B: By 2020, increase Risk Appropriate Care for infants from baseline data indicators by 20%: Very Low Birth Weight (VLBW); Low Birth Weight (LBW); and prematurity.

The first strategy for this objective is to promote case management and care coordination for pregnant women in Michigan through evidence-based programming. MDHHS continues to support and promote CenteringPregnancy and CenteringParenting in Michigan. CenteringPregnancy is an evidence-based group prenatal care model that has been proven effective in decreasing the rate of preterm and low birth weight babies, as well as decrease racial disparities in preterm birth. The number of CenteringPregnancy sites in Michigan is the Evidence-based Strategy Measure (ESM) for this performance measure. To date, 14 CenteringPregnancy group prenatal care sites and one CenteringParenting site exist in Michigan. In addition, MDHHS promotes case management and coordination for women and infants through evidence-based home visitation programs. Evidence-based home visitation programs promote health care utilization and reduced risk for adverse birth outcomes such as VLBW, LBW, and premature births. MDHHS remains committed to promoting these evidence-based case management and care coordination strategies aimed at reducing inequities and decreasing poor outcomes for infants in FY 2020.

Participation in The American College of Obstetricians and Gynecologists (ACOG) Alliance for Innovation on Maternal Health (AIM) is the second strategy. By partnering with stakeholders and professional organizations, Michigan is working toward improved maternal morbidity and mortality outcomes, as well as reduced inequities in these adverse maternal outcomes. Addressing the health status of mothers is a key part of prevention efforts aimed at reducing the number of premature, very low and/or low birth weight babies. The work of MI-AIM will continue to lead the effort of improving maternal health of Michigan mothers in FY 2020.

Prior to FY 2019, maternal and infant health were siloed. Beginning in FY 2019, maternal and infant health efforts are addressed in the Mother Infant Health and Equity Improvement Plan (MIHEIP). This plan is the next iteration of the previous Infant Mortality Reduction Plan (IMRP). MDHHS is leading the MIHEIP effort and in 2018 held a series of “town hall” meetings at which stakeholders, including families, were provided an overview of the direction of the combined efforts. Attendees had an opportunity to offer feedback on the MIHEIP logic model. Additionally, in FY 2019 the MIHEIP was released for a public comment period in which families and other stakeholders offered comments on the final draft of the MIHEIP. Through various strategies, some of which are outlined above,the MIHEIP is focused on reducing health disparities, especially as they relate to the number of premature, very low and/or low birth weight babies in FY 2020and beyond.

Objective C: By 2020, expand quality improvement efforts related to the prevention and response of Perinatal Substance Use via the Regional Perinatal Quality Collaboratives (RPQCs).

Three comprehensive strategies will continue to be utilized in FY 2020 to address Perinatal Substance Use, including addressing Neonatal Abstinence Syndrome (NAS). Perinatal Substance Use is a risk factor for preterm births and infants born with very low or low birth weights. In addition to the effects of alcohol and tobacco use, Michigan continues to have high NAS rates in several regions within the state. This is due to the opioid epidemic that Michigan continues to battle. All three strategies to address perinatal substance use will be guided by the RPQCs. In FY 2020, it is expected that at least four of the collaboratives will direct efforts on perinatal substance use and/or addressing NAS.

The first strategy is to promote opioid use disorder prevention and increase screening and identification of women (especially pregnant women and those of childbearing age) for opioid use disorder. Northern Lower Michigan, the Thumb area and the Upper Peninsula have implemented the use of electronic screening tools in prenatal clinics located within their respective region. West Michigan continues to implement a different evidence-based screening tool that is preferred by the region's major health system. Patient feedback is also being collected and analyzed. Therefore, it is anticipated that in FY 2020, the results of these continued efforts will lead to an expansion across their respective regions to prevent, screen, and address perinatal substance use for all women of reproductive age. MDHHS will encourage the regions to utilize stratified data to identify areas in the Region with high numbers PSUD. Clinics identified as providing care to these women will be encouraged to implement an evidence-based screening tool, if not already doing so, and refer women who screen positive to appropriate treatment.

The second strategy builds upon the previous strategy: to enhance capacity to provide treatment for women identified as affected by opioid use disorder through cross-sector partnerships. Northern Lower Michigan identified a large gap in treatment options for individuals living in this 21-county region and is currently gearing up to offer expanded treatment capacity in the region's most populated city. During the planning process, conversations have been inclusive of providers and community members. These efforts will carry over to FY 2020 with expectations that an additional prenatal care clinic will offer Medication Assisted Treatment (MAT). Additionally, the Upper Peninsula identified a cohort of pregnant women receiving MAT, but not attending their prenatal care appointments. Efforts are under way to create a care coordination system in which pregnant women on MAT, receive prenatal care and their MAT in a coordinated visit on the same day. It is expected that these efforts will carry over to FY 2020 and expand into a more comprehensive system of care.

As mentioned previously, NAS is also addressed under this objective. The third strategy aims to improve workforce development and training programs related to NAS, as well as maternal care for perinatal substance use both perinatally and postpartum. The Upper Peninsula has the highest NAS rate of any region in Michigan. Current efforts in this region have been focused on providing education and training on evidence-based NAS care and implicit bias/stigma reduction to birthing hospital staff, as well as prenatal care staff. These efforts are ongoing and are expected to continue in FY 2020. The Northern Lower Michigan region is also committed to training staff at birthing hospitals located in the 21-county region. Initial efforts have commenced and will continue into FY 2020. The Saginaw area on the east side of Michigan is also working to address NAS. Efforts in this area center around forming a dedicated workgroup and providing provider and other stakeholder (including court system/law enforcement staff) education. Having a standardized approach to NAS, as well as maternal screening and care for perinatal substance use, will decrease the number of mothers, infants and families impacted by substance use and will furthermore reduce the risk for preterm births[3] and infants born with very low or low birth weights.

Breastfeeding (FY 2020 Application)

The percent of infants who are ever breastfed and percent of infants breastfed exclusively through six months (NPM 4) was selected as the second of two measures to address the priority need to "Support coordination and linkage

across the perinatal to pediatric continuum of care" in the Perinatal/Infant Health domain. Breastfeeding is a natural way to feed and provide nutrition to infants, and research shows that it provides many short- and long-term benefits to both mothers and babies. Therefore, Michigan continues to promote and fund breastfeeding initiatives and education. The publication of Michigan's first Breastfeeding State Plan in the fall of 2017 set the common agenda necessary for a collaborative approach among an array of stakeholders: state, local and tribal government; health care professionals and organizations; employers; child care providers and educational institutions; community organizations; and most importantly, individuals and families. The Breastfeeding Plan's strategies strive to address the social determinants of health and resultant health inequities, and work to address health disparities in breastfeeding and infant mortality. Michigan's five key strategies to achieve breastfeeding goals are the elimination of disparities; advancing breastfeeding rights through education of policy makers and support of laws that protect breastfeeding families; building community support through the work of breastfeeding coalitions and increased access to breastfeeding support; changing organizational practices; and strengthening individual skills.

To focus efforts internally, MDHHS breastfeeding partners (i.e., WIC, Maternal and Infant Health, and Obesity Prevention) identified three priority strategies:

1. Increase training opportunities to improve the number, availability, and racial and cultural diversity of trained breastfeeding professionals.
2. Work with community partners to develop and support interventions to address disparities in breastfeeding rates.
3. Increase the number of Baby-Friendly hospitals.

Breastfeeding support has been identified as a supporting intervention in Michigan's new Mother Infant Health and Equity Improvement Plan. In FY 2019 and FY 2020, MDHHS will also focus on supporting community development and implementation of breastfeeding initiatives contributing to the Improvement Plan.

Michigan's state-level breastfeeding work group continues to meet to enhance communication and goal alignment among state-level programs and partners. The group uses a collaborative tracking tool to document progress towards achieving the goals of the state plan and to identify issues that are more easily solved through collaboration.

To improve breastfeeding rates and reduce disparities, Michigan is focused on increasing access to breastfeeding professionals and educated peers, increasing the number of Baby-Friendly hospitals, and providing support to community level breastfeeding initiatives. Barriers include funding limitations to support local and state breastfeeding efforts and a lack of local data from mothers and families to determine actual barriers to breastfeeding. Title V funds do not directly support the work outlined below, but the Breastfeeding Coordinator is housed within the Bureau of Family Health Services.

Objective A: Increase percentage of Baby-Friendly designated birthing hospitals to 26% by 2020.

Michigan's evidence-based strategy measure (ESM) is to increase the percent of Baby-Friendly designated hospitals. The purpose of the Baby-Friendly Hospital Initiative (BFHI) is to assist hospitals in providing mothers with information, confidence and skills needed to start and continue to breastfeed their babies. Although there is general support for the Baby-Friendly initiative in Michigan, the state's birthing hospitals struggle to move forward on the Baby-Friendly pathway. As of March 2019, 16 out of 83 Michigan birthing hospitals have received the Baby-Friendly designation and many more are on the pathway. The current percent of Baby-Friendly hospitals is 19.3% and progress is being made towards the goal of 26% by 2020.

Three strategies will be implemented to impact this objective. The first strategy is to support Michigan birthing

hospitals' individual goals to continue movement along the Baby-Friendly pathway. MDHHS staff will work with communities and hospitals as part of the Improvement Plan implementation as well as reaching out to hospitals to determine their Baby-Friendly status and any support that can be offered. The second strategy will continue and expand breastfeeding supportive practices by providing trainings and/or materials to at least 15 birthing hospitals. Examples include WIC-supported Building Bridges, Coffective trainings and materials, 310 Connect collaborative support, and promoting the Mother Baby Summit. The third strategy will assist key partners who influence maternal and infant health to develop and implement one specific strategy that supports efforts to increase the number of Baby-Friendly hospitals. These partners will be internal such as home visiting programs and external such as statewide health care associations or councils.

Objective B: Reduce the disparity in breastfeeding initiation between non-Hispanic white women and non-Hispanic black women from an average of 12.1% to 11.9% by 2020.

According to PRAMS data, Michigan's gap in breastfeeding initiation between non-Hispanic white women and non-Hispanic black women has decreased over time but has been inconsistent. The average gap between white and black women was 11.5% in 2012-2014, 12.2% in 2013-2015, 9.9% in 2014-2016, and 11.1% 2015-2017. For this reason, this objective will remain at 11.9% by 2020.

Michigan's first strategy is to increase training opportunities to improve the number, availability and racial and cultural diversity of trained breastfeeding professionals. MDHHS collaborates with and supports the Great Lakes Breastfeeding Webinar series which offers breastfeeding-specific training every month, without cost to participants. The webinar provides contact hours for nurses, social workers, lactation consultants and dietitians. This free, easy- to-access education removes barriers to obtaining advanced training and diversifies and strengthens Michigan's lactation workforce. Webinar topics use a health equity lens and challenge viewers to approach breastfeeding support from that perspective. MDHHS will also focus on increasing breastfeeding support training opportunities among programs and organizations that interact with moms, including home visitors.

The second strategy to reduce the gap in disparities is to facilitate community efforts in local communities to improve breastfeeding rates among women of color. MDHHS will focus on at least two communities to explore and identify reasons and solutions for lower breastfeeding rates among women of color. Breastfeeding data will be used to identify communities and strategies. MDHHS will engage locally with professionals, stakeholders and community members to brainstorm possible reasons and solutions and support community-driven solutions as appropriate.

The third strategy is to learn—from statewide experts and community members—approaches to address the specific breastfeeding support needs of non-white women. MDHHS will strategize ways to be better supportive of groups who provide support and protection of mothers who face disparities in breastfeeding initiation and duration. The MDHHS strategy will include an analysis of breastfeeding data but will also focus on cultivating relationships in communities. The State Breastfeeding Coordinator will meet with and learn from community groups such as breastfeeding coalitions, birth and postpartum Doulas, hospitals, birthing centers, Black Mothers Breastfeeding Association and other breastfeeding support groups that represent women of color. The goal of the meetings will be relationship building, community engagement and identification of community-driven approaches that can be supported by MDHHS.

Safe Sleep (FY 2020 Application)

In Michigan's original five-year plan, the priority area to "Foster safer homes, schools and environments with a focus on prevention" was linked to promotion of infant safe sleep environments through the following two-part SPM:

1. The percent of infants put to sleep alone in their crib, bassinet or pack and play and;
2. The percent of infants put to sleep without objects in their crib, bassinet or pack and play.

HRSA added two Pregnancy Risk Assessment Monitoring Survey (PRAMS) measures to the original NPM that previously only measured the percent of infants placed to sleep on their backs. Given this change, Michigan converted its original SPM to the new NPM for the FY 2019 Title V application. Michigan did not choose "infants being placed to sleep on the back" as an original performance measure because the state exceeds the Healthy People 2020 goal of 75.9%.

While Michigan exceeds the Healthy People 2020 goal for back sleeping, parents are continuing to practice infant sleep behaviors that put infants at risk, which is confirmed by data from the Michigan PRAMS. PRAMS data for 2016 show that the percentage of parents and caregivers practicing these behaviors have decreased compared to 2015. However, it is important to note that all PRAMS states began asking different safe sleep questions in 2016, so it is difficult to compare these questions over time. The proportion of Michigan mothers meeting Michigan's NPM is lower than in prior years, except for back sleeping, but the measurement now provides a more comprehensive picture of infant sleep practices.

In 2016, 83.2% of Michigan infants were usually sleeping on their back. In addition, 34% of infants were placed to sleep on a separate approved sleep surface. In prior years, this measure was based on only two sleep risk factors—does the infant sleep in his or her own crib and does the infant sleep with other people. Starting in 2016, this measure is based on five different sleep risk factors: always or often 1) sleeps alone in own bed; 2) in a crib, bassinet or pack and play; 3) does not sleep on a twin or larger mattress; 4) does not sleep on couches, sofas, armchairs; and 5) does not sleep in a car seat or swing. Asking about whether infants sleep in a car seat or swing—a new question—has had an especially large impact on this measure. Also, in 2016, many more mothers report that their infants have at least one soft item in the sleep space. This increase may be due to changes in the wording of the question regarding blankets (any blanket versus only plush or thick blankets). The proportion of infants sleeping with no soft objects (pillows, bumpers, blankets, toys) is 51.8%. Although the number is lower than the number reported in the past, in 2016 Michigan had the highest proportion of mothers reporting that their infants do not sleep with soft objects (compared to 28 other PRAMS states reporting this data).

Another important source of data is from the Centers for Disease Control and Prevention (CDC) Sudden Unexpected Infant Death (SUID) Case Registry. It is a statewide, population-based surveillance system that tracks all sleep-related infant deaths and contains comprehensive information about the circumstances associated with the infants' deaths as well as information about the case investigation. Data is collected through local, county-based Child Death Review teams. In Michigan, 1.3 sleep-related infant deaths occur per every 1,000 live births (CDC, 2010-2017 SUID Case Registry, 2019). Between 2010 and 2017, an average of 142 babies died each year in Michigan due to sleep-related causes (n=1,136 total cases).

According to the SUID Case Registry, three in four sleep-related infant deaths in Michigan occurred in an unsafe sleep location, including adult beds (48%) and couches or chairs (15%). Only 21% of infants who died of sleep-related causes were placed to sleep in a crib, bassinet or portable crib. A crib, bassinet or portable crib was not present in the home in 15% of the deaths. Of the infants who die of sleep-related causes in Michigan, 58% of deaths occur while an infant is sharing a sleep surface with an adult(s), another child(ren), and/or an animal(s).

Significant racial disparities exist among sleep-related infant deaths. In Michigan, Black infants are 3.4 times more likely to die of sleep-related causes than White infants (2.7 sleep-related infant deaths per 1,000 live births for Black infants compared to 0.8 per 1,000 live births for White infants, CDC 2010-2017 SUID Case Registry, 2019).

Compared to White infants, infants whose race was categorized as other (other includes American Indian, Asian, Pacific Islander, and multi-racial infants) are more than twice as likely to die of sleep-related causes (1.8 sleep-related infant deaths per 1,000 live births when "Other" is listed as the race compared to 0.8 per 1,000 live births for White infants).

Looking within Michigan, there is disparity for the proportion of NHW (85.4%) and NHB (66.2%) mothers whose infants were usually placed to sleep on their backs. The disparity gap (85.4% - 66.2%) is 19.2%. At the national level, there is a slightly larger disparity gap (21.5%) in this measure when comparing NHW (83.8%) to NHB (62.3%) mothers. There is almost no disparity for the proportion of NHW (35.7%) and NHB (34.8%) mothers whose infants slept on a separate approved sleep surface and whose infants slept without any soft objects or loose bedding (NHW 52.8% versus NHB 51.8%). At the national level, there is a notable disparity in both these measures when comparing NHW (35.3% for sleeping on a separate sleep surface and 45.7% for sleeping with soft objects) to NHB (27.0% for sleeping on a separate sleep surface and 37.5% for sleeping with soft objects).

Two of Michigan's safe sleep objectives relate to how babies are put to sleep. The strategies to address these two objectives are combined, since the safe sleep behaviors are so closely related. Although infants being placed to sleep on their back was not singled out as a specific objective, all strategies and activities will promote the key messages to parents and caregivers: infant sleeps alone and without objects on the back, in a crib, bassinet or pack and play. The strategies developed to meet these objectives involve ensuring community level partners are trained on infant safe sleep and have the support and tools to educate families by having non-judgmental, culturally sensitive conversations about infant safe sleep practices. A challenge to this work is ensuring that families receive the information early, at every touchpoint and are receiving consistent, accurate messages about the safest way to sleep their baby.

Objective A: Increase percent of infants put to sleep on a separate approved sleep surface to 37.5% by 2020. (Changed from 81.8% to 37.5% due to changes in PRAMS data as noted above.)

Objective B: Increase percent of infants placed to sleep without soft objects or loose bedding to 57.1% by 2020. (Changed from 87.4% to 57.1% due to changes in PRAMS data as noted above.)

The first strategy is to support the safe sleep activities of local health departments (LHDs) and the Inter-Tribal Council of Michigan to increase the capacity of communities to implement infant safe sleep education, awareness and outreach activities to promote infants being placed on their backs and alone with no objects in their cribs, bassinets or pack and plays. This strategy will be accomplished through the provision of mini-grants to communities identified as having high numbers of sleep-related infant deaths. In addition to high numbers of deaths, many of these communities also experience significant racial disparities among the deaths. In FY 2020, 15 LHDs and the Inter-Tribal Council of Michigan will be offered such grants. Each community currently uses a local advisory council to guide activities. In FY 2020, coordination with Regional Perinatal Quality Collaboratives will continue to be encouraged, as well as requiring that activities align with the Mother Infant Health and Equity Improvement Plan (MIHEIP). Activities are to be data-driven and culturally relevant to at-risk, high-risk families in the community. Many mini-grantees involve parents and caregivers in funded activities as parent educators, speakers and outreach workers. They will also be encouraged to utilize the MIHEIP Ambassador Program.

The second strategy to increase the percent of infants put to sleep safely is to support providers who educate families on infant safe sleep and facilitate new partnerships to make it possible for families to receive infant safe sleep education at all potential touchpoints. This work includes continuing to facilitate new collaborations with non-traditional partners so the message spreads in communities that may not have been reached previously. Non-traditional partners often have greater acceptance in high-risk communities—communities that bear the burden of

health disparities—due to increased levels of trust and their ability to reach community members who are not being served in traditional health or human services settings. This approach has the potential to impact racial disparity as many of the populations that are disproportionately affected by sleep-related infant deaths may have strong connections with non-traditional community partners.

In FY 2020, efforts to collaborate with and support faith-based organizations will continue. Technical assistance will be provided from the MDHHS Infant Safe Sleep Program and the MDHHS Office of Community and Faith Engagement. Additional non-traditional partners will be explored in FY 2019 through the work of the MIHEIP Ambassador Program and if feasible, those avenues will be implemented in FY 2020. Other areas of collaboration that will continue in FY 2020 include home visiting programs (such as the Maternal Infant Health Program and Healthy Start Programs); Medicaid Health Plans; MDHHS Immunizations; Women, Infants and Children (WIC); MDHHS Child Welfare Programs including Child Protective Services (CPS); MDHHS Breastfeeding; MDHHS Tobacco; MDHHS Health Disparities Reduction and Minority Health Section; MDHHS Early On®; and MDHHS Children's Special Health Care Services.

Efforts to support birthing hospitals to educate families on infant safe sleep will continue as research has shown that when health care providers, including nurses, are educated on infant safe sleep, they share that information with families; in turn, families are more likely to follow recommended infant safe sleep practices. The evidence-based or -informed strategy measure (ESM) implemented in FY 2019 was to increase the number of birthing hospitals trained on infant safe sleep. In January 2019, the MDHHS Infant Safe Sleep Program began to offer birthing hospitals the training "Infant Safe Sleep: The Basics and Beyond" with one nursing contact hour awarded. In FY 2020, efforts to ensure that birthing hospitals are trained on infant safe sleep will continue, as well as exploring other ways hospitals can be supported. In FY 2019, the trainings will be conducted at hospitals throughout the state, upon request, with some focus on birthing hospitals in southeast Michigan. In FY 2020, a more targeted approach will be taken, and focus will be on birthing hospitals in southeast Michigan in order to reach the most concentrated number of births in the state and hospitals in areas of the state that experience health disparities. Hospitals with special care nurseries and neonatal intensive care units (NICUs) will also be targeted because babies born with lower birth weights and/or premature are at higher risk of sleep-related infant death. A continued challenge to providing training to birthing hospitals is not being able to reach all staff due to staff turnover and staff being unable to attend in-person trainings due to scheduling conflicts. To address this challenge, the Infant Safe Sleep Program is in the process of developing a video version of the training.

The third strategy is to develop and disseminate safe sleep messages that are based in best practices and families' experiences. This strategy was refined in FY 2018 to align with one of the major activities in a grant awarded to the MDHHS Infant Safe Sleep Program from the Michigan Health Endowment Fund (MHEF) in December 2016. This strategy was informed from the results of focus groups, conducted in FY 2018, to identify preferences for safe sleep message type and delivery. Focus group results, innovative infant safe sleep research and programming were shared with the MDHHS media team. Several meetings were held and preliminary recommendations were reviewed in January 2018. It was determined that additional community input, including input from communities that experience health inequities, was needed before moving forward with the development of new safe sleep messages and educational products. In FY 2019, the Infant Safe Sleep team is contracting with two community-based agencies to obtain the needed additional community input and to develop prototype materials. After initial development of messages and methodologies, market testing will be done so that refinements can be made prior to large scale dissemination. In FY 2020, these messages and educational products will be disseminated statewide to our community partners. The goal is that improved messaging and methodologies will translate to increased use of safe sleep practices among high-risk populations and, ultimately, reduce the number of deaths in addition to reducing the racial disparity.

As a fourth strategy, the MDHHS Infant Safe Sleep Program will continue to develop and disseminate tools for providers to have effective, non-judgmental, and culturally-sensitive conversations about safe sleep. This includes providers who work with pregnant and parenting families in programs that reach those populations including home visiting, WIC, child care, child welfare, CPS, and prenatal care. Staff at state and local levels will continue to provide training to these provider groups at state and local events. An online safe sleep training for providers working with families (formerly called Infant Safe Sleep for Health Care Providers but renamed Infant Safe Sleep for Professionals Working with Families) will continue to be available, offering continuing education credits for social workers, nurses and certified health educators. A second online safe sleep training will also continue to be available and is a required training for child care providers licensed by the Department of Licensing and Regulatory Affairs.

A focus for FY 2020 is to continue to promote the *Helping Families Practice Infant Safe Sleep (Safe Sleep 201)* training for home visitors and child welfare workers that will be launched (in person and online) in FY 2019 and a three-part motivational interviewing and safe sleep webinar series also released in FY 2018. The objectives of these trainings are to address how to have more effective conversations with families around safe sleep, start where the family is at to address the challenges families face in following the guidelines, and reduce the risks in the sleep environment while educating families that following the AAP recommendations is the safest way for baby to sleep. In addition, starting where the family is at and listening to a family's voice on their situation, as the Safe Sleep 201 training promotes, supports using a health equity lens when having conversations with families.

In FY 2019, a new ESM was implemented to increase the number of Maternal Infant Health Program (MIHP) agencies that have staff trained to use motivational interviewing with safe sleep. However, the ESM will be changed to require the *Helping Families Practice Infant Safe Sleep (Safe Sleep 201)* training instead of the three-part motivational interviewing and safe sleep webinar series. The change was for several reasons: 1) the *Safe Sleep Safe Sleep 201* training is based on the principals of motivational interviewing; 2) it is offered online and in-person; and 3) the online version is interactive, closed captioned, and connected to Learning Management System to document completion of the course. Increased skills by MIHP providers on how to have more effective conversations with families around safe sleep will increase the likelihood that families will follow the safe sleep guidelines. MIHP agencies serve approximately 20,000 pregnant moms and 13,000 infants on Medicaid annually. Targeting MIHP providers allows the most high-risk mothers and families to be reached.

Support for professionals will also be continued through the email list for professionals working with families around the issue of infant safe sleep and the quarterly webinars that were established in FY 2017.

The final strategy for this objective is to support promotion of protective factors related to infant safe sleep (i.e., smoking cessation, breastfeeding, immunizations). Outreach to other MDHHS programs that will be continued in FY 2020 include Medicaid Health Plans (to help ensure prenatal care), MDHHS Immunizations (to help ensure infants are immunized), WIC and MDHHS Breastfeeding (to ensure breastfeeding is supported), and MDHHS Tobacco (to help reduce smoking among pregnant mothers and families).

Work that started in FY 2017/2018 to support the number of local health departments implementing the Society for Public Health Education (SOPHE) Smoking Cessation and Reduction in Pregnancy Treatment (SCRIPT) Program will be continued. The MDHHS Infant Safe Sleep Program will continue activities such as provide/participate in a quarterly call to support local health departments implementing SOPHE SCRIPT; connect with MDHHS Tobacco to ensure the appropriate supports for tobacco dependence treatment are in place; and provide support as needed and as feasible to help health departments obtain training and implement SOPHE SCRIPT or other tobacco dependence treatment programs.

Family input is another component of program activities. One parent regularly attends quarterly meetings of the Michigan Infant Safe Sleep State Advisory Committee and several others are active promoters of infant safe sleep in

their communities. Parents are on the distribution list for the meetings and/or are in contact with the MDHHS Infant Safe Sleep Program about their interest in becoming involved. It is hoped that family/parent involvement will be expanded in FY 2020, and staff will be able to provide the necessary supports to increase this important aspect of the program. The Infant Safe Sleep Program plans to utilize the MIHEIP Ambassador Program to gain more family input and extend the program's reach.

Objective C: Reduce the gap between non-Hispanic white women and non-Hispanic black women in following safe sleep guidelines by 2020.

The intended outcome of reducing the gap between non-Hispanic white women and non-Hispanic black women in following safe sleep guidelines is to reduce the unacceptable racial disparity that exists in sleep-related infant deaths in Michigan. Starting with birth year 2016, Michigan began using the phase 8 PRAMS questionnaire that has updated language on some sleep measures. Because of this change, we can report disparity gaps in all the performance measures but cannot make direct comparisons to past years of survey data (2015 and back). The current disparity rates are noted in the introduction to this section. Changes will be tracked over time as more data are collected using the new phase of PRAMS in subsequent years.

Each strategy noted above for Objectives A and B will integrate the need to address health equity and racial disparities. Approaches will vary but may involve allocating more resources to areas that experience greater racial disparity and gaining a better understanding of messages and methodologies that may be more effective with different racial or ethnic groups. In addition to the approaches integrated with the strategies above, additional strategies will be implemented in FY 2020.

The first strategy is to provide training and support to LHDs on health equity. In FY 2018, a training session on health equity was provided to the LHDs that received mini-grant funds. Continued training, technical assistance and support is planned for FY 2019 and beyond, not only from the MDHHS Infant Safe Sleep Program, but also from the MDHHS Health Disparities Reduction and Minority Health Section. The second strategy is to dedicate at least one infant safe sleep webinar annually to the topic of health equity. The challenge in this strategy is to provide webinars that educate participants on health equity but also provide strategies they can use in their work. The third strategy is to send at least one message on the topic of health equity via the Infant Safe Sleep for Professionals listserv per quarter.

---

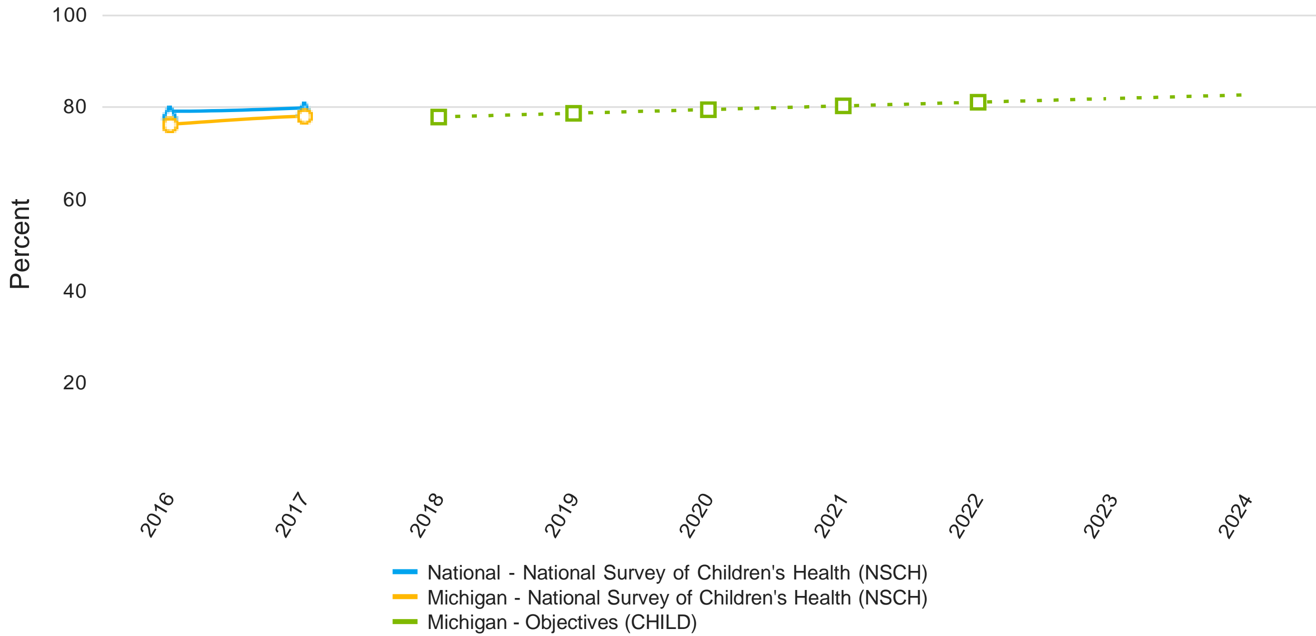
[1] All data are from the MDHHS Division of Vital Records and Health Statistics (accessed March 15, 2019).
[2] MDHHS Division of Vital Records and Health Statistics
[3] Opioid use and opioid use disorder in pregnancy. Committee Opinion No. 711. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017;130: e81–94

Child Health

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 14 - Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year	NSCH-2016_2017	8.1 %	NPM 13.2
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	NSCH-2016_2017	91.4 %	NPM 13.2

National Performance Measures



NPM 13.2 - Child Health

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH)			
	2016	**2017**	**2018**
Annual Objective			77.6
Annual Indicator		76.1	77.9
Numerator		1,584,320	1,629,730
Denominator		2,082,991	2,092,116
Data Source		NSCH	NSCH
Data Source Year		2016	2016_2017

Historical NSCH data that was pre-populated under the 2016 Annual Report Year is no longer displayed, since it cannot be compared to the new NSCH survey data under the 2017 Annual Report Year.

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	78.4	79.2	80.0	80.8	81.6	82.4

Evidence-Based or –Informed Strategy Measures

ESM 13.2.1 - Number of students who have received a preventive dental screening through the SEAL! Michigan program

Measure Status:	Active		
State Provided Data			
	2016	**2017**	**2018**
Annual Objective		5,927	6,127
Annual Indicator	8,039	6,677	6,964
Numerator			
Denominator			
Data Source	SEAL Michigan Annual All Grantee Report	SEAL MI 2017 All Grantees Data Report	SEAL MI 2018 All Grantees Data Report
Data Source Year	2016	2017	2018
Provisional or Final ?	Provisional	Final	Final

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	6,327.0	6,527.0	6,727.0	6,927.0	6,927.0	7,127.0

State Performance Measures

SPM 1 - Percent of children less than 72 months of age who receive a venous lead confirmation testing within 30 days of an initial positive capillary test

Measure Status:	Active

State Provided Data

	2016	2017	2018
Annual Objective		22.1	24.6
Annual Indicator	23.6	25	43.4
Numerator	1,208	1,048	1,308
Denominator	5,116	4,190	3,017
Data Source	MDHHS Data Warehouse	MDHHS Data Warehouse	MDHHS Data Warehouse
Data Source Year	2016	2017	2018
Provisional or Final ?	Provisional	Provisional	Provisional

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	27.1	29.6	32.1	34.6	37.1	50.0

SPM 5 - Percent of children 19 to 36 months of age who have received a completed series of recommended vaccines (4313314 series)

Measure Status:	Active

State Provided Data

	2016	2017	2018
Annual Objective		76	77
Annual Indicator	74.7	75	74.1
Numerator	125,343	125,853	123,596
Denominator	167,778	167,842	166,746
Data Source	Michigan Care Improvement Registry	Michigan Care Improvement Registry	Michigan Care Improvement Registry
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	75.0	76.0	77.0	78.0	79.0	80.0

State Action Plan Table

State Action Plan Table (Michigan) - Child Health - Entry 1

Priority Need

Increase access to and utilization of evidence-based oral health practices and services

NPM

NPM 13.2 - Percent of children, ages 1 through 17, who had a preventive dental visit in the past year

Objectives

A) Increase the number of students who have received a preventive dental screening within a school-based dental sealant program

Strategies

A1) Utilize the SEAL! Michigan database to track the number of students annually receiving a preventive dental screening A2) Promote dental sealant programs through school health professionals A3) Prepare and analyze the SEAL! Michigan annual all grantee reports to monitor for annual growth of students receiving a preventive dental screening A4) Examine ongoing trends then identify geographic areas experiencing a high burden of disease and identify populations that will benefit from an increase in dental sealant placement in proportion to disease and population

ESMs	Status
ESM 13.2.1 - Number of students who have received a preventive dental screening through the SEAL! Michigan program	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

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

Priority Need

Foster safer homes, schools, and environments with a focus on prevention

SPM

SPM 1 - Percent of children less than 72 months of age who receive a venous lead confirmation testing within 30 days of an initial positive capillary test

Objectives

A) By 2020, increase by 20% from baseline the percent of Medicaid-enrolled children under age 6 with an elevated blood lead level (EBLL) from a capillary test who receive a venous lead confirmation test

B) By 2020, increase by 10% the percent of all children under age 6 with an elevated blood lead level (EBLL) from a capillary test who receive a venous lead confirmation test

Strategies

A1) Provide local health departments with data and lists of Medicaid-enrolled children who need venous testing A2) Flag, in the Michigan Care Improvement Registry (MCIR), the Medicaid-enrolled children that need venous lead testing

B1) Provide local health departments data to support targeted outreach to improve confirmatory testing B2) Provide Maternal and Child Health partners with educational materials about venous lead testing in various languages including Spanish, Arabic, and Bengali

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

Priority Need

Invest in prevention and early intervention strategies

SPM

SPM 5 - Percent of children 19 to 36 months of age who have received a completed series of recommended vaccines (4313314 series)

Objectives

A) By 2020, increase the percentage of children 19-36 months of age who receive recommended vaccines to 75%

B) Enable local health departments to better track successes or shortfalls for their health jurisdiction

C) Implement the I Vaccinate Campaign

Strategies

A1) Use data in the Michigan Care Improvement Registry (MCIR) to identify all children 6-18 months of age who are overdue for a vaccine A2) Generate semi-annual letters to parents of children 6-18 months of age who are overdue for a vaccine

B1) Produce a quarterly report card for each county showing vaccination rates and rankings compared to other counties across the state B2) Produce quarterly reports showing vaccination levels of infants birth through 24 months showing vaccination drop off by series and vaccine B3) Produce county coverage levels by race for 19- to 36-month-old children and make the reports available to local health departments

C1) Secure funding for the implementation of the I Vaccinate campaign C2) Provide subject matter expertise to the website and messaging for social media and broadcasts

Child Health Overview

Meeting the health needs of children requires coordination and strategic action across multiple systems. Within BFHS, the Early Childhood Health section (housed in the Division of Child and Adolescent Health) collaborates with the Michigan Department of Education, Human Services, and the Children's Trust Fund to implement evidence-based home visiting and to strengthen early childhood systems at the state and local level. The Oral Health Unit also plays a key role in promoting children's health and expanding access to dental screening and services. The Division of Immunization tracks immunization rates and improves access to immunization services. Title V supports programs for children that improve childhood lead screening, increase access to dental care, and improve immunization rates. Other federal funding that improves children's health includes the Early Hearing Detection and Intervention Program (CDC), the State and Local Healthy Homes and Childhood Lead Poisoning Prevention Program (CDC), and the Maternal, Infant, and Early Childhood Home Visiting Program (HRSA). Title V and these other funding streams are implemented in partnership with a variety of state and local organizations, including the Early Childhood Investment Corporation, Great Start, Early On, Healthy Start, Head Start, the Michigan League for Public Policy, the Michigan Council for Maternal and Child Health, and many others.

Michigan's approach to improving child health under the Title V block grant emphasizes improving access to care and preventing blood lead poisoning; improving immunization rates; and improving oral health. The percentage of children without health insurance steadily declined between 2009 (4.35%, ACS) and 2016 (2.93%) in Michigan, as it has in the nation overall. However, children of parents with less than a high school education are less likely to be insured (6.07%), as are American Indian children (7.02%). While 93.21% of children are in good health as reported by their parents (NSCH, 2016), only 84.2% of Hispanic children are in good health and children living with two, unmarried parents are also less likely to be in good health (78.35%). Michigan tracks vaccination coverage carefully, and the percent of children ages 19-35 months who have completed the seven-vaccine series has increased over time from 52.14% (NIS-Child) in 2009 to 70.22% in 2016. However, coverage is lower among non-Hispanic Black children (42.21%) and children living at less than 100% of the poverty level (54.06%). Oral health is certainly a concern in Michigan where 10.36% of children, including 7.44% of children under five years of age, have tooth decay or cavities (NSCH, 2016). Tooth decay is especially likely among children receiving Medicaid (14.83%), suggesting a lack of access to dental providers who accept this type of insurance. Non-Hispanic Black (17.66%) and Asian (18.61%) children are also at greater risk of tooth decay. These key indicators of health status suggest that race, ethnicity, and income impact children's health in ways that are unjust and unfair.

Oral Health – Children (FY 2018 Annual Report)

The MDHHS Oral Health Program (OHP) provides population-based oral health prevention efforts and effective utilization of the dental workforce in implementing and improving oral health access. With the increased awareness of the impact of oral health to overall health, the OHP has increased its collaborations with community partners to improve oral health through prevention activities and direct access programs. This remains evident in the activities of NPM 13 in FY 2018. In the original Title V Guidance, this two-part NPM was originally in the Cross-cutting/Life Course population domain. Starting in 2018, the two parts of the measure were separated between the Women/Maternal Health and the Child Health population domains. Therefore, NPM 13.2 (focused on children) is reported here.

Objective A: Increase the number of students who have received a preventive dental screening within a school-based dental sealant program.

SEAL! Michigan is a school-based sealant program that aims to educate children about dental health and to reduce decay rates. In FY 2018, SEAL! Michigan was able to fully utilize the Teleform software to scan annual data in an efficient manner. For the second year in a row, all funded programs had their reports within 10 weeks of data collection, allowing for timely data-driven decisions to be made within the program. Timely data collection and report writing allowed time for funding allocations to shift funds from less effective programs to more effective programs in FY 2019.

In FY 2018, 12 funded programs in Michigan provided school-based dental sealant programs in eligible schools (those with 50% or more students participating in the Free and Reduced Lunch Program). One new program in FY 2017 was the Health Department of Northwest Michigan (HDNWM), which filled a geographical gap. In FY 2018 a new program was implemented in Oakland County with the Oakland Health Integrated Network (OHIN). The OHIN program was a relatively easy program to begin because it was currently funded under an existing FQHC that closed operations, thus most of the equipment was already owned, the program serviced existing schools, and some of the existing staff was maintained.

The ESM for this measure is the number of students who have received a preventive dental screening through the SEAL! Michigan program. Research has shown that dental sealants reduce tooth decay; in turn, reducing tooth decay improves the oral health and general well-being of children. In FY 2018, a total of 6,964 students were screened (an increase from 287 students in FY 2017) and 19,862 dental sealants were placed (an increase from 14,916 in FY 2017). A quarter of students screened had special health care needs and 86.8% of students received a fluoride varnish treatment (a slight decline from FY 2017). There was a 1.2% decrease from FY 2017 in the percent of students in need of urgent care, and this decline has been a positive trend (12.9% in FY 2016, 10.1% in FY 2017, and 8.9% in FY 2018). A slight decrease was also seen in the percent of students who had evidence of decay or filled first molars (6.9% in FY 2016, 8.0% in FY 2017, and 6.5% in FY 2018). In FY 2016, 19.2% did not have dental insurance and 35.2% were on the state's Medicaid program, Healthy Kids Dental (HKD). In FY 2017 there was a decrease in children who did not have dental insurance (17.3%) and an increase in HKD (41.6%). In FY 2018, the number of students reporting no insurance (17.4%) and the number of children on HKD (41.4%) remained about the same as the prior year.

Part of the parent education requirement is to bring awareness to parents about HKD and how to enroll. Enrollment will place kids in a dental home, thereby addressing access to care issues. Part of the program requirements are to service schools with more than 50% of the enrolled students participating in the Free and Reduced Lunch Program, which will help to reach the children at highest risk of disease. More than half of the students (55.3%) participating in the program in FY 2018 were white and 16.9% were Black and 10.4% were Multiracial. According to the US Census Bureau (July 1, 2018), the population in Michigan is 79.4% white, 14.1% Black and 6.5% combined other races, which are in alignment with the program services.

Although the SEAL! MI coordinator has received trainings and has completed courses focused on cultural awareness and sensitivity, there was also an opportunity to prioritize ongoing trainings to the local SEAL! MI coordinators. Both the coordinator at the state level and those working with families at the local level must engage in ongoing cultural awareness education. Each August, coordinators working in the SEAL! MI programs at the local level attend the Annual SEAL! MI Workshop. This day consists of face-to-face training on important areas of interest. In August 2018, half of the one-day workshop included a speaker who provided the *Bridges Out of Poverty* training. It was the first step in plans to offer more education on cultural awareness in a more formal and ongoing manner. On course evaluations, participants reported that they appreciated the education and would like to learn more. Annual training will bring education opportunities to existing providers (and any newly hired providers) which should result in an increase in the quality of care delivered to high-risk populations. Although funding is scarce for training opportunities, a goal has been set to provide at least one significant training to SEAL! MI providers annually via an

in-person conference and/or webinar. Ongoing trainings must be made available to providers so that those working directly with students and families can better understand risk factors as well as cultural strengths and how to work with families to meet their individual needs and to increase their level of trust and comfort.

In FY 2018, the SEAL! Michigan program continued to attempt to reach the target population through family and consumer outreach and engagement. To reach families and consumers, the funded programs attended back-to-school nights, Parent Teacher Organization (PTO) meetings, and some schools allowed information to be distributed via social media. These settings provided an opportunity to share information and answer questions about oral health. Student consent forms were delivered home with an informational brochure on the SEAL! Michigan program and the benefits of dental sealants. It is shared anecdotally that when schools agree to send out consent forms at the beginning of the school year there is a much higher consent form return rate, and this will be encouraged in following years.

To further support the growth and acceptance of school-based dental sealant programs, the MDHHS School Oral Health Consultant attended the Michigan School Nurse conference in both the Upper and Lower Peninsula and spoke briefly at the Upper Peninsula conference. The consultant will be presenting longer sessions for both conferences in 2019. Additionally, the consultant attended the National School-Based Health Alliance (SBHA) annual conference and was an abstract reviewer of the oral health track for the SBHA 2019 conference.

Lead Poisoning Prevention (FY2018 Annual Report)

The Michigan Childhood Lead Poisoning Prevention Program (CLPPP) has carried out mandated blood lead surveillance and lead poisoning prevention activities since 1998. Childhood lead poisoning has declined steadily in Michigan, but elimination has not yet been attained. The State of Michigan uses the reference value recommended by the CDC's Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP), five micrograms per deciliter of blood (µg/dL), to define a child as having an elevated blood lead level (EBLL). In 1998 (the first complete year of required reporting) among children under the age of six tested for lead, the percentage of children with EBLLs was 42.7% (31,395 children). In 2017, of the 150,068 children younger than six years of age that had a blood lead test, 3.1% (4,711) of these children had elevated blood lead levels.

This report describes CLPPP activities undertaken in FY 2018 to improve testing in general and confirmatory testing specifically. The rate of confirmatory venous testing of EBLL capillary test results in 2017 was 25.0%, which rose to 43.4% in 2018. Significant improvements have occurred in the algorithm used by the MDHHS Data Warehouse to assign unique identifiers to individual children, which has corrected instances where children have been assigned incorrect identifiers in the past. This may partly contribute to the differences between the 2017 and 2018 indicators.

In the aftermath of the Flint Water Crisis, MDHHS made an organizational change to ensure that childhood lead poisoning prevention was fully integrated with related services and expertise. CLPPP was moved from the Division of Family and Community Health (in the Bureau of Family, Maternal and Child Health) to the Division of Environmental Health (in the Bureau of Epidemiology and Population Health) which has overall responsibilities for addressing environmental hazards and for administering the state's Lead Safe Home Program. The move strengthened integration of the blood lead surveillance and epidemiology functions within MDHHS's area of epidemiological, environmental, and lead abatement subject matter expertise. In FY 2018, CLPPP staff numbers expanded to 11, creating new positions for two data technicians and an additional full-time epidemiologist to increase timely responses to data requests and other reporting requirements.

In FY 2018, CLPPP continued support of the Governor's Child Lead Exposure Elimination Commission (CLEEC),

established to address the need for coordinated efforts to eliminate childhood lead poisoning. In February 2018, CLEEC released its five-year action plan to address lead elimination. The action plan prioritized 51 specific action steps to create a state free of lead exposure to benefit the health of Michigan's children. The action steps were sorted into six key topic areas of enhanced testing, education, data, partnerships, funding, and regulations/law. CLEEC, CLPPP, and several local health departments hosted seven regional public forums across the state to obtain comments, questions, and feedback on the action plan. Participants at these forums included parents, families, landlords, medical professionals, Medicaid Health Plans, and other partners in preventing lead poisoning throughout Michigan.

CLPPP received additional funding from the CLEEC to support education and outreach activities in Michigan's 10 prosperity regions. This funding was used to facilitate medical provider forums and discussions at the community level; support media campaigns; support targeted outreach to increase capillary to venous follow-up testing; and support additional LHD staffing. Additional funding was used to purchase 45 Leadcare2 machines which were provided to WIC clinics throughout the state to increase capillary screening rates.

CLPPP's efforts are not possible without partnerships with other federal and state MCH programs. Michigan is one of ten state participants in the Maternal and Child Environmental Health Collaborative Improvement and Innovation Network (MCEH CoIIN). The aim of the MCEH CoIIN is to support and improve coordinated systems of care to address the needs of maternal, infant, and child populations that are at risk for or experience exposure to lead. CLPPP's specific focus within the MCEH CoIIN includes increasing capillary to venous testing rates and developing materials and recommendations for testing pregnant women. CLPPP staff attended an in-person learning session and many conference calls with other states and federal partners to share successes and address barriers.

Objective A: By 2020, increase by 20% from baseline data the percent of Medicaid-enrolled children under age 6 with an elevated blood lead level (EBLL) from a capillary test who received a venous lead confirmation test.

Objective B: By 2020, increase by 10% from baseline the percent of all children under age 6 with an EBLL from a capillary test who received a venous lead confirmation test.

The three main focus areas of CLPPP include surveillance, outreach, and health services. Title V funding directly supports outreach and health services. The surveillance activities allow for CLPPP to better target areas of needed outreach and health services. In FY 2018 several grants and programs were awarded and developed to increase the number of children (both Medicaid-enrolled and non-Medicaid) under age 6 with an EBLL from a capillary test who received a venous lead confirmation test.

The Child Lead Poisoning Education & Outreach Grant was awarded to ten LHDs, with the expectation to develop and conduct educational activities for parents of children at risk of lead poisoning, with special attention to high-risk areas. Activities funded by these grants include:

- Presenting at primary care and pediatric physician staff meetings, Great Start meetings, the WIC State Conference, Back to School and Health and Wellness fairs, and other Michigan community events;
- Developing and showing Public Service Announcements to be shown in local movie theaters and clinics;
- Creating and displaying billboards along heavily traveled interstate highways;
- Working with local refugee centers to develop materials in various languages and targeting education to immigrants; and
- Developing and implementing a protocol to increase confirmatory testing rates.

A specific success story took place in Kent County. Kent County Health Department, an Education & Outreach grantee, saw success with the implementation of their protocol to increase capillary to venous rates. In FY 2017, the capillary to venous rates were 34.6% in 90 days and 20.5% in 30 days. In FY 2018, the capillary to venous rates greatly increased to 72% in 90 days and 56% in 30 days. The hope is to replicate this protocol in other places throughout Michigan to see continued increases in the capillary to venous rates statewide.

The Childhood Lead Poisoning Prevention Grant was awarded to nine LHDs, to focus prevention efforts in the highest risk communities in Michigan, including Adrian, Detroit, Grand Rapids, Lansing, Jackson, Flint, Hamtramck, Dearborn, Kalamazoo, Muskegon, Muskegon Heights, and Highland Park. These areas are targeted for this grant because they are areas of older housing stock and have high levels of poverty, which are risk factors for exposure to lead sources. The target population for this grant includes children with lead levels of 5 to 14 µg/dL and pregnant women enrolled in Medicaid living in homes built before 1960. Activities funded by these grants include:

- Presenting at landlord association meetings;
- Distributing cleaning kits, lending HEPA vacuums, and providing education about how to safely clean a home with lead;
- Helping families that need home abatement fill out an application for financial assistance through the Lead Safe Home Program; and
- Providing nursing case management for children with an elevated blood lead level who are not enrolled in Medicaid, visits which are not covered under the Medicaid reimbursement program.

In FY 2018, CLPPP also created the Lead-Free Michigan toolkit as a “go-to” resource for all things lead. This was designed for use by nurse case managers, health educators, and other public health professionals as they work with and educate different populations about lead poisoning prevention. The target audience for the materials includes parents, home owners and tenants, schools, health care providers, and child care providers. The toolkit includes a variety of materials like posters, brochures, and flyers that cover topics about blood lead tests, nutrition, pregnant and nursing mothers, safe cleaning, lead facts, and take-home lead. Future plans include translating the toolkit materials into Spanish, Arabic, and Bengali languages.

There was continued success in the in-home nursing case management program at LHDs. In January 2017, the reimbursement to all LHDs for in-home nursing case management to Medicaid children with EBLLs increased from $75 per visit to $201.58 per visit. This allowed for greater capacity at the LHD level to provide home visits for Medicaid-enrolled children with EBLLs. CLPPP continues to support the LHDs by training and technical assistance. In September 2018, CLPPP hosted a day-long training with over 100 LHD participants. Speakers covered topics including working with child protective services, pediatric chelation, CLPPP data updates, and CLPPP/Lead Safe Home Program roles and responsibilities.

In FY 2018, 1,289 reimbursable home visits were conducted by the 43 participating LHDs for 747 children with EBLLs. A requirement for reimbursement is that the blood lead level must be confirmed with a venous blood lead test. If a child has an EBLL from a capillary test, a venous confirmatory test must be done before the in-home nursing case management can begin.

Although the nursing case management reimbursement is only for Medicaid-enrolled children because funding comes from Medicaid, many LHDs have committed to doing follow-up with non-Medicaid children with EBLLs, including pursuing venous confirmatory tests where indicated, regardless of no reimbursement. The Childhood Lead Poisoning Prevention grantees cover the communities with high-rates of EBLLs. They can use grant funds to offset the costs of providing nursing case management services to this population.

In Genesee County, nursing case management activities are conducted by the Greater Flint Health Coalition Child Health Access Program (CHAP). CLPPP staff support case management activities by maintaining a list of all children in Flint with EBLLs, including their testing history and status of their case management, investigations and remediation. Weekly data exchanges of blood lead data and case management activity updates have been shared with CHAP. This close partnership enables all parties to ensure that all children with EBLLs are contacted, enrolled in a medical home, and offered services (including a home environmental investigation, effective water filters, nutrition counseling, child developmental assessment, and other activities).

All efforts and interventions to lower an elevated blood lead level are documented by the nurse case managers and CLPPP in Michigan's Healthy Homes and Lead Poisoning Surveillance System (Mi-HHLPSS). Mi-HHLPSS is a surveillance system maintained by CLPPP. It is used as a tool to assess homes abated and to prevent future EBLs. CLPPP uses the system to assure kids are provided nursing case management by nurses.

In an effort to continuously improve CLPPP programs and activities, CLPPP contracts with the Michigan Public Health Institute to conduct an annual evaluation. The survey, completed by LHDs and partner agencies, collected data about communication, usefulness of resources, and response times/actions. Overall, improvements in satisfactions were seen from 2017 to 2018. CLPPP also holds quarterly conference calls with grantees, bi-monthly conference calls with LHDs, and occasional in-person meetings to obtain feedback from local programs and allow for sharing of best practices and challenges.

Improvements also took place to the Michigan Care Improvement Registry (MCIR), the state's immunization registry. Within MCIR, health care providers can view a lead tab with blood lead testing results in individual patient records, as well as clinical decision support information on how to interpret the lab test numbers with corresponding recommended actions to take. This allows providers to determine if follow-up or confirmatory blood lead testing is needed. Changes to existing functions and new functions implemented in FY 2018 included:

- Anyone who has had a blood lead test that is in the MDHHS Michigan Child Lead Poisoning Surveillance System will have that information displayed in the MCIR lead tab, regardless of age.
- A housing stock zip code-based risk message will appear.
- If a person lived in Flint during the water crisis time frame, a new High Risk indicator called "Potential Lead Exposure (Flint Water)" will be checked.

Additional programs and activities undertaken in FY 2018 to improve testing and confirmatory retesting in all children (Medicaid-enrolled and non-Medicaid) included:

- Monthly data summary reports of testing status of Medicaid-enrolled children that included data by Medicaid Health Plan, posted on the MDHHS website, in an effort to bring all Medicaid Health Plans in line with the Medicaid goal of 80% of continuously-enrolled children tested by age three.
- Continuation of a monthly Medicaid-CLPPP workgroup to ensure coordination between Medicaid programs and CLPPP.
- Facilitating requests for blood lead data and Medicaid data by researchers, in particular, those interested in the impacts of the lead-contaminated water on the health of children in Flint.
- Continuation of quarterly Flint leadership meetings with MDHHS CLPPP, MDHHS Lead Safe Home Program, MDHHS Medicaid, and Medicaid Health Plans to ensure the children of Flint are connected with available resources.

Critical to the success of CLPPP and LHDs in meeting the objectives of this project were numerous partnerships with community groups, advocacy organizations, families of lead-exposed children, health care provider groups, and

local governmental agencies. Partners included the Michigan Environmental Council, Ecology Center, Healthy Homes Coalition of Western Michigan, WIC, Michigan State Housing Development Authority, Genesee County Medical Society, Michigan Association of School Nurses, Michigan Chapter of American Academy of Pediatrics, Michigan Public Health Institute, Greater Flint Health Coalition, MDHHS Medicaid, MDHHS Lead Safe Home Program, local county and regional task forces, and many more.

Immunizations – Children (FY 2017 Annual Report)

To address the priority area of "Invest in prevention and early intervention strategies" MDHHS originally developed a two-part SPM related to Immunizations that was included in the Cross-Cutting/Life Course population domain. The SPM included two measures: A) Percent of children 19 to 36 months of age who have received a completed series of recommended vaccines (4:3:1:3:3:1:4 series) and B) Percent of adolescents 13 to 18 years of age who have received a completed series Human Papilloma Virus (HPV) vaccine. Starting in 2018, these measures were split into two separate measures in two population domains (Child Health and Adolescent Health). This change was made to align with the revised HRSA population domains and for clarity of reporting.

The first measure, percent of children 19 to 36 months of age who have received a completed series of recommended vaccines, is discussed here. Many efforts were implemented by MDHHS in 2018 to assure children are vaccinated on schedule. On-schedule vaccinations have become increasingly difficult as parents have questions about vaccines and vaccine hesitancy appears to be increasing. Michigan immunization rates have remained at 75% which is the same as the previous year, based on data from the Michigan Care Improvement Registry (MCIR). In 2018, MDHHS sent overdue notices to all children 6-18 months of age using data from MCIR. Michigan continues to see lower immunization waiver rates in school children and preschool children due to the requirement that parents receive immunization education on the value of vaccination before receiving a non-medical waiver.

Objective A: Increase the percentage of children 19-36 months of age who receive recommended vaccines.

In FY 2018, Michigan continued to experience a significant problem keeping children on schedule. Only 54.6% of children who were seven months of age were on schedule with all recommended vaccines. Children are therefore susceptible to diseases for a longer period of time when they are most vulnerable. Data also show that children who fall behind are less likely to complete the schedule. In an effort to keep children on schedule, in FY 2018 Michigan sent one round of letters to all children overdue for a vaccine. Notices went to all children between the ages of 6 and 18 months of age. In 2018, notices were sent to the parents of over 40,000 children.

In preparation for a statewide media campaign called I Vaccinate (which began in March of 2017), MDHHS conducted focus groups with young mothers who were hesitant to vaccinate their children. The goal of the focus groups was to learn about mothers' concerns and what types of information and messaging would most impact their decision to vaccinate their children. These mothers were also asked how they receive information. This information was used to create the I Vaccinate Campaign. The I Vaccinate Campaign ran for the remainder of 2017 and through 2018 to provide vaccine information to parents with questions about vaccines. The campaign promoted vaccination of children in Michigan using many media methods, including TV ads, radio ads, social media posts on several social media sites, immunization provider materials, and "Mommy Bloggers" promoting vaccines and vaccine safety. More information is available at the I Vaccinate website.

Objective B: Make quality improvement reports (AFIX reports) available to immunization providers using the MCIR.

The Division of Immunization documented all needed changes to make the AFIX reports available to the end user in an immunization provider office using MCIR. Several trainings were held for provider practices to learn about the functionality of the reports. Trainings included an emphasis on how to utilize the reports to improve immunization rates and overall quality improvement. MCIR regional staff were also trained to further support providers in the community. In 2018, 1,080 AFIX visits were conducted primarily by local health department staff to private provider offices. After the initial visit, each site was asked to submit activities that could improve immunization rates in their practice. Local health departments conducted 336 face-to-face follow-up visits to these practices and 594 follow-up activities over the phone.

Objective C: Enable local health departments to better track successes or shortfalls for their health jurisdiction.

In FY 2017, County Immunization Report Cards were first generated and posted on the MDHHS website on a quarterly basis. The report cards were generated to reflect the immunization rates of each county in Michigan and ranked them against other counties in the state. The report cards have been modified several times to better meet the needs of local health departments. The goals of the report card data are to 1) provide each county with an understanding of vaccination rates in their respective communities and 2) identify areas for improvement. County report cards have been published every quarter and highlighted during several conferences. The state will continue to make that data available to the public to increase awareness of immunization rates in their area.

The Michigan Immunization Program also provides immunization drop-off data to local health departments on a quarterly basis. Data are obtained from the MCIR. These reports track vaccine completeness by the age at which vaccines should be obtained for children. Data show a dramatic drop off in vaccine completeness by seven months of age which reinforces the difficulty of keeping children on schedule for vaccines.

Oral Health – Children (FY 2020 Application)

The MDHHS Oral Health Program (OHP) provides population-based oral health prevention efforts and effective utilization of the dental workforce in implementing and improving oral health access. With the increased awareness of the impact of oral health to overall health, the OHP has increased its collaborations with community partners to improve oral health through prevention activities and direct access programs. In the original Title V Guidance (2015), this two-part NPM was in the Cross-cutting/Life Course population domain. With the separation of the measure between the Women/Maternal Health and the Child Health population domains in 2018, NPM 13.2 (focused on children) is discussed here for FY 2020.

In Michigan, 58 of the state's 83 counties have a full, partial or facility Health Provider Shortage Area (HPSA) designation, with 11 counties having less than five dentists. Only 38% of Medicaid-eligible children in Michigan receive dental services. Children under the age of five are the least likely to have visited a dentist. The Michigan Medicaid Program has been addressing access to oral health care by implementing the Healthy Kids Dental program throughout the state. The Healthy Kids Dental program began as a demonstration program through a contract with Delta Dental Plan of Michigan in 22 counties in May 2000. By October 2015, the program had expanded into all 83 counties. The Healthy Kids Dental Plan now utilizes Delta Dental, Blue Cross Blue Shield and DentaQuest's network of dentists and provides a higher reimbursement rate to dentists, thereby allowing greater access to dental care for Medicaid-enrolled children. The utilization of dental care within this program has increased to over 50% of enrollees. This program assists children and adolescents, ages 0-21, to receive dental care.

The Healthy People 2020 goal is to have 28.1% of children ages 6-9 with one or more dental sealant in place. Between 2005 and 2016 there has been an increase in the percent of third grade students in Michigan with one dental sealant or more. In 2005, 23.3% of third grade students had one or more dental sealants; in 2010 it was 26.6%; and in 2016 it was 37.6%. This increase is attributed to the MDHHS SEAL! Michigan school-based dental sealant program, that piloted in 2007 and has expanded within the state over the last several years. Until the fall of 2018, SEAL! Michigan was funded through Title V, CDC Cooperative Agreements, HRSA grants (as available), and annual gifts received from the Delta Dental Foundation of Michigan. Beginning in the fall of 2018, the SEAL! MI program experienced a loss of federal grants, and is now primarily funded through a Medicaid match, Title V, and annual gifts received from the Delta Dental Foundation. Together, this funding supports a School Oral Health Consultant to manage SEAL! Michigan at the state level and has financially supported direct services to be delivered in schools around Michigan. Although less funding is currently available for sealant programs, the loss of federal grant funding did result in the state Medicaid program supporting the Oral Health Consultant position which adds significant sustainability to the program overall.

Objective A: Increase the number of students who have received a preventive dental screening within a school-based dental sealant program.

This objective aligns with the Oral Health NPM: Percent of children, ages 1-17, who had a preventive dental visit in the past year. Implementing a school-based dental sealant program will support progress toward an increased number of children with a preventive dental visit. SEAL! Michigan is focused on providing preventive oral health care to students through assessment, education, dental sealants, and fluoride varnish application. To best align preventive efforts to highest areas of need, the SEAL! Michigan programs target schools that have 50% or more students enrolled in the Free and Reduced Lunch Program (FRLP).

Dental decay is the leading chronic childhood disease and nationally leads to more than 51 million missed school hours per year. Dental sealants are an evidence-based strategy to prevent dental decay. SEAL! Michigan is a

school-based dental sealant program that provides dental screening and places dental sealants for students at no cost to families. In addition to dental sealants, students receive a dental screening, oral health education and (over 90% of the time) fluoride varnish. Although this strategy does not include comprehensive dental services, dental screenings are an effective point of entry to connect to a dental provider, which is increasingly more accessible with the expansion of Healthy Kids Dental.

SEAL! Michigan began in 2007 with a single pilot program serving a handful of schools. Through increased awareness and advocacy, the program has seen consistent growth by adding more programs and with each individual program expanding into more schools annually. Currently the program has 10 grantees across the state. Although the program experienced significant growth into approximately 210 schools in FY 2018, the majority of schools in Michigan do not offer a dental sealant program to students. Dental sealants ultimately decrease dental disease in youth as they are nearly 100% effective in preventing dental decay when they are retained on the tooth. Therefore, reaching children through school-based services is ideal and is a recognized best practice approach by the CDC and the Association of State and Territorial Dental Directors.

Program management and growth significantly rely on data collection. SEAL! Michigan has made ongoing improvement modifications to its data collection efforts. Data is collected annually and efficiently entered through Teleform software where it is cleaned and analyzed by the oral health epidemiologist. Annual reports are written in a timely manner and released for each local program as well as aggregated into a statewide report. Data can illustrate program success through annual increases in number of schools and students served and through number of sealants placed. Ultimately, the data will be captured by the Michigan Basic Screening Survey of third grade students (completed every five years), Count Your Smiles Report, to demonstrate the rates of dental sealant placement and dental decay in youth across the state.

The SEAL! Michigan program attempts to reach the target population through family and consumer outreach and engagement. As stated previously, the programs focus on schools with a high number of children enrolled in the FRLP. The program relies on parent and guardian awareness of the program; thus, parents' consent for their children to receive the preventive oral health services is a key component of the program. To reach families and consumers, staff from the funded programs attend back-to-school nights and Parent Teacher Organization (PTO) meetings. All student consent forms are delivered home with an informational brochure on the SEAL! Michigan program and the benefits of dental sealants. The brochure was developed by professional health literacy specialists and is written at a third-grade reading level to accommodate varying literacy levels.

The first strategy under this objective is to utilize the SEAL! Michigan database to track the number of students receiving an annual preventive dental screening. Continual updating of the database allows for tracking the number of unique students who receive one or more dental sealants through the program. The second strategy is to promote dental sealant programs through school health professionals. The growth of the program relies on continual expansion into new schools. The MDHHS School Oral Health Consultant will continue to a) promote dental sealant programs through school nurses and other school health professionals and b) encourage participation with SEAL! Michigan or other school-based dental sealant programs. This strategy will be accomplished through collaboration with internal MDHHS partners, as well as embracing external partnership opportunities via professional organizations, conferences and educational venues.

The third strategy is to monitor evaluations to determine best practices in school sealant programs in schools with high participation. Ongoing evaluation of sealant programs is imperative to overall growth. Learning from all partners involved (students and parents, school administrators, teachers, school nurses, health professionals, social workers) through evaluation will assist in directing the SEAL! Michigan program towards continued success. In FY 2017, a full SEAL! Michigan program evaluation was conducted by the Michigan Public Health Institute, and the final evaluation

was reviewed for program improvement strategies that could be implemented by individual programs.

A fourth strategy to implement in FY 2020 is to examine ongoing health trends to identify geographic areas experiencing a high burden of disease, and then use this information to identify populations that will benefit from an increase in dental sealant placement in proportion to disease and population. This strategy will help assess whether oral health programs are funded in areas of high need and to maximize access and preventive potential to the populations with the highest need.

Lead Poisoning Prevention (FY 2020 Application)

A state performance measure (SPM) was established to address lead poisoning prevention and treatment as a result of the 2015 needs assessment. The SPM measures the percent of children less than 72 months of age who receive a venous lead confirmation test within 30 days of an initial positive capillary test. This SPM is linked to the state priority need to foster safer homes, schools, and environments with a focus on prevention.

Blood lead testing of children at risk of exposure to lead in homes or from other sources is critical for targeting interventions to prevent adverse health effects of lead. In Michigan, all Medicaid children are required to receive blood lead testing at 12 and 24 months of age, or between 36 and 72 months of age if not previously tested. MDHHS also recommends targeted testing for other children who are especially at risk of lead exposure, such as those who are poor, live in homes built before 1978, and/or receive other social services (e.g., WIC). Children with elevated blood lead levels (EBLLs), defined as a blood lead level (BLL) equal to or greater than 5 micrograms per deciliter of blood (µg/dL), should have interventions such as in-home nursing case management and environmental investigations to mitigate health effects of lead exposure, and identify and remove sources of lead in their environments.

Leadership for Michigan’s lead prevention activities, as they relate to the MCH population, is housed within the Childhood Lead Poisoning Prevention Program (CLPPP). This program is housed within the Bureau of Epidemiology and Population Health, which is in the Population Health Administration (the same Administration that houses the Bureau of Family Health Services and Title V). Title V funding currently supports the childhood lead programs administered by CLPPP. Staff in CLPPP work collaboratively with staff in the Bureau of Family Health Services and Medicaid, particularly on issues related to case management and blood lead testing.

The three main focus areas of CLPPP include data surveillance, nursing assistance, and community education and engagement. Title V funding directly supports nursing assistance and community education. Data surveillance allows for CLPPP to better target areas for needed nursing assistance and community education. CLPPP provides technical nursing assistance for local health departments (LHDs) and health care providers to support the management and coordination of services for children with elevated blood lead levels. CLPPP also provides statewide community outreach to parents, health care providers, child care providers, public schools, homeowners, and tenants on the prevention of lead exposure and the importance of screening and confirmatory testing of at-risk children.

The Child Lead Exposure Elimination Commission (CLEEC) was established under Governor Snyder to prioritize and continue efforts to eliminate child lead poisoning in Michigan. In FY 2018, CLEEC funded 11 one-year pilot projects that demonstrated innovative approaches to the elimination of child lead exposure. Several of these grants targeted at-risk populations, including pregnant women; areas of the state with high rates of increased blood lead levels; and children who have parents who are exposed to lead at work. CLEEC will fund another round of projects in FY 2019. CLPPP will support the CLEEC and their grantees as the projects are implemented and evaluated to

determine if they can be replicated elsewhere in the state. Of specific interest to CLPPP are the projects that address pregnant women lead testing, universal testing, and increasing testing rates of children under the age of six.

Partnerships with federal and state agencies are critical to the success of CLPPP. FY 2020 plans include expanding partnerships, including:

- Michigan Pregnancy Risk Assessment Monitoring System (PRAMS): CLPPP will add questions pertinent to lead exposure in pregnant women to the PRAMS survey;
- WIC: In FY 2018, CLEEC funded the purchase of 45 additional leadcare2 machines to be used in WIC clinics to increase capillary testing. CLPPP will continue to provide training to WIC agencies regarding testing and submitting results to MDHHS;
- Adult Blood Lead Exposure Surveillance (ABLES) Program: CLPPP is implementing an educational component for contacting adults with EBLLs to get their children tested. ABLES data indicate that parents working in lead-related fields aren't routinely educated about protecting their children from take-home lead exposure;
- Maternal and Child Environmental Health Collaborative Improvement and Innovation Network (MCEH CoIIN): CLPPP will continue collaborating with the state and federal partners participating in the MCEH CoIIN. Focus areas include increasing capillary to venous rates and educating providers about recommendations for screening and testing pregnant women; and
- Local Health Departments/Local Lead Prevention Task Forces: CLPPP will continue to support the counties and regions in Michigan that are engaging with families, including the City of Detroit, Kent County, and Calhoun County. The goals are to focus on hearing from the families about what they need instead of making assumptions; hearing stories and barriers from a family perspective; and using family and parent expertise to help identify how to raise awareness about LHD services locally.

Objective A: Increase the percent of Medicaid-enrolled children under age 6 with an elevated blood lead level (EBLL) from a capillary test who receive a venous lead confirmation test.

All Medicaid-enrolled children are considered to be at high risk for blood lead poisoning. Michigan Medicaid policy requires that all Medicaid-enrolled children are tested for blood lead at age 12 and 24 months of age, or between 36 and 72 months of age if not previously tested. Because of this policy, along with the available infrastructure and data, Medicaid-enrolled children remain primary targets for increasing the rates of capillary to venous testing.

The first strategy for this objective is to provide local health departments with data and lists of Medicaid-enrolled children who need venous testing. This will include continuing to provide LHDs with monthly lists of Medicaid-enrolled children who need venous testing. The list will include all children age six and under who are enrolled in Medicaid and their blood lead testing status. Also, CLPPP is working with the University of Michigan to develop quarterly blood lead testing report cards for local health departments. These report cards will contain valuable information on number of children tested, number of children with elevated results, and other metrics including capillary to venous follow up rates. The goal of these reports is to provide the LHDs with more frequent feedback on blood lead testing in their jurisdictions.

Additionally, LHDs receive a weekly list of the blood lead results in their jurisdiction. In this list, the type of testing that was conducted for the sample is noted. LHDs can use this list to work with the families of children with EBLLs through capillary testing to obtain venous testing. One critical intervention to prevent the adverse health effects of lead is to conduct in-home nursing case management for children with EBLLs. It is a requirement for Medicaid reimbursement that the capillary test has to be confirmed with a venous blood lead test before initiation of nursing

case management.

The lists and quarterly report cards can serve as tools to assist LHDs with their primary prevention and testing efforts. CLPPP will work with the LHD to assure that they are accessing these tools and using them to promote confirmatory testing, as well as overall testing. CLPPP has established a data referent group that contains LHD data users to provide feedback on the lists and report cards to ensure the information included is useful. The hope is that with more frequent data reports being provided, LHDs will decrease the number of ad-hoc requests being made to CLPPP.

The second strategy is to work with the Michigan Care Improvement Registry (MCIR) to determine the best way to flag children that need venous lead testing. MCIR is the state immunization registry, accessed by LHDs, healthcare providers, Medicaid Health Plans, and schools. If a child has received a blood lead test in Michigan, MCIR displays the test date, whether the blood sample type was capillary or venous, and the test result within the child's record. Calling specific attention to any unconfirmed EBLL capillary results will support healthcare providers and case managers at the LHDs, schools, and Medicaid Health Plans to coordinate care and take specific steps to follow up with families to order tests, help arrange transportation as needed, and address any other barriers to obtaining the venous test.

Objective B: Increase the percent of all children under age 6 with an elevated blood lead level (EBLL) from a capillary test who receive a venous lead confirmation test.

As CLPPP learns from experiences with the Medicaid population, the strategies and activities developed and implemented for Medicaid-enrolled children will be expanded to impact children served by private insurance carriers and children with no insurance coverage.

The first strategy is to provide LHDs with data to support targeted outreach to improve confirmatory testing. CLPPP will provide LHDs with confidential lists of non-Medicaid children in their jurisdictions who need confirmatory venous testing, so they can follow up with the families. Also, CLPPP has partnered with researchers at Michigan State University to develop models to predict high-risk geographic areas to target for interventions. The analyses will combine data on known risk factors for lead exposure (e.g., housing age), measures of socioeconomic status (e.g., levels of poverty in children, tenancy, languages spoken at home) with results of blood lead testing in the state to identify and rank risk factors associated with increasing levels of EBLL in children. Results will be used to develop an index for identifying high-risk areas. This risk index will be coupled with current blood lead testing rates to identify regions in the state where CLPPP can work with local health departments to increase blood lead testing. The risk index will also be used to identify target areas for lead home environmental assessment and lead abatement, as required by the approved Medicaid State Plan Amendment (SPA) for expanded lead abatement activities in the State of Michigan.

Although the nursing case management reimbursement is only for Medicaid-covered children because funding comes from Medicaid, many LHDs have committed to follow-up with non-Medicaid children with EBLLs, including pursuing venous confirmatory tests where indicated. Ten LHDs in communities with high-rates of EBLLs are provided with a grant to offset the costs of providing nursing case management services to this population, as well as providing prevention services in their region. Also, CLPPP is restructuring the LHD grants to allow for grantees to request funds for low-income families that need relocation while awaiting abatement services. This will prevent chelated children from returning to homes where they can be re-exposed to lead.

The second strategy is to provide Maternal and Child Health partners with educational materials about venous lead testing. CLPPP currently uses Title V funding to fund nine LHDs across the state to provide education and outreach to their jurisdiction and LHD jurisdictions in their surrounding region. Based on feedback from LHDs and grantees,

CLPPP developed the “Lead-Free Michigan” toolkit as a “go-to” resource for all things lead. This was designed for use by nurse case managers, health educators, and other public health professionals as they work with and educate individuals and families about lead poisoning prevention. The target audience for the materials includes parents, home owners and tenants, schools, health care providers, and child care providers. The toolkit includes a variety of materials like posters, brochures, and flyers that cover topics about blood lead tests, nutrition, pregnant and nursing mothers, safe cleaning, lead facts, and take-home lead. There are plans to have the toolkit materials translated into Spanish, Arabic, and Bengali languages to reach a broader, more diverse audience. CLPPP and LHDs will work to distribute these toolkits to health care providers, hospitals, advocacy groups, child care providers, and other partners in preventing lead poisoning throughout Michigan.

Provider knowledge around current lead testing recommendations is a barrier to increasing lead testing rates. In response, CLPPP is developing an online training module targeted to health care providers, with one hour of continuing education credits attached. The overall goal of the course is to increase knowledge, understanding, and behaviors to reduce the health impacts of lead exposure in children under the age of six. Content of the training focuses on understanding how children are exposed to lead, the health impacts of lead, blood lead testing requirements and screening questions, understanding the importance of working with LHDs and other resources. The training will be finalized by September 2019, to be promoted to health care providers in FY 2020 through MCH partners and LHDs.

Additionally, CLPPP will develop a targeted campaign with the goal of encouraging parents to ask about getting their children lead tested. This will include using social media to alert the public that may be most at risk for lead exposure based on high-risk zip codes that include old housing stock and low testing rates. This will be done in collaboration with MDHHS Healthy Homes Section, so information can be provided about lead safe renovations to home improvement store customers.

Immunizations – Children (FY 2020 Application)

To address the priority area of “Invest in prevention and early intervention strategies” MDHHS originally developed an SPM on Immunizations. The SPM included two measures: A) Percent of children 19 to 36 months of age who have received a completed series of recommended vaccines (4:3:1:3:3:1:4 series) and B) Percent of adolescents 13 to 18 years of age who have received a completed series Human Papilloma Virus (HPV) vaccine. Given the changes to the HRSA framework and population domains for FY 2019, Michigan split this original SPM into two distinct SPMs in two population domains (Child Health and Adolescent Health). The child health measure is addressed here.

The mission of the MDHHS Division of Immunization is to minimize and prevent the occurrence of vaccine-preventable diseases in Michigan. The program seeks to fulfill its mission through coordinated program efforts designed to:

- Promote high immunization levels for children and adults
- Provide vaccines through a network of public and private health care providers
- Facilitate the development, use and maintenance of immunization information systems
- Support disease surveillance and outbreak control activities
- Provide educational services and technical consultation for public and private health care providers
- Promote the development of private and public partnerships to improve immunization levels across the state
- Promote provider and consumer awareness of immunization issues

The vision of the MDHHS Division of Immunization is to implement effective strategies and to strengthen partnerships with our stakeholders to eliminate vaccine preventable diseases in Michigan.

Within some populations, Michigan has experienced declining immunizations rates and has not met the Healthy People 2020 goal of 80% for child immunizations. For example, the percent of 19- to 35-month-olds who received a full schedule of age appropriate immunizations (Measles, Mumps, Rubella, Polio, Diphtheria, Tetanus, Pertussis, Haemophilus Influenzae and Hepatitis B) is at 74.1% based on data obtained from the Michigan Care Improvement Registry (MCIR). The 2017 National Immunization Survey data shows Michigan at 79.9% for the same series of vaccines. Additionally, two dose hepatitis A vaccination rates for children are low in Michigan. The Advisory Committee on Immunization Practices (ACIP) routinely recommends two doses of hepatitis A, and Michigan has started tracking completion rates for children to measure progress. If two doses of Hepatitis A vaccine are added to the full series of vaccines for 19- to 36-month-old children, the compliance rate drops to 57.1%.

Parental vaccine hesitancy has increased in the last several years even though many published scientific articles show that vaccines are safe and effective. Michigan continues to have some of the highest vaccine exemption rates for kindergarten children compared to other states. Michigan has worked hard to educate providers on the importance of immunizations and the need to talk with parents about their concerns. Michigan has also partnered with the Franny Strong Foundation to provide information via the I Vaccinate campaign for parents to learn the facts about immunizations and the benefits and risks of not vaccinating. MDHHS has also worked with the Franny Strong Foundation to provide educational messages to the public to promote timely vaccinations.

The National Immunization Surveys (NIS) are a group of telephone surveys sponsored and conducted by the CDC National Center for Immunization and Respiratory Diseases (NCIRD). In 1994, the NIS began to monitor child immunization coverage in all 50 states and select local areas for sampling. The NIS is the only standardized sampling method that can show differences and disparities from one state to another. The NIS uses random-digit-dialing to identify households with children ages 19 through 35 months. A parent or guardian is interviewed on child immunization status and vaccination providers are mailed a survey to verify immunizations. NIS currently measures: 4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 HepB, 1 Varicella, 4 PCV (4313314). The most recent NIS data from 2017 shows that the point estimate for Michigan is 69.9% which is down 0.3% from the prior year.

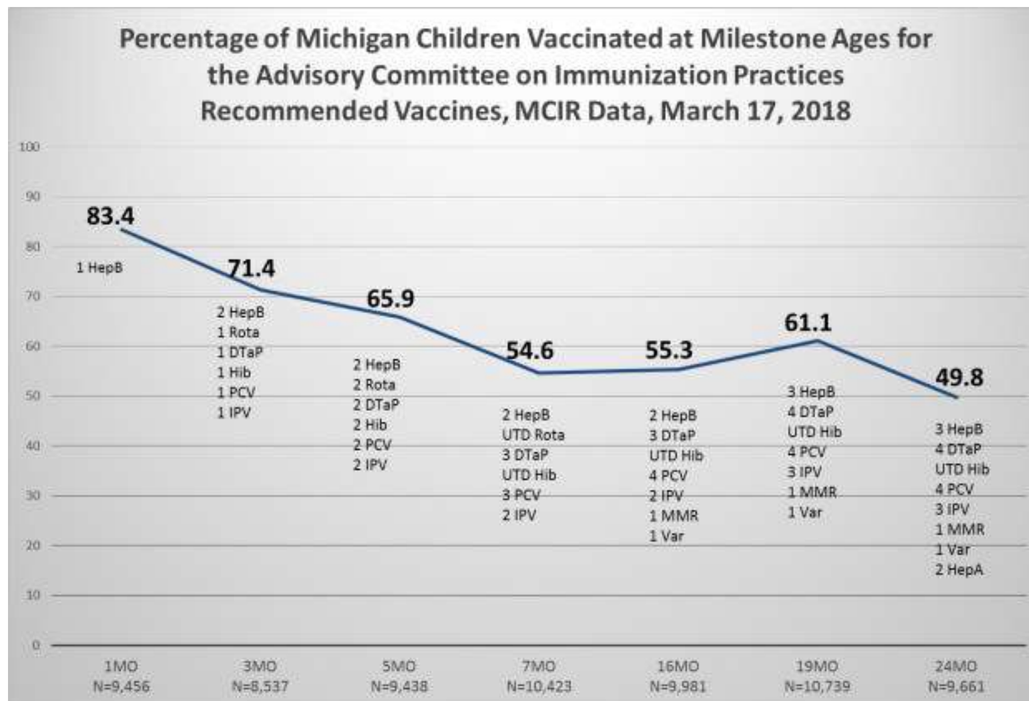
The Division of Immunization operates the Michigan Care Improvement Registry (MCIR). The MCIR is a regionally-based, statewide immunization registry that contains over 139 million shot records administered to 10 million individuals residing in Michigan. MDHHS is currently working through subcontracts with six MCIR regions to enroll and support every immunization provider in the state. Current enrollments include: 6,321 health care providers and pharmacies; 4,141 schools; and 3,889 licensed childcare programs. MCIR is used routinely by over 31,000 users to access and determine the immunization records of children and adults. In 2018, MCIR generated over 257,820 recall letters notifying responsible parties whose children had missed shots and encouraged them to visit their immunization providers to receive needed vaccines. In addition, over 3 million reports were generated by users of the MCIR system in 2018.

MCIR can forecast needed doses of vaccine for all children who are contained in the system. All children should have completed the recommended pediatric vaccines by the time the child reaches 19 months of age. Data from MCIR show that 74% of children who reside in Michigan have received the routinely recommend 4313314 series by the time they reach 36 months of age. MCIR rates have experienced gradual decreases in compliance rates for children enrolled in Medicaid and WIC. The current vaccination rate for children enrolled in Medicaid is 72% and the vaccination rate for children enrolled in WIC is 77%. Although the statewide 74% vaccination level is higher than the rate reported by the National Immunization Survey, the Healthy People 2020 goal is 80%.

Objective A: By 2020, increase the percentage of children 19-36 months of age who receive recommended vaccines to 75%.

Data obtained from MCIR show that children are not receiving vaccines on schedule, and many of these children never catch up on all needed vaccines. By seven months of age, only 57.1% of children in MCIR are current with all recommend vaccines. From birth to 2 years of age, children are recommended up to 25 vaccinations to prevent 14 infectious diseases. The vaccination schedule is designed to protect children when they are most vulnerable. Recommendations based on ages of vaccines are shown to be safe and effective. An assessment of NIS data shows that only 23% of children 24-35 months of age were vaccinated with the primary 4313314 series on time. A Michigan study of vaccine timeliness at age 24 months of children born from 2006 to 2010 shows that only 13.2% of the children were vaccinated on time. There are no known benefits to delaying vaccinations. Although mild increases in immunization rates by age have occurred, they have been very slight. Image 1 shows immunization rates over time by the age when vaccines should have been completed.

Image 1. Percentage of Michigan Children Vaccinated at Milestone Ages



MCIR can assess existing immunization data for children and forecast needed doses. This functionality greatly assists clinicians in determining any needed doses of vaccine during a clinical encounter. This same forecasting functionality can be used at a system level to determine any children who need vaccines. To increase vaccination rates, the Division of Immunization has initiated an effort to notify parents of all children 6 months through 18 months of age who are overdue for one or more vaccines. In the past, efforts have been targeted at children who are 2 to 3 years of age, but this effort will attempt to impact parents of children less than 19 months of age who are not staying on schedule.

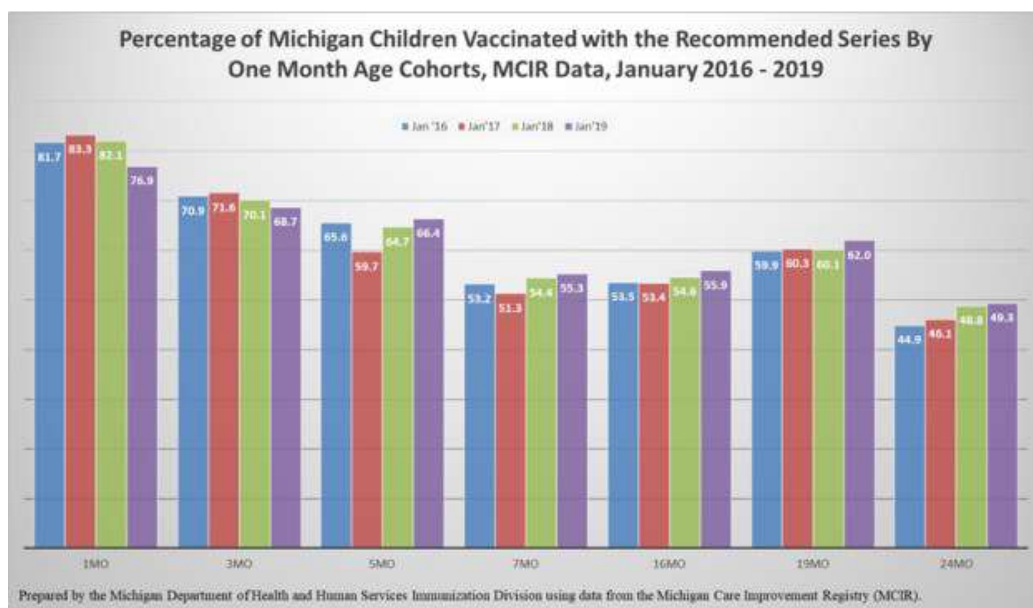
Data from MCIR show that children who stay on schedule are twice as likely to complete all needed vaccines as those who fall behind early. A central strategy to address this objective is to generate notices to parents of children who are overdue for vaccines. These notices are not intended to replace other efforts that may be underway in provider offices or local health departments but are meant to enhance existing efforts.

Objective B: Enable local health departments to better track successes or shortfalls for their health jurisdiction.

In FY 2020, the Immunization Program will continue to distribute population-based county “report cards” for local health departments to better understand immunization issues and areas for improvement within their communities. The MCIR epidemiologist will generate county report cards on a quarterly basis, which will be posted on the MDHHS website. The report card will contain coverage level information in several key areas including pediatric, adolescent and adult coverage levels. Report cards rank each county in the state, so a county can also compare its progress to other counties.

Another key report which will be made available to local health departments is the vaccine drop-off report. This report shows how well children are staying on schedule for all recommended vaccines. The Immunization Program will continue to make the data available to local health departments so they can be better informed on areas for improvement as they work with immunization providers in their jurisdiction. Although mild increases in immunization rates by age have occurred, they have been very slight. Image 2 shows immunization rates over time by the age when vaccines should have been completed.

Image 2. Percentage of Michigan Children Vaccinated with the Recommended Series



These reports not only identify the immunization rates by age, but reports are also available that show immunization rates by age broken down by vaccine types. Local health departments can identify immunization levels by vaccine type to determine areas where immunization providers may not be offering all recommended vaccines.

Michigan has large racial disparities in immunization coverage rates. Using the same assessment logic used by the CDC for the National Immunization Survey, the statewide immunization rate is 70.89% for the 4313314 series. Image 3 illustrates statewide immunization rates by race. The Black immunization rate is 57.71% in comparison to the highest rate of 76.49% for Asian/Pacific Islander.

Image 3. Immunization Rates by Race

		series4313314		
Data	race	Complete	Incomplete	Grand Total
Percent	AmericanIndian	72.90%	27.10%	100.00%
	Asian/PI	76.49%	23.51%	100.00%
	Black	57.71%	42.29%	100.00%
	multiple	63.77%	36.23%	100.00%
	Unknown	54.90%	45.10%	100.00%
	White	75.76%	24.24%	100.00%
	Other	0.00%	100.00%	100.00%
Number	AmericanIndian	390	145	535
	Asian/PI	9454	2905	12359
	Black	15532	11380	26912
	multiple	88	50	138
	Unknown	7760	6375	14135
	White	79677	25497	105174
	Other		1	1
Total Percent		70.89%	29.11%	100.00%
Total Number		112901	46353	159254

To better address this disparity, in FY 2020 the Michigan Immunization Program will create reports on a semi-annual basis showing immunization rates by race for each local health jurisdiction. The data will be made available to local health departments to help increase awareness of this disparity and to inform immunization activities.

Objective C: Implement the I Vaccinate Campaign.

Parental vaccine hesitancy has been an increasing concern in Michigan. Vocal and organized groups have continued to push back on school vaccine requirements and vaccines in general. This growing concern is affecting not only the school reporting process but parents who may have questions about vaccines. Social media concerning vaccines circulate broadly throughout the state and the impact is that more parents are questioning the value and safety of vaccinating their children.

To make positive vaccine messages available to the public, in 2017 MDHHS launched the I Vaccinate Campaign in partnership with the Franny Strong Foundation. The campaign went live in March 2017 to provide information and tools based on research and medical science to help Michigan parents protect their children through vaccinations. MDHHS and the Franny Strong Foundation have partnered to provide financial and program support for the campaign. Approximately 17 other state and national groups are supportive of the campaign, including the Michigan Association of Health Plans, the Michigan Association of Local Public Health, the Michigan Chapter of the American Academy of Pediatrics, and the Michigan Health and Hospital Association.

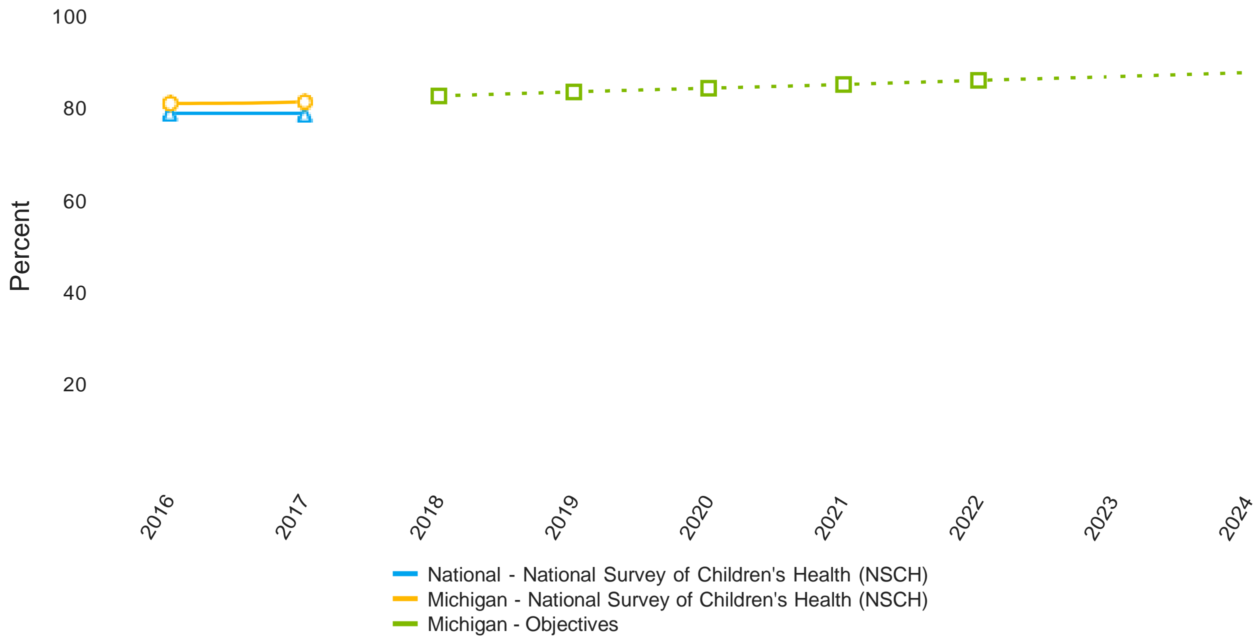
The I Vaccinate Campaign uses several media platforms to reach targeted populations of women of childbearing years knowing they are often the primary decision makers related to the health of their children. Television and radio ads are purchased to promote vaccinations to protect all children. Social media messages are used throughout the state with real life stories of individuals affected by vaccine preventable diseases. A website was created as a resource to assist parents in the decision-making process about vaccines for their children. The website is built on facts about immunizations and is presented in a user-friendly forum from a parent's viewpoint. In FY 2020, the Immunization Program will continue to assess the I Vaccinate campaign to identify any ways to strengthen its message and broaden its reach.

Adolescent Health

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 16.1 - Adolescent mortality rate ages 10 through 19, per 100,000	NVSS-2017	33.5	NPM 10
NOM 16.2 - Adolescent motor vehicle mortality rate, ages 15 through 19, per 100,000	NVSS-2015_2017	10.5	NPM 10
NOM 16.3 - Adolescent suicide rate, ages 15 through 19, per 100,000	NVSS-2015_2017	12.4	NPM 10
NOM 18 - Percent of children, ages 3 through 17, with a mental/behavioral condition who receive treatment or counseling	NSCH-2016_2017	55.4 %	NPM 10
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	NSCH-2016_2017	91.4 %	NPM 10
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)	NSCH-2016_2017	17.3 %	NPM 10
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)	WIC-2014	13.4 %	NPM 10
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)	YRBSS-2017	16.7 %	NPM 10
NOM 22.2 - Percent of children, ages 6 months through 17 years, who are vaccinated annually against seasonal influenza	NIS-2017_2018	54.0 %	NPM 10
NOM 22.3 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine	NIS-2017	67.3 %	NPM 10
NOM 22.4 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the Tdap vaccine	NIS-2017	93.4 %	NPM 10
NOM 22.5 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the meningococcal conjugate vaccine	NIS-2017	93.5 %	NPM 10
NOM 23 - Teen birth rate, ages 15 through 19, per 1,000 females	NVSS-2017	16.4	NPM 10

National Performance Measures



Federally Available Data			
Data Source: National Survey of Children's Health (NSCH)			
	2016	**2017**	**2018**
Annual Objective			82.6
Annual Indicator		81.0	81.3
Numerator		633,720	618,502
Denominator		782,076	760,429
Data Source		NSCH	NSCH
Data Source Year		2016	2016_2017

Historical NSCH data that was pre-populated under the 2016 Annual Report Year is no longer displayed, since it cannot be compared to the new NSCH survey data under the 2017 Annual Report Year.

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	83.5	84.3	85.1	86.0	86.8	87.7

Evidence-Based or –Informed Strategy Measures

ESM 10.1 - Of the health care providers who complete the Motivational Interviewing web course and the Motivational Interviewing professional development training, the percent who report skills in effectively counseling youth on changing risky behaviors

Measure Status:	Active

State Provided Data

	2016	2017	2018
Annual Objective		93	95
Annual Indicator	87.5	93.3	96.4
Numerator	7	28	27
Denominator	8	30	28
Data Source	MDHHS Participant Assessment Tool	Evaluation tool / SurveyMonkey	Evaluation tool / SurveyMonkey
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	95.0	98.0	98.0	98.0	98.0	96.0

State Performance Measures

SPM 6 - Percent of adolescents 13 to 18 years of age who have received a completed series Human Papilloma Virus vaccine

Measure Status:				Active		
Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	44.0	46.0	48.0	50.0	52.0	54.0

State Action Plan Table

State Action Plan Table (Michigan) - Adolescent Health - Entry 1

Priority Need

Promote social and emotional well-being through the provision of behavioral health services

NPM

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

Objectives

A) Increase the percent of adolescents, ages 12 through 17, enrolled in Medicaid, with a preventive medical visit in the past year

B) Of the health care providers who completed the Motivational Interviewing web course and the Motivational interviewing professional development training, 98% will report skills in effectively counseling youth on changing risky behaviors

C) Increase percentage of CAHC clients age 12+ with a positive depression screen who have documented follow-up

Strategies

A1) Develop a state plan to improve adolescent well-care, focusing on Medicaid-eligible youth A2) Convene a workgroup to promote comprehensive adolescent well-care A3) Expand strategies to incentivize well-child exams by working with health plans

B1) Increase the number of providers trained on culturally-competent adolescent-friendly care

C1) Establish Behavioral Health Quality Measures among Child & Adolescent Health Centers (CAHCs) C2) Implement CAHC CQI Initiative C3) Provide support to CAHC mental health providers to assure proper data collection and reporting for behavioral health quality measures, including appropriate follow-up, to clients with positive depression screens

ESMs	Status
ESM 10.1 - Of the health care providers who complete the Motivational Interviewing web course and the Motivational Interviewing professional development training, the percent who report skills in effectively counseling youth on changing risky behaviors	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

State Action Plan Table (Michigan) - Adolescent Health - Entry 2

Priority Need

Invest in prevention and early intervention strategies

SPM

SPM 6 - Percent of adolescents 13 to 18 years of age who have received a completed series Human Papilloma Virus vaccine

Objectives

A) By 2023, increase the percentage of adolescents who have completed the HPV series to 50%

B) Increase outreach to adolescent immunization providers with low immunization rates

Strategies

A1) Generate a letter using MCIR data to parents of adolescents who have initiated the HPV series but have not completed it A2) Partner with the MDHHS Cancer Program and the American Cancer Society to build a stakeholder group to promote HPV vaccination as cancer prevention A3) Partner with health systems in Michigan to develop strategies to increase HPV immunization rates for their members

B1) Using MCIR data, generate a list of adolescent providers and their MCIR completion rates B2) Prioritize provider outreach to larger practices with the lowest immunization rates B3) Offer quality improvement visits to provide a comprehensive assessment of immunization rates and recommendations for practice improvements B4) Generate HPV Report Cards for Federally Qualified Health Centers

Adolescent Health Overview

The needs of adolescents are addressed at the state and local level in Michigan through a diffuse network of governmental and non-governmental organizations. Within MDHHS, both the Division of Child and Adolescent Health (DCAH) and the Division of Immunization play an important role in meeting the health needs of Michigan's adolescents. Both Divisions are housed within the BFHS. DCAH includes programs designed to prevent pregnancy and build healthy relationship skills among adolescents, and it houses programs designed to meet adolescents' health needs in school settings. The Division of Immunization includes sections focused on outreach and education, as well as assessment and local support. The Children's Special Health Care Services (CSHCS) Division administers programs that impact adolescents and young adults with special health care needs, especially as they relate to transition. Title V funds directly support a variety of programs and services for adolescents through state and local organizations, including pregnancy prevention and immunization, as well as services for adolescents who have special health care needs. Other federal MCH funds that impact adolescents, and with which Title V coordinates, include the State Abstinence Education Program (ACF funding), the State Personal Responsibility Education Program (ACF funding), and an Epilepsy grant (HRSA funding). In addition, critical partnerships in the state that impact adolescent health include those with school health centers, the Michigan Department of Education, the Youth Risk Behavior Survey and its state-based counterpoint (the Michigan Profile for Healthy Youth), the Michigan Organization on Adolescent Sexual Health, and the School-Community Health Alliance of Michigan.

Michigan's approach to adolescent health emphasizes reducing mortality, especially through suicide prevention, and protecting adolescents from adverse health outcomes due to a variety of factors, such as HPV or unplanned pregnancies. While the past decade has seen positive change in several dimensions of adolescent health, adolescents continue to face risks at the intersection of behavioral and physical health and within their broader sociocultural context. The adolescent mortality rate of 35.65 per 100,000 remains above the national average (NVSS, 2016) and is highest among non-Hispanic Black adolescents (49.22 per 100,000, NVSS, 2014_2016). However, the motor vehicle mortality rate (11.66 per 100,000, NVSS, 2014_1016) among adolescents has dropped over the past six years to below the national average. Following alarming national trends, the suicide mortality rate (10.97 per 100,000, NVSS, 2014_2016) for adolescents has increased steadily over the past several years and currently exceeds the national average. This is an area of increasing concern for Michigan, which has emphasized improving depression screening, referral, and follow up among Child and Adolescent Health Centers, recognizing that only 69.38% (NSCH, 2016) of adolescents (12-17 years) with a diagnosed mental or behavioral condition receive treatment or counseling. However, the HPV vaccination rate has steadily increased, with the percent of female adolescents who have received at least one dose of the HPV vaccine increasing from 39.0% in 2009 to 70.5% in 2016 (NIS), and higher rates of vaccination among Hispanic (84.6%) and non-Hispanic Black (78.9%) adolescents as compared with non-Hispanic white (59.5%) adolescents. The teen birth rate has also steadily declined from 31.95 per 1,000 females in 2009 to 17.72 in 2016 (NVSS). However, the teen birth rate was 37.14 and 28.89 in 2016 among non-Hispanic Black adolescent females and Hispanic adolescent females, respectively. This disparity suggests a need to explore the appropriateness and responsiveness of teen pregnancy programs and services.

Adolescent Well-Visit (FY 2018 Annual Report)

FY 2018 activities focused on implementing a Motivational Interviewing (MI) web course and in-person training to public and private providers, as well as Continuous Quality Improvement (CQI) activities to improve adolescent well visits among state-funded school-based and school-linked health centers known as Child and Adolescent Health Centers (CAHCs) in Michigan.

Attendance at the in-person Motivational Interviewing training was sustained in FY 2018. The Evidence-based Strategy Measure (ESM) target for FY 2018 (95% of health care providers who completed the Motivational Interviewing web course and subsequently attended the Motivational Interviewing professional development in-person training reported improved skills and confidence in effectively counseling youth on changing risky behaviors using MI strategies) was reached and also increased over the prior year.

Each state-funded CAHC is required to report on a standardized set of quality measures and to participate in a multi-faceted CQI approach which has collectively led to dramatic improvements in quality measures, including the percentage of clients up-to-date with a documented comprehensive physical exam (well-visit). For example, in FY 2012 half of the CAHCs reported that 39% or more of their clients were up-to-date with annual well-care exams. In comparison, in FY 2018 half of the CAHCs reported that 71% or more of their clients were up-to-date with annual well-care exams.

Meaningful family and consumer engagement of parents and youth is a longstanding priority of the CAHC Program and is accomplished through various strategies. Per boilerplate requirements, each CAHC must operate a community advisory committee that is comprised of at least one-third parents of school-aged children and youth. These advisory groups are tasked with giving input and approving core health center policies, including confidentiality, abuse and neglect and parental consent. Each group has a range of other responsibilities that are unique to each center. When funding for the CAHC program was eliminated in 2003, these advisory groups rallied other parents to provide a critical advocacy voice that was instrumental in reinstating the funding. Parents are a powerful ally in this work.
Youth input is also a requirement of the program and occurs through various strategies. Centers are required to have youth input through either their existing Community Advisory Council (CAC) or through a stand-alone youth advisory committee. As part of their work on these committees, youth routinely provide feedback on center services and programs, the center’s environment, and reading material. Youth are strong advocates for CAHC utilization among their peers. Some CAHCs also conduct focus groups with youth to identify ways to increase health center utilization and improve services and outreach. As part of ongoing CQI activities, CAHCs must implement a client satisfaction survey at least annually. Results of these surveys are compiled and centers must demonstrate how this critical feedback was used to improve services to clients.

Objective A: Develop a state plan for improving adolescent well-care, focusing on Medicaid eligible youth.

This objective will be addressed as part of year four efforts in FY 2019.

Objective B: By 2020, increase by 625 the number of providers trained on culturally-competent, adolescent-friendly preventive care.

In 2014 and 2015, MDHHS Child, Adolescent and School Health (CASH) Section staff partnered with the Michigan Public Health Institute to design two web-based Adolescent Health Courses, grounded in research and best practice, to improve provider competencies in Motivational Interviewing (MI) and Positive Youth Development/Resiliency. Two additional courses were developed and released in 2017 including Adolescent Brain Development & Decision Making, and Encouraging Healthy Teen Relationships (interpersonal violence prevention). These courses have been promoted and offered at no charge to public and private providers throughout Michigan and the United States. The objective is to reach 250 providers over five years with these foundational adolescent health courses.

Since FY 2015, 1,761 health professionals (e.g., medical providers, mental health providers and health educators) have completed the MI web course. In FY 2018 alone, 518 professionals completed the motivational interviewing

course. Of those that have completed the course since 2015, 1,155 individuals requested continuing education contact hours from their respective professions: nursing contact hours (28%); Michigan Social Work clock hours (15%); NASW Social Work contact hours (13%); and Certified Health Education Specialist (41%).

Health behaviors are increasingly recognized as multidimensional and embedded in healthy lifestyles. Social determinants of health (SDOH) are influenced by the interrelationship of social factors, health services, individual behavior, and biology. It is the interrelationships among these factors that determine individual and population health. Because of this, interventions that target multiple determinants of health are most likely to be effective. The motivational interviewing course focuses on identifying risk and preventing harmful effects on adolescent population health. Assessment of SDOH combined with evidence-based motivational interviewing counseling and referrals results in improved adolescent health and well-being.

As noted above, the ESM for this measure is the percent of health care providers who complete the MI web course and subsequently attend the MI professional development in-person training who report improved skills and confidence in effectively counseling youth on changing risky behaviors using MI strategies. Through the Title V program, in 2018, MDHHS offered two in-person MI trainings reaching 42 providers, for a total of 120 providers who have attended the in-person training over the past three years. Participants have included physicians, nurse practitioners, physician assistants, nurses, social workers and health educators. The trainings were promoted through provider organizations such as the Michigan Regional Chapter of the Society for Adolescent Health and Medicine, American Academy of Pediatrics, American Family Physicians, National Association of Pediatric Nurse Practitioners and the CAHC Medical Directors listserv. As a result of the MI training, 96.4% of evaluation respondents (n=28) reported improved skills and confidence in effectively counseling youth on changing risky behaviors using MI strategies. Therefore, in 2018 Michigan reached the ESM target and demonstrated an improvement over the previous year (93.3%).

An online evaluation was administered to participants two weeks following post-training, to obtain more accurate information on participants' actual use of the strategies. Future plans include a greater focus on partnering with state provider agencies to offer the MI training as a pre-conference session at annual provider conferences to recruit more physician and mid-level provider participants.

Objective C: By 2020, increase by 10% the proportion of adolescents with a documented well-child exam among 25 Child & Adolescent Health Centers.

As a first strategy to meet this objective, the CAHC Quality & Evaluation Support Team (QuEST) reviewed quality performance data across all state-funded health centers in order to select participants for a Continuous Quality Improvement (CQI) project aimed at increasing the proportion of clients with a documented, up-to-date well-care exam. Data included number of unduplicated clients, number of well-care exams provided and percent of clients up-to-date with a well-care exam (two-year trend) for each health center. Other factors taken into consideration were geographic location, staff longevity and commitment to a CQI process. Prior to the CQI initiative, the selected centers were among the lowest-performing CAHCs for the quality measure "percentage of adolescents with a documented, up-to-date comprehensive well-care exam."

QuEST coordinated tailored initiatives using the Plan-Do-Study-Act cycle of change, provided regular coaching calls and meetings with participating CAHC staff. To initiate each project, QuEST conducted conference calls to review the following: current available data; data needed to set goals; current processes for consent and well-child exam administration; challenges and facilitating factors for implementing the initiative; and next steps. A second conference call and a series of email and telephone communications followed to review data; develop goals and action steps; and determine resources and support needed for success. QuEST provided ongoing, tailored support

which included guidance and support for policy/procedure and process review, revision and development. Access to current and relevant journal articles, tip sheets, training and educational materials were provided.

Center staff reviewed practices on requesting date of last well-care exam provided upon registration/completion of medical history form; reviewed options for documenting and retrieving date of last exam from respective EHRs; and implemented methods for proactively reminding and following up on those who were due/overdue. Examples of proactive methods included contacting both parent and adolescent by phone, text, and direct mail; coordinating with mental health providers to assure documentation of last well-care exam and warm hand-offs to schedule appointments for those who were due/overdue; and increasing communication via newsletters, public awareness announcements, and visible presence at school events.

Each of the four participating CAHCs saw statistically significant improvements in the percentage of clients up-to-date (UTD) with a documented, comprehensive physical exam (mean change of 41% across the four CAHCs). For details, see Table 1. Comparison of FY17 and FY18 % Up-to-Date w/ Physicals Among Intervention CAHCs. Dramatic improvements were seen in both an increased number of physical exams performed onsite and improved documentation of physicals that were provided at other locations. The number of clients UTD with a documented, comprehensive physical exam more than doubled among these four sites during this time frame. Regardless of CQI cycle duration specifically, pre/post intervention data showed immediate efficacy of the CQI project (average increase of 56% across participating CAHCs). See Table 2. Pre- and Post-Intervention Comparison for Intervention CAHCs.

Table 1. Comparison of FY17 and FY18 % Up-to-Date w/ Physicals Among Intervention CAHCs

Intervention CAHCs	FY17 UU	FY17 UTD	FY18 UU	FY18 UTD	FY17 % UU UTD	FY18 % UU UTD	% Change	p-value
Site #1	262	96	463	308	37%	67%	45%	<0.0001
Site #2	220	96	241	191	44%	79%	45%	<0.0001
Site #3	491	179	547	395	36%	72%	50%	<0.0001
Site #4	126	60	231	139	48%	60%	21%	0.02

UU = unduplicated users

Table 2. Pre- and Post-Intervention Comparison for Intervention CAHCs

CAHC	Baseline (FY17)	End of Intervention	Percentage point increase	% Increase
Site #1	37%	61%	24	65%
Site #2	44%	76%	32	72%
Site #3	45%	72%	27	60%
Site #4	48%	60%	12	25%
Average	43.5%	67.25%	23.75	56.25%

Collectively, from FY 2017 to FY 2018, the percent of clients up-to-date with a comprehensive physical exam among all state-funded CAHCs held steady at 71% (median for all state-funded health centers).

Immunizations – Adolescents (FY 2018 Annual Report)

This section discusses the second reporting component of Michigan's original two-part Immunization SPM: Percent of adolescents 13 to 18 years of age who have received a completed series Human Papilloma Virus (HPV) vaccine. Many successes were achieved in FY 2018. For example, several indicators used to measure immunization rates in Michigan moved in the right direction. Michigan saw an increase in the adolescent coverage rates which did not include HPV vaccine. Those rates have remained consistent at 77%. Some areas of the state are showing immunization rates well above 80%. The adolescent immunization rates for HPV coverage saw increases as well. HPV series completion rates over the last year for 13 to 18-year-old adolescents increased by approximately 3.5%. A 3.5% increase is important, but Michigan still falls short of the HP 2020 goal of 80%.

Objective A: Increase the percentage of adolescents who have completed the HPV series.

In FY 2018, the Division of Immunization partnered with the Cancer Program and the Cancer Consortium on several activities. The Immunization Program and the American Cancer Society hosted a Cancer Summit and invited Dr. Melinda Wharton from the CDC as the keynote speaker. The intention of the summit was to bring together physicians across the state who have low HPV immunization rates. Guest speakers included several physician practices with higher HPV vaccination rates to share their approaches to achieving these high rates. There was also a focus on the effects of HPV. Dr. Wharton also visited senior staff with several health systems in Southeast Michigan to discuss plans to increase HPV immunization rates for their members. Meetings have been held with these health systems over the last year to implement systematic changes to increase awareness about the HPV vaccine and ultimately increase immunization rates.

In FY 2018, the Michigan Immunization Program conducted two rounds of recall notices to adolescents who have not completed the HPV series. Notices were sent to over 53,000 adolescents 13-15 years of age.

During FY 2018, HPV webinars were held with 61 immunization health care providers and their staff. The webinars were part of a quality improvement process intended to educate health care providers and staff on the importance of HPV vaccination and to emphasize strategies to increase HPV vaccination rates in their practice. Each provider received current coverage levels for adolescent vaccines and were shown the increase over the last 12 months.

The 61 webinars that took place were successful. The sessions included conversations about the importance of the HPV vaccine and the barriers faced by providers. The MDHHS Immunization Program documented barriers (both with the HPV vaccine and communication barriers between state level, local level and provider level) during these webinars and is working to help minimize or eliminate these barriers for providers.

Overall, in the FY 2018 reporting year 48.7% of adolescents 13 to 18 years of age completed the HPV series (MCIR) which represents a 3.5% increase from the previous year.

Objective B: Increase outreach to adolescent immunization providers with low immunization rates.

In FY 2018, MDHHS analyzed adolescent immunization coverage levels from the MCIR to target outreach to large immunization providers with the lowest immunization rates. The focus of these coverage rates has been on HPV vaccination, but all adolescent vaccines are discussed. Staff conducted outreach to these providers to meet in person and offer quality improvement tools to assist the practice in increasing immunization rates. AFIX reports from MCIR were provided and reviewed and areas of focus were identified. Specific outreach to large provider practices with low HPV completion rates helped to educate providers on the importance of this vaccine. Practices were asked to develop quality improvement strategies and action steps to increase timely HPV vaccination of their patients. Staff from the Immunization Program conducted outreach to these practices to offer technical assistance and to measure

the success of their efforts.

In June 2018, Michigan successfully hosted the first Michigan HPV Cancer Summit “The Road to Prevention” in collaboration with the American Cancer Society. This event was attended by key decision makers, health system quality improvement leaders, physicians, top-level providers, American Cancer Society members and other MDHHS programs that came together around the goal to decrease the prevalence of HPV-related cancers. The day was full of powerful and passionate speakers. Attendees left the event motivated to make a change in their practice, system and/or program to improve timely HPV vaccination rates and protect all Michigan adolescents from HPV-related cancers.

Adolescent Well-visit (FY 2020 Application)

Through the ongoing needs assessment process, in 2018 the state priority need to “Promote social and emotional well-being through the provision of behavioral health services” was linked to the percent of adolescents, ages 12-17, with a preventive medical visit in the past year. According to the National Survey of Children’s Health, 84.7% of Michigan’s children aged 0-17 received a preventive medical care visit in the year preceding the survey. While this may seem high, it is important to note the disparity among adolescent well-care rates. According to the Michigan Medicaid 2017 HEDIS Results, an average of 55.69% of Michigan’s Medicaid-covered adolescents aged 12-21 were current with at least one comprehensive well-care visit, with a range of performance among Michigan’s Medicaid Health Plans (MHPs) from 24.07% to 64.42%. This disparity in well-care exams will be examined and addressed through the adolescent well-visit NPM work. The importance of addressing bullying is also recognized by MDHHS. The Michigan Department of Education coordinates efforts with multiple stakeholders (including MDHHS) to address this issue and has launched multiple initiatives to reduce bullying among all school-aged youth.

A key objective to improving the adolescent well-visit measure was increasing the delivery of well child care to adolescents receiving services through the Child and Adolescent Health Centers (CAHCs) which is Michigan’s school-based health center program. CAHCs are placed in medically underserved areas of the state where an established threshold of need is met. They are often in documented provider shortage areas. CAHCs are located in schools with a high proportion of Medicaid or Medicaid-eligible youth; ranging anywhere from 50%-98% of their student population. Of CAHC clients that reported their race in FY2018, 51% were White, 38% were Black/African-American and 8% were more than one race. At least 9% of clients were Hispanic/Latino of any race.

Each state-funded CAHC is required to report on a standardized set of quality measures and to participate in a Continuous Quality Improvement (CQI) project. This requirement has dramatically improved quality measures, including an increase in clients who are up-to-date with a documented comprehensive physical exam. In FY 2018, half of the state’s CAHCs reported 71% or more of their clients were up-to-date with annual well-care exams; whereas only 39% reported the same in FY 2012. This objective focusing on CAHC CQI efforts was discontinued in FY 2019, due in part to marked improvements in this measure among CAHCs as well as MDHHS plans to engage Medicaid Health Plans in future adolescent well-care promotion activities.

MDHHS has shifted focus to development of a required quality measure regarding appropriate treatment for clients diagnosed with depression among state-funded CAHCs. This quality measure (i.e., percentage of clients age 12+ with a positive depression screen who have documented, appropriate follow-up) has been incorporated into NPM 10 as an objective. The past success seen with other quality measure initiatives (e.g., increasing adolescent well-visits) suggests that CAHCs will also see improvement in this measure over time. Additionally, this measure and its ensuing strategies will more directly address adolescent mental health needs as identified through the ongoing needs assessment process.

The rationale for incorporating this measure under NPM 10 is that CAHCs provide comprehensive well-care visits that include risk assessment screening. Risk assessment screening includes initial depression screening (flagging) for youth ages 10 to 21 years. These initial positive screens lead to a more thorough depression screen (diagnosis/assessment, which includes suicide risk assessment) that should ultimately result in appropriate follow-up care. The goals of appropriate follow-up care are early intervention for behavioral health concerns, resolution of or a decrease in symptom severity, better overall mental health, reducing stigma surrounding mental health care, and lowered risk of negative outcomes associated with depression including, but not limited to, suicide ideation and/or attempt.

The Rapid Assessment for Adolescent Preventive Services (RAAPS) is the most widely-used risk assessment across Michigan's CAHCs. Among 20,275 unduplicated CAHC clients screened with this tool during the 2017-2018 school year, 28% flagged positive for depression risk. Among these clients, notable disparities exist among gender, race and health insurance coverage. Females were twice as likely as males to flag positive for risk for depression (35% of females versus 18% of males). Nationally, data show that risk for depression is higher among transgender and gender queer populations. While CAHC program data support this increased risk (over 60% of transgender youth were flagged at risk), too few clients self-identified in these gender categories to make the data reliable at this time. American Indian/Alaskan Native, Black/African-American, Hispanic and clients of more than one race all had significantly higher risk of depression (nearly one-third of the population in each of these groups flagged positive for risk) compared to Asian/Pacific Islanders and those of Middle-Eastern or Arab descent, who had the lowest risk among all racial/ethnic groups (15% and 17%, respectively).

Medicaid beneficiaries and those with county, tribal, or whose health insurance coverage status was unknown were at significantly higher risk when compared to those with commercial insurance; and also reported higher risk than those who reported no insurance coverage. Thirty percent of those with Medicaid, county or tribal insurance, or who whose coverage status was unknown, were flagged at risk compared to 22% of commercially-insured and 24% of uninsured youth. Data such as these inform CAHCs in the development and implementation of outreach, health education, support programs and clinical intervention strategies that more effectively address risk disparities among their clients.

Meaningful family and consumer engagement of parents and youth is a longstanding priority of the CAHC program and is accomplished through various strategies. Per legislative boilerplate requirements, each CAHC must operate a community advisory committee that is comprised of at least one-third parents of school-aged children and youth. As discussed in the annual report, these advisory groups are tasked with giving input and approving core health center policies. They also have a range of other responsibilities that are unique to each center.

Youth input is also a requirement of the program and occurs through various strategies. Centers are required to have youth input through either their existing Community Advisory Council (CAC) or through a stand-alone youth advisory committee. As part of their work on these committees, youth routinely provide feedback on center services and programs, décor and reading material. They are strong advocates for CAHC utilization among their peers. Some CAHCs also conduct focus groups with youth to identify ways to increase health center utilization and improve services and outreach. As part of ongoing CQI activities, CAHCs must implement a client satisfaction survey at least annually. Survey results are compiled, and centers must demonstrate how this critical feedback was used to improve services and supports to clients. Diverse client and parent representation promotes the implementation of culturally appropriate strategies that reach populations most impacted by health disparities in diversified communities across the state.

It should be noted that the objectives and activities reflected in this FY 2020 plan align with the Department's Mother Infant Health & Equity Improvement Plan (MIHEIP) that was released for public comment in February 2019. Promoting the physical and mental health of adolescents is an upstream approach to positioning the next generation of mothers to be in the best possible health during critical preconception care and throughout pregnancy. CAHCs also improve health literacy and confidence with navigating the health care system among their adolescent clients. This work will better equip young adults to manage their physical and mental health care in a proactive manner.

Objective A: Increase the percent of adolescents, ages 12 through 17, enrolled in Medicaid, with a preventive medical visit in the past year.

The first strategy in FY 2020 is to develop a state plan to improve adolescent well-care, focusing on Medicaid-

eligible youth. To be developed in year five of the current block grant cycle, this plan will include specific strategies involving local health departments (LHDs) in leading local efforts to promote and improve adolescent well-child exams in their jurisdictions. LHDs will be expected to report on progress in contributing to an improvement in adolescent well-care rates. It is expected that level of participation and progress will vary among LHDs based not only on varying need, but also on varying levels of local funding and staff capacity.

The second strategy is to convene a workgroup or leverage an existing group to promote comprehensive adolescent well-care. While initiatives are underway to improve adolescent well-care in Michigan, these efforts are largely uncoordinated among key stakeholders. As a strategy to improve well-care rates, MDHHS will convene a state-level workgroup comprised of health plans, provider groups (e.g., Michigan Chapter of the American Academy of Pediatrics and the Society for Adolescent Medicine), Michigan Quality Improvement Consortium (MQIC), LHDs, health systems and Federally Qualified Health Centers (FQHCs) to examine gaps in existing efforts and to identify opportunities for coordinating efforts to promote comprehensive adolescent well-care.

The third strategy is to expand strategies to incentivize well-child exams by working with health plans. Expanding on the work of this subgroup, MDHHS will work with the state Medicaid office to convene a sub-group of MHPs to share and expand strategies to incentivize well-child exams among their provider networks. Ideally, this will include initiatives already underway, such as linking payments to achievement of well-child exam goals and adolescent-friendly performance requirements including care satisfaction, privacy and confidentiality.

MDHHS will capitalize on current relationships and successes with established stakeholders to facilitate achievement of the proposed strategies. For example, health plan Quality Managers and several other state-level stakeholders are engaged in an HPV Immunization Improvement Initiative facilitated by the MDDHS Division of Immunization. This initiative brings stakeholders together to share best practice, data collection and reporting, and evaluation strategies to improve HPV immunization rates among adolescents. Participants have voiced the importance of increasing annual well-child exams to improve immunization rates, providing an opportunity to work toward achieving this mutual objective.

Objective B: Of the health care providers who completed the Motivational Interviewing web course and the Motivational interviewing professional development training, 98% will report skills in effectively counseling youth on changing risky behaviors.

The first strategy is to increase the number of providers trained on culturally-competent adolescent-friendly care. According to SAMHSA, cultural competence means being “respectful and responsive to the health beliefs and practices—and cultural and linguistic needs—of diverse population groups.” A key component of quality adolescent care is the extent to which services are delivered in a developmentally-appropriate, adolescent-friendly and confidential manner. Positively impacting adolescent care requires significant system changes aimed at addressing known barriers to quality care: lack of training among health professionals; lack of effective communication skills; and low self-efficacy in providing adolescent preventive services. In real-world practice, the quality and delivery of preventive health care for adolescents varies widely and is highly dependent on the experience of the individual healthcare provider or professional; his or her knowledge of clinical guidelines; communication skills and training; subconscious biases; and personal comfort level.

In 2014 and 2015, the MDHHS Child, Adolescent and School Health (CASH) Section staff partnered with the Michigan Public Health Institute to design two web-based Adolescent Health Courses, grounded in research and best practice, to improve provider competencies in Motivational Interviewing (MI) and Positive Youth Development/Resiliency. Two additional courses were developed and released in 2017 including Adolescent Brain Development and Decision Making and Encouraging Healthy Teen Relationships (interpersonal violence prevention).

These courses will continue to be promoted and offered at no charge to public and private providers throughout Michigan and the United States. The objective is to reach 50 providers in FY 2020 with these foundational adolescent health courses.

To supplement the MI course, an in-person training (Improving Adolescent Health by Motivating Change for Primary Care Providers) will be offered to providers who have completed the web-based course. Continuing medical education credits will be offered for those who complete both courses. Additional professional development and training opportunities focused on culturally-competent, adolescent-friendly preventive care will be offered, with a goal of reaching 75 providers in FY 2020.

The combined impact of completion of both the MI web course and professional development training will lead to higher quality care for adolescents. Increased skills in not only counseling adolescents on behavior change, but in communicating with adolescents overall, promotes a better provider-patient relationship and increases the likelihood that adolescents will access care (including preventive services) with that provider. Therefore, this objective also serves as the Evidence-based or -informed Strategy Measure (ESM) for NPM 10: Percent of health care providers who complete the Motivational Interviewing web course and subsequently complete the Motivational Interviewing professional development in-person training who report skills in effectively counseling youth on changing risky behaviors.

Objective C: Increase percentage of CAHC clients age 12+ with a positive depression screen who have documented follow-up.

The first strategy is to establish Behavioral Health Quality Measures among CAHCs. In FY 2019, a required quality measure regarding appropriate treatment for clients diagnosed with depression among state-funded CAHCs was initiated. A SMART objective with a defined target will be developed after baseline data has been established at the end of FY 2019. The past success experienced with other quality measure initiatives (e.g., increasing adolescent well-visits) suggests that CAHCs will also see improvement in this measure over time.

CAHCs provide comprehensive well-care visits that include risk assessment screening. Risk assessment screening includes initial depression screening (flagging) for youth ages 10 to 21 years. These initial positive screens lead to a more thorough depression screen (diagnosis/assessment) that should ultimately result in appropriate follow-up care. Appropriate follow-up care has been defined as having ALL of the following elements of an appropriate follow-up plan**:** a) psycho-social assessment completed by third visit (includes suicide risk assessment/safety plan); AND b) treatment plan developed by third visit; AND c) treatment plan reviewed after 90 days (for those on caseload for at least 90 days); AND d) screener re-administered at appropriate interval to determine change in score.

The goals of appropriate follow-up care are early intervention for behavioral health concerns, resolution of or a decrease in symptom severity, better overall mental health, reducing stigma surrounding mental health care, and lowered risk of negative outcomes associated with depression including, but not limited to, suicide ideation and/or attempt.

The second strategy is to implement a CAHC CQI Initiative. MDDHS will engage up to five CAHCs each year in CQI initiatives to increase the percentage of CAHC clients age 12+ with a positive depression screen who have documented follow-up. State-level CAHC staff will coordinate the months-long, tailored initiatives using the Plan-Do-Study-Act cycle of change, partnered with regular coaching calls, meetings and/or site visits with all staff at participating CAHCs. To initiate each project, the state-level CAHC staff will conduct conference calls or meetings with each CAHC to review the following: current available data; data needed to set goals; current processes for consent and risk assessment/depression screening and assessment; challenges and facilitating factors for implementing the initiative; and next steps. A second conference call or meeting and a series of email, telephone

and/or in-person communications will follow to review data; develop goals and action steps; and determine resources and support needed for success. The state-level CAHC team will provide ongoing support tailored to each health center which will include guidance and support for policy, procedure, and process review as well as revision and development. Access to current and relevant journal articles, tip sheets, training and educational materials will also be provided as relevant.

The final strategy is to provide support to CAHC mental health providers to assure proper data collection and reporting for behavioral health quality measures, including appropriate follow-up, to clients with positive depression screens. Establishment of the quality measure will allow for targeted interventions for low performers which may include more intensive CQI initiatives, webinars, in-person training, learning collaboratives, toolkit development, or other strategies. FY 2019 will be the first year of data collection for this quality measure. After review of the first year of data, MDHHS will determine specific strategies for implementation in FY 2020. These strategies will include linkages to existing adolescent mental health initiatives and will be designed to complement and strengthen the current and growing body of work around adolescent mental health. This work includes multiple efforts in specific topic areas—such as bullying prevention, depression, trauma and suicide prevention—which are implemented by MDHHS, MDE and other adolescent health partners.

Immunizations – Adolescents (FY 2020 Application)

To address the priority area of "Invest in prevention and early intervention strategies," Michigan developed an SPM focusing on immunizations. As previously discussed, the original two-part SPM was split into two separate SPMs in 2018, one focusing on children and one focusing on adolescents. For the Adolescent Health population domain, the SPM measures the percent of adolescents 13 to 18 years of age who have received a completed series Human Papilloma Virus (HPV) vaccine.

The HPV vaccine has the potential to save thousands of lives from HPV-related cancers. However, parental vaccine hesitancy has increased in the last several years, and Michigan continues to have some of the highest vaccine exemption rates for children in the country. Michigan has made progress increasing the uptake of HPV vaccination for adolescent, but more work needs to be done. Since 2014, Michigan has increased the coverage rate 20% which is promising; however, only 48.7% of adolescents between the ages of 13 and 18 years of age currently have completed the HPV series. The Healthy People 2020 goal is at least an 80% HPV vaccine coverage rate for adolescents in this age range. Data from the Michigan Care Improvement Registry (MCIR) show that the completion rate of females in the same age group is 51.2% while the rate for males is 46.3%. One goal of the MDHHS Immunization Program is to encourage the HPV vaccination at 11-12 years of age when it is routinely recommended. Data from the MCIR show that only 13.7% of adolescents 11-12 years of age have completed the HPV series.

As discussed in the Child Health section, the Division of Immunization operates the MCIR. MCIR can forecast needed doses of vaccine for all children in the system. Data from the MCIR show that 77.0% of adolescents 13-18 years of age who reside in Michigan have received the routinely recommend 132321 series. The 132321 series represents 1 dose of Tdap vaccine, 3 polio doses vaccine, 2 doses of MMR vaccine, 3 doses of hepatitis B vaccine, 2 doses of varicella vaccine, and 1 doses of meningococcal vaccine. When a complete series of HPV vaccine is added to the same series, the rate drops to 41.5%.

Objective A: By 2023, increase the percentage of adolescents who have completed the HPV series to 50%.

In 2014, the Immunization Program received grant funding to increase HPV immunization rates for adolescents in Michigan. At the beginning of the grant period, the HPV coverage rate was 18% for all adolescents (male and female) 13 to 18 years of age. The Division of Immunization used grant funding to send notifications to parents of adolescents 11 to 18 years of age who were overdue for one or more doses of HPV vaccine. Given the impact of this strategy, in FY 2020 the Immunization Program will continue to seek funding for and use this strategy to increase adolescent HPV immunization rates.

In Michigan, 57.4% of adolescents 11-18 years of age have initiated the HPV series but only 39.9% have completed the series. In FY 2020, the Immunization Program plans to send notices to each adolescent who has initiated the HPV series to encourage them to complete the vaccination series. It is anticipated that approximately 40,000 notices will be sent to parents of theseadolescents.

The Immunization Program is also partnering with the American Cancer Society to form a stakeholder group. This stakeholder group is made up of representatives from several organizations including the Michigan Pharmacist Association, Karmanos Cancer Center, Michigan Cancer Consortium, and representatives from some health systems. The group is tasked with creating a plan to increase awareness about the importance of HPV vaccine to reduce cancers by increasing vaccination rates in our state. The group will meet on a quarterly basis with the intent to expand the group to include a broader set of partners.

MDHHS has partnered with several large health systems to increase awareness and vaccination levels for HPV vaccine. An HPV summit is planned in 2019 to bring together large immunization practices that have low immunization rates along with the partnering health systems. MDHHS plans to continue to work with the health systems throughout 2019-2020 to solidify plans that health systems can put in place to increase HPV rates.

An additional strategy in FY 2020 is for the Immunization Program to continue partnering with the cancer programs working toward a common goal of increasing HPV coverage rates and decreasing the incidence of cancers caused by HPV. The Division of Immunization has partnered with these programs to promote the message about cancer prevention using social media and public advertising.

Objective B: Increase outreach to adolescent immunization providers with low immunization rates.

In FY 2020, the Division of Immunization epidemiologist will generate a monthly list of all immunization providers that vaccinate adolescents and submit data to MCIR. The list will show how many adolescents are being seen by the practice and how many adolescents are receiving all needed vaccines. MDHHS staff will review this list and identify the largest providers with the lowest immunization rates and reach out to those providers. Follow-up will include providing a comprehensive AFIX report and working with the practice to develop a plan to increase immunization rates. Through direct outreach to the provider, MDHHS will have the opportunity to customize a practical quality improvement plan to help improve immunization rates as well as the quality of care. Data will also be used to identify providers with high HPV immunization rates. The Division of Immunization will recognize those practices achieving high immunization rates by providing Certificates of Excellence. The Immunization Program will also educate providers on the importance of HPV vaccination and the HEDIS measures that are set for 2020. These measures will assess the number of adolescents who have completed the HPV series by 13 years of age. This will also measure the number of adolescents who have completed the vaccine series according to the schedule which is to vaccinate at 11-12 years of age.

The Division of Immunization is changing its focus for how it evaluates completion of HPV vaccinations when educating provider offices. Rather than focusing on the completion rates for 13-18 years of age, more focus will be on those adolescents who are complete at 13 years of age. This focus is to bring awareness in the provider office on timely vaccinations since all children should have completed the HPV vaccination series by 13 years of age.

Past assessment indicates that clinic staff within provider practices tend to overestimate the immunization rates for the practice. Feedback to provider practices based on MCIR data is insightful because it identifies actual immunization rates and enables the practice to consider ways to improve how vaccines are promoted and administered. At times it is as simple as making sure vaccines are assessed and offered at every encounter. The Immunization Program has made it routine to provide feedback to local health departments on their immunization levels using county report cards. Report cards are posted on the MDHHS website and provide immunization rates by county along with rankings. In FY 2020, the Immunization Program will extend this concept to Federally Qualified Health Centers (FQHCs) to create report cards for each FQHC in Michigan. This feedback will allow the FQHCs to see immunization rates for their practice as well as areas for improvement. These report cards not only show the immunization rates for the HPV vaccine but also all other routinely recommended vaccines.

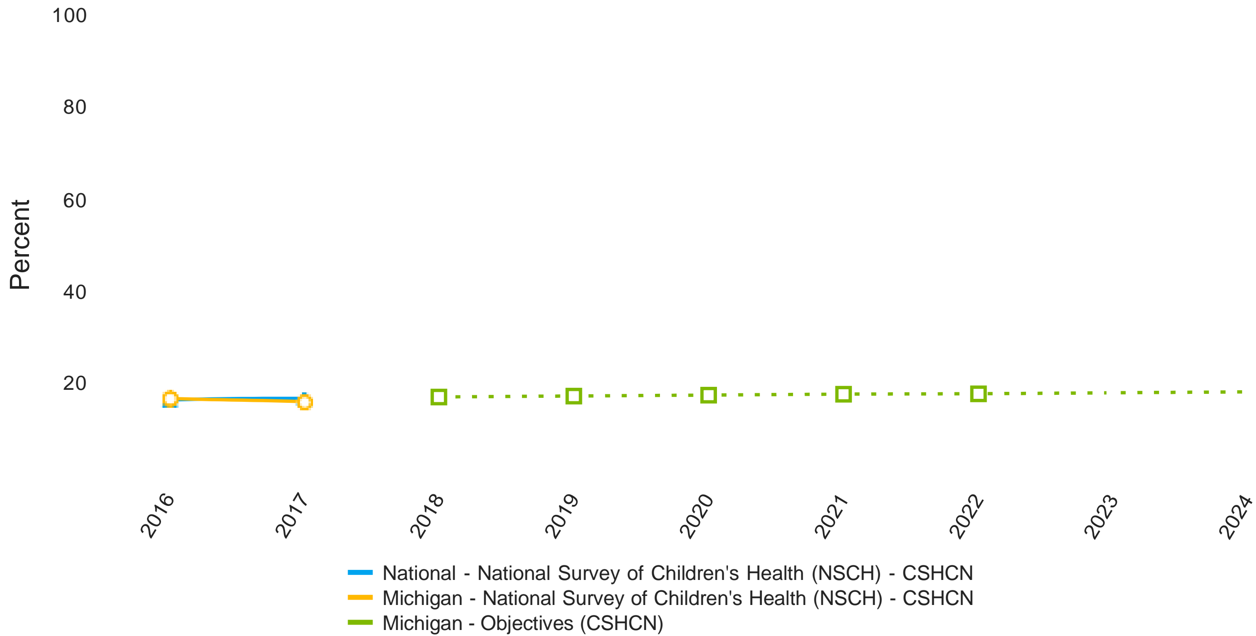
Children with Special Health Care Needs

Linked National Outcome Measures

NOM 17.2 - Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system	NSCH-2016_2017	17.2 %	NPM 12

National Performance Measures

NPM 12 - Percent of adolescents with and without special health care needs, ages 12 through 17, who received services necessary to make transitions 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			
	2016	**2017**	**2018**
Annual Objective			17
Annual Indicator		16.7	16.0
Numerator		32,776	34,325
Denominator		196,702	215,008
Data Source		NSCH-CSHCN	NSCH-CSHCN
Data Source Year		2016	2016_2017

Historical NSCH data that was pre-populated under the 2016 Annual Report Year is no longer displayed, since it cannot be compared to the new NSCH survey data under the 2017 Annual Report Year.

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	17.2	17.4	17.6	17.7	17.9	18.1

Evidence-Based or –Informed Strategy Measures

ESM 12.2 - Percent of CSHCS clients age 18 to 21 years in selected diagnosis groups that have transferred care from a pediatric to an adult provider

Measure Status:	Active

State Provided Data		
	2017	2018
Annual Objective	40	43
Annual Indicator	52.5	49.9
Numerator	1,705	1,725
Denominator	3,246	3,459
Data Source	CSHCS database, Medicaid Claims, UM Provider Datab	CSHCS database, Medicaid Claims, UM Provider Datab
Data Source Year	2016	2017
Provisional or Final ?	Provisional	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	46.0	49.0	52.0	55.0	58.0	61.0

State Performance Measures

SPM 4 - Percent of children with special health care needs enrolled in CSHCS that receive timely medical care and treatment without difficulty

Measure Status:	Active

State Provided Data

	2016	2017	2018
Annual Objective		89.9	90.9
Annual Indicator	88.1	89.1	88.9
Numerator	14,253,020	20,556,206	14,678,590
Denominator	16,176,800	23,074,740	16,507,392
Data Source	CAHPS	CAHPS	CAHPS
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	91.9	92.9	93.9	94.9	95.9	96.9

State Action Plan Table

State Action Plan Table (Michigan) - Children with Special Health Care Needs - Entry 1

Priority Need

Increase family and provider support and education for Children with Special Health Care Needs

NPM

NPM 12 - Percent of adolescents with and without special health care needs, ages 12 through 17, who received services necessary to make transitions to adult health care

Objectives

A) By 2020, increase the number of youth who have a plan of care that includes transition planning beginning at age 14 by 4.1%

B) By 2020, increase the number youth and families by 10% that are aware and understand the transition to adulthood process

C) Increase provider awareness and understanding of the transition to adulthood process by 25% through the establishment and offering of a free online Medical Transition course

Strategies

A1) Identify areas of improvement related to transition planning in MHPs A2) Provide continued support and technical assistance to local health departments (LHDs) related to transition A3) Continue the partnership with MSU Institute for health policy and the Michigan Association of Local Public Health to determine the best ways to engage LHDs to integrate care planning using CareConnect 360

B1) Implement the marketing plan for the Adolescent Training Online Course B2) Establish adolescent transition as one of the quality improvement initiative options for MDHHS funded CAHC programs B3) Continue to partner with LHDs and other partners to offer education and training to improve knowledge of and resources for health care transition

C1) Develop and implement online transition modules that offer free CEUs for physicians, nurses and social workers C2) Continue to support the CYE grant partners to improve transition for children and youth with epilepsy in rural communities

ESMs	Status
ESM 12.1 - Percent of local health departments with a transition policy in place	Inactive
ESM 12.2 - Percent of CSHCS clients age 18 to 21 years in selected diagnosis groups that have transferred care from a pediatric to an adult provider	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

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

Priority Need

Reduce barriers, improve access, and increase the availability of health services for all populations

SPM

SPM 4 - Percent of children with special health care needs enrolled in CSHCS that receive timely medical care and treatment without difficulty

Objectives

A) By 2020, reduce barriers to medical care and treatment by minimizing financial barriers from the increased medical services associated with the child's special need, as measured by a 5% increase in the Insurance Premium Payment Benefit Assistance

B) By 2020, improve access to medical care and treatment by improving the systems of care for CSHCN clients, as measured by the CMDS patient satisfaction survey

C) By 2020, increase the availability of health services, particularly in underserved regions, through the utilization of telemedicine and community-based services

Strategies

A1) Continue enrolling children with special needs into the medical care and treatment benefit, which provides payment for medical care and treatment related to the child's qualifying condition A2) Review the Insurance Premium Payment Assistance study's findings and implement a workplan to integrate at least two of the suggested improvements identified by the study into the program A3) Partner with the University of Michigan Partners for Children Program to support the ongoing development of a Michigan Palliative Care model A4) Implement a new database system to record donations to the Children's Special Needs Fund of CSHCS

B1) Continue to implement the CMDS site visit schedule, visiting approximately 1/4 of the CMDS clinics B2) Launch a website with resources for CMDS clinics and the pediatric intensive feeding program services B3) Explore and identify challenges in accessing services by populations served by both Community Mental Health (CMH) and CSHCS systems

C1) Utilize insights developed by the telemedicine workgroup to study the feasibility and barriers associated with specialist use of telemedicine C2) Work to assist CMDS clinics in learning more about how to coordinate care across disciplines in order to improve communication and satisfaction C3) Continue to provide training opportunities for LHDs that focus on care coordination, case management and locally based services C4) Utilizing a health equity lens, assess the CSHCS population to identify health disparities and address social determinants of health

CSHCN Overview

Children with special health care needs (CSHCN) include children with a wide variety of physical, emotional and behavioral conditions, some of which qualify to receive support through the Children's Special Health Care Services (CSHCS) program within MDHHS. By the end of FY 2018, CSHCS program enrollment had grown to nearly 37,000 beneficiaries.

The CSHCS Division is housed in the Bureau of Medicaid Care Management and Customer Service. The CSHCS Division includes the Family Center for Children and Youth with Special Health Care Needs (Family Center), which is parent-directed and designed to support and connect families with the care that they need using a family-centered approach. CSHCS also includes sections focused on customer support, policy and program development, quality and program services, and the special needs fund. For the CSHCS population, Title V funds are used to support medical care and treatment for CSHCN. Other federal funds that support CSHCS include a HRSA Epilepsy grant and Medicaid. Key partners include Medicaid, local health departments (LHDs), service providers, CSHCN and their families, the CSHCS Advisory Committee, the Family Leadership Network, Michigan Family to Family Health Information Center, and Michigan Family Voices.

Michigan's approach to improving the health and well-being of children and youth with special health care needs focuses on reducing barriers, improving access, and increasing the availability of health services for all populations. Services offered are patient-centered/family friendly, culturally appropriate and coordinated. These attributes are reflected in all CSHCS services, including those specific to health care transition.

According to the 2016-2017 National Survey of Children's Health (NSCH), 20.5% of Michigan's children have special health care needs, as compared to the national average of 18.8%. However, more than a third of non-Hispanic Black children (35.8%) were identified with a special health care need. Additionally, only 17.2% of Michigan parents of children with special health care needs report that their children receive care in a well-functioning system.

Transition (FY2018 Annual Report)

The 2010 needs assessment found that only 41.2% of CSHCN received the services needed for transition to adult health care, which falls below the Healthy People 2020 target. In response, Michigan adopted "Percent of adolescents with and without special health care needs who received services necessary to make transitions to adult health care" (NPM 12) as a priority focus. In FY2018, Michigan worked toward improving performance in this measure by maximizing internal collaboration and leveraging technology to support transition for adolescents.

Objective A: By 2020, increase the number of youths who have a plan of care that includes transition planning beginning at age 14 by 4.1%.

During the reporting year, turnover in staffing resulted in a vacancy of the Transition Specialist position for approximately 10 months. In response to the staffing vacancy, the position was posted, candidates were identified, and interviews were completed. A replacement was hired and began on September 23, 2018. Despite the staff vacancy, CSHCS continued to move forward with transition efforts, laying groundwork for future collaborations with the Medicaid Health Plans (MHPs).

The CSHCS division, as part of the Bureau of Medicaid Care Management and Customer Service, participates in the Bureau's quality improvement efforts. Michigan currently contracts with 11 health plans that enroll CSHCS beneficiaries and manage their care. In the spring of 2018, CSHCS began working to develop an annual site review

process for MHPs, to learn more about CSHCS services offered through the MHPs to beneficiaries and to offer recommendations for improvement. As part of the process, staff undertook a review of the MHP contract. Areas of inquiry were identified based upon the contract language. The site review focused specifically on grievance and appeals; prior authorization processes; family centeredness; collaboration; and health care transition. Site reviews were initiated in the fall of FY 2018 and occurred with all 11 Medicaid health plans.

The objective's second strategy focused on providing ongoing technical assistance to LHDs regarding health care transition services, including:

- What is health care transition and why is it important;
- How to assess transition needs of a CSHCN client and their family;
- How to engage families in transition care planning; and
- How to track transition services.

In June 2018, CSHCS staff traveled to Marquette (in Michigan's Upper Peninsula) to provide a full-day training to LHD staff on transition, care coordination, case management, transportation, and CSHCS systems. The training was well attended by LHD staff from all six Upper Peninsula (UP) health departments, representing 15 of Michigan's 83 counties. The Upper Peninsula Health Plan, Michigan's only Medicaid Health Plan provider for the entire UP, was also in attendance. In total, 23 people participated in the training. Based upon the feedback provided, the event was deemed a success and will occur annually.

To address ongoing LHD training needs with the most relevant information and data, CSHCS also began updating its LHD orientation webinars. These webinars assure that new LHD staff have adequate knowledge concerning the CSHCS program and its various components by covering topics such as transition, transportation, care coordination/case management, Medicaid eligibility and family-centered care. New LHD hires are required to complete all training webinars within 90 days of hire. During FY 2018, webinars were updated to reflect current staff assignments, training materials and resources. A timetable for recording each training was distributed. Recordings are currently in process and are due to be completed and posted during FY 2019.

The objective's third strategy continues to pursue technology to reduce burden on health professionals and families, while improving transition service delivery. FY 2018 saw the second year of full implementation of the Children's Healthcare Automated Support Services (CHASS) system. CHASS was developed to streamline billing, while improving care coordination and case management tracking. Through CHASS, LHDs submit their requests for transportation services, as well as identify the number of care coordination and case management services they have provided. The system uses this information to generate a billing invoice. It also provides important data to MDHHS related to service provision, including services specific to health care transition.

At the end of 2017, LHDs reported that 10,669 unduplicated clients received a case management/care coordination service. Among the unduplicated clients, 833 (8%) included a healthcare transition service. By the end of 2018, LHDs reported 11,004 unduplicated clients had received a case management/care coordination service. Among the 2018 unduplicated clients, 10.6% included a healthcare transition service.

Also included in this technology strategy is the promotion and utilization of CareConnect 360 as a care planning tool for LHDs. CareConnect 360, an integrated data system, was designed to improve care coordination provided by multiple systems for shared Medicaid beneficiaries. Currently, the system is being utilized by MHPs, Community Mental Health Associations (CMH), foster care, and juvenile justice. The system facilitates cross-system information for providers to improve the coordination of services delivered by multiple entities. It also assists users with more effectively assessing and analyzing healthcare program data, which helps to improve decision-making processes,

evaluate program results, and reduce costs for the purpose of improving health outcomes.

Local health departments have expressed interest in learning how to use CareConnect 360 and its integrated care planning functionality; however, they have also expressed some hesitancy in using the system due to concerns related to security and confidentiality. To address these concerns, CSHCS management sought assistance from Michigan State University's Institute for Health Policy. During FY 2018, the Institute developed a proposal to pilot CareConnect 360 with two local health departments. During the pilot, both training and process issues related to security and confidentiality will be addressed, to assure that LHDs are working within federal and state mandates when accessing and sharing protected health information. From these pilots, best practices in the form of procedures, protocols, tools, and resources will be developed. Upon completion of the project, this information will be shared broadly with other LHDs. Pilots are scheduled to begin in FY 2019.

Finally, under the technology strategy, CSHCS continued to contract with University of Michigan's Child Health Evaluation and Research (CHEAR) unit ($40,000) to monitor transition work using an Evidence-informed Strategy Measure (ESM) that they developed. The measure provides data regarding the number of clients that successfully transfer care from a pediatric to an adult provider and is based upon selected groups that include: cardiology, endocrinology, gastroenterology, hematology-oncology, nephrology, neurology, pulmonology and rheumatology. This measure combines data from three separate sources: 1) the CSHCS database; 2) the CHAMPS (Medicaid Claims) database; and 3) University of Michigan provider database. These three databases provide information on CSHCS clients and the providers they see. Use of this measure assists the CSHCS program in knowing what percentage of clients completed their transfer of care by the age of 18. In 2017, University of Michigan CHEAR reported that 52.5% of targeted clients had transferred their care from a pediatric provider to an adult provider. In 2018, this percentage fell slightly to 49.9%. The decrease can be explained, in part, by a change in age by which transition should be completed. In 2017, the University of Michigan health system was targeting 18 years for transition completion and in 2018, the targeted age was changed to 21 years.

Objective B: Increase youth and family awareness and understanding of the transition to adulthood process.

CSHCS is committed to a person-centered healthcare approach and to self-determination. Core to these concepts are individuals and families who are not merely healthcare recipients, but drivers of their own care. FY 2018 was spent preparing for and initiating pilots that serve as proof of concept to bigger, more impactful strategies.

The first strategy for this objective focused on youth and included hiring a youth consultant through the Family Center who helped guide the development of a transition course for adolescents. After several attempts at hiring a youth with special health care needs, a college student attending Albion College, who is diagnosed with epilepsy, was selected. Funded by the Children and Youth with Epilepsy (CYE) grant, the youth consultant provides consultation and serves on leadership advisory committees to assure that our transition efforts and the Family Center programming, including its Adolescent Transition Online Course, is both relevant and meaningful to today's youth.

The objective's second strategy will expand on the Adolescent Transition Online Course and incorporate it into a broader, more comprehensive approach. By the end of FY 2018, 102 individuals had viewed the course and 67 had completed it.

Using MDHHS's well-defined network of Child and Adolescent Health Center (CAHC) programs located in or near schools, staff applied for, and received, funding to assist adolescents, both with and without special health care needs, in developing necessary skills to make health care transitions from pediatric to adult providers. The pilot project, located in a rural Michigan school clinic setting, employs a CQI framework to Got Transition's six core elements, customizing them for delivery within the school-based clinic setting. The project also incorporates the

Adolescent Transition Online Course as a tool that students can complete to learn more about the various components of health care transition.

During FY 2018, CSHCS developed a cross-sectional partnership with the CAHC program to apply for funds, complete an orientation with project partners, identify an interested school-clinic partner, and assure all required paperwork was in place. Project implementation with clinic staff and students began in FY 2019. If successful, this project holds great potential as a viable tool for interfacing with students and instilling transition skills in a way that assures their participation and buy in. It also provides a launching pad for future medical staff education with a group that is both proximate to and influential with students and parents.

The objective's third strategy seeks to empower individuals and organizations through partnership so that they can better address needs relating to transitioning to adulthood. In 2018, the Family Center joined forces with the Michigan Family to Family Health Information Center to create the Family Leadership Network (FLN).

FLN serves as a method to obtain diverse perspectives from families and to receive input on programs and projects. Membership includes up to two family representatives from each of the ten prosperity regions in Michigan; members must be the parent, guardian, or caregiver of a child or young adult with special health care needs. The purpose of FLN is to act as a link between Michigan Family to Family, the Family Center, and families of children and youth with special health care needs.

Through this network, the Family Center is working to assure geographical representation from all areas of the state. FLN identifies community supports and resources for the Michigan Family to Family Website, provides a regional voice, and makes recommendations regarding issues and priorities impacting Michigan Family to Family, the Family Center, and families in their region. Equally important, FLN helps to develop new family leaders and serves as a regional advocate for families, able to assist them in identifying needed resources from within their regions. Eleven FLN members completed the first trainings held on April 23 and April 24, 2018, and advanced to become official ambassadors. Through the ambassadors, CSHCS seeks to obtain rich, qualitative information which can help to inform the program and address regional differences.

In addition, CSCHS has partnered with Michigan Family Voices to provide two transition training opportunities for families. These educational workshops focus on a general overview of transition, tools and resources for parents with children who are transitioning and provide resources to attendees to help them to advocate for their children. These trainings were well received, as demonstrated by the high scores on program evaluations. MDHHS will continue to work to provide Michigan Family Voices the resources it needs to assist families in learning more about health care transition and how to assure transition occurs in a way that promotes continuity of care.

Objective C: Increase provider awareness and understanding of the transition to adulthood process.

Working through the HRSA-funded Children and Youth with Epilepsy (CYE) Grant, the objective's first strategy broadened the focus of existing partnerships with the American Academy of Pediatrics, American Academy of Family Physicians, American College of Physicians and American Academy of Nurse practitioners to include the dissemination of evidence-informed transition resources to primary care practices, specialty providers, and LHDs.

During 2018, CSHCS partnered with the Michigan chapter of American Academy of Pediatrics to launch a learning collaborative. Utilizing Dr. Tisa Johnson-Hooper, a pediatrician with Henry Ford Health System and *GotTransition* expert, the project presented transition training to epileptologists involved in a program to improve access and services for children and youth with epilepsy. In addition to trainings, Dr. Johnson-Hooper disseminated tools and resources to the physicians to customize for their individual clinics. A website was created that contains all the resources they needed, and physicians selected the tools they wanted to use from this website for piloting within their

practices.

Initially, many physicians reported an aversion to implementing transition-related services because the activities take time from their medical assessment and are not reimbursable by insurance providers (a common misconception). As part of integrating transition into these practices, Dr. Johnson-Hooper and her billing expert provided a presentation regarding transition and how to bill for transition activities. The presentation detailed specific codes to use to receive reimbursement for the transition activities completed within an office visit.

As a result of feedback from the physician participants, the project selected three of the six core elements as a focus for their efforts and evaluation. The project evaluator created a monthly charting tool for practices to help them evaluate their progress in implementing the transition tools. The charting tool included simple steps that helped them more completely utilize the transition resources. Regularly scheduled team calls and updates helped to hold participants accountable as they progressed. As a result, during FY 2018, 17 of the 35 providers reached a level 3 on the three selected *Got Transition* HCT Core elements.

The objective's second strategy was to begin exploring how to effectively incorporate transition planning protocols into an existing electronic health record (EHR). Working with the Epilepsy Foundation, the project will continue to explore with national EHR companies like EPIC how to capture readiness assessments data electronically through the EHR.

Medical Care and Treatment (FY2018 Annual Report)

To address the priority area to "reduce barriers, improve access, and increase the availability of health services for all populations," MDHHS developed a State Performance Measure (SPM) for Children and Youth with Special Health Care Needs (CYSHCN): "Percent of CYSHCN enrolled in CSHCS that receive timely medical care and treatment without difficulty." While access to public and private health insurance coverage has improved as a result of the Affordable Care Act (ACA), CYSHCN require and use more health care services than other children. Specialty care and extensive, on-going, or long-term treatments, expensive pharmaceuticals, and services may be required to maintain or improve health status. Financing these costs can pose significant challenges to families even if a family has access to private insurance. Family health care costs can include deductibles, cost sharing, and premium payments. CSHCS is a significant resource for achieving adequate and appropriate health and specialist care while also providing a way to reduce costs to families.

A review of responses to two survey questions used by the Consumer Assessment of Healthcare Providers and Systems (CAHPS) to measure the "percent of CYSHCN enrolled in CSHCS that receive timely medical care and treatment without difficulty" (SPM 4) showed slight improvement since 2016. In 2016, 88.1% of CSHCS CAHPS respondents gave top box ratings of 'usually' or 'always' to questions related to getting care and treatment when needed. In 2018, 88.9% of CSHCS CAHPS respondents gave top box ratings to the same questions.

Objective A: Reduce barriers to medical care and treatment by minimizing financial barriers from the increased medical services associated with the child's special need.

The core strategy designed to reduce barriers to medical care and treatment is to minimize a family's financial expenses by covering specialty care, pharmaceuticals, and treatment costs related to their child's qualifying condition. CSHCS assistance may be applicable when the family does not have insurance, or the insurance is inadequate for children who require ongoing care from a pediatric sub-specialist for a chronic condition. During FY 2018, CSHCS enrollment averaged 34,936 clients per month. Of these, 67.5% were dually enrolled in CSHCS and

Medicaid. Total enrollment growth during FY 2018 was 8.4%. There was a 10% growth in dually enrolled clients, compared with a 4.9% growth in those receiving Title V benefits only.

CSHCS is the payer of last resort and requires that families follow their primary and secondary insurance rules. Families who may be eligible for Medicaid are required to enroll. Those who do qualify for Medicaid are moved into a Medicaid Health Plan (MHP) if deemed appropriate. Out of the 23,596 monthly (average) dually enrolled beneficiaries, 85% were covered by one of eleven MHPs that accept CSHCS dually enrolled beneficiaries. According to the 2018 CAHPS results, two-thirds of CSHCS respondents (67.1%) enrolled in an MHP rated their health plan with a top box rating of nine or ten (out of ten possible points).

Transportation concerns can significantly impact the stress families experience when caring for a child with special needs. According to the 2018 CAHPS survey, 11% of respondents indicated that they had requested transportation assistance. When asked to rate if the assistance had met their needs, 85% of respondents rated the assistance with a top box score. In addition, local health department CSHCS programs requested transportation assistance on behalf of 1,023 unduplicated clients during FY 2018. In response to these requests, CSHCS provided $538,614 in funding to support transportation costs associated with travel to and from medical appointments.

Another resource available for CSHCS enrollees is the Insurance Premium Payment Benefit. When cost beneficial to the State, CSHCS can pay some or all of the health insurance premiums for a client in order to assure continuity of coverage by other insurers. Maintaining this coverage helps clients who want to retain their current network of providers. In 2018, 131 families qualified for the Insurance Premium Payment Benefit. CSHCS paid $293,153 to maintain their private, Medicare, or Cobra insurance plans.

The Michigan Children with Special Needs Fund (CSN Fund) is a privately-funded program within Michigan's CSHCS program. The CSN Fund was created to help children with special health care needs when other funding sources are not available. The Fund is managed by MDHHS. Working together with CSHCS, Family Center, LHDs, and other stakeholders, the Fund can assist children across Michigan in obtaining necessary equipment and modifications that they need but could not otherwise afford.

The Family Center provides two scholarship opportunities for clients and families to pursue educational opportunities to better understand their child's chronic conditions. The first opportunity is through a summer camp scholarship program that provides funds up to $250 for children or youth with special health care needs to attend a licensed Michigan summer camp. The second is a conference scholarship opportunity available parents and/or youth aged 14-26. Participating parents/youth can attend a conference to learn about medical advances that can assist them in caring and advocating for their child or for themselves. Scholarships also help connect parents and youth with their peers, increasing their opportunity for support and social connections. Scholarships are available on a first-come, first-served basis and are limited to one every two years per family.

Objective B: Improve access to medical care and treatment by improving the systems of care for CSHCN.

This objective's core strategy involves supporting interdisciplinary team models of care, as provided through the Children's Multi-Disciplinary Specialty (CMDS) clinics, Field Clinics, and Pediatric Intensive Feeding Program services. These models provide pediatric specialty care to children with complex medical needs. CMDS and Pediatric Intensive Feeding Program clinics utilize multi-disciplinary teams comprised of a pediatrician, subspecialist, social worker, dietician, registered nurse, and other members identified as appropriate for inclusion. Together, these teams develop a comprehensive plan of care and provide ongoing medical treatment to a child or youth diagnosed with a specific qualifying condition. The client and family are key members of the team and are included in the identification and on-going monitoring efforts of individualized goals, objectives, and resources.

CMDS clinics are designed to address specific conditions/syndromes such as diabetes, cancer, cleft palate, asthma, cystic fibrosis, sickle cell, hemophilia, kidney disease, and various other related disorders and conditions. During FY 2018, the types of supported clinics grew from 23 to 24, with the addition of a 22Q11.2 Deletion Syndrome Clinic.

MDHHS helps to support CMDS clinics at six tertiary and university hospital settings through an enhanced reimbursement mechanism for care coordination. The enhanced reimbursement provides additional revenue to support ancillary team members of the clinical care team as they assist with coordinate and integrate the care plan to wrap services around the client and family. During FY 2017 (the most current year for which a complete dataset is available), these clinics reported 3,858 client encounters. CSHCS provided $476,076 in enhanced reimbursements to the clinics specific to care coordination.

As part of the CMDS strategy, and in order to better understand specific outcomes associated with the clinics, staff spent much of FY 2018 developing a standardized site review tool that will be used to facilitate a guided conversation with CMDS clinics. The goal of the site review is to better understand the benefits of the model for both providers and families, identify best practices, and make recommendations for quality improvement. Piloting of the site review tool is currently underway.

Another strategy pursued in FY 2018 expanded access to pediatric feeding clinic services. CSHCS, working in partnership with Medicaid policy office, established a state plan amendment and promulgated policy for a Pediatric Intensive Feeding Program Services under the Early, Periodic Screening, Diagnostic and Treatment benefit. The program, based upon a CSHCS pilot, offers intensive feeding services to pediatric beneficiaries with significant feeding and swallowing difficulties. The policy established an onsite day treatment program that is delivered by a team of medical, behavioral health, and other professionals who work with the family to develop and implement an integrated and individualized care plan over the course of six weeks. The Pediatric Intensive Feeding Program Services policy became effective on July 1, 2018. Prior to the policy, the state was limited to one provider of intensive feeding clinic services. Today there are two, both of which are located within the state's leading Children's Hospitals. In addition, the policy expands coverage to all children within the Medicaid system who are eligible for services.

Objective C: Increase the availability of health services, particularly in underserved regions, through the utilization of telemedicine and community-based services.

The first strategy for this objective consisted of expanding, promoting, and supporting the use of telemedicine/telehealth in rural and underserved communities. FY 2018 marked the second year of a three-year grant cycle dedicated to improving access to quality care for children and youth with epilepsy.

During FY 2018, Beaumont Health and Children's Hospital of Michigan joined the partnership, by purchasing equipment and completing their patient assessment for project inclusion. At the same, St. Clair Teen Health Clinic purchased equipment and joined the learning collaborative. This progressive school-based clinic is working with one of the project's epilepsy center partners to receive direct care via patient connectivity. CSHCS supports these clinics through funding assistance for equipment, policy and protocol development, technical assistance, and expert consultation. Through the evaluation component, the project hopes to establish best practices and evidence-informed practices.

CSHCS continues to support LHDs, as local staff work to promote the program, recruit enrollees, provide care coordination/case management services in the home, and assist in accessing and utilizing local resources. Many of the CSHCS nurses serve on Great Start Collaborations and have established referral networks, both internally with the Women, Infant and Children (WIC) and Lead and Immunization programs, and externally with Early On and

Maternal and Infant Health Home Visitation programs. This knowledge and experience make CSHCS nurses and program representatives good partners for advancing the population health model proposed by the Mother Infant Health and Equity Improvement Plan (MIHEIP).

To assist LHD staff in maintaining a competent workforce, CSHCS has implemented a variety of educational strategies which include annual regional meetings, accreditation pre-site meetings, Technical Tuesday video conferences, monthly LHD phone calls, orientation webinars, written informational and alert communications, and web sites. During FY 2018, CSHCS launched a new SharePoint site for LHDs which streamlined communications and features interactive discussion boards, frequently used documents, links to webinars, and other functionality designed to improve knowledge and promote training.

The final strategy for this objective focuses on health equity and learning how to identify and address inequalities experienced by select groups and address the underlying conditions and experiences that cause health disparities. While CSHCS has participated in MDHHS initiatives in the past, a CSHCS-specific Health Equity team was separately organized within the last year.

The team consists of 14 staff members from across the division who are committed to promoting health equity and inclusion in CSHCS policies, practices, and outreach. The Health Equity Team has developed mission, vision, and value statements. It has also identified three focus areas: Workforce/Staff Development, Diversity Awareness, and Data. The workforce/staff development workgroup is focused on increasing capacity of CSHCS staff to understand health equity concepts and the impact of institutional racism both within the agency and on the beneficiaries served. The diversity awareness workgroup seeks to create a positive image of the CSHCS team and their work, both within the administration and with the program's partners. The data committee seeks to review key CSHCS data sets in order to improve data quality, and to analyze data to identify existing disparities and provide ongoing monitoring. In addition, CSHCS institutionalized a focus on health equity by including health equity in management and staff performance measures and employee engagement plans. CSHCS will apply a health equity lens to the LHD accreditation process, MHP and CMDS site visits, and CSHCS communication/outreach plans.

Included in this strategy, CSHCS has modified its business processes to comply with section 1557 of the Affordable Care Act that seeks to inform clients about MDHHS nondiscrimination practices as well as assure the accessibility of translation services for those with limited English proficiency.

Transition (FY 2020 Application)

Through the five-year needs assessment process, the state priority need to "Increase family and provider support and education for Children with Special Health Care Needs" was linked to NPM 12, the percent of adolescents with and without special health care needs who received services necessary to make transitions to adult health care. Building upon the work initiated in FY 2018 and currently underway in FY 2019, three broad-based objectives have been identified to increase knowledge of medical transition. These strategies target local health departments, medical providers, and adolescents and families.

Many of these strategies, though more process-oriented, seek to increase Michigan's capacity for integrating transition planning through automation, and will ultimately lead to more patient-centered, family friendly care. They also seek to promote medical transition as part of the standard of care for adolescents. These objectives and strategies, when implemented in tandem, represent an approach that creates both awareness and an ability to deliver medical transition services in Michigan that are comprehensive, coordinated, and responsive to clients' needs.

Objective A: By 2020, increase the number of youth who have a plan of care that includes transition planning beginning at age 14 by 4.1%.

The first strategy associated with this objective will focus on Medicaid Health Plans (MHPs). During FY 2020, CSHCS will build upon the lessons learned from the MHP site reviews to identify areas of improvement related to transition. These areas will be used to propose contract language revisions to strengthen health care transition services offered by the MHPs and their network of providers. Reporting requirements specific to transition will be considered and data collected from these reports will be routinely reviewed.

To follow through on this objective's second strategy, the transition specialist will provide continued support and technical assistance to local health departments (LHDs) related to health care transition. This will be accomplished by:

- Creating customized reports for each LHD identifying youth preparing for transition on a quarterly basis. Reports will be uploaded into the MDHHS HIPAA secure data management portal, which LHDs can then download to obtain information about clients reaching one of the pre-identified transition ages and stages.
- Utilizing the LHD Share Point site to consolidate resources, templates, and training materials for LHD staff on transition.
- Providing ongoing training for LHDs on specific topics such as self-determination, social security benefits, authorization of protected health information and other transition-related topics. These trainings will be offered via webinars and adobe connect videoconferences and recorded so LHD staff can access them as needed.

Also included in this objective is the completion of work to automate transition letters that was initiated during FY 2017 and FY 2018. Due to staffing changes, this project was paused until a designated transition specialist was hired. Now that staff is in place, the work group assigned to review and revise the transition letters has reconvened and is working to complete four transition letters and remap the system automation logic. This work is expected to be completed in FY 2019, and the system upgrades, testing, and release are expected to occur during FY 2020.

The third strategy will build upon work completed in FY 2019 with the CareConnect 360 system. CareConnect 360, an integrated care management system, improves the coordination of services delivered by multiple entities. It

allows effective use of healthcare data for assessment and analysis purposes, which helps to improve decision-making processes and evaluation, and can lead to reduced costs and improved health outcomes. CareConnect 360 will facilitate joint care plans among LHDs, MHPs, community mental health (CMH), foster care, and other health and human service providers, and streamline the care planning process in order to assure that families are receiving maximum care coordination/case management services with minimum confusion.

In 2019, CSHCS will complete a pilot project under the guidance of Michigan State University's Institute for Health Policy (IHP) to operationalize the use of CareConnect 360 with a subset of clients being served by two local health departments located in the Upper Peninsula. The activities of the pilot will seek to determine:

- training needs;
- applicable system functionality;
- policies, procedures, protocols; and
- best practices for integrated care plans.

During FY 2020, this partnership will continue and CSHCS and the MSU Institute for Health Policy will work with the Michigan Association of Local Public Health (MALPH) to determine the best way to engage other LHDs to integrate care planning in CareConnect 360.

Lastly, as discussed in the FY 2018 annual report, Michigan will continue to utilize the Evidence-informed Strategy Measure (ESM) developed by the University of Michigan's Child Health Evaluation and Research (CHEAR) unit. The ESM provides data on the percent of CSHCS clients age 18 to 21 years in selected diagnosis groups that have transferred care from a pediatric to an adult provider.

Objective B: By 2020, increase the number youth and families by 10% that are aware and understand the transition to adulthood process.

The first strategy for this objective is to implement the marketing plan for the online Adolescent Transition Online Course developed in FY 2019. During FY 2019, CSHCS piloted the Adolescent Transition Online Course with 1) the Family Center youth consultant and 2) participants in an AMCHP transition replication pilot project that was located within a school wellness clinic. Feedback received from student participants was incorporated into the online course during FY 2019.

Working together, the youth consultant and students representing the school clinic advisory group will participate in the development of a marketing plan for the Adolescent Transition Online Course which will be fully implemented during FY 2020. The purpose of the marketing plan is to make adolescents and their families aware of this new course, as well as the need for health care transition services. Benchmark data established at the end of 2018 will serve as a baseline for measuring the course's appeal and applicability. The course will be evaluated each year to assure that the information provided is correct and relevant for youth.

The second strategy for this objective is to establish Adolescent Transition as one of the quality improvement initiative options for MDHHS-funded Child and Adolescent Health Center (CAHC) programs. Each year, CAHC-funded programs must implement a continuous quality improvement initiative that utilizes a PDSA cycle. The AMCHP Transition Replication project, as currently designed, meets these requirements. Beginning in FY 2020, CSHCS will work with MDHHS CAHC state staff to replicate the pilot's efforts in other school-based clinics, school-linked clinics and school wellness centers.

Given MDHHS's well-defined network of CAHCs located throughout Michigan (with over 100 sites that serve an adolescent population that exceeds 36,000 patients), the incorporation of transition programing would represent a

major accomplishment. These centers—staffed by mid-level practitioners, social workers and medical professionals—deliver a wide-range of services including primary, preventive and early intervention health care. School clinic staff work collaboratively with students, parents, school personnel, LHDs and the human service community to assure that students have what they need to be well and successful, and to practice self-health maintenance. Health care transition, including the knowledge of health conditions, the ability to communicate health needs, and maintenance of affordable health insurance coverage, is a natural fit that reflects their overall mission.

In addition to these strategies, MDHHS will continue to partner with local health departments and other partners to offer community presentations and implement print and social media strategies designed to improve knowledge of, and resources for, health care transition throughout FY 2020.

Objective C: Increase provider awareness and understanding of the transition to adulthood process by 25% through the establishment and offering of a free online Medical Transition course.

The first strategy for FY 2020 for this objective is to develop an online program that is modeled after the University of Florida's "Health and Transition Services" (HATS) training for health care professionals (i.e., nurses, social workers and physicians). MDHHS will work to condense the original ten modules down to three to five modules and will seek to integrate Michigan-specific resources into the curriculum.

The training is based upon evidence-informed materials from *GotTransition's* Six Core Elements 2.0. Through this training, participants will better understand how to:

- Establish a transition policy;
- Track and monitor transitioning youth and their activities;
- Assess transition readiness and orient adolescents to an adult practice;
- Develop a transition plan of care;
- Transfer care to an adult provider; and
- Assure the transfer is complete.

In addition, participants will receive coding and reimbursement information and condition-specific tools for subspecialists from the American College of Physicians. As part of this strategy, the transition specialist will investigate the opportunity to provide continuing education credits for completion of these courses for different medical specialties. Once the course is developed, the transition specialist will pilot the course with the Office of Medical Affairs (OMA) within MDHHS, and a select group of medical professionals from outside of MDHHS, including LHD nurses and social workers. Their feedback will be utilized to finalize the coursework. The transition specialist will then work with the CSHCS communication team to develop a marketing plan to promote the free course to physicians, nurses and social workers. Evaluation data collected during the course will be used to monitor the course's effectiveness, as well as participant satisfaction with the overall course. The online courses will be reviewed annually and updated as needed.

The second strategy related to this objective will be accomplished through the HRSA Children and Youth with Epilepsy (CYE) Grant. The CYE project has focused on the transition process for youth with epilepsy. Participating organizations have demonstrated significant growth, with more than 50% of clinics scoring a three or better on the *GotTransition* assessment for transition planning.

MDHHS is currently responding to the HRSA CYE continuation funding request. Working collaboratively with the Epilepsy Foundation of Michigan, Michigan Association of Health Plans, Michigan Center for Rural health, Michigan Chapter of the American Academy of Pediatrics, Michigan Health Information Network, Michigan Primary Care

Association, Michigan Public Health Institute, DeVos Children's Hospital, Children's Hospital of Michigan, UP Health System Marquette and Beaumont Health, in conjunction with six primary care sites and parent representatives, the project will continue to improve access to coordinated, quality health care in a patient/family centered medical home for children and youth with epilepsy that reside in underserved/rural areas of the state. Preliminary sub-strategies identified for the upcoming grant cycle include:

- Increasing the percentage of CYE who complete a health care transition readiness assessment;
- Increasing the number of participating primary care providers serving CYE who report increased communication, collaboration and co-management with specialty providers;
- Increasing access to care for CYE through telehealth strategies;
- Increasing the percent of families of CYE that report they are partners in a shared decision-making process as it relates to their child's care; and
- Increasing the percentage of clinics that report utilization of best practices in support of health care transition, collaboration and co-management, telemedicine and/or telehealth and shared decision-making.

The University of Michigan's CHEAR Unit will continue to provide evaluation support as part of the grant award, if funded.

Medical Care and Treatment for CSHCN (FY 2020 Application)

Michigan's State Performance Measure (SPM) for the CSHCN population domain measures the percent of CYSHCN enrolled in Children's Special Health Care Services (CSHCS) that receive timely medical care and treatment without difficulty. This measure addresses Michigan's priority need to reduce barriers, improve access, and increase the availability of health services for all populations. CSHCS was created to find, diagnose, and treat children who have chronic illnesses or disabling conditions. The mission of CSHCS, to improve health outcomes and enhance quality of life of children served, is accomplished by assisting children and their families in accessing the broadest range of appropriate medical care, health education, and support. This is accomplished by removing barriers to care, including financial barriers, improving access to services, and strengthening existing systems of care. As discussed in the budget narrative, over 30% of Michigan's Title V funding is used to support medical care and treatment for children with special health care needs.

CSHCS empowers families to become engaged, self-determining, and informed caregivers who are strong advocates for their children. Much of this work is accomplished through the CSHCS Family Center for Children and Youth with Special Health Care Needs, which provides ongoing support, education, and resources to families of children with special health care needs. In FY 2018, the Family Center received more than 14,000 phone calls through the family phone line and reported an additional 1,353 contacts with families through health fairs, presentations, trainings, and other events.

Although there is an annual fee to enroll in CSHCS, this fee is waived if the client has Medicaid, Healthy Kids Expansion, a court-appointed guardian, or lives in a foster home. The fee, which includes six possible payment levels paid through a payment agreement, is based upon family income and family size. The lowest payment level is $120 for individuals below 200% of the Federal Poverty Level (FPL), and the highest level is $2,964 for those above 500% of FPL.

Objective A: By 2020, reduce barriers to medical care and treatment by minimizing financial barriers from the increased medical services associated with the child's special need, as measured by a 5% increase in the Insurance Premium Payment Benefit Assistance.

The first strategy to meet this objective is for CSHCS to continue enrolling children with special needs into the medical care and treatment benefit, which provides payment for medical care and treatment related to the child's qualifying condition. This benefit, while not intended to cover all the care a child needs, helps to reassure families that necessary specialty care for their child's qualifying diagnosis will not create undue financial burden. CSHCS is the payer of last resort and requires that families follow their primary and secondary insurance rules. Additionally, if a family's income indicates that they may be eligible for Medicaid, they are required to apply for Medicaid.

Children with special needs who qualify for Medicaid and CSHCS will continue to receive care through Medicaid Health Plans barring a few exceptions. Children who are already receiving Medicaid, and who are determined to be medically eligible for CSHCS, are automatically enrolled. Automatic enrollment into CSHCS increases access to care coordination and case management services, which benefits families.

In addition to assisting families with the cost of specialty care, CSHCS offers an Insurance Premium Payment Assistance Benefit to eligible families. This benefit provides assistance to families who lack financial supports needed to reactivate or maintain private or employer-based insurance coverage due to their child's complex needs. As part of a second strategy for FY 2020, staff will review the cost benefit/satisfaction study of the Insurance Premium Payment Assistance Benefit that was completed in FY 2019. The study—conducted in partnership with the University of Michigan's Child Health Evaluation and Research Center (CHEAR) and the Commonwealth Fund—evaluated the numbers and characteristics of children receiving the insurance premium benefit, as well as the cost effectiveness of the program. Specifically, the study assessed the predictors of program cost-effectiveness and described the key components of the program, perceived program benefits or disadvantages, and the potential for expansion. In FY 2020, CSHCS will review the study's findings and implement a workplan to integrate at least two of the suggested improvements.

A third strategy will focus on specialty clinics and the continued need to monitor and expand the use of interdisciplinary models. During FY 2020, CSHCS will work with the University of Michigan to explore the feasibility of providing a palliative care benefit. During FY 2018, legislation was passed that authorized CSHCS to utilize funding to support the care management of complex chronically ill children. Also in FY 2018, the University of Michigan, in partnership with Hospice of Michigan, applied for and received funding from the Michigan Health Endowment Fund to replicate a palliative care project based in California. Together, these two events provide an opportunity for CSHCS to learn more about the feasibility of offering a palliative care benefit, and the cost benefits that can be accrued. FY 2020 will be spent learning more about the cost benefits associated with offering palliative care to children and potential modes of care delivery. CSHCS will partner with U of M Partners for Children and CHEAR Unit to support the ongoing development of a Michigan model, as well as to identify its associated costs and develop reimbursement strategies.

The fourth strategy to be implemented in FY 2020 is to make technological improvements for better delivery of the Children's Special Needs Fund program. This program provides funding assistance to families in need of special equipment and/or structural modifications to their home and/or vehicles. The current database platform is now obsolete, and staff have identified the need for a new database that includes a module to track donations. A WiveHive product, an off-the-shelf database (with a projected cost of $35,000 which includes installation and maintenance), will meet the program's needs and will be pursued in FY 2020.

Objective B: By 2020, improve access to medical care and treatment by improving the systems of care for CSHCN clients, as measured by the CMDS patient satisfaction survey.

Michigan, like many states, is feeling the impact of health professional shortages. According to the Bureau of Health Work Force, Michigan currently has 366 Primary Care Health Professional Shortage designations and is in need of

an estimated 647 more practitioners to achieve a ratio that removes the Primary Care Health Professional Shortage designation. This shortage is not confined to primary care physicians, but also extends to specialists.

Understanding that the health professional shortages being experienced in Michigan reflect a national trend, CSHCS is working to minimize the effects by gaining efficiencies where possible. Knowing that team-based approaches are one way to address shortages and gain efficiencies, CSHCS supports the provision of specialty care through multi-disciplinary specialty clinics, which are designed to wrap services around families. Led by a medical director and operated under the authority of hospitals/medical universities, these clinics provide coordinated and family-centered care delivered by a team that includes social workers, nurses, therapists, dieticians, and others. Enhanced reimbursement for CMDS services provided by CSHCS helps to support the ancillary members of the team and to offset the time and resources needed to provide an enhanced level of care coordination.

During FY 2020, CSHCS will focus on improving quality within the CMDS model. The first strategy to improve the quality and effectiveness of CMDS clinics is to continue to conduct site reviews. In FY 2019, CSHCS began conducting site reviews to evaluate the clinics using several established measures. In FY 2020, CSHCS will continue to implement the site review schedule, visiting approximately one quarter of the CMDS clinics. The site review cycle takes approximately four years to visit all clinics. Once the cycle is complete, data from the site visits will be reviewed and results from the CMDS clinics regarding the experience will be used to retool site visit materials. Recommendations for improvements, along with plans of corrective action, when needed, will be shared and monitored. At the end of the four-year cycle, the process will be adjusted, and the cycle will be repeated.

A second strategy for FY 2020 is to launch a website with resources for CMDS clinics and the Pediatric Intensive Feeding Program Services. The website will include CMDS policy, clinic staffing requirements, a fee screen, a flier detailing enhanced reimbursement information, frequent error code troubleshooting information, the enrollment form, and a list of all CMDS clinics and contacts. The following materials specific to Pediatric Intensive Feeding Program Services will also be made available: Medicaid policy, guidance materials, certification form, and other materials to assist providers in learning more about evidenced-based and -informed feeding service practices. This webpage will provide information that service providers frequently need in one easily accessible site.

In FY 2019, the CMDS clinics are implementing an electronic client satisfaction survey. For the third strategy, in FY 2020, CSHCS will review data from surveys collected in FY 2019 and release a report that documents client satisfaction and client outcomes. This information will be shared with CMDS clinic staff and will serve as the basis for a CQI project. Using data in this fashion will enable the CMDS clinics to ensure that they are always patient-centered as they work to meet the needs of clients and families.

The third strategy to meet this objective is to continue to support LHDs as local staff work to promote the CSHCS program, recruit enrollees, provide care coordination/case management services in the home, and assist with access and utilization of local resources. In FY 2020, CSHCS will work with MSU Health Policy Institute to offer regional trainings at selected locations to ensure competency of LHD CSHCS nurses and program representatives. In addition, CSHCS will work to provide ongoing educational and training opportunities, via various technological platforms.

The final strategy for this objective is to explore and identify challenges in accessing services by populations served by both Community Mental Health (CMH) and CSHCS systems. Beginning in FY 2019 and continuing through FY 2020, CSHCS is convening a subcommittee consisting of staff from CSHCS and MDHHS Behavioral Health, along with representatives from the Family Center, local community mental health (CMH) organizations, local health departments, ARC of Michigan, CMH Association, child welfare, juvenile justice, and Medicaid Health Plans. This group will develop tools and resources to enable partners to provide more comprehensive and integrated care to children and their families.

Objective C: By 2020, increase the availability of health services, particularly in underserved regions, through the utilization of telemedicine and community-based services.

CSHCS is working to increase access to specialty health care services through the support of specialty clinics. In FY 2018 and 2019, CSHCS began to investigate telemedicine as a possible resource for increasing access to medical care and treatment for non-epileptic conditions. A telemedicine workgroup was convened in FY 2019 to research other state models, collect data from regional telemedicine resource networks, and identify different telehealth applications and their suitability of use within the CSHCS program as a method for improving access to care. In FY 2020, CSHCS will continue to explore the feasibility and barriers associated with specialist use of telemedicine. The CSHCS group will also consider possible changes that may be needed in its telemedicine reimbursement policies. CSHCS will utilize shared knowledge of other programs within the state and neighboring states to develop an approach that meets the needs of specialist providers and their patients and leads to improved patient experience and outcomes.

A second strategy includes continued support of the CMDS clinics which utilize a team-based approach to delivering family-centered, coordinated care. Work will be initiated in FY 2020 to assist CMDS clinics in learning how to coordinate care across disciplines in order to improve communication and satisfaction. Trainings will be developed and offered that promote interdisciplinary collaboration and address health equity.

The third strategy will be to continue to provide training opportunities for LHDs that focus on care coordination, case management, and locally-based services. CSHCS will continue to offer regional training opportunities under contract with the MSU Institute for Public Policy ($25,000) in order to ensure a competent local CSHCS workforce. In addition, LHD staff will continue to receive orientation webinars, accreditation visits, monthly phone calls and periodic Technical Assistance Tuesdays. CSHCS will also work through the Southeastern Michigan Health Association (SEMHA) to facilitate network development opportunities for the regional southeast Michigan group of CSHCS LHD providers to share best practices, promote dialogue, and improve the quality of services delivered to CSHCS and their families.

A fourth strategy that will be implemented in FY 2020 relates to health equity. CSHCS has been actively involved in learning about and addressing issues regarding health disparities, health inequities and the social determinants of health since 2010. Work began as part of the PRIME initiative and was continued in 2017 after PRIME ended. In August 2017 the CSHCS Health Equity Team was formed. The team consists of 14 staff from across the division who are committed to promoting health equity and inclusion in CSHCS policies, practices and outreach. To this end, the Health Equity Team has developed mission, vision and value statements. The team has also identified three focus areas, including Workforce/Staff Development, Awareness and Data. CSHCS has institutionalized its focus on health equity by including health equity in its management and staff performance measures and employee engagement plan. In addition, health equity has been operationalized by making health equity a focus in the MHP (Medicaid Health Plan) and CMDS site visits as well as CSHCS communication/outreach plan.

In FY 2019, CSHCS began a process to review data using a health equity lens in order to better understand health disparities and the social determinants of health that impact the CSHCS population. In FY 2020, these activities will expand to include the review of qualitative data gathered through focus groups, guided conversations, and key informant interviews which will be used to inform future MCH Block Grants reports and applications. Through this process, CSHCS is positioning itself to better understand root causes of health inequities and address institutional racism.

Cross-Cutting/Systems Building

Cross-Cutting/Systems Builiding - Annual Report

No content was entered for the Cross-Cutting/Systems Building - Annual Report in the State Action Plan Narrative by Domain section.

Cross-Cutting/Systems Building - Application Year

No content was entered for the Cross-Cutting/Systems Building - Application in the State Action Plan Narrative by Domain section.

III.F. Public Input

For this application cycle, a draft of the Title V FY 2020 application/FY 2018 annual report will be posted on the Michigan Department of Health and Human Services (MDHHS) website for public review and comment. Public input will also be invited through notification to approximately 60 advisory groups, community-based partners, nonprofit partners, advocacy groups and other state programs. Additionally, notice will be sent to all 45 local health departments. Stakeholders (including parents and consumers) who participated in the 2015 needs assessment workgroups will receive direct notification of the posting. Public input will be reviewed and shared with the Title V steering committee for review and consideration prior to the July 2019 submission date. The number and nature of public comments received, and how they were addressed, will be included in the final grant submission.

After the application has been submitted, MDHHS will continue to work with entities representing advocates, advisory bodies, providers and consumers to receive input on the programs, policies, reports and plans included in the Title V application. For example, the Children's Special Health Care Services (CSHCS) Division routinely works with parent consultants through the Family Center for Children and Youth with Special Needs (Family Center) and the CSHCS Advisory Committee (CAC). The Family Center provides information and support to families and input on CSHCS program operations. The CAC is comprised of professionals and family members who are involved in the care for children with special needs. The CAC makes recommendations to the CSHCS Division on policy and promotes awareness to assure that services reflect the voices of individuals with special health care needs and their families.

As another example, families and consumers are represented in strategic planning initiatives for the reduction of infant mortality and fetal alcohol syndrome disorders. They also serve on advisory committees for oral health, Family Planning, Child and Adolescent Health Centers, safe sleep, teen pregnancy prevention local coalitions, Parent Leadership in State Government, and maternal and child home visiting programs. Additionally, to implement the state's new Mother Infant Health and Equity Improvement Plan, MDHHS works with the Mother Infant Health and Equity Collaborative which consists of providers from hospitals and local health departments as well as partners from research institutions, professional associations, community organizations, state programs and nonprofit organizations. Moving forward the Ambassador Program will also allow for direct family and caregiver feedback on the Improvement Plan and related initiatives.

In addition to the annual application and public posting process, in 2015 MDHHS completed a statewide five-year needs assessment to identify strategic issues and priority needs to drive creation of the 2016-2020 state action plan as required by Title V. When determining the process to be used, the Needs Assessment Planning Committee prioritized the need to engage a diverse group of stakeholders to assess both needs and system strengths and capacity. As a result, the needs assessment workgroups (which reflected the six original population health domains) included state and local MCH staff, state and local MCH system partners, parent consultants, consumers, and partners with expertise in health equity. Their input and experience directly shaped the issues and priority needs considered and included in Michigan's five-year application.

III.G. Technical Assistance

In FY 2019 and during completion of the grant application, potential areas of training and/or technical assistance were assessed. Several areas remained similar to the previous year, as follows:

- Best practices and tools related to Michigan's ongoing needs assessment priorities, specifically performance monitoring for National Performance Measures (NPMs) and Evidence-based or -informed Strategy Measures (ESMs);
- Support of local public health partners in implementing new requirements and priorities as they relate to Title V;
- Sharing of best practices and other peer learning opportunities (e.g., between states or within regions); and
- Ongoing learning opportunities and technical assistance related to identification, refinement, and assessment of ESMs.

Michigan's MCH system has also increased its focus on health equity and maternal mortality reduction efforts and may seek out additional resources and/or training for these areas. Some training needs are met by professional development opportunities provided by HRSA and AMCHP throughout the year, including the AMCHP Conference. Michigan is beginning to review the newly released "Strengthen the Evidence for MCH Programs" resource, which will expand information and access related to ESMs and best practices. Additionally, any training or technical assistance provided by HRSA or AMCHP—especially in relation to ESMs, NPMs, TVIS, and other Title V priorities or requirements—will be shared with relevant programs and staff in FY 2020.

IV. Title V-Medicaid IAA/MOU

The Title V-Medicaid IAA/MOU is uploaded as a PDF file to this section - MichiganStatePlan - Excerpt for Title V.pdf

V. Supporting Documents

The following supporting documents have been provided to supplement the narrative discussion.

Supporting Document #01 - New National Performance Measure Annual Objectives FY 2020-2024 FINAL FOR TVIS v2.pdf

 Created on 5/16/2019 at 10:41 AM

VI. Organizational Chart

The Organizational Chart is uploaded as a PDF file to this section - CSHCS and BFHS Org Chart 4-9-19.pdf

VII. Appendix

This page is intentionally left blank.

Form 2
MCH Budget/Expenditure Details

State: Michigan

	FY 20 Application Budgeted	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	$ 19,316,300	
A. Preventive and Primary Care for Children	$ 6,583,100	(34%)
B. Children with Special Health Care Needs	$ 6,994,200	(36.2%)
C. Title V Administrative Costs	$ 524,000	(2.8%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	$ 14,101,300	
3. STATE MCH FUNDS (Item 18c of SF-424)	$ 48,158,300	
4. LOCAL MCH FUNDS (Item 18d of SF-424)	$ 0	
5. OTHER FUNDS (Item 18e of SF-424)	$ 500,000	
6. PROGRAM INCOME (Item 18f of SF-424)	$ 68,599,500	
7. TOTAL STATE MATCH (Lines 3 through 6)	$ 117,257,800	
A. Your State's FY 1989 Maintenance of Effort Amount $ 13,507,900		
8. FEDERAL-STATE TITLE V BLOCK GRANT PARTNERSHIP SUBTOTAL (Total lines 1 and 7)	$ 136,574,100	
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)	$ 344,942,800	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	$ 481,516,900	

OTHER FEDERAL FUNDS	FY 20 Application Budgeted
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > State Abstinence Education Grant Program	$ 1,914,500
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > State Personal Responsibility Education Program (PREP)	$ 1,600,200
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Early Hearing Detection and Intervention (EHDI) State Programs	$ 150,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Pregnancy Risk Assessment Monitoring System (PRAMS)	$ 212,800
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Preventive Health and Health Services Block Grant	$ 200,000
Department of Health and Human Services (DHHS) > Centers for Medicare & Medicaid Services (CMS) > Title XIX -- Grants to States for Medical Assistance Programs	$ 124,597,700
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Epilepsy	$ 451,300
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Formula Grants	$ 7,799,700
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > State Systems Development Initiative (SSDI)	$ 100,000
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Universal Newborn Hearing Screening and Intervention	$ 248,000
Department of Health and Human Services (DHHS) > Office of Adolescent Health > Support for Pregnant and Parenting Teens	$ 970,000
Department of Health and Human Services (DHHS) > Office of Population Affairs (OPA) > Title X Family Planning	$ 7,600,000
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)	$ 194,634,200
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Vaccines For Children/Immunizations	$ 4,067,800
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > State and Local Healthy Homes and Childhood Lead Poisoning Prevention Programs (CLPPPs)	$ 396,600

	FY 18 Annual Report Budgeted		FY 18 Annual Report Expended	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	$ 18,959,000		$ 18,718,089	
A. Preventive and Primary Care for Children	$ 6,600,600	(34.8%)	$ 5,754,711	(30.7%)
B. Children with Special Health Care Needs	$ 7,096,400	(37.4%)	$ 6,994,200	(37.3%)
C. Title V Administrative Costs	$ 490,900	(2.6%)	$ 559,991	(3%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	$ 14,187,900		$ 13,308,902	
3. STATE MCH FUNDS (Item 18c of SF-424)	$ 45,199,700		$ 33,539,006	
4. LOCAL MCH FUNDS (Item 18d of SF-424)	$ 0		$ 0	
5. OTHER FUNDS (Item 18e of SF-424)	$ 500,000		$ 394,249	
6. PROGRAM INCOME (Item 18f of SF-424)	$ 68,201,100		$ 62,748,608	
7. TOTAL STATE MATCH (Lines 3 through 6)	$ 113,900,800		$ 96,681,863	
A. Your State's FY 1989 Maintenance of Effort Amount $ 13,507,900				
8. FEDERAL-STATE TITLE V BLOCK GRANT PARTNERSHIP SUBTOTAL (Total lines 1 and 7)	$ 132,859,800		$ 115,399,952	
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)	$ 373,642,410		$ 257,083,069	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	$ 506,502,210		$ 372,483,021	

OTHER FEDERAL FUNDS	FY 18 Annual Report Budgeted	FY 18 Annual Report Expended
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Early Hearing Detection and Intervention (EHDI) State Programs	$ 175,000	$ 113,665
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > State Oral Disease Prevention Program	$ 310,700	$ 278,489
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Vaccines For Children/Immunizations	$ 8,912,238	$ 2,055,082
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > ACA Maternal, Infant and Early Childhood Home Visiting Program	$ 6,819,039	$ 7,427,833
Department of Health and Human Services (DHHS) > Centers for Medicare & Medicaid Services (CMS) > Title XIX -- Grants to States for Medical Assistance Programs	$ 130,459,200	$ 68,787,114
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Universal Newborn Hearing Screening and Intervention	$ 250,000	$ 245,997
Department of Health and Human Services (DHHS) > Office of Adolescent Health > Support for Pregnant and Parenting Teens	$ 1,588,215	$ 1,364,187
Department of Health and Human Services (DHHS) > Office of Population Affairs (OPA) > Title X Family Planning	$ 7,275,000	$ 8,518,277
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)	$ 213,252,100	$ 162,956,602
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > State Personal Responsibility Education Program (PREP)	$ 1,493,165	$ 1,570,381
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > State Abstinence Education Grant Program	$ 2,123,209	$ 2,313,020
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Oral Health	$ 470,687	$ 370,703
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > State Systems Development Initiative (SSDI)	$ 97,000	$ 104,999

OTHER FEDERAL FUNDS	FY 18 Annual Report Budgeted	FY 18 Annual Report Expended
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Epilepsy	$ 416,857	$ 386,468
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Pregnancy Risk Assessment Monitoring System (PRAMS)		$ 160,172
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Preventive Health and Health Services Block Grant		$ 200,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > State and Local Healthy Homes and Childhood Lead Poisoning Prevention Programs (CLPPPs)		$ 230,080

Form Notes for Form 2:

None

Field Level Notes for Form 2:

1.	**Field Name:**	**Federal Allocation, A. Preventive and Primary Care for Children:**
	Fiscal Year:	**2018**
	Column Name:	**Annual Report Expended**
	Field Note: Line 1A, Preventive and Primary Care for Children, FY 2018 Annual Report Expended, was lower than budgeted due to decreased Title V expenditures for Family Planning Local Agreements. The decreased expenditures were due to the need to spend down Title X funding within the budget period.	
2.	**Field Name:**	**Federal Allocation, C. Title V Administrative Costs:**
	Fiscal Year:	**2018**
	Column Name:	**Annual Report Expended**
	Field Note: Line 1C, Title V Administrative Costs, FY 2018 Annual Report Expended, was $69,091 higher than originally budgeted due to increased personnel costs supported by Title V.	
3.	**Field Name:**	**3. STATE MCH FUNDS**
	Fiscal Year:	**2018**
	Column Name:	**Annual Report Expended**
	Field Note: Line 3, State MCH Funds, FY 2018 Annual Report Expended, was lower than budgeted due to lower than anticipated Children’s Special Health Care Services state general funds available for the Title V state match.	
4.	**Field Name:**	**5. OTHER FUNDS**
	Fiscal Year:	**2018**
	Column Name:	**Annual Report Expended**
	Field Note: Line 5, Other Funds, FY 2018 Annual Report Expended, was lower than budgeted due to lower than anticipated revenue from the Children with Special Needs Fund, which comprises the "Other Funds" line.	

Data Alerts: None

Form 3a
Budget and Expenditure Details by Types of Individuals Served

State: Michigan

I. TYPES OF INDIVIDUALS SERVED

IA. Federal MCH Block Grant	FY 20 Application Budgeted	FY 18 Annual Report Expended
1. Pregnant Women	$ 444,100	$ 481,567
2. Infants < 1 year	$ 1,799,000	$ 1,728,035
3. Children 1 through 21 Years	$ 6,583,100	$ 5,754,711
4. CSHCN	$ 6,994,200	$ 6,994,200
5. All Others	$ 2,971,900	$ 3,199,585
Federal Total of Individuals Served	$ 18,792,300	$ 18,158,098

IB. Non-Federal MCH Block Grant	FY 20 Application Budgeted	FY 18 Annual Report Expended
1. Pregnant Women	$ 1,714,500	$ 672,489
2. Infants < 1 year	$ 70,482,200	$ 64,536,333
3. Children 1 through 21 Years	$ 2,544,200	$ 2,111,674
4. CSHCN	$ 40,347,000	$ 27,327,156
5. All Others	$ 2,169,900	$ 2,034,211
Non-Federal Total of Individuals Served	$ 117,257,800	$ 96,681,863
Federal State MCH Block Grant Partnership Total	$ 136,050,100	$ 114,839,961

Form Notes for Form 3a:

None

Field Level Notes for Form 3a:

None

Data Alerts: None

Form 3b
Budget and Expenditure Details by Types of Services

State: Michigan

II. TYPES OF SERVICES

IIA. Federal MCH Block Grant	FY 20 Application Budgeted	FY 18 Annual Report Expended
1. Direct Services	$ 9,189,239	$ 8,230,493
A. Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants up to Age One	$ 297,600	$ 257,120
B. Preventive and Primary Care Services for Children	$ 4,298,700	$ 3,380,434
C. Services for CSHCN	$ 4,592,939	$ 4,592,939
2. Enabling Services	$ 6,951,274	$ 6,228,384
3. Public Health Services and Systems	$ 3,175,787	$ 4,259,212
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		$ 4,060,884
Physician/Office Services		$ 728,703
Hospital Charges (Includes Inpatient and Outpatient Services)		$ 748,833
Dental Care (Does Not Include Orthodontic Services)		$ 324,480
Durable Medical Equipment and Supplies		$ 247,478
Laboratory Services		$ 0
Other		
Special Projects, Local MCH and CSHCS		$ 2,120,115
Direct Services Line 4 Expended Total		$ 8,230,493
Federal Total	$ 19,316,300	$ 18,718,089

IIB. Non-Federal MCH Block Grant	FY 20 Application Budgeted	FY 18 Annual Report Expended
1. Direct Services	$ 38,586,700	$ 26,298,175
A. Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants up to Age One	$ 223,100	$ 208,087
B. Preventive and Primary Care Services for Children	$ 239,800	$ 251,909
C. Services for CSHCN	$ 38,123,800	$ 25,838,179
2. Enabling Services	$ 6,084,300	$ 4,561,054
3. Public Health Services and Systems	$ 72,586,800	$ 65,822,635
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		$ 16,582,688
Physician/Office Services		$ 1,951,351
Hospital Charges (Includes Inpatient and Outpatient Services)		$ 4,747,885
Dental Care (Does Not Include Orthodontic Services)		$ 96,120
Durable Medical Equipment and Supplies		$ 2,653,505
Laboratory Services		$ 0
Other		
Medical Care and Treatment		$ 266,626
Direct Services Line 4 Expended Total		$ 26,298,175
Non-Federal Total	$ 117,257,800	$ 96,681,864

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: Michigan

Total Births by Occurrence: 108,971 **Data Source Year: 2018**

1. Core RUSP Conditions

Program Name	(A) Aggregate Total Number Receiving at Least One Screen	(B) Aggregate Total Number Presumptive Positive Screens	(C) Aggregate Total Number Confirmed Cases	(D) Aggregate Total Number Referred for Treatment
Core RUSP Conditions	108,232 (99.3%)	2,612	216	216 (100.0%)

Program Name(s)				
3-Hydroxy-3-Methylglutaric 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	ß-Ketothiolase Deficiency
Trifunctional Protein Deficiency	Tyrosinemia, Type I	Very Long-Chain Acyl-Coa Dehydrogenase Deficiency		

2. Other Newborn Screening Tests

Program Name	(A) Number Receiving at Least One Screen	(B) Number Presumptive Positive Screens	(C) Number Confirmed Cases	(D) Number Referred for Treatment
Early Hearing Detection & Intervention (EHDI) Progtram	108,217 (99.3%)	5,132	141	141 (100.0%)

3. Screening Programs for Older Children & Women

None

4. Long-Term Follow-Up

Michigan has a robust system for follow-up beyond referral of an infant with a positive newborn screening (NBS) result. The state maintains several coordinating centers, focused around different groups of NBS disorders. Each center is designated by MDHHS and works with MDHHS, the family, the newborn's primary care provider, and other specialists to triage infants with positive screens and facilitate prompt diagnostic testing, evaluation, and initiation of medical monitoring and/or treatment. Each center reports to MDHHS on the number of infants seen, diagnostic work-ups provided, and results of those assessments. Information is crucial for measuring and monitoring detection rates, positive predictive values, and other screening performance metrics including time from birth to treatment initiation. Aggregate results are included in the NBS Annual Report online.

Form Notes for Form 4:

None

Field Level Notes for Form 4:

1.	**Field Name:**	**Total Births by Occurrence**
	Fiscal Year:	**2018**
	Column Name:	**Total Births by Occurrence Notes**
	Field Note: Total births by occurrence for 2018. Preliminary data as of March 2019. Includes all infants born alive in Michigan.	
2.	**Field Name:**	**Early Hearing Detection & Intervention (EHDI) Progtram - Receiving At Least One Screen**
	Fiscal Year:	**2018**
	Column Name:	**Other Newborn**
	Field Note: EHDI program data are based on provisional 2018 data of hospital and midwives births.	

Data Alerts: None

Form 5
Count of Individuals Served by Title V & Total Percentage of Populations Served by Title V

State: Michigan

Annual Report Year 2018

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	7,766	41.4	0.0	57.2	1.2	0.2
2. Infants < 1 Year of Age	45,920	40.9	0.0	57.6	1.3	0.2
3. Children 1 through 21 Years of Age	287,078	35.0	0.0	61.0	4.0	0.0
3a. Children with Special Health Care Needs	59,711	73.8	3.6	19.3	3.3	0.0
4. Others	76,270	18.0	0.0	76.0	6.0	0.0
Total	417,034					

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	111,426	No	109,803	80	87,842	7,766
2. Infants < 1 Year of Age	110,449	No	108,971	100	108,971	45,920
3. Children 1 through 21 Years of Age	2,608,162	Yes	2,608,162	40	1,043,265	287,078
3a. Children with Special Health Care Needs	551,887	Yes	551,887	40	220,755	59,711
4. Others	7,242,458	Yes	7,242,458	37	2,679,709	76,270

Form Notes for Form 5:

Form 5a includes the number of individuals who received a direct or enabling service funded by both Federal and Non-federal Title V program dollars as reported on Form 2, line 8. Duplication in counts is possible because some individuals may have received more than one service. Per the Title V guidance, WIC could be included "if Title V funds or staff time are used to promote or enhance services." Since Title V funds are not directly used, WIC participants were not included, even though WIC rebates are a component of program income on Form 2, Line 6.
Form 5b is the total percentage of the population that received Federal and Non-federal Title V supported programs, as reported on Form 2, Line 8. It includes all three levels of the MCH pyramid. Direct and enabling service numbers (from Form 5a) were added to public health services and systems to derive Form 5b.

Field Level Notes for Form 5a:

1.	**Field Name:**	**Pregnant Women Total Served**
	Fiscal Year:	**2018**

Field Note:
Individuals in the pregnancy category include Local Maternal Child Health Program breastfeeding (as proxy for pregnancy), Family Planning (proxy is pregnant/seeking pregnancy, FPAR, preliminary 2018), Nurse Family Partnership, Rural MHVI HFA, MI-APPPT and MI APP, FASD. Population estimates were used for Primary Sources of Insurance Coverage from Birth Certificate Resident births, preliminary, 2018, Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services.

2.	**Field Name:**	**Infants Less Than One YearTotal Served**
	Fiscal Year:	**2018**

Field Note:
Individuals in the infancy category include Local Maternal Child Health Program Safe Sleep (as proxy for infancy), Infant safe sleep training, Nurse Family Partnership, Rural MHVI HFA, and immunizations. Population estimates were used for Primary Sources of Insurance Coverage from Birth Certificate Occurrent births, preliminary, 2018, Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services.

3.	**Field Name:**	**Children 1 through 21 Years of Age**
	Fiscal Year:	**2018**

Field Note:
Children 1 - 21 years category includes Local Maternal Child Health Program direct and enabling services (developmental screening, adolescent well visit, oral health, lead prevention, depression, immunizations and local needs), Family Planning (unduplicated count of girls and boys ≤15-19 , FPAR, preliminary 2018), Nurse Family Partnership, Rural MHVI HFA, MI-APPPT and MI APP, FASD, Taking Pride in Prevention, lead education, dental sealants, immunizations. The number recorded here is the number of children 1 - 21 plus the number of CSHCN (line 3a) Population estimates were used for Primary Sources of Insurance coverage from American Community Survey - Children 1 - 21, 2017.

4.	**Field Name:**	**Children with Special Health Care Needs**
	Fiscal Year:	**2018**

Field Note:
Includes CSHCN for medical care and treatment, and family phone line calls. Medical insurance coverage is reported by the CSHCS program. Michigan serves a much larger CSHCS Medicaid population (73.8%) than the National Survey of Children's Health - CSHCN, 2017 (45%).

5.	Field Name:	Others
	Fiscal Year:	2018

Field Note:
Individuals served in the other category include women who are not pregnant or within a 60-day postpartum window, but are in the childbearing age bracket. Examples of direct and enabling service reported include: Nurse Family Partnership, rural MHVI HFA, MI-APPT and MI APPP, Family Planning (FPAR, 2018, preliminary), Local Maternal Child Health (Well Woman, Oral Health, Lead Prevention, Depression, Immunizations). Other supports such as grandparents, fathers, teachers are also included in this count. Population estimates were used for Primary Sources of Insurance Coverage from American Community Survey - Adults 22+, 2017.

Field Level Notes for Form 5b:

1.	**Field Name:**	**Pregnant Women**
	Fiscal Year:	**2018**

Field Note:
In addition to Pregnant Women Form 5a counts, numerators were used for the programs and services with the largest reach for a given population. For pregnant women the state has Perinatal Care Quality Improvement (PCQI) projects in Region 1,2,3,4,8 and 10. A population estimate of births in each region was used. In FY2018, the number of PCQI projects increased which in turn increased the percent of pregnant women served from the previous year. Denominator from Birth Certificate Resident births, preliminary, 2018, Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services.

2.	**Field Name:**	**InfantsLess Than One Year**
	Fiscal Year:	**2018**

Field Note:
In addition to Infants from Form 5a counts, numerators were used for the programs and services with the largest reach for a given population. For infants less than one year of age, universal newborn hearing screening was used, which correlates to live occurrences births. Reference data for denominator is 2018 provisional live birth file, Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services.

3.	**Field Name:**	**Children 1 Through 21 Years of Age**
	Fiscal Year:	**2018**

Field Note:
In addition to Children 1 - 21 and CSHCN Form 5a counts, numerators were used for the programs and services with the largest reach for a given population. For Children 1 - 21, the Michigan Model for School Health curriculum was used. The curriculum is widely used across Michigan. Due to age range overlap, some duplication in numbers is possible.

4.	**Field Name:**	**Children With Special Health Care Needs**
	Fiscal Year:	**2018**

Field Note:
CSHCS is a subset of Children 1 - 21. Form 5a CSHCS counts and the count of the Family Phone line calls were used for the service with the largest reach for a given population. As per the Title V Guidance, CSHCN are not excluded from population-based services for all children and therefore the percent reported is the same as Children 1 - 21 years.

5.	**Field Name:**	**Others**
	Fiscal Year:	**2018**

Field Note:
In addition to Others from Form 5a counts, numerators were used for the programs and services with the largest reach for a given population. For Others, counts include the Local Maternal Child Health Public Health Infrastructure and Support, professional participants in the Great Lakes Breastfeeding Series, cases reviewed in the FIMR process, professional training for trauma informed care, and distribution of lead-free toolkit to providers across the state.

Data Alerts: None

Form 6
Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX

State: Michigan

Annual Report Year 2018

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	108,971	73,399	20,435	7,388	392	4,348	30	2,379	600
Title V Served	108,971	73,399	20,435	7,388	392	4,348	30	2,379	600
Eligible for Title XIX	44,500	23,836	13,473	4,474	213	961	14	1,311	218
2. Total Infants in State	109,803	74,202	20,429	7,418	405	4,354	30	2,373	592
Title V Served	109,803	74,202	20,429	7,418	405	4,354	30	2,373	592
Eligible for Title XIX	45,376	24,685	13,453	4,495	220	980	14	1,307	222

Form Notes for Form 6:

Source: 2018 Provisional Live Birth File - Michigan Resident Birth File, Michigan Birth Registry, Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services.

Field Level Notes for Form 6:

None

Form 7
State MCH Toll-Free Telephone Line and Other Appropriate Methods Data

State: Michigan

A. State MCH Toll-Free Telephone Lines	2020 Application Year	2018 Annual Report Year
1. State MCH Toll-Free "Hotline" Telephone Number	(844) 875-9211	(844) 875-9211
2. State MCH Toll-Free "Hotline" Name	2-1-1	2-1-1
3. Name of Contact Person for State MCH "Hotline"	Hassan Hammoud	Hassan Hammoud
4. Contact Person's Telephone Number	(517) 664-9811	(517) 664-9811
5. Number of Calls Received on the State MCH "Hotline"		7,484

B. Other Appropriate Methods	2020 Application Year	2018 Annual Report Year
1. Other Toll-Free "Hotline" Names	Family Phone Line	Family Phone Line
2. Number of Calls on Other Toll-Free "Hotlines"		12,895
3. State Title V Program Website Address		
4. Number of Hits to the State Title V Program Website		
5. State Title V Social Media Websites		
6. Number of Hits to the State Title V Program Social Media Websites		

Form Notes for Form 7:

The number of calls received represents the total number of unique MCH contacts by telephone call, text, email or another method. The majority of contacts was via telephone.

Form 8
State MCH and CSHCN Directors Contact Information

State: Michigan

1. Title V Maternal and Child Health (MCH) Director	
Name	Lynette Biery
Title	Director, Bureau of Family Health Services
Address 1	333 South Grand Avenue
Address 2	
City/State/Zip	Lansing / MI / 48933
Telephone	(517) 284-4028
Extension	
Email	BieryL@michigan.gov

2. Title V Children with Special Health Care Needs (CSHCN) Director	
Name	Lonnie Barnett
Title	Director, Children's Special Health Care Services Division
Address 1	320 South Walnut Street
Address 2	
City/State/Zip	Lansing / MI / 48913
Telephone	(517) 241-7186
Extension	
Email	BarnettL@michigan.gov

3. State Family or Youth Leader (Optional)	
Name	Candida Bush
Title	Director, Family Center for CYSHCN
Address 1	320 South Walnut Street
Address 2	
City/State/Zip	Lansing / MI / 48913
Telephone	(517) 241-7197
Extension	
Email	BushC9@michigan.gov

Form Notes for Form 8:

None

Form 9
List of MCH Priority Needs

State: Michigan

Application Year 2020

No.	Priority Need
1.	Reduce barriers, improve access, and increase the availability of health services for all populations
2.	Support coordination and linkage across the perinatal to pediatric continuum of care
3.	Invest in prevention and early intervention strategies
4.	Increase family and provider support and education for Children with Special Health Care Needs
5.	Increase access to and utilization of evidence-based oral health practices and services
6.	Foster safer homes, schools, and environments with a focus on prevention
7.	Promote social and emotional well-being through the provision of behavioral health services

Form 9 State Priorities-Needs Assessment Year - Application Year 2016

No.	Priority Need	Priority Need Type (New, Replaced or Continued Priority Need for this five-year reporting period)	Rationale if priority need does not have a corresponding State or National Performance/Outcome Measure
1.	Reduce barriers, improve access, and increase the availability of health services for all populations	Replaced	
2.	Support coordination and linkage across the perinatal to pediatric continuum of care	Replaced	
3.	Invest in prevention and early intervention strategies, such as screening	Replaced	
4.	Increase family and provider support and education for Children with Special Health Care Needs	Replaced	
5.	Increase access to and utilization of evidence-based oral health practices and services	Replaced	
6.	Foster safer homes, schools, and environments with a focus on prevention	Replaced	Michigan will develop two SPMs to address this priority need in FY2016.
7.	Promote social and emotional well-being through the provision of behavioral health services	New	Michigan will develop a SPM to address this priority need in FY2016.

Form Notes for Form 9:

None

Field Level Notes for Form 9:

None

Form 10
National Outcome Measures (NOMs)

State: Michigan

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

2017	80.4 %	0.1 %	86,882	108,031
2016	79.8 %	0.1 %	87,826	110,125
2015	79.3 %	0.1 %	87,582	110,483
2014	79.0 %	0.1 %	88,386	111,951
2013	76.4 %	0.1 %	84,520	110,574
2012	77.6 %	0.1 %	85,436	110,069
2011	77.9 %	0.1 %	86,398	110,846
2010	77.9 %	0.1 %	86,568	111,150
2009	77.6 %	0.1 %	87,799	113,120

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

2015	138.6	4.1	1,154	83,253
2014	145.1	3.6	1,613	111,152
2013	145.4	3.7	1,605	110,385
2012	147.9	3.7	1,628	110,115
2011	138.5	3.6	1,540	111,183
2010	143.3	3.6	1,599	111,606
2009	137.8	3.5	1,577	114,454
2008	126.6	3.3	1,493	117,905

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

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

State Provided Data	
	2018
Annual Indicator	9.2
Numerator	52
Denominator	568,270
Data Source	Michigan Maternal Mortality Surveillance
Data Source Year	2011-2015

NOM 3 - Notes:

Michigan Maternal Mortality Surveillance program provided the number of pregnancy-related deaths – that is, the death of a woman while pregnant or within 42 days of the end of a pregnancy from any cause related to or aggravated by the pregnancy or its management, not including accidental or incidental causes – over the period 2011 to 2015. The number of deaths from MMMS are roughly half of the HRSA-provided data over the same period, which came from CDC's Pregnancy Mortality Surveillance System. MMMS data provide a more accurate count of pregnancy-related deaths in Michigan than PMSS data.

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

2017	8.8 %	0.1 %	9,793	111,353
2016	8.5 %	0.1 %	9,654	113,232
2015	8.5 %	0.1 %	9,612	113,229
2014	8.4 %	0.1 %	9,545	114,290
2013	8.2 %	0.1 %	9,331	113,396
2012	8.4 %	0.1 %	9,548	112,995
2011	8.3 %	0.1 %	9,508	113,925
2010	8.4 %	0.1 %	9,610	114,413
2009	8.4 %	0.1 %	9,799	117,190

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

2017	10.2 %	0.1 %	11,406	111,386
2016	10.1 %	0.1 %	11,490	113,276
2015	9.9 %	0.1 %	11,200	113,267
2014	9.8 %	0.1 %	11,154	114,335
2013	9.7 %	0.1 %	11,050	113,390
2012	10.1 %	0.1 %	11,409	112,976
2011	10.0 %	0.1 %	11,365	113,901
2010	10.2 %	0.1 %	11,710	114,434
2009	10.1 %	0.1 %	11,856	117,185

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

2017	24.8 %	0.1 %	27,648	111,386
2016	24.3 %	0.1 %	27,478	113,276
2015	23.7 %	0.1 %	26,818	113,267
2014	22.8 %	0.1 %	26,120	114,335
2013	22.9 %	0.1 %	26,006	113,390
2012	23.4 %	0.1 %	26,382	112,976
2011	23.4 %	0.1 %	26,618	113,901
2010	24.0 %	0.1 %	27,507	114,434
2009	24.6 %	0.1 %	28,843	117,185

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

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	1.0 %			
2015/Q3-2016/Q2	1.0 %			
2015/Q2-2016/Q1	1.0 %			
2015/Q1-2015/Q4	1.0 %			
2014/Q4-2015/Q3	2.0 %			
2014/Q3-2015/Q2	2.0 %			
2014/Q2-2015/Q1	2.0 %			
2014/Q1-2014/Q4	3.0 %			
2013/Q4-2014/Q3	3.0 %			
2013/Q3-2014/Q2	3.0 %			
2013/Q2-2014/Q1	3.0 %			

Legends:

Indicator results were based on a shorter time period than required for reporting

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

2016	6.1	0.2	689	113,623
2015	5.8	0.2	654	113,592
2014	5.9	0.2	676	114,656
2013	6.4	0.2	723	113,779
2012	6.4	0.2	727	113,359
2011	6.4	0.2	734	114,331
2010	6.8	0.2	785	114,838
2009	7.1	0.3	832	117,642

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

2016	6.4	0.2	727	113,315
2015	6.5	0.2	739	113,312
2014	6.5	0.2	739	114,375
2013	7.0	0.3	800	113,489
2012	6.9	0.3	784	113,091
2011	6.5	0.2	746	114,008
2010	7.1	0.3	816	114,531
2009	7.6	0.3	892	117,294

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

2016	4.2	0.2	479	113,315
2015	4.2	0.2	476	113,312
2014	4.3	0.2	488	114,375
2013	4.8	0.2	543	113,489
2012	4.8	0.2	540	113,091
2011	4.4	0.2	496	114,008
2010	4.8	0.2	551	114,531
2009	5.2	0.2	606	117,294

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

2016	2.2	0.1	248	113,315
2015	2.3	0.1	263	113,312
2014	2.2	0.1	251	114,375
2013	2.3	0.1	257	113,489
2012	2.2	0.1	244	113,091
2011	2.2	0.1	250	114,008
2010	2.3	0.1	265	114,531
2009	2.4	0.1	286	117,294

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

2016	233.9	14.4	265	113,315
2015	236.5	14.5	268	113,312
2014	248.3	14.8	284	114,375
2013	267.9	15.4	304	113,489
2012	299.8	16.3	339	113,091
2011	264.0	15.2	301	114,008
2010	295.1	16.1	338	114,531
2009	308.6	16.3	362	117,294

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 - Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

2016	94.4	9.1	107	113,315
2015	100.6	9.4	114	113,312
2014	104.0	9.5	119	114,375
2013	107.5	9.7	122	113,489
2012	78.7	8.4	89	113,091
2011	83.3	8.6	95	114,008
2010	89.1	8.8	102	114,531
2009	102.3	9.3	120	117,294

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 - The percent of infants born with fetal alcohol exposure in the last 3 months of pregnancy

Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)

Multi-Year Trend

2015	6.2 %	0.8 %	6,729	107,826
2013	7.1 %	0.8 %	7,783	109,332
2012	6.1 %	0.7 %	6,640	108,444
2011	6.2 %	0.7 %	6,761	109,422
2010	6.8 %	0.8 %	7,511	110,204
2009	7.2 %	0.7 %	8,062	112,665
2008	7.8 %	0.8 %	9,118	116,419
2007	6.8 %	0.7 %	8,160	119,804

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 - The rate of infants born with neonatal abstinence syndrome per 1,000 hospital births

Data Source: HCUP - State Inpatient Databases (SID)

Multi-Year Trend

2016	7.7	0.3	863	111,474
2015	8.3	0.3	696	84,277
2014	7.4	0.3	828	112,305
2013	6.8	0.3	759	111,274
2012	5.5	0.2	609	110,704
2011	5.0	0.2	557	111,639
2010	3.6	0.2	403	112,371
2009	2.9	0.2	334	115,268
2008	2.0	0.1	241	118,761

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

2016_2017	8.1 %	0.9 %	170,205	2,108,084
2016	10.4 %	1.3 %	218,950	2,112,940

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

2017	17.9	1.3	188	1,049,560
2016	20.1	1.4	212	1,052,423
2015	18.0	1.3	190	1,055,961
2014	15.6	1.2	166	1,063,261
2013	15.7	1.2	169	1,074,265
2012	18.6	1.3	202	1,084,513
2011	16.5	1.2	181	1,094,617
2010	16.7	1.2	187	1,119,319
2009	19.1	1.3	216	1,130,341

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

2017	33.5	1.6	430	1,283,533
2016	35.6	1.7	461	1,293,264
2015	34.6	1.6	451	1,305,161
2014	31.1	1.5	411	1,320,994
2013	31.6	1.5	423	1,337,140
2012	35.8	1.6	486	1,356,278
2011	35.3	1.6	488	1,382,472
2010	35.3	1.6	500	1,414,815
2009	35.6	1.6	512	1,436,495

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

2015_2017	10.5	0.7	209	1,999,968
2014_2016	11.7	0.8	235	2,015,261
2013_2015	10.6	0.7	216	2,032,680
2012_2014	10.6	0.7	218	2,059,137
2011_2013	11.7	0.8	245	2,097,639
2010_2012	13.2	0.8	283	2,151,744
2009_2011	13.9	0.8	306	2,207,213
2008_2010	12.9	0.8	291	2,253,754
2007_2009	14.6	0.8	333	2,280,096

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

2015_2017	12.4	0.8	248	1,999,968
2014_2016	11.0	0.7	221	2,015,261
2013_2015	10.5	0.7	213	2,032,680
2012_2014	10.3	0.7	213	2,059,137
2011_2013	9.9	0.7	207	2,097,639
2010_2012	9.7	0.7	208	2,151,744
2009_2011	8.8	0.6	195	2,207,213
2008_2010	8.3	0.6	188	2,253,754
2007_2009	7.3	0.6	167	2,280,096

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

2016_2017	20.5 %	1.6 %	448,832	2,192,727
2016	20.2 %	1.6 %	444,614	2,199,932

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

2016_2017	17.2 %	3.0 %	77,383	448,832
2016	17.8 %	3.7 %	79,079	444,614

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

2016_2017	2.8 %	0.8 %	52,901	1,858,721
2016	2.4 %	0.5 %	43,444	1,841,205

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

2016_2017	10.2 %	1.4 %	188,503	1,845,607
2016	9.9 %	1.2 %	180,655	1,832,465

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

2016_2017	55.4 %	5.9 %	134,110	242,058
2016	65.3 %	5.7 %	143,720	220,148

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

2016_2017	91.4 %	1.2 %	1,994,495	2,182,883
2016	93.2 %	1.0 %	2,044,871	2,193,776

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

2014	13.4 %	0.1 %	11,553	86,139
2012	13.9 %	0.1 %	12,787	91,932
2010	14.4 %	0.1 %	12,273	85,293
2008	14.3 %	0.1 %	12,268	85,493

Legends:

Indicator has a denominator <50 or a relative standard error ≥30% and is not reportable

Indicator has a confidence interval width >20% and should be interpreted with caution

Data Source: Youth Risk Behavior Surveillance System (YRBSS)

Multi-Year Trend

2017	16.7 %	2.0 %	68,699	410,229
2015	14.2 %	0.9 %	59,233	416,489
2013	13.2 %	0.9 %	57,012	431,311
2011	12.0 %	0.8 %	59,082	491,966
2009	12.0 %	0.7 %	56,629	472,367
2007	12.3 %	1.0 %	60,114	487,053
2005	12.0 %	1.1 %	59,303	492,176

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

2016_2017	17.3 %	2.4 %	156,793	904,564
2016	13.9 %	2.2 %	123,218	887,288

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

2017	2.8 %	0.2 %	61,529	2,171,692
2016	2.9 %	0.2 %	63,999	2,185,729
2015	3.3 %	0.2 %	71,886	2,205,601
2014	3.7 %	0.2 %	81,249	2,218,195
2013	4.2 %	0.3 %	94,466	2,241,806
2012	4.3 %	0.2 %	96,150	2,264,117
2011	3.9 %	0.3 %	88,603	2,287,224
2010	4.2 %	0.3 %	98,185	2,333,517
2009	4.4 %	0.2 %	101,999	2,347,431

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, ages 19 through 35 months, who completed the combined 7-vaccine series (4:3:1:3*:3:1:4)

Data Source: National Immunization Survey (NIS)

Multi-Year Trend

2017	69.9 %	3.8 %	113,675	162,701
2016	70.2 %	3.9 %	114,209	162,645
2015	67.6 %	3.7 %	109,543	162,007
2014	65.0 %	4.4 %	105,178	161,836
2013	70.0 %	3.8 %	114,033	162,940
2012	70.5 %	3.7 %	114,503	162,484
2011	66.2 %	3.9 %	110,115	166,313
2010	65.2 %	3.5 %	111,999	171,698
2009	52.1 %	3.8 %	97,818	187,622

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 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

2017_2018	54.0 %	1.8 %	1,106,263	2,049,234
2016_2017	55.7 %	2.7 %	1,160,747	2,083,553
2015_2016	55.5 %	2.2 %	1,175,624	2,118,242
2014_2015	52.6 %	2.0 %	1,128,562	2,144,332
2013_2014	54.5 %	2.1 %	1,173,013	2,151,267
2012_2013	50.5 %	2.1 %	1,104,144	2,185,520
2011_2012	45.5 %	2.1 %	1,012,029	2,222,082
2010_2011	45.9 %	2.2 %	1,021,330	2,225,120
2009_2010	37.1 %	2.3 %	888,940	2,396,064

Legends:

- Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6
- 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

2017	67.3 %	3.1 %	434,131	644,686
2016	61.3 %	3.5 %	400,347	653,090
2015	59.8 %	3.1 %	395,586	661,834

Legends:

- Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6
- Estimates with 95% confidence interval half-widths > 10 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

2017	93.4 %	1.7 %	602,005	644,686
2016	93.6 %	1.7 %	611,119	653,090
2015	74.0 %	2.8 %	489,955	661,834
2014	79.3 %	2.8 %	530,881	669,523
2013	81.0 %	2.7 %	545,205	672,858
2012	84.2 %	2.4 %	572,289	679,895
2011	71.0 %	3.3 %	489,318	689,393
2010	66.2 %	3.2 %	462,403	698,032
2009	46.2 %	2.8 %	333,108	720,421

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 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

2017	93.5 %	1.7 %	602,651	644,686
2016	95.0 %	1.3 %	620,674	653,090
2015	95.0 %	1.3 %	629,015	661,834
2014	90.7 %	2.0 %	607,555	669,523
2013	90.7 %	2.0 %	610,110	672,858
2012	87.5 %	2.1 %	594,639	679,895
2011	77.9 %	3.0 %	537,339	689,393
2010	70.9 %	3.1 %	494,777	698,032
2009	52.6 %	2.8 %	378,858	720,421

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 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

2017	16.4	0.2	5,307	323,738
2016	17.7	0.2	5,792	326,851
2015	19.4	0.2	6,356	328,084
2014	21.1	0.3	6,967	330,522
2013	23.5	0.3	7,872	334,483
2012	26.2	0.3	8,913	340,348
2011	27.8	0.3	9,658	347,543
2010	30.3	0.3	10,835	357,400
2009	31.9	0.3	11,709	366,494

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

2017	12.9 %	1.0 %	13,526	104,743
2016	14.3 %	1.0 %	15,290	106,820
2015	14.1 %	1.1 %	14,980	106,503
2013	13.3 %	1.1 %	14,486	108,565
2012	13.8 %	1.1 %	14,895	108,047

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 not able to obtain needed health care in the last year

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

2016_2017	1.9 %	0.4 %	42,521	2,185,942
2016	2.4 %	0.6 %	52,234	2,197,678

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: Michigan

NPM 1 - Percent of women, ages 18 through 44, with a preventive medical visit in the past year

Federally Available Data			
Data Source: Behavioral Risk Factor Surveillance System (BRFSS)			
	2016	2017	2018
Annual Objective	74.6	77.2	72.7
Annual Indicator	69.0	68.2	69.1
Numerator	1,141,612	1,123,599	1,142,535
Denominator	1,654,185	1,648,059	1,652,472
Data Source	BRFSS	BRFSS	BRFSS
Data Source Year	2015	2016	2017

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	74.0	75.2	76.4	77.6	78.7	79.8

Field Level Notes for Form 10 NPMs:

None

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			
	2016	2017	2018
Annual Objective	89.4	90.1	90.1
Annual Indicator	89.2	88.9	86.7
Numerator	1,547	1,511	1,462
Denominator	1,735	1,699	1,687
Data Source	2015 Michigan Resident Live Birth File	2016 Michigan Resident Live Birth File	2017 Michigan Resident Live Birth File
Data Source Year	2015	2016	2017
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	91.5	92.1	92.7	93.2	93.7	94.1

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)			
	2016	2017	2018
Annual Objective	79.1	79.7	80.5
Annual Indicator	80.8	75.9	77.7
Numerator	82,892	86,976	88,168
Denominator	102,591	114,556	113,401
Data Source	NIS	NIS	NIS
Data Source Year	2013	2014	2015

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	81.2	81.8	82.4	83.0	83.6	84.2

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)			
	2016	2017	2018
Annual Objective	20.6	21.5	31.1
Annual Indicator	26.6	22.6	23.9
Numerator	25,900	25,415	25,921
Denominator	97,537	112,351	108,464
Data Source	NIS	NIS	NIS
Data Source Year	2013	2014	2015

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	32.9	34.7	36.5	38.3	40.2	42.0

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
Annual Objective		
Annual Indicator	81.4	83.3
Numerator	86,585	87,247
Denominator	106,318	104,718
Data Source	PRAMS	PRAMS
Data Source Year	2015	2017

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	87.6	89.0	90.5	91.9	93.3	94.7

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
Annual Objective	
Annual Indicator	39.2
Numerator	39,142
Denominator	99,861
Data Source	PRAMS
Data Source Year	2017

State Provided Data		
	2017	**2018**
Annual Objective		
Annual Indicator	74.7	34
Numerator	77,520	34,751
Denominator	103,790	102,182
Data Source	PRAMS	PRAMS
Data Source Year	2015	2016
Provisional or Final ?	Final	Final

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	35.7	37.5	39.4	41.3	43.4	45.6

Field Level Notes for Form 10 NPMs:

1.	Field Name:	2018
	Column Name:	**State Provided Data**

Field Note:

Weighted numbers were used to represent the general population.

All PRAMS states began asking different safe sleep questions in 2016. In prior years this measure was based on only two sleep risk factors - does the infant sleep in his or her own crib, and does the infant sleep with other people. Starting in 2016 this measure is now based on a combination of 5 different sleep risk factors (always or often sleeps alone in own bed; in a crib, bassinet or pack and play; does not sleep on a twin or larger mattress; does not sleep on couches, sofas, armchairs; does not sleep in a car set or swing). Asking about whether infants sleep in a car seat or swing - a new question - has had an especially large impact on this measure. The proportion of Michigan mothers meeting this goal is lower than in prior years, but the measurement now provides a more comprehensive picture of infant safe sleep.

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
Annual Objective	
Annual Indicator	58.3
Numerator	58,277
Denominator	99,994
Data Source	PRAMS
Data Source Year	2017

State Provided Data		
	2017	**2018**
Annual Objective		
Annual Indicator	74.6	51.8
Numerator	78,063	52,803
Denominator	104,629	101,994
Data Source	PRAMS	PRAMS
Data Source Year	2015	2016
Provisional or Final ?	Final	Final

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	54.4	57.1	60.0	63.0	66.1	69.4

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
HRSA is using variables from the 2016 PRAMS survey which differ from the infant sleep environment variables on previous versions of the questionnaire. Michigan does not yet have 2016 data, so the closest approximation to the 2016 variables was used.

2.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**

Field Note:
Weighted numbers were used to represent the general population.
All PRAMS states began asking different safe sleep questions in 2016. In prior years this measure was based on whether or not the infant often slept with any of four different sleep space objects (soft or plush blankets, pillows, stuffed toys, bumper pads). Starting in 2016 this measure is now based on a combination of 3 different sleep space items (blankets, toys or pillows, bumper pads). Due to changes in the wording of the blanket question [any blanket vs only plush or thick blankets], many more mothers now report that their infants have at least one soft item in the sleep space. Although the number here differs from the number reported in the past, in 2016 Michigan had the highest proportion of mothers reporting that their infants do not sleep with soft objects (compared to 28 other PRAMS states reporting this data).

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)			
	2016	2017	2018
Annual Objective			82.6
Annual Indicator		81.0	81.3
Numerator		633,720	618,502
Denominator		782,076	760,429
Data Source		NSCH	NSCH
Data Source Year		2016	2016_2017

Historical NSCH data that was pre-populated under the 2016 Annual Report Year is no longer displayed, since it cannot be compared to the new NSCH survey data under the 2017 Annual Report Year.

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	83.5	84.3	85.1	86.0	86.8	87.7

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 necessary to make transitions to adult health care - Children with Special Health Care Needs

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH) - CSHCN			
	2016	**2017**	**2018**
Annual Objective			17
Annual Indicator		16.7	16.0
Numerator		32,776	34,325
Denominator		196,702	215,008
Data Source		NSCH-CSHCN	NSCH-CSHCN
Data Source Year		2016	2016_2017

Historical NSCH data that was pre-populated under the 2016 Annual Report Year is no longer displayed, since it cannot be compared to the new NSCH survey data under the 2017 Annual Report Year.

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	17.2	17.4	17.6	17.7	17.9	18.1

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)			
	2016	2017	2018
Annual Objective	55.1	56.2	56.4
Annual Indicator	50.3	53.6	49.8
Numerator	54,731	57,883	53,356
Denominator	108,763	108,083	107,079
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2013	2015	2017

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	57.4	58.5	59.6	60.6	61.7	62.7

Field Level Notes for Form 10 NPMs:

None

NPM 13.2 - Percent of children, ages 1 through 17, who had a preventive dental visit in the past year - Child Health

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH)			
	2016	**2017**	**2018**
Annual Objective			77.6
Annual Indicator		76.1	77.9
Numerator		1,584,320	1,629,730
Denominator		2,082,991	2,092,116
Data Source		NSCH	NSCH
Data Source Year		2016	2016_2017

Historical NSCH data that was pre-populated under the 2016 Annual Report Year is no longer displayed, since it cannot be compared to the new NSCH survey data under the 2017 Annual Report Year.

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	78.4	79.2	80.0	80.8	81.6	82.4

Field Level Notes for Form 10 NPMs:

None

Form 10
State Performance Measures (SPMs)

State: Michigan

SPM 1 - Percent of children less than 72 months of age who receive a venous lead confirmation testing within 30 days of an initial positive capillary test

Measure Status:	Active

State Provided Data

	2016	2017	2018
Annual Objective		22.1	24.6
Annual Indicator	23.6	25	43.4
Numerator	1,208	1,048	1,308
Denominator	5,116	4,190	3,017
Data Source	MDHHS Data Warehouse	MDHHS Data Warehouse	MDHHS Data Warehouse
Data Source Year	2016	2017	2018
Provisional or Final ?	Provisional	Provisional	Provisional

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	27.1	29.6	32.1	34.6	37.1	50.0

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**

Field Note:
DATA REPORTED SHOULD BE CONSIDERED PROVISIONAL: data collection for the last quarter of 2016 (October – December 2016) and 2017 are incomplete, and subject to change. Blood lead test results from 1/1/2014 to 2/13/2017 were downloaded from the DW on 2/22/17, and data for CY 2016 plus 30 days (1/1/2016-1/31/2017) were extracted for this report. The numerator was calculated as the number of Child_IDs with at least one capillary or unknown type test >= 5 ug/dL from 1/1/2016-12/31/2016 followed by a venous blood test within 30 days from 1/1/2016 to 1/31/2017. The denominator was all Child_IDs with a capillary or unknown type test > 5 ug/dL from 1/1/2016 to 12/31/2016.

2.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
Results reported are for initial elevated capillary blood tests conducted in CY 2017 (Jan. 1 2017 – Dec. 31 2017) with confirmatory testing completed before Feb 2, 2018. DATA REPORTED SHOULD BE CONSIDERED PROVISIONAL: data collection for FY2017 are incomplete, and subject to change. Blood lead test results were downloaded from the MDHHS Data Warehouse on 2/2/2018. The numerator was calculated as the number of children under 72 months with at least one capillary or unknown type test ≥ 5 µg/dL from 1/1/2017 to 12/31/2017 followed by a venous blood test within 30 days. The denominator was all children under 72 months with a capillary or unknown type test ≥ 5 µg/dL from 1/1/2017 to 12/31/2017.

3.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**

Field Note:
Results reported are for initial elevated capillary blood tests conducted in CY 2018 (January 1, 2018 - December 31, 2018) with confirmatory testing completed before February 2, 2019.

DATA REPORTED SHOULD BE CONSIDERED PROVISIONAL: data collection for the last quarter of 2018 (October – December 2018) are incomplete, and subject to change. Blood lead test results were downloaded from the MDHHS Data Warehouse on 2/08/2019. The numerator was calculated as the number of children under 72 months with at least one capillary or unknown type test ≥ 5 µg/dL (> 4.5 µg/dL – Michigan began storing test results as unrounded numbers in 2017: this number was chosen maintain consistency in identifying elevated levels with past years when blood lead test results were rounded to the nearest whole number) from 01/1/2018 to 12/31/2018 followed by a venous blood test within 30 days. The denominator was all children under 72 months with a capillary or unknown type test ≥ 4.5 from 01/01/2018 to 12/31/2018.

NOTE: There have been significant improvements in the algorithm used by the MDHHS Data Warehouse to assign unique identifiers to individual children, which has corrected instances wh

SPM 4 - Percent of children with special health care needs enrolled in CSHCS that receive timely medical care and treatment without difficulty

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		89.9	90.9
Annual Indicator	88.1	89.1	88.9
Numerator	14,253,020	20,556,206	14,678,590
Denominator	16,176,800	23,074,740	16,507,392
Data Source	CAHPS	CAHPS	CAHPS
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	91.9	92.9	93.9	94.9	95.9	96.9

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**

Field Note:
The CSHCS Program intended for this measure to reflect the average of the marginal probabilities, as opposed to the joint probability of the two specified questions. Therefore, in order to provide a numerator and denominator, the individual fractions were converted using the following formula: ((A*2D) + (C*2B)) / (2B*2D) where:

"In the last 6 months, how often did you get an appointment for your child to see a specialist as soon as you needed?"
A: Number who reported "usually" or "always"
B: Number of respondents who answered this question

"In the last 6 months, how often was it easy to get the care, tests, or treatment your child needed?"
C: Number who reported "usually" or "always"
D: Number of respondents who answered this question

2.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
Question 2 reads: "In the last 6 months, when your child needed care right away, how often did your child get care as soon as he or she needed?" The CSHCS Program intended this measure to reflect the average of the marginal probabilities, as opposed to the joint probability of the two specified questions. Therefore, in order to provide a numerator and denominator, the individual fractions were converted using the following formula: ((A*2D) + (C*2B)) / (2B*2D) where: "In the last 6 months, how often did you get an appointment for your child to see a specialist as soon as you needed?" A: Number who reported "usually" or "always" (2768) B: Number of respondents who answered this question (3287) "In the last 6 months, how often was it easy to get the care, tests, or treatment your child needed?" C: Number who reported "usually" or "always" (1649) D: Number of respondents who answered this question (1755).

3.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**

Field Note:
Question 2 reads: "In the last 6 months, when your child needed care right away, how often did your child get care as soon as he or she needed?" The CSHCS Program intended for this measure to reflect the average of the marginal probabilities, as opposed to the joint probability of the two specified questions. Therefore, in order to provide a numerator and denominator, the individual fractions were converted using the following formula: ((A*2D) + (C*2B)) / (2B*2D) where: "In the last 6 months, how often did you get an appointment for your child to see a specialist as soon as you needed?" A: Number who reported "usually" or "always" (2,471) B: Number of respondents who answered this question (2,931) "In the last 6 months, how often was it easy to get the care, tests, or treatment your child needed?" C: Number who reported "usually" or "always" (1,317) D: Number of respondents who answered this question (1,408)

SPM 5 - Percent of children 19 to 36 months of age who have received a completed series of recommended vaccines (4313314 series)

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		76	77
Annual Indicator	74.7	75	74.1
Numerator	125,343	125,853	123,596
Denominator	167,778	167,842	166,746
Data Source	Michigan Care Improvement Registry	Michigan Care Improvement Registry	Michigan Care Improvement Registry
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	75.0	76.0	77.0	78.0	79.0	80.0

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**
	Field Note: Completion rate will be measured at the end of the year.	
2.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**
	Field Note: The Immunization rates have remained static for children 19-35 months of age in the last fiscal year.	
3.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: The immunization rates are dropping for children 19-36 months over the past year.	

SPM 6 - Percent of adolescents 13 to 18 years of age who have received a completed series Human Papilloma Virus vaccine

Measure Status:	Active

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	44.0	46.0	48.0	50.0	52.0	54.0

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
2018 Data Reporting is Available, as follows:
Annual Indicator: 42%
Numerator: 313,144
Denominator: 746,563
Data Source: MCIR
Data Source Year: 2018 (Final)

Adolescent HPV vaccination rates continue to increase in Michigan.

Form 10
Evidence-Based or –Informed Strategy Measures (ESMs)

State: Michigan

ESM 1.1 - Percent of women aged 18-44 who have ever discussed reproductive life planning during a visit with a doctor, nurse, or other health professional

Measure Status:	Active

State Provided Data

	2016	2017	2018
Annual Objective		61.3	62.3
Annual Indicator	60.3	64.3	66.2
Numerator	846,111	914,885	936,099
Denominator	1,404,213	1,423,068	1,413,029
Data Source	Michigan Behavioral Risk Factor Surveillance Syste	Michigan Behavioral Risk Factor Surveillance Syste	Michigan Behavioral Risk Factor Surveillance Syste
Data Source Year	2015	2016	2017
Provisional or Final ?	Final	Final	Final

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	63.3	64.3	65.3	66.3	67.3	68.3

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
The reproductive life planning variable that will be used to quantify the identified strategy measure was a state-added question to the Michigan BRFS starting in 2015

2.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**

Field Note:
The reproductive life planning variable that will be used to quantify the identified strategy measure was and continues to be a state-added question to the Michigan BRFS starting in 2015.

ESM 3.1 - Number of CenteringPregnancy sites in Michigan

Measure Status:	Active

State Provided Data

	2016	2017	2018
Annual Objective		12	12
Annual Indicator	14	12	14
Numerator			
Denominator			
Data Source	Centering Health Institute	Centering Health Institute	Centering Healthcare Institute
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	12.0	12.0	12.0	16.0	16.0	16.0

Field Level Notes for Form 10 ESMs:

1. **Field Name:** **2016**

   Column Name: **State Provided Data**

   Field Note:
   *CHI=Centering Health Institute; Of the 14 CenteringPregnancy sites in Michigan, 5 are CHI approved sites.

2. **Field Name:** **2018**

   Column Name: **State Provided Data**

   Field Note:
   *CHI = Centering Healthcare Institute; Of the 14 CenteringPregnancy sites in Michigan, 7 are CHI accredited sites.

ESM 4.1 - Percent of Baby-Friendly designated birthing hospitals in Michigan

Measure Status:	Active

State Provided Data

	2016	2017	2018
Annual Objective		17	20
Annual Indicator	14.3	14.5	19.5
Numerator	12	12	16
Denominator	84	83	82
Data Source	Baby-Friendly USA, Inc.	Baby-Friendly USA, Inc.	Baby-Friendly USA, Inc.
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	23.0	26.0	29.0	31.0	33.0	35.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**
	Field Note: FY2016 Annual Indicator was used as a baseline measure to create Annual Objectives, including FY2016.	
2.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: One birthing hospital closed which decreased # of hospitals from 83 to 82. Sparrow (Carson City) closed in 2018.	

ESM 5.1 - Number of birthing hospitals trained on infant safe sleep

Measure Status:	Active

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	8.0	16.0	24.0	32.0	40.0	48.0

Field Level Notes for Form 10 ESMs:

1. **Field Name:** **2019**

Column Name: **Annual Objective**

Field Note:
ESM established to begin implementation in FY 2019. Therefore, these data sets were not collected in FY 2018 as they were newly established measures.

Annual objectives based on Infant Safe Sleep staff providing training to 8 birthing hospitals per year.

ESM 5.2 - Number of Maternal Infant Health Program (MIHP) agencies that have staff trained to use motivational interviewing with safe sleep

Measure Status:	Active

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	85.0	90.0	95.0	105.0	110.0	105.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
ESM established to begin implementation in FY2019. Annual objectives based on current number of 110 MIHP agencies in 2018. This number could fluctuate (increase or decrease) with changes in the total number of MIHP agencies. Annual objectives reflect cumulative number of MIHP agencies.

ESM 10.1 - Of the health care providers who complete the Motivational Interviewing web course and the Motivational Interviewing professional development training, the percent who report skills in effectively counseling youth on changing risky behaviors

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		93	95
Annual Indicator	87.5	93.3	96.4
Numerator	7	28	27
Denominator	8	30	28
Data Source	MDHHS Participant Assessment Tool	Evaluation tool / SurveyMonkey	Evaluation tool / SurveyMonkey
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	95.0	98.0	98.0	98.0	98.0	96.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**

Field Note:
In 2016, there were technical issues with the data collection process related to this ESM. Only eight of the 35 Motivational Interviewing Training participants completed an assessment. Efforts are now in place to improve data collection.

2.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
MDHHS offered two in-person MI trainings, reaching 43 providers (30 completed evaluation).

3.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**

Field Note:
MDHHS offered two in-person MI trainings, reaching 42 providers (28 completed evaluation).

ESM 12.2 - Percent of CSHCS clients age 18 to 21 years in selected diagnosis groups that have transferred care from a pediatric to an adult provider

Measure Status:	Active

State Provided Data

	2017	2018
Annual Objective	40	43
Annual Indicator	52.5	49.9
Numerator	1,705	1,725
Denominator	3,246	3,459
Data Source	CSHCS database, Medicaid Claims, UM Provider Datab	CSHCS database, Medicaid Claims, UM Provider Datab
Data Source Year	2016	2017
Provisional or Final ?	Provisional	Provisional

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	46.0	49.0	52.0	55.0	58.0	61.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
The ESM combines three separate data sources: 1) the CSHCS database; 2) the CHAMPS (Medicaid Claims) database; and 3) University of Michigan provider database. These three databases provide information on CSHCS clients, and the providers they see.

Percent of children enrolled in CSHCS within a selected diagnosis groups who had an outpatient visit with adult specialists only, based on administrative claims. The selected diagnosis groups included: cardiology, endocrinology, gastroenterology, hematology-oncology, nephrology, neurology, pulmonology and rheumatology.

2.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**

Field Note:
The ESM combines three separate data sources: 1) CSHCS database, 2) CHAMP (Medicaid claims) database; and 3) University of Michigan provider database. These three databases provide information on CSHCS clients and the providers they see.

In FY 2017, 49.9% of CSHCS clients ages 18-20 in selected diagnosis groups had outpatient visits only with adult specialists, based on administrative claims. The selected diagnosis groups were cardiology, endocrinology, gastroenterology, hematology-oncology, nephrology, neurology, pulmonology and rheumatology.

ESM 13.1.1 - Number of medical and dental professionals who receive perinatal oral health education through MDHHS

Measure Status:	Active

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	390.0	410.0	430.0	450.0	470.0	490.0

Field Level Notes for Form 10 ESMs:

1. **Field Name:** **2019**

   Column Name: **Annual Objective**

   Field Note:
   This ESM was newly established in 2018 to align with NPM 13.1. Therefore, there is no column for reporting 2018 data.

   In FY2018, 648 medical and dental professional received perinatal oral health education through MDHHS.

   FY 2018 exceeded expectations regarding Provider education. This was due to the continued addition of different educational activities across the state.

ESM 13.2.1 - Number of students who have received a preventive dental screening through the SEAL! Michigan program

Measure Status:	Active

State Provided Data

	2016	2017	2018
Annual Objective		5,927	6,127
Annual Indicator	8,039	6,677	6,964
Numerator			
Denominator			
Data Source	SEAL Michigan Annual All Grantee Report	SEAL MI 2017 All Grantees Data Report	SEAL MI 2018 All Grantees Data Report
Data Source Year	2016	2017	2018
Provisional or Final ?	Provisional	Final	Final

Annual Objectives

	2019	2020	2021	2022	2023	2024
Annual Objective	6,327.0	6,527.0	6,727.0	6,927.0	6,927.0	7,127.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**
	Field Note: Number was higher due to additional funding allocated to program, which created new programs. Funding may or may not continue in future years.	
2.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**
	Field Note: Goal was achieved, this is likely due to the additional funding under Title V.	
3.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: Goal was exceeded, likely due to funding opportunities that supported program expansion.	

Form 10
State Performance Measure (SPM) Detail Sheets

State: Michigan

SPM 1 - Percent of children less than 72 months of age who receive a venous lead confirmation testing within 30 days of an initial positive capillary test
Population Domain(s) – Child Health

Measure Status:	Active
Goal:	To reduce the number of young children in Michigan with an unconfirmed elevated blood lead level
Definition:	**Numerator:** Number of children 0-71 months of age who received a venous blood lead test within 30 days of an initial capillary or unknown test result of greater than or equal to 5 µg/dL **Denominator:** Number of children 0-71 months of age with an initial capillary or unknown test result of greater than or equal to 5 µg/dL **Unit Type:** Percentage **Unit Number:** 100
Healthy People 2020 Objective:	EH-8: Reduce blood levels in children
Data Sources and Data Issues:	These data are provided by the Michigan Department of Health and Human Services (MDHHS) Childhood Lead Poisoning Prevention Program (CLPPP). Some blood lead levels are reported to CLPPP as decimal values, but currently all are recorded in the data warehouse as integers (decimals are rounded up at ≥0.5).
Significance:	Exposure to lead, which can enter the body through ingestion or inhalation, can result in negative health effects. Children less than six are vulnerable to the effects of lead poisoning, especially at younger ages when they are likely to put contaminated hands and items (such as toys) into their mouths. Exposure to high levels of lead can result in brain damage and even death in extreme cases. Low levels of lead in the body have been shown to affect IQ, the ability to pay attention, and academic achievement. Capillary blood lead tests are considered to be screening tests, and are prone to false positives. It is important to obtain a confirmatory venous test before interventions are initiated.

SPM 4 - Percent of children with special health care needs enrolled in CSHCS that receive timely medical care and treatment without difficulty
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active
Goal:	To reduce the proportion of CYSHCN who are unable to obtain, or are delayed in obtaining, necessary medical care.
Definition:	**Numerator:** The combined score of respondents who reported they usually or always got an appointment for their child to see a specialist as soon as needed and it was easy to get the care, tests, or treatment their child needed in the past 6 months **Denominator:** Number of questions contributing to the numerator **Unit Type:** Percentage **Unit Number:** 100
Healthy People 2020 Objective:	AHS-6: Access to Health Services: Reduce the proportion of persons who are unable to obtain or delay in obtaining necessary medical care, dental care, or prescription medicines.
Data Sources and Data Issues:	Consumer Assessment of Healthcare Providers and Systems (CAHPS) – Children with chronic conditions custom survey. Challenges with the data include the following: the survey is conducted bi-annually; limited number of respondents when controlled for certain demographic factors.
Significance:	This measure is significant because it provides insight into parents'/caretakers' assessment of their ability to get needed care for their child with special needs. The numerator for the measure is determined by taking the average score from two questions of the CAHPS survey: "In the last 6 months, how often did you get an appointment for your child to see a specialist as soon as you needed?" and "In the last 6 months, how often was it easy to get the care, tests, or treatment your child needed?" Questions are scored by calculating the percentage of respondents that answer "Usually" or "Always."

SPM 5 - Percent of children 19 to 36 months of age who have received a completed series of recommended vaccines (4313314 series)
Population Domain(s) – Child Health

Measure Status:	Active
Goal:	To increase the percent of all children 19 to 36 months of age to have a completed immunization series for all vaccines recommended by the Advisory Committee on Immunization Practices to 80%.
Definition:	**Numerator:** Number of 19-36 month old children who have a completed 4313314 series. **Denominator:** Population of 19-36 month old children **Unit Type:** Percentage **Unit Number:** 100
Healthy People 2020 Objective:	80% of children aged 19 to 35 months who receive the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella and pneumococcal conjugate vaccine (PCV).
Data Sources and Data Issues:	Data will be obtained from the Michigan Care Improvement Registry (MCIR). Since 1998, Michigan has operated the MCIR to collect all immunizations administered to individuals less than 20 years of age and born after December 31, 1993. MCIR has become a robust immunization tool used by immunization providers to assure that all children are vaccinated according to the ACIP schedules. Tracking immunizations in the MCIR help immunization providers forecast for needed doses of vaccine and at the same time prevent over-vaccination of individuals due to poor record-keeping or moving from one provider to another.
Significance:	Children die or are hospitalized every year from vaccine preventable diseases. These are avoidable outcomes if we can assure that all children have received all recommended vaccines based on the schedule recommended by the ACIP. Note: This was formerly a two-part measure. As of 2018, the second part of this measure (Percent of adolescents age 13-18 who have received a completed HPV vaccine series) is included in a separate SPM.

SPM 6 - Percent of adolescents 13 to 18 years of age who have received a completed series Human Papilloma Virus vaccine
Population Domain(s) – Adolescent Health

Measure Status:	Active
Goal:	To increase the HPV coverage rate by 30% by the year 2020.
Definition:	**Numerator:** Number of 13 to 18 year old adolescents in the MCIR who have a completed the HPV 3 dose series **Denominator:** Population of 13 to 18 year old adolescents in MCIR **Unit Type:** Percentage **Unit Number:** 100
Healthy People 2020 Objective:	80% of adolescents 13-15 years of age to receive 3 doses of HPV vaccine
Data Sources and Data Issues:	Data will be obtained from the Michigan Care Improvement Registry (MCIR). MCIR is a population-based registry. Since 1998, Michigan has operated the MCIR to collect all immunizations administered to individuals less than 20 years of age and born after December 31, 1993. MCIR has become a robust immunization tool used by immunization providers to assure that all children are vaccinated according to the ACIP schedules. Tracking immunizations in the MCIR helps immunization providers forecast for needed doses of vaccine and simultaneously prevent over-vaccination of individuals due to poor record-keeping or moving from one provider to another.
Significance:	HPV is a safe and effective vaccine. It is estimated that 79 million Americans are currently infected with HPV. Every year in the United States, 27,000 people are diagnosed with cancer caused by HPV in both females and males. In 2011, over 11,000 newly diagnosed cases of cervical cancer in women and 4,000 attributable deaths occurred. Routine vaccination will prevent over 90% of cases of cervical cancer. Data from other countries have shown that obtaining at least a 50% coverage level has decreased the prevalence of HPV by at least 68%.

Form 10
State Outcome Measure (SOM) Detail Sheets

State: Michigan

No State Outcome Measures were created by the State.

Form 10
Evidence-Based or –Informed Strategy Measures (ESM) Detail Sheets

State: Michigan

ESM 1.1 - Percent of women aged 18-44 who have ever discussed reproductive life planning during a visit with a doctor, nurse, or other health professional
NPM 1 – Percent of women, ages 18 through 44, with a preventive medical visit in the past year

Measure Status:	Active
Goal:	Increase the number of women 18-44 who have contraceptive and other reproductive health needs identified; increase the number of intended pregnancies; and ultimately lead to a reduction in adverse pregnancy-related outcomes
Definition:	**Numerator:** Number of female respondents aged 18-44 who indicated 'Yes' to having ever discussed pregnancy planning or prevention during a visit with a doctor, nurse, or other health professional **Denominator:** Total number of female respondents aged 18-44 who indicated 'Yes,' or 'No' **Unit Type:** Percentage **Unit Number:** 100
Data Sources and Data Issues:	Data source will be the Michigan Behavioral Risk Factor Survey (BRFS). The reproductive life planning variable that will be used to quantify the identified strategy measure was a state-added question to the Michigan BRFS starting in 2015. The Centers for Disease Control and Prevention is currently in the process of weighting Michigan's 2015 BRFS data. The final weighted data file will not be available until August 2016. Once available, the proportion of female respondents aged 18-44 who indicated 'Yes' to having ever discussed pregnancy planning or prevention during a visit with a doctor, nurse, or other health professional will be used as a baseline and annual targets will be developed for subsequent years. NOTE: Until the BRFS variable and baseline data are available, PRAMS data were used as a proxy measure to set annual objectives. Once available, BRFS baseline data will be used to revise the proxy annual objectives.
Significance:	Reproductive life planning provides an opportunity for providers to assess patients' personal goals about pregnancy planning or prevention, opening the door for providers to educate patients on how their reproductive life plan impacts their contraceptive and other reproductive health decision-making, and actively involving patients in developing personal strategies to enhance their reproductive health and wellness (e.g., selecting a contraceptive method that fits well with their life circumstances). Reproductive life planning has the potential to reduce unintended pregnancies, increase the use of highly effective contraception, increase the number of adequately spaced births, and foster healthy pregnancy-related outcomes for mom and baby. The Centers for Disease Control and Prevention and the Office of Population Affairs recognize reproductive life planning as a component of quality family planning services, a national standard of care.

ESM 3.1 - Number of CenteringPregnancy sites in Michigan
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:	Support and maintain the existing CenteringPregnancy sites in Michigan
Definition:	**Numerator:** N/A – This is a count measure **Denominator:** N/A – This is a count measure **Unit Type:** Count **Unit Number:** 100
Data Sources and Data Issues:	Centering Healthcare Institute https://centeringhealthcare.secure.force.com/WebPortal/ListOfCenteringSites?stateName=MI
Significance:	The CenteringPregnancy group prenatal care model has been proven effective in reducing premature births and eliminating racial disparities. Funding for new CenteringPregnancy sites is not secured beyond FY2017; therefore, the goal of this ESM currently focuses on maintenance and support of existing sites. Maintaining and helping to strengthen the current sites in Michigan will assist in improvements in the NPM and associated NOMs.

ESM 4.1 - Percent of Baby-Friendly designated birthing hospitals in Michigan
NPM 4 – A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months

Measure Status:	Active
Goal:	By increasing the number of Michigan birthing hospitals with Baby-Friendly designation, the proportion of live births that occur in Michigan birthing hospitals that provide recommended care for lactating mothers and their babies will increase
Definition:	**Numerator:** Number of Michigan birthing hospitals with Baby-Friendly designation **Denominator:** Number of Michigan birthing hospitals **Unit Type:** Percentage **Unit Number:** 100
Data Sources and Data Issues:	Baby-Friendly USA, Inc. (BFUSA)
Significance:	Baby-Friendly designated birthing hospitals and centers 1) promote breastfeeding as the best method of infant feeding; 2) implement evidence-based practices to support breastfeeding and lactation; 3) facilitate informed health care decision-making for mothers and families; 4) ensure health care delivery that is sensitive to cultural and social diversity, 5) protect mothers and families from false or misleading product promotion and advertising, and 6) educate parents on safe and appropriate methods for formula mixing, handling, storage, and feeding when a mother has chosen not to breastfeed or has chosen to supplement. The Baby-Friendly Hospital Initiative is a global program launched by the World Health Organization and the United Nations Children's Fund in 1991 to encourage and recognize hospitals and birthing centers that provide the best level of care for infant feeding and mother/baby bonding. Baby-Friendly designation is built on the implementation of Ten Steps to Successful Breastfeeding and the International Code of Marketing of Breast-Milk Substitutes, which empowers birthing facilities to examine maternity care policies and procedures, requires training and skill building for all levels of staff, and involves the development of quality assurance mechanisms within all aspects of maternity care operations. Baby-Friendly designated birthing hospitals and centers support healthy outcomes for both baby and mom, and can help to reduce breastfeeding disparities, especially within communities of color and low socioeconomic status communities.

ESM 5.1 - Number of birthing hospitals trained on infant safe 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

<table>
<tr><td>Measure Status:</td><td>Active</td></tr>
<tr><td>Goal:</td><td>Increasing the number of birthing hospitals trained on infant safe sleep will help ensure parents receive safe sleep messaging and that infant safe sleep is modeled by hospital staff, thereby reducing the number of sudden unexpected infant deaths.</td></tr>
<tr><td>Definition:</td><td><table>
<tr><td>Numerator:</td><td>N/A - this is a count</td></tr>
<tr><td>Denominator:</td><td>N/A - this is a count</td></tr>
<tr><td>Unit Type:</td><td>Count</td></tr>
<tr><td>Unit Number:</td><td>100</td></tr>
</table></td></tr>
<tr><td>Data Sources and Data Issues:</td><td>Data Source will be the Infant Safe Sleep Program. The Infant Safe Sleep Program will track all trainings provided to birthing hospitals.</td></tr>
<tr><td>Significance:</td><td>When health care providers, including nurses, are educated on infant safe sleep, families are more likely to follow recommended infant safe sleep practices. One study showed that those who are educated on safe sleep by their health care provider were more likely to intend to sleep safely and follow-through with that intention (Factors Associated with Choice of Infant Sleep Position, http://pediatrics.aappublications.org/content/140/3/e20170596). Nursing education and role modeling increases parental adherence to infant safe sleep practices (TodaysBaby Quality Improvement: Safe Sleep Teaching and Role Modeling in 8 US Maternity Units, http://pediatrics.aappublications.org/content/early/2017/10/11/peds.2017-1816).</td></tr>
</table>

ESM 5.2 - Number of Maternal Infant Health Program (MIHP) agencies that have staff trained to use motivational interviewing with safe 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:	Active
Goal:	Improvements in how home visitors talk to families about infant safe sleep will lead to improvements in parent behavior, with the ultimate goal to reduce the number of sudden unexpected infant deaths.
Definition:	**Numerator:** N/A - this is a count **Denominator:** N/A - this is a count **Unit Type:** Count **Unit Number:** 1,000
Data Sources and Data Issues:	Maternal Infant Health Program (MIHP). MIHP agencies will provide data after staff have completed the three-part motivational interviewing and safe sleep webinar series.
Significance:	Positively impacting parental behavior requires addressing known barriers to implementing safe sleep practices: parental knowledge and misconceptions; preference and situation; social determinants of health; and family practices and culture. Increased skills by MIHP providers on how to promote behavior change will increase the likelihood that families will follow the safe sleep guidelines. MIHP agencies serve approximately 20,000 pregnant moms on Medicaid annually. Targeting MIHP providers will allow the most high-risk mothers and families to be reached.

ESM 10.1 - Of the health care providers who complete the Motivational Interviewing web course and the Motivational Interviewing professional development training, the percent who report skills in effectively counseling youth on changing risky behaviors
NPM 10 – Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year.

Measure Status:	Active
Goal:	The completion of both trainings will lead to skills in counseling adolescents on behavior change and in communicating with adolescents overall; thereby promoting a better provider-patient relationship and increased access of preventive services.
Definition:	**Numerator:** Number of providers who complete both the Motivational Interviewing web course and professional development training that report skills to effectively counsel youth on changing risky behavior. **Denominator:** Number of providers who complete both the Motivational Interviewing web course and professional development training **Unit Type:** Percentage **Unit Number:** 100
Data Sources and Data Issues:	MDHHS (participant assessment tool)
Significance:	Quality adolescent care is delivered in a developmentally-appropriate, adolescent-friendly and confidential manner. Positively impacting adolescent care requires significant system changes aimed at addressing known barriers to quality care: health professional lack of training, lack of effective communication skills, and low self-efficacy in providing adolescent preventive services. The combined impact of completion of both the Motivational Interviewing web course and professional development training will lead to higher quality care for adolescents. Increased skills in not only counseling adolescents on behavior change, but in communicating with adolescents overall, promotes a better provider-patient relationship and increases the likelihood that adolescents will access care (including preventive services) with that provider.

ESM 12.2 - Percent of CSHCS clients age 18 to 21 years in selected diagnosis groups that have transferred care from a pediatric to an adult provider
NPM 12 – Percent of adolescents with and without special health care needs, ages 12 through 17, who received services necessary to make transitions to adult health care

<table>
<tr><th>Measure Status:</th><td colspan="2">Active</td></tr>
<tr><th>Goal:</th><td colspan="2">To monitor and increase the number of young adults that appropriately transfer care from a pediatric to an adult health care provider.</td></tr>
<tr><th rowspan="4">Definition:</th><td>Numerator:</td><td>The number of CSHCS enrollees, aged 18 to 21, that have transferred care from a pediatric to an adult provider.</td></tr>
<tr><td>Denominator:</td><td>The total number of CSHCS enrollees, aged 18 to 21, that have received care from a pediatric provider.</td></tr>
<tr><td>Unit Type:</td><td>Percentage</td></tr>
<tr><td>Unit Number:</td><td>100</td></tr>
<tr><th>Data Sources and Data Issues:</th><td colspan="2">This ESM combines three separate data sources: 1) the CSHCS database, 2) the CHAMPS (Medicaid Claims) database, and 3) a University of Michigan provider database. These three databases provide information on CSHCS clients, and the providers they see.</td></tr>
<tr><th>Significance:</th><td colspan="2">This measure is significant as it allows us to evaluate the percentage of adolescents and young adults with special needs that are transferring care from a pediatric to an adult provider. By analyzing the providers these young adults are seeing (CSHCS authorized providers and Medicaid Claims), we can determine if new providers have been identified, and if the initial visit with the adult provider was completed.</td></tr>
</table>

ESM 13.1.1 - Number of medical and dental professionals who receive perinatal oral health education through MDHHS
NPM 13.1 – Percent of women who had a preventive dental visit during pregnancy

Measure Status:	Active
Goal:	Increase provider knowledge of perinatal oral health as well as provider comfort in discussing the importance of oral health with patients.
Definition:	**Numerator:** N/A - This is a count **Denominator:** N/A - This is a count **Unit Type:** Count **Unit Number:** 1,000
Data Sources and Data Issues:	The data source for this measure will be a tracking database developed by the MDHHS oral health program. This database includes a monthly count of the number and types of providers trained in perinatal oral health as well as the location and mechanism of education.
Significance:	Studies indicate that the medical community may not be prepared to discuss the importance of oral health with patients, specifically during pregnancy. Furthermore, the dental community may be misinformed about practices and protocol surrounding dental treatment during the perinatal period. By educating providers, patients will in turn be better informed of the significance of perinatal oral health and will be more likely to seek dental care during the perinatal period.

ESM 13.2.1 - Number of students who have received a preventive dental screening through the SEAL! Michigan program
NPM 13.2 – Percent of children, ages 1 through 17, who had a preventive dental visit in the past year

Measure Status:	Active
Goal:	Increase the number of students who have received a preventive dental screening within a school based dental program
Definition:	**Numerator:** N/A - This is a count measure **Denominator:** N/A - This is a count measure **Unit Type:** Count **Unit Number:** 10,000
Data Sources and Data Issues:	The SEAL! Michigan annual all grantee report will be used for the data source. Annual data are gathered each October at the end of the fiscal year and reports are developed by the following August. This timeframe could cause the annual indicator to be delayed by one year. In addition, the Sealant coordinator position and epidemiologist position are funded under the CDC cooperative agreement.
Significance:	A school-based dental program is an ideal environment to prevent dental decay across the population. This goal helps meet the Healthy People 2020 indicator for oral health, with the objective to increase the amount of dental screenings that are completed in children ages 1 to 17.

Form 11
Other State Data

State: Michigan

The Form 11 data are available for review via the link below.

Form 11 Data