

**Maternal and Child
Health Services Title V
Block Grant**

Tennessee

**FY 2023 Application/
FY 2021 Annual Report**

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I. General Requirements

I.A. Letter of Transmittal



August 1, 2022

Grants Management Officer
Division of State and Community Health
Maternal and Child Health Bureau
Health Resources and Services Administration
5600 Fishers Lane, Room 18-31
Rockville, MD 20857

Dear Grants Management Officer,

Tennessee's Title V MCH Block Grant application and report are enclosed.

Please contact me directly if further information is needed.

Sincerely,

A handwritten signature in black ink, appearing to read "Tobi Amosun".

Tobi Adeyeye Amosun, MD, FAAP
Director, Division of Family Health and Wellness
Tennessee Department of Health

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I.B. Face Sheet

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

I.C. Assurances and Certifications

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

I.D. Table of Contents

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

II. Logic Model

Please refer to figure 4 in the "Title V Maternal and Child Health Services Block Grant To States Program Guidance and Forms," OMB No: 0915-0172; Expires: January 31, 2024.

III. Components of the Application/Annual Report

III.A. Executive Summary

III.A.1. Program Overview

Tennessee's MCH/Title V Program

In the state of Tennessee, the Title V Maternal and Child Health (MCH) Services Block Grant to States is administered by the Tennessee Department of Health's Division of Family Health and Wellness (FHW). The division of roughly 150 staff members is led by a director with three deputy directors reporting to them. Each of the deputies have between two and four administrators reporting to them. The administrators have between two and five staff reporting to them. These staff include program directors, epidemiologists, and administrative assistants. For the two required positions for this grant the division director serves as one – MCH Director, and an administrator serves as the other – Children with Special Healthcare Needs (CSHCN) director.

FHW is organized into sections which focus on reproductive and women's health, perinatal/infant/pediatric care, early childhood, injury prevention and detection, chronic disease and tobacco prevention, and supplemental nutrition (including WIC). These sections implement programs that improve the health of women (including mothers), infants, children, adolescents, and their families, as well as those with special health care needs. FHW programs include topics such as family planning, maternal mortality case review, newborn screening, breastfeeding support, infant mortality reduction initiatives, home visiting, pediatric mental health, Adverse Childhood Experience (ACE) reduction, tobacco use reduction, injury prevention, suicide prevention, and CSHCN. Therefore, it is the most appropriate place to administer the MCH Block Grant.

Needs Assessment

At the beginning of each five-year grant cycle, a comprehensive needs assessment is used to identify priority needs of women, infants, children, adolescents, and their families; as well as determine the capacity of the health system to meet those needs. During the years between the comprehensive needs assessments, an on-going needs assessment is conducted to identify any significant changes in needs and capacity.

FHW conducted the comprehensive needs assessment for the 2021-2025 cycle during 2019 and 2020 in conjunction with over 100 partners. Key components included:

- Quantitative analysis of key indicators
- Qualitative data collection and analysis; including focus groups, key informant interviews, and open-ended surveys
- Structured process for choosing priorities based on the data compiled
- Capacity assessment of current and potential programming for each identified priority

As a part of the ongoing needs assessment, FHW hosts MCH partner meetings twice each year. These meetings are open to anyone, and effort is made to extend the invitation broadly. During the meetings, participants are asked to consider the progress made on performance measures during the past year, and then based on that evaluation make recommendations for the next year's action plan.

Needs and Priorities

States are required to identify at least one priority in each of the population health domains, except for the Cross-cutting/Systems Building domain which is optional. There are a total of six domains: (1) Women's and Maternal Health, (2) Perinatal and Infant Health, (3) Child Health, (4) Adolescent Health, (5) Children with Special Health Care Needs and (6) Cross-cutting/Systems Building.

As a result of the Needs Assessment, TDH identified priority needs for the MCH population for the 2021-2025 Block Grant cycle. These priorities include: (1) Increase family planning, (2) Decrease pregnancy-associated mortality, (3) Increase breastfeeding, (4) Decrease infant mortality, (5) Decrease overweight and obesity (among children), (6) Increase prevention and mitigation of Adverse Childhood Experiences (ACEs), (7) Decrease tobacco and e-cigarette use (among adolescents), (8) Increase medical homes and (9) Improve transition from pediatric to adult care.

Program Planning

The MCH/Title V Program is managed within the Tennessee Department of Health's Division of Family Health and Wellness. This division includes sections for:

- Reproductive and Women's Health
- Perinatal, Infant, and Pediatric Care
- Early Childhood Initiatives
- Supplemental Nutrition (including WIC)
- Injury Prevention and Detection
- Chronic Disease Prevention and Health Promotion
- Children and Youth with Special Health Care Needs

The variety of content areas in FHW pairs well with the identified priorities. Therefore, each FHW section (including both program and epidemiology staff) leads a priority. Teams are responsible for developing and reporting on the action plan and corresponding measures. This is done in conjunction with the MCH Partner Group, formerly referred to as the MCH Stakeholder Group. This group was formed during the 2015 needs assessment and has met twice a year since then. The group reviews the action plan, measurement progress, and suggests changes for the coming year. They also partner with the MCH/Title V Program to complete the activities outlined in the action plan and work towards the objective for each measure. This is all done under the guidance of the MCH Title V Director who oversees all aspects of program planning.

Performance Reporting

The epidemiology staff for each priority team takes the lead on tracking and reporting on each measure. The MCH Block Grant coordinator facilitates the tracking and visualization of all measures among all priority teams. This enables everyone (MCH/Title V Director, MCH Block Grant coordinator, priority teams, and MCH Partner Group) to view the overall progress made among all priorities.

Assuring Comprehensive, Coordinated, Family-Centered Services

The MCH/Title V Program assures comprehensive and coordinated services in a number of ways. Core services such as WIC, family planning, breast and cervical cancer screening, preventive care for children (EPSDT and immunizations), health promotion, community outreach and the care coordination services of Community Health Access and Navigation in Tennessee (CHANT) and Children's Special Services (CSS) are offered in all county health departments. Rural health departments report to regional office and to the Community Health Services (CHS)

division of the state health department. Metro health departments are independent and accountable to local governments but operate closely via contract with TDH. This organizational structure assures that MCH/Title V and other state and federal funds are administered comprehensively to all counties and that program fidelity is maintained via direct management or contract. Regular communication occurs with the Regional Leadership Team (metro and regional directors and CHS leadership), the Medical Leadership Team (metro and regional health officers), Nursing Leadership Team (metro and regional nursing leads), and the MCH regional directors to assure multi-directional transmission of key information and provide opportunities for sharing of ideas. Other core MCH/Title V services such as newborn screening provide services to the entire state but are centrally located at the state lab to assure excellent communication between the lab and the FHW clinical follow up team for lead, genetic disorders, hearing loss, and congenital heart disease.

The MCH/Title V Program continues to work with families to assure comprehensive coordinated family-centered services by providing education around the importance of receiving services in a patient-centered medical home, and how to partner with providers in the decision-making process. The program provides the “Partnering with your Provider Booklet” statewide for distribution at community events, as well as medical providers for distribution in their practices. Staff has also collaborated with the Bureau of TennCare, the state Medicaid agency, in their Primary Care Transformation Strategy “Patient-Centered Medical Home”. There are currently over 81 participating provider organizations in over 400 locations, covering over 37% of the TennCare population.

For the MCH/Title V CYSHCN program specifically, staff include a dedicated Family/Youth Engagement and Involvement Director whose primary responsibility is to work with Family Voices to ensure opportunities for family and youth training on patient centered medical homes, transition and policy/advocacy. Title V funds have also been used to expand the division contract with Family Voices to provide consultation and training for all programs within FHW. In addition, several programs continue to expand their own advisory and family groups to better inform programs and services. For example, the Perinatal Advisory Committee (PAC) and Genetics Advisory Committee have always been open meetings, and recently family representatives have been sought out to attend those meetings. Likewise, the family planning program has 13 required community and client advisory boards in each rural and metro region. Additional input from reproductive justice groups has also been sought to review program guidelines and messaging around contraception and neonatal abstinence syndrome. Furthermore, in the comprehensive redesign of the CSS, HUGS, and Community Outreach programs into the streamlined Community Health Access and Navigation in Tennessee (CHANT) program has incorporated family engagement in the design process to assure that the needs of children and families are being met appropriately.

Partnerships

The strength of MCH/Title V lies in its partnerships. In addition to the intentional engagement of families and customers listed above, TDH has pursued partnerships of all types using the collective impact framework. The descriptions below are not exhaustive and serve as examples of the myriad of partners valued by the agency and the division.

For example, a multitude of local, state, and national partnerships have emerged statewide regarding the opioid crisis and prevention of neonatal abstinence syndrome. In 2019, this resulted in the second consecutive year to year decline (26% from 2017) in cases reported to the NAS surveillance system since 2013. The NAS subcabinet met regularly from 2013-19 with representatives from TDH, Department of Mental Health and Substance Abuse (TDMHSA), Department of Education (DOE), Department of Children's Services (DCS), TennCare, Department of Human Services (DHS) and several others to review NAS surveillance data and research and to plan interventions together. TDH has partnered with the PAC, regional perinatal centers, rural hospitals, Tennessee Hospital Association and the Tennessee Initiative for Perinatal Quality Care (TIPQC) to share best practice and information

regarding treatment of drug exposed mothers and infants. In addition, TDH has partnered with local drug coalitions, law enforcement, multiple state agencies and insurance companies to fund and promote medication take back sites in all 95 counties. The response to the opioid epidemic has been complex and growing, involving legislative action, law enforcement, regulation education, prevention messaging, and treatment.

Infant mortality reduction efforts have likewise relied extensively on partnerships. For example, DOE, DCS, EMS entities, the medical community, and the judicial system have been critical to maintaining the Child Fatality Review. Local review teams in all judicial districts serve on a volunteer basis and are essential to determining cause of death for infants and children. This data guides the priorities for the upcoming years, and the local review teams serve as bodies to dissemination information to local communities as well. Given the lack of improvement in the infant mortality rate in the state, the infant mortality strategic plan was revised during 2019 with the assistance of numerous partners including Tennessee Chapter of the American Academy of Pediatrics (TNAAP), TIPQC, the PAC, academic partners such as Vanderbilt University and Children's Hospital, the Children's Hospital Alliance of Tennessee, the Tennessee Breastfeeding Coalition, federally qualified health centers, MCH directors statewide, and community advocacy groups.

Obesity is likewise a complex problem requiring a multi-dimensional approach and many partnerships. DOE and the Office of Coordinated School health partner in both data collection and programming for schools across the state. Obesity has also been a priority for the Governor's Children's Cabinet and the state agencies represented. Recognizing the importance of the built environment and culture change for obesity prevention, TDH has partnered with the Department of Environment and Conservation to promote state parks via the Park Rx and rewards program, the promotion of youth activity clubs, and training state park restaurants to become Responsible Epicurean Agricultural Leadership (REAL) food certified. TDH also coordinates with Governor's Foundation for Health and Wellness to promote Healthier Community designation and Healthier Tennessee business initiatives. Academic partners such as Middle Tennessee State University, East Tennessee State University, and Vanderbilt have also been critical for data analysis and program implementation across the state for efforts in both obesity reduction and tobacco prevention. The Department of Human Services has been instrumental in training childcare facilities and assuring the inclusion of the seven Gold Sneaker policies regarding physical activity, nutrition, and tobacco were included in the star rating system for centers.

Leveraging of Federal and Non-Federal Funds

Aligning Title V funds within the Division of Family Health and Wellness allows for planning across programs to address population health priorities by leveraging both federal and state funds. This occurs for all priority areas. For example, reducing and mitigating the effect of ACEs is a priority area for Tennessee Title V since the most recent needs assessment, and activity around this topic has escalated dramatically over the last 5 years in all areas of the state. Title V state and federal funds have been used to support data collection and dissemination, workforce training of thousands of health department staff, and facilitation of multiple partnership meetings across the state. Assuring supportive infrastructure for families is essential to preventing ACEs, and FHW has an active role in this via WIC food security (federal), family planning (federal Title X, reimbursement, and state and federal MCH), investment in the built environment (state Project Diabetes and additional dedicated built environment funds). Positive youth development is promoted via federal rape prevention education funding, state and federal adolescent pregnancy prevention funding, and state funding for youth tobacco prevention councils in 64 counties. Specific programs in FHW also address social determinants of health, enhance parenting skills, and improve community linkages. These include state Healthy Start and federal MIECHV evidence-based home visiting programs and the care coordination program, Community Health Access and Navigation in Tennessee (CHANT). TDH also participates in several inter-agency and community partnerships targeting ACEs including the Children's Cabinet's "no wrong door" Single Team

Single Plan approach to service coordination, the Three Branches Institute, the Young Child Wellness Council, and the Early Success Coalition via federally funded Project LAUNCH.

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

MCH/Title V federal funds are essential to meet state and local needs in a manner that is intentional, flexible, and accountable. States are held accountable for planning and progress in priority areas and must report how both state and federal funds are spent. A needs assessment occurs every five years and is updated annually by review of available data and input of partners. Similarly, the action plan to address the needs with available state and federal resources and a wide range of partners is revised annually. Tennessee has consistently met both maintenance of effort and state funding match requirements of the federal MCH/Title V block grant, ensuring that both funding sources are utilized for MCH needs. The flexibility of the block grant is particularly critical to meet emerging needs when obtaining needed funding from annual appropriation cycles can be significantly delayed. An example from recent years includes leveraging MCH funds to remove the burden of shipping costs associated with the collection of specimens for confirmatory hemoglobinopathy, trait and parent testing. The tertiary center responsible for all hemoglobinopathy confirmatory testing is now able to provide prepaid shipping labels for the shipping of specimens to practices, health departments, etc. to facilitate timely diagnosis of hemoglobinopathy disease and trait cases referred by the newborn screening program.

III.A.3. MCH Success Story

Navigation is a nationally recognized evidence-based approach to increasing health literacy and compliance to care. Women's Health Navigators (WHN) is a pilot program in Tennessee's five metropolitan health departments to improve women's health through care coordination with multiple TDH programs. The goal is to improve health equity by increasing access to needed services including wellness exams, screenings, follow-ups, and referrals by providing client navigation that helps clients overcome barriers and improve health literacy. WHN will be the primary contact in completing care coordination between multiple programs that have been traditionally siloed, requiring women to navigate through multiple points of contact.

Recipients will be identified as individuals that require assistance through the continuum of care. Priority populations will include those that are uninsured or underinsured, are low-income, are facing significant barriers to care, and who may not receive services without navigation. Additionally, to ensure health equity, WHN will complete outreach and engagement activities that link outreach to care in populations that are disproportionately burdened by various diseases.

This initiative is made possible by a combination of Title V funds with additional federal funding from the Tennessee Breast and Cervical Screening Program.

III.B. Overview of the State

Demographics, Geography, Economy, and Urbanization

Tennessee spans approximately 500 miles east to west, 110 miles north to south, and is bordered by 8 other states. The state, comprised of 95 counties, is geographically, politically, and constitutionally divided into three Grand Divisions: East, Middle, and West. East Tennessee, comprised of 35 counties, is characterized by mountains and rugged terrain. This region contains Knoxville and Chattanooga (the 3rd and 4th largest cities in the state) as well as the "Tri-Cities" of Bristol, Johnson City, and Kingsport located in the extreme northeastern most part of the state near the borders to Virginia and North Carolina. Middle Tennessee consists of 39 counties, has the largest land area, and is characterized by rolling hills and fertile stream valleys. Middle Tennessee is the least densely populated of the three Grand Divisions, yet houses the state's capitol and largest city. West Tennessee, bordered by the Mississippi River on the west and the Tennessee River on the east, contains 21 counties. This region has the smallest land area and is the least populous of the three Grand Divisions, yet contains the second most populous city in the state – Memphis. Outside greater Memphis, the region is mostly agricultural.

Tennessee's population is estimated to be 6.9 million. Compared to the United States, Tennessee is less racially and ethnically diverse with a smaller foreign born and non-native English-speaking population. The state has slightly higher rates of homeownership and health insurance coverage. However, the state sees slightly worse rates of high school graduates, employment, and poverty. The tables below compare Tennessee to the US as a whole on many different factors.^[1]

Race	Tennessee (%)	United States (%)
White alone	72.2	61.6
Black alone	15.8	12.4
Two or more races	6.0	10.2
Asian alone	2.0	6.0
Some other race alone	3.6	8.4
American Indian and Alaska Native alone	0.4	1.1
Native Hawaiian and Other Pacific Islander alone	0.1	0.2

Ethnicity	Tennessee (%)	United States (%)
Hispanic	6.9	18.7
Non-Hispanic	93.1	81.3

Nativity and Language	Tennessee (%)	United States (%)
Foreign born	5.1	13.5
Language other than English spoken at home	7.2	21.5

Socioeconomic Factors	Tennessee (%)	United States (%)
High school graduates or higher	88.2	88.3
Employment rate	57.9	59.6
Homeownership rate	66.5	64.4
Poverty rate among children under 18	20.8	17.5
Without Health Coverage	9.7	8.7

Distressed Tennessee counties rank among the 10 percent most economically distressed counties in the nation. Each year, the Appalachian Regional Commission (ARC) prepares an index of county economic status for every county in the United States. Economic status designations are identified through a composite measure of each county's three-year average unemployment rate, per capita market income, and poverty rate. Based on these indicators, each county is then categorized as distressed, at-risk, transitional, competitive or attainment. As state FY 2023, there were 10 distressed, and 32 at-risk counties in Tennessee, representing an increase of 1 distressed and 2 at-risk counties from 2022.

Health Status of Tennessee's MCH Population

While the 2021 Annual Report for America's Health Rankings did not include overall state health rankings out of shared understanding that the country continues to face ongoing challenges due to the COVID-19 pandemic, individual measures were still ranked.

Unfortunately, Tennessee ranks poorly on several key MCH, chronic disease, and social determinants of health indicators. From 2020 to 2021, the following indicators remained unchanged or declined:

- Childhood immunizations (41st)
- Child poverty (41st)
- Mental distress (45th)
- Multiple chronic conditions (46th)
- Premature death (46th)
- Smoking (46th)
- Teen births (41st)
- Violent crime (48th)

However, the state celebrates improvements in the rankings of several key MCH, chronic disease, and social determinants of health indicators, including:

- Low birthweight (38th)
- Obesity (38th)
- Physical distress (36th)
- Physical inactivity (30th)
- Preventable Hospitalizations (36th)

Additionally, the state continued to rank well on a couple of MCH, chronic disease, and social determinants of health indicators, including:

- High school graduation (6th)
- Excessive drinking (9th)

Likewise, the Health of Women and Children Report 2021, a sub report of America's Health Rankings Report, did not include overall state rankings due to the on-going challenges related to the COVID-19 pandemic; however, rankings were still made available for individual measures. The report highlighted an 11% reduction in the percent of women ages 18-44 who report living in poverty between 2018 and 2019, a 32% reduction in the rate of teen births between 2013 and 2019, a 61% increase in the percent of women ages 14-44 who report drinking excessively between 2014-2015 and 2018-2019, and a 33% increase in the rate of drug related deaths among women ages 20-44 between 2014-2016 and 2017-2019.^[2]

State Health Agency Roles, Responsibilities, and Priorities

Tennessee's MCH initiatives are administered by the Tennessee Department of Health (TDH), the cabinet-level public health agency. The mission of TDH is to protect, promote, and improve the health and prosperity of people in Tennessee. The Department has a strategic plan that focuses on prevention and access to health and healthcare services. TDH is currently prioritizing four prevention initiatives: tobacco use, youth obesity, substance misuse, and adverse childhood experiences (ACEs).

Within TDH, the MCH/Title V Program is administered by the Division of Family Health and Wellness (FHW). This Division manages the Department's portfolio of programs and initiatives related to Maternal and Child Health, Chronic Disease Prevention and Health Promotion, and Supplemental Nutrition. FHW is responsible for programmatic implementation of core public health services within local health departments (ie. family planning, breast and cervical cancer screening, Children's Special Services, WIC) in addition to health promotion activities (tobacco prevention, lead prevention and case follow up, etc.) as well as management of programs external to the department such as Evidence Based Home Visiting and expanding systems capacity for priorities spanning from perinatal care to diabetes prevention programs.

Public health efforts in Tennessee have long been focused on the MCH population. All of the current TDH priorities relate to the MCH population, and TDH is committed to improving the health and well-being of the MCH population across the life course.

State Systems of Care for Underserved and Vulnerable Populations

As of June 2022, Tennessee has 15 Critical Access Hospitals designated to preserve access to local primary and emergency health services. These hospitals are located in rural counties with less healthy populations that demonstrate higher rates of obesity, diabetes, preventable hospitalizations, cardiovascular deaths and cancer deaths as compared to state and national benchmarks. Additionally, these hospitals are located in rural counties with fewer physicians and with a higher proportion of patients who live in poverty and a higher Medicaid population. They have 25 beds or less and are more than 35 miles from the next nearest hospital.

As of June 2022, 94 of Tennessee's 95 counties are federally designated as either whole or partial-county Health Professional Shortage Areas (HPSAs) for Primary Care (based on either the low-income population or geography). This is up from 90 counties in June 2020. Eighty-eight of the state's 95 counties are designated as federal Dental HPSAs and all 95 counties are designated as federal Mental Health HPSAs. Ninety-one of the state's 95 counties are designated as either whole or partial-county Medically Underserved Areas (MUA). TDH facilitates state funding for Federally Qualified Health Centers as well as Faith and Charitable Care Centers has strong relationships with

both the Tennessee Primary Care Association (FQHCs) and Tennessee Charitable Care Network (faith-based clinics) which has facilitated grants and population health planning among the entities.

The distribution of primary care providers varies across the state. A map with health resource shortage areas for obstetrics and pediatrics can be found in the Supporting Documents section. As of July 2022, TDH Division of Health Licensure and Regulation^[3]:

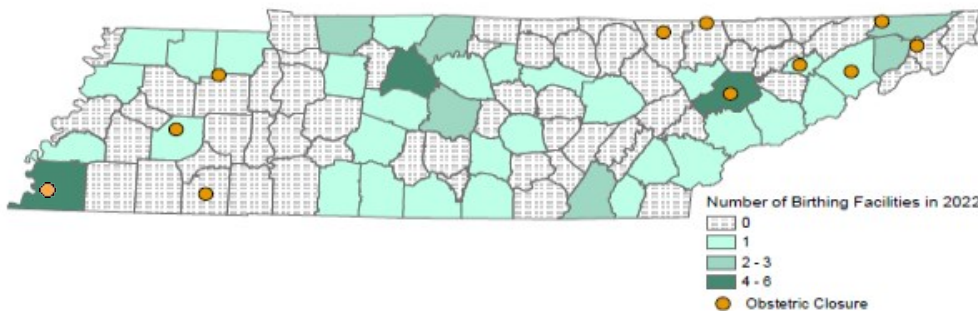
Specialty	Actively Licensed Physicians
Obstetrics and Gynecology	730
Family Medicine/General Practice	1834
Pediatrics (includes subspecialties and Med/Peds)	1444

The most pressing primary care workforce shortages in Tennessee are in the field of obstetrics. According to the most recent Uninsured Adult Healthcare Safety Net Report, among the 95 Tennessee counties, ten (11%) have no obstetric providers, three have patient: obstetric provider ratios greater than 15,000:1, and 27 have ratios greater than 4000:1.

There are 58 birthing facilities and two birth centers in Tennessee. This is down from 68 in 2016.^[4] In 2018, 60 Tennessee birth facilities participated in the Center for Disease Control and Prevention’s Levels of Care Assessment tool. For maternal care, there were 5 facilities (8%) assessed as < Level I, 27 (45%) as Level I, 19 (32%) as Level II, 2 (3%) as Level III, and 7 (12%) as Level 4. TDH coordinates the Tennessee Regional Perinatal Centers, which contain five regional centers throughout out the state to assure statewide infrastructure to provide high-risk obstetric and infant care through direct clinical care and consultation (available 24/7), education for community hospitals and providers, and technical assistance to state agencies. In FY2021, 101,852 consultations were performed by perinatal center staff and 7132.5 hours of education were provided throughout the state.

Since 2012, there have been 11 obstetric closures, including three full hospital closures and seven obstetric facility closures (Figure 1); of these eleven closures, seven have occurred in rural counties. Of Tennessee counties, 57 (60%) do not have a birthing facility.

Birthing Facilities in 2022 by County and Obstetric Closures over Past 10 Years



TDH works closely with TennCare, the state's Medicaid agency. TennCare provides health care for approximately 1.3 million Tennesseans and operates with an annual budget of approximately \$12 billion. TennCare members are primarily low-income pregnant women, children and individuals who are elderly or have a disability. TennCare covers approximately 20 percent of the state’s population, 50 percent of the state’s births, and 50 percent of the state’s children. TennCare is a critical and valuable partner in serving Tennessee’s MCH population.¹⁰ More description of this agency and the partnership between the agencies is found in the description of the Health Care Delivery System in the State Action Plan Narrative Overview.

Children's Special Services (CSS, Tennessee’s state MCH/Title V CYSHCN program) is a critical gap-filling program supported by federal and state MCH funds. It serves as both a payor of last resort for Children and Youth

with Special Health Care Needs as well as a care coordination entity for these families. Founded in 1919, CSS is governed by state code. While CSS is core to CYSHCN services in Tennessee, CYSHCN priorities for this vulnerable population expand beyond the program to include broad family and stakeholder engagement particularly in the areas of pediatric to adult transition and patient centered medical home, as determined by the state needs assessment. CYSHCN staff have also coordinated some efforts at behavioral health integration, though this has largely taken place within health care delivery facilities, particularly FQHCs and safety net mental health centers.

State Statutes and Other Regulations Impacting MCH/Title V

Numerous state laws and regulations impact the operation of MCH/Title V program services in Tennessee. Many of the laws provide TDH authority to operate programs such as Family Planning, CSS, evidence-based home visiting, fetal infant mortality review (FIMR), child fatality review (CFR), maternal mortality review or teen pregnancy prevention. Child fatality review and, more recently, maternal mortality review legislation provide funding and legal authority to enhance data gathering to inform action.

Some state laws mandate specific activities or services related to the MCH population. For example, laws mandate that infants receive screening for metabolic/genetic conditions, critical congenital heart disease, and congenital hearing loss. Others mandate coverage for services such as hearing screening or hearing aids.

Other laws provide basic protections for the MCH population. These include Tennessee's child passenger restraint law (which was the first such law passed in the nation), as well as laws which require prophylactic eye antibiotics for infants, prohibit female genital mutilation, require schools to test for lead in water, and prohibit smoking in most public places.

Several laws establish committees that advise TDH on specific programs or services. These include the Children's Special Services Advisory Committee (services for children and youth with special health care needs), Perinatal Advisory Committee (perinatal regionalization), and the Genetics Advisory Committee (newborn screening and follow-up).

In addition to laws passed by the General Assembly, many programs and services related to the MCH population operate under rules and regulations promulgated by the TDH and approved by the Attorney General, Secretary of State, and Government Operations Committee of the General Assembly. Often these rules contain more detailed information on program operations than the law that established a particular program or service. Examples include rules related to newborn screening, operation of the CSS program, and operation of the child safety fund (funding from child safety seat violations used to fund purchase of additional child safety seats for distribution in local communities).

Several new MCH-related laws were passed during the 2022 legislative session:

Narcan Standing Order Legislation

Public Chapter 749 allows licensed healthcare workers to prescribe, directly or through standing order, naloxone or other similarly acting and equally safe drugs approved by the FDA to an organization or municipal or county entity, including but not limited to a recovery organization, hospital, school, or county jail. This public chapter also allows an individual or entity under a standing order to receive and store an opioid antagonist and provide an opioid antagonist directly or indirectly to an individual. Additionally, this public chapter authorizes a first responder acting under a standing order to receive and store an opioid antagonist and to provide an opioid antagonist to an individual at risk of experiencing a drug-related overdose or to a family member friend or other individual in a position to assist an at-

risk individual. This public chapter includes “unresponsiveness, decreased level of consciousness, and respiratory depression” to be included within the definition of drug related overdose. Effective on July 1, 2022.

Smokeless Nicotine Products

Public Chapter 810 makes it unlawful for the sale or distribution of smokeless nicotine products to individuals under 21 years old and unlawful for individuals under 21 years old to purchase or possesses smokeless nicotine products. For the purposes of this public chapter, smokeless nicotine product means nicotine that is in the form of a solid, gel, gum, or paste that is intended for human consumption or placement in the oral cavity for absorption into the human body by any means other than inhalation. Smokeless nicotine does not include tobacco or tobacco products or nicotine replacement therapy products.

Effective as of April 8, 2022.

Telehealth Reimbursement

Public Chapter 766 extends the ability for healthcare providers to receive reimbursement for healthcare services provided during a telehealth encounter. This public chapter also clarifies that a healthcare provider acting within the scope of a valid license is not prohibited from delivering services through telehealth. Lastly, this public chapter adds that the requirement of an in-person encounter between the healthcare services provider, the provider’s practice group, or the healthcare system and patient within sixteen months prior to the interactive visit is tolled for the duration of a state of emergency declared by the Governor provided that healthcare services provider or patient, or both, are located in the geographical area covered by the state of emergency. Effective as of April 1, 2022 and applies to insurance policies or contracts issued, entered into, renewed, or amended on or after that date.

A list of MCH-related laws is included in the Supporting Documents section.

[1] Data Profiles. Tennessee 2020. <https://data.census.gov/cedsci/profile?g=0400000US47>

[2] America’s Health Rankings. 2021 Health of Women and Children Report.
<https://assets.americashealthrankings.org/app/uploads/hwc2021-report.pdf>

[3] Tennessee Department of Health. Division of Health Disparities. Healthcare Provider Census.

[4] Tennessee Department of Health, Division of Vital Records and Statistics, Office of Health Statistics. Birth Statistical System

III.C. Needs Assessment

FY 2023 Application/FY 2021 Annual Report Update

Population Characteristics

In Tennessee, there are approximately 1.3 million women of reproductive age (15-44), comprising 20% of the state's total population in 2020. In 2020, there were 78,685 births to Tennessee residents, translating to a general fertility rate (GFR) of 58.5 per 1000 women aged 15-44. There are an estimated 334,628 Tennessee children aged 0-17 with special health care needs, approximately 22% of the population. Through efforts to advance emergency preparedness, Tennessee used AMCHP's "Public Health Emergency Preparedness and Response Checklist for Maternal and Infant Health" to calculate estimates of the number of pregnant people (S2-A2), as well as infants and children <5 years statewide, by region, and by county. Using the Centers for Disease Control and Prevention's "Estimating the Number of Pregnant Women in a Geographic Area: A Reproductive Health Tool," there are an estimated 62,532 pregnant people in Tennessee at a given point in time, with county ranges between 31 – 10,288. There are 81,188 infants in Tennessee, with county ranges between 47 – 12,674. There are 407,366 children under 5 years in Tennessee, with county ranges between 218 – 64,464. A map of population estimates by county for pregnant people, children > 1 year, and children > 5 years can be found in the Supporting Documents section.

COVID-19 Data Collection and Analyses

Surveillance of Emerging Threats to Mothers and Babies

Tennessee continued to receive CDC's Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET) and partner with the MCH/Title V Program to inform data to action efforts. SET-NET data dashboards and infographics are published to the Pregnancy and Infant Care COVID-19 [Website](#), quarterly. Data are regularly presented to the Perinatal Advisory Committee and the Health Disparities Task Force. Due to community feedback and engagement, public service announcements were launched to promote vaccine uptake by pregnant populations disproportionately impacted by COVID-19 through the Our Voices campaign. From June 2021 – October 2021, ads ran with nearly 8,000 commercials in Memphis, Jackson, Nashville, Chattanooga, and Knoxville.

Pediatric COVID-19, Multisystem Inflammatory Syndrome, and COVID-19 Vaccines

Pediatric COVID-19 cases as well as MIS-C cases are publicly available as data dashboards on the Special Populations [Website](#), weekly. To support the equitable rollout of the pediatric COVID-19 vaccine, maps of pediatric vaccine (5-11) uptake rates by county were published monthly and shared with community partners. Strategies to engage providers on becoming a COVID-19 pediatric provider were based on these data.

Pregnancy Risk Assessment Monitoring System COVID-19 Supplement

Initial PRAMS COVID-19 supplement data were analyzed that asked about experiences during the COVID-19 pandemic. Among Tennessee mothers who delivered June – December 2020, key findings included:

- 82% reported in-person only prenatal care and 16% reported both in-person and virtual PNC. Of those not attending virtual PNC, 86%, preferred in-person visits. Lack of virtual appointments from the provider was another reason for not having virtual appointments (30%)
- 46% of new mothers who had a mix of in-person and virtual PNC appointments reported cancellation or delay in PNC. A top reason for delays in PNC was due to lack of childcare/family care during the pandemic
- 85% of pregnant people reported always wearing a mask in public and 14% reported sometimes wearing a mask in public
- Almost half of new mothers reported they couldn't stay home during the pandemic while they were pregnant

due to their job

- 11.4% of new mothers reported having COVID-19 during pregnancy and 11% reported someone in their household had COVID-19
- 4% of new mothers reported postponed baby immunizations and delay of visits due to COVID-19
- More than half of new mothers reported an increase in anxiety and one in four an increase in depression. Economic impacts were also common. One in four new mothers had problems paying bills due to COVID-19 and one in five reported food insecurity

New Data Collection Efforts

Gold Sneaker Program

- Implemented additional data element on Gold Sneaker Certification application to capture small business status and minority or female owned business status. Data are collected on an ongoing basis and are yet to be analyzed.

Family Planning Telehealth Patient Satisfaction Survey

- Implemented a patient satisfaction survey for the Family Planning Telehealth Program. Data are collected on an ongoing basis and are yet to be analyzed.

Emergency Preparedness

- Implemented three focus groups among youth and families with experience having a child with technological dependence to understand barriers and facilitators to emergency preparedness training at pediatric hospital discharge.
- Analyzed PRAMS data to understand preparedness among women with a recent live birth. Key findings included:
 - 83% of women with a recent live birth had at least one preparedness item implemented
 - 63% had emergency supplies at home (water, food, meds) to last 3 days
 - 49% had an evacuation plan for their child/children
 - Less than one-third (29%) had copies of important documents in a safe place outside the home

National Survey of Children's Health Oversample

Through collaboration with the Division of Health Disparities Elimination, FHW applied for an oversample of Black and Hispanic respondents for the National Survey of Children's Health starting in 2022 for an initial period of two years.

Tennessee Department of Health Roadshows

The roadshow is an annual event that takes place between January-March of each year. Several Central Office based offices/divisions met with metro health department health promotion staff, as well as select local and regional staff. Due to the COVID-19 pandemic, the last roadshow concluded in February 2020. Some of the key workforce themes included:

- Increased salaries needed to be competitive and retain staff
- Increased resources for mental health
- Streamlined onboarding training for local and regional staff
- Increased need for translation of materials

FHW External Customer Satisfaction

Standardized questions have been developed for inclusion in all satisfaction surveys. Customers are asked to respond (Never, Rarely, Sometimes, Frequently, Always) to questions related to their interaction with FHW:

- Exemplifies courteous, respectful and professional behavior
- Creates a culture of collaboration by incorporating the ideas of others
- Provides materials and resources to enhance program effectiveness
- Demonstrates a commitment to quality work
- Consistently responds to inquiries in a timely manner
- Communicates clearly and effectively

Advisory Councils

There are specific advisory councils required by state law:

- *Traumatic Brain Injury Advisory Council* continues to meet quarterly and has nine members.
- *Genetic Advisory Committee* meets three times a year and has 18 members. Membership includes the directors of the genetics and hemoglobinopathies centers, subspecialists, and a consumer representative.
- *Perinatal Advisory Committee* meets three times a year and has 21 members. Membership includes co-directors of the five regional perinatal centers, other neonatal and obstetric providers, and a consumer representative.

Other work groups or task forces also support MCH/Title V work to engage with a multidisciplinary team of partners.

Examples of these groups include:

- Maternal Health Task Force
- Lead Advisory Committee
- Hearing Advisory Committee
- Suicide Task Force
- Injury Prevention Coalition
- Health Disparities Task Force

Changes in Health Status and Needs of the State's MCH Population

National Outcome and Performance Measures

There are 10 Outcome and Performance Measures with significant **improvement** in Tennessee since baseline from data reported in the 2022 Federally Available Document:

- Severe maternal morbidity decreased from 90.8 per 10,000 delivery hospitalizations in 2015 Q1-3 to 73.1 per 10,000 in 2019 (NOM-2)
- Low birth weight decreased from 9.2% in 2015 to 8.9% in 2020 (NOM-4)
- Neonatal abstinence syndrome decreased from 16.9 per 1,000 birth hospitalizations in 2015 Q1-3 to 10.9 in 2019 (NOM-11)
- HPV vaccination increased from 48.7% among adolescents 13-17 in 2015 to 71.7% in 2020 (NOM 22.3)
- Tdap vaccination increased from 79.7% among adolescents 13-17 in 2015 to 88.8% in 2020 (NOM 22.4)
- Teen births decreased from 30.6 per 1,000 15-19 year olds in 2015 to 23.3 per 1,000 in 2020 (NOM-23)
- Low-risk cesarean delivery decreased from 27.6% in 2015 to 25.9% in 2020 (NPM-2)
- Bullying victimization among adolescents 12-17 decreased from 29.3% in 2015 to 26.2% in 2019 (NPM-9)
- Transition among non-CYSHCN aged 12-17 increased from 12.1% in 2016 to 24.8% in 2019-2020 (NPM-12)
- Smoking in pregnancy decreased from 14.3% in 2015 to 10.9% in 2020 (NPM-14.1)

There are 10 Title V Outcome and Performance Measures with significant **worsening** since baseline:

- Early prenatal care decreased from 74.2% in 2015 to 73.7% in 2020 (NOM-1)
- Early term birth increased from 26.6% in 2015 to 28.4% in 2020 (NOM-6)
- Preterm-related mortality increased from 189.8 per 100,000 live births in 2015 to 264.8 in 2019 (NOM-9.4)
- Adolescent mortality among 10-19 year olds increased from 39.8 per 100,000 in 2015 to 48 in 2020 (NOM-16.1)
- Child vaccination (completion of combined 7-vaccine series by 24 months) decreased from 73.9 in 2015 to 63 in 2017 (NOM-22.1)
- Flu vaccination among children 6 months to 17 years decreased from 61.8% in 2015/16 to 55.9% in 2020/2021 (NOM-22.2)
- Child injury hospitalization among children 0 through 9 years increased from 109.3 per 100,000 in 2015 Q1-3 to 129.2 in 2019 (NPM-7.1)
- Adolescent injury hospitalization among children 10 through 19 years increased from 191.2 per 100,000 in 2015 Q1-3 to 222.2 in 2019 (NPM-7.2)
- Adolescent physical activity among children 12 through 17 years decreased from 22.4% in 2016 to 13.4% in 2019/2020 (NPM-8.2)
- Preventive dental visit in pregnancy decreased from 42.3% in 2015 to 33.9% in 2020 (NPM-13.1)

Overall

The 2022 Vanderbilt Child Health poll aimed to gather insights from Tennessee parents regarding their children. A representative sample of 1,026 parents in the state was surveyed in Fall 2021. The top five concerns parents had for kids were: 1) education and school quality, 2) bullying, including cyber bullying, 3) child mental health and suicide, 4) getting sick from COVID, and 5) disruptions to schooling. More than 4 in 5 parents reported excellent or very good overall health.

Emerging Issues

COVID-19

- *Masks and COVID-19 School Policies:* nearly half of children's schools don't have a mask mandate in place. Over two-thirds of parents sent their kids to school wearing one and over half of parents agreed that children are safer in schools if personnel are masked. Parents were split on whether schools should require COVID-19 vaccine for teachers and staff.
- *COVID-19 vaccines:* 46% of parents report their child 12+ was vaccinated for and 43% of parents reported some level of likelihood they would get the vaccine for their child under 12; this compares to 62% of parents who report a likelihood to get the flu vaccine for their child.
- *Learning loss due to COVID-19:* Approximately 40% of kids missed at least one school week for reasons related to COVID-19 so far in the school year; on average, Tennessee kids missed 8 days of school. A majority of parents, 71%, reported wanting a remote learning option for their child.

Food Insecurity

Nearly 1 in 3 Tennessee families experienced food insecurity in 2021 according to the Vanderbilt Child Health Poll. In Fall 2021, 44% of families received support from a food program in the last week leading up to the poll. Most parents (90%) support free school meals for children.

Infant Formula Shortage

In May 2022, Tennessee ranked #1 for formula shortages, with over half of top-selling products sold out due to the Sturgis plant closure. There were many news stories on this issue across the state detailing the frustration and panic among parents.

ESSENCE

An analysis of Tennessee syndromic surveillance data in ESSENCE showed since February 2022, there have been 357 emergency department (ED) visits statewide that mentioned formula recall in chief complaint, discharge diagnosis or triage notes. Since the recall, there were a total of 131 ED diagnoses related to water intoxication, which can occur as a result of diluting formula, and 67% (88) were admitted.

Child Homicide Deaths

In 2020, 67 Tennessee children died of homicide, a rate of 4.4 deaths per 100,000 children; the highest number and rate over the past five years. Tennessee consistently is above the national rate of 2.2 per 100,000 from 2019. Firearms were used in 75% of homicide deaths among children. Additionally, child homicide deaths persist in disproportionately impacting Black children.

Mental Health

Since the COVID-19 pandemic, mental health continues to be strong issue in Tennessee. According to the Vanderbilt Child Health poll, ~1 in 7 parents reported their child was diagnosed with anxiety in 2021, an increase from 1 in 10 in 2019. More than 1 in 10 parents say their child has been cyberbullied and 72% of parents with kids aged 6-17 worry about cyberbullying. In 2020, 38 children under 18 died by suicide.

Pregnancy-Associated Mortality

In 2020, 98 women in Tennessee died during pregnancy or within the year after pregnancy. There were 46 pregnancy-related deaths, which translates to a pregnancy-related mortality ratio of 58.5 deaths per 100,000 live births, a 51% increase from 2017 – 2019. In 2020, more than 3 out of 4 deaths were deemed to be preventable, and discrimination contributed to 1 in 3 pregnancy-related deaths.

Changes in Title V Program Capacity or MCH Systems of Care

Postpartum Medicaid Extension

In April 2022, Tennessee announced extension of TennCare, which lengthens postpartum coverage from 60 days to one year. TennCare has also included added dental benefits for pregnant and postpartum women.

FindHelpNowTN

TDH led the development of a real-time treatment locator to help those with substance use disorders, www.findhelpnowtn.org. A formal launch is expected in September 2022. This site allows people to search for treatment providers based on location and insurance payor. Additionally, an option to select pregnancy/postpartum specific treatment resources was built into the platform.

Women's Reproductive Health Services

In Tennessee, the Title X Grant was reduced by \$1.2 million per year. As a result, \$1 million was cut from the budget including: reduction of funds to metro contracts which will limit expansion of services for serving additional clients; decreased travel which will affect professional development opportunities; reduction in office supplies, postage and contraceptives; and the elimination of a provider position to expand telehealth services. This still left a deficit of \$200,000 which will be made up with state funds. Tennessee will continue to promote and offer state-available

women's reproductive health services.

New Grants to Promote MCH in Tennessee

Advancing Surveillance for the Tennessee Birth Defects Surveillance System

In 2021, Tennessee received the CDC's 5-year grant to strengthen the capacity of the birth defects surveillance program to respond to emerging threats to mothers and babies, identify and address mechanisms contributing to health disparities, and improve health outcomes of affected populations. This grant supports the staff (director, nurse consultant, and epidemiologist).

Tennessee Pediatric Mental Health Care Access Program

Children's behavioral health needs continue to grow, further exacerbated by COVID-19, and the number of mental health providers is insufficient to meet the needs. In 2021, Tennessee received this grant to promote behavioral health integration into pediatric primary care by supporting pediatric mental health care telehealth access programs.

State, Local, Territorial, and Tribal Partnership Programs to Reduce Maternal Deaths Due to Violence

In 2021, Tennessee received this 5-year grant to develop and implement interventions to reduce maternal deaths due to violence, specifically homicide and suicide, based on data specific to their geographic area.

Emerging Issues in Maternal and Child Health

In 2021, Tennessee received this 1-year grant to enhance data and informational systems through adding the birth statistical system (BSS) data into the statewide Integrated Data System (IDS). The ability to link these data systems have enabled Tennessee to explore emerging non-fatal issues in pregnancy and the postpartum period to identify upstream opportunities for prevention and intervention and will be sustained through State Systems Development Initiative (SSDI) coordination.

Improving State-level Preparedness through Measuring Improvements to the System of Care

In 2022, TDH's partner, Tennessee Chapter of Family Voices, received this small project grant to improve the state system of care for preparedness by centering the needs of families, including youth, on emergency preparedness communication, education, and resource needs, with specific focus on those with technological dependence. In February 2022, TDH identified funding for a one-year program manager position to lead MCH emergency preparedness efforts, with sustainability efforts to continue funding for this position ongoing.

Neonatal Abstinence Syndrome (NAS) Standardized Surveillance Case Definition Implementation Project

In 2021, Tennessee was awarded short-term funding through the Council of State and Territorial Epidemiologists (CSTE) to implement a new standardized case definition for NAS. The implementation of a new standardized case definition will result in a better understanding of NAS and allow for more reliable comparisons between states. Detailed information about the CSTE standardized case definition can be found [here](#). Infants will be classified as confirmed, probable, or suspect cases. To meet the requirements of the case definition, new questions were added to the REDCap survey.

Workforce Development

CDC provided Tennessee funds through the Cooperative Agreement for Emergency Response: Public Health Crisis Response to establish, expand, and sustain a public health workforce. Part of the funds have been used to provide software training (SAS, ArcPro, and Tableau). FHW epidemiologists have participated in these trainings.

STRETCH Grant

TDH is one of ten state public health agencies selected to participate in the national STRETCH ("Strategies to

Restore Equity and Transform Community Health”) Initiative lead by ASTHO, Michigan Public Health Institute and CDC Foundation. The goal of the initiative is to design meaningful, lasting systems of change and create inclusive public health systems by embedding equity into priorities, programs, policies, and practices. TDH is leveraging this opportunity to develop a department-wide Health Equity Plan that provides a strong foundation for creating an integrated, action-oriented approach toward economic prosperity, strengthening program infrastructure, eliminating health disparities, and assuring health equity for Tennesseans.

State Title V Partnerships and Collaborations

Tennessee’s MCH/Title V program continues to partner with numerous entities at the federal, state, and local level to serve the legislatively defined MCH populations and to expand the capacity and reach of the state MCH/Title V and CYSHCN programs. Existing partnerships are highlighted within the annual report.

The MCH/Title V CYSHSN program has a staff member responsible for Family/Youth Engagement and Involvement whose primary responsibility is to work with Family Voices to ensure opportunities for family and youth training on patient centered medical homes, transition, and policy/advocacy. In addition, several programs continue to expand their own advisory and family groups to better inform programs and services, including recruitment of regular parent participants in the Perinatal Advisory Committee and Genetics Advisory Committee. Likewise, the Community Health Access and Navigation in Tennessee (CHANT) program has incorporated family engagement to assure that the needs of children and families are being met appropriately.

Efforts to Operationalize Needs Assessment Process and Findings

Organizational Structure for Title V Priorities

Each priority has a priority lead and an epidemiology lead. The priority lead is a Section Chief within FHW with subject matter expertise in the designated priority. The epidemiology lead is an epidemiologist within FHW who works closely with programmatic data to inform the activities around the priority. There are also supporting internal staff with expertise in each subject area.

This past year, each team worked closely with the new FHW Physician Liaison for Health Equity to develop a health equity specific strategy in the action plan to decrease disparities identified in each priority area.

Partners Meetings

Internal partner meetings were held in April 2022 to review health equity action plans for each of the Title V Priorities. Feedback to identify opportunities for collaboration and align efforts to address gaps were addressed. These included representation from:

- Deputy Commissioner for Population Health
- Office of Strategic Initiatives
- Office of Primary Prevention
- Division of Health Disparities Elimination
- Division of Population Health Assessment
- Communicable and Environmental Disease and Emergency Preparedness

Internal partner meetings also provided an opportunity for teams across FHW to share best practices and strategies for shared challenges, such as community engagement.

After internal partner meetings, external partner meetings were held for each priority. Again, the focus was on the

presentation of the health equity action plan and to receive feedback. Action plans were edited after both the internal and external meetings to better meet the needs of partners. Further, several priority topics presented their health equity data and action plans to the Health Disparities Task Force in an effort to solicit feedback and increase engagement and dissemination of priorities.

FHW Staff Capacity Building for Health Equity Implementation

Overall, FHW Program Managers meetings prioritized training for leadership as well as implementation of health equity initiatives. This included trainings on implementation science methods, community engagement strategies, and structural and upstream changes to strengthen equitable program delivery. These trainings were directly applicable to the development of health equity action plans across MCH/Title V priorities.

Implementation of the Adaptome Framework

The Adaptome Model was designed to review and adapt programs to ensure that cultural sensitivity, mode of delivery, and service setting can improve, while not changing program core concepts. FHW applied the model to the Checkpoints Parent Teen Driving Agreement. Developed by Dr. Bruce Simons-Morton and tested largely with white, suburban groups, the Checkpoints Parent-Teen Driving Agreement is designed to reduce teen crashes. Most Tennessee schools that currently implement the program in large, less diverse suburban schools. Maury County Schools, Montgomery County Traffic Court, and Shelby County Officials, who represent diverse populations in Tennessee, helped review the Checkpoints Program using the model. This review was showcased during a FHW Program Managers meeting so all program managers could experience review process. Checkpoints materials were reviewed for diversity, consistency with population beliefs, technological format, health literacy, and other measures. The reviewers were given the opportunity to provide input on each measure and make suggestions to improve the program for their respective populations.

The Adaptome Model proved to be a useful tool to help communities feel empowered to make suggestions to improve evidence-based programs to meet the needs of their community. Based on the success of using the framework to review Checkpoints, other programs will be encouraged to implement the Adaptome with the guidance of the Physician Liaison for Health Equity.

Tennessee Health Disparities Task Force

The Health Disparities Task Force was formed in April 2020 to engage leaders from non-profit and faith-based organizations, academia, health care and local and state government agencies. Members meet weekly and collaboratively generate responsive solutions and policies to reduce disparities and to ensure equitable access to health care, resources and services. Nearly 1,300 interagency and community partners actively participate in meetings and special events, such as the Health Equity Book Series which has featured prominent individuals from Henrietta Lacks' family as well as Professor Sir Michael Marmot. To learn more information about the Task Force and the Division of Health Disparities Elimination, go to www.HealthDisparitiesTN.com.

Changes in Organizational Structure and Leadership

UNC Workforce Development Center

In 2021, Tennessee applied to work with the University of North Carolina's Workforce Development Center to address challenges in adapting onboarding and trainings in a virtual environment. FHW implemented the Staff Engagement Survey and presented results at a FHW Division meeting in 2022. Results reflected decreased staff engagement and satisfaction in almost all areas. Areas of concern included:

- Decreased value of employee opinion at work (91% in 2021 to 76% in 2022)
- Decreased feelings that supervisor, or someone at work, seems to care about me as a person (98% in 2021

to 85% in 2022)

- Decreased opportunities at work to learn and grow (89% in 2021 to 77% in 2022)
- Qualitative responses indicated increased satisfaction of working from home; however, responses noted management practices have not adapted and increased feelings of disconnection.

The FHW Workforce Development Workgroup operationalized action items of communications, onboarding, and employee recognition as priorities for improvement. Due to efforts of this workgroup, there is added capacity in communications and onboarding through new and reclassified state positions.

FHW transitions over the past year have filled key roles as well as presented new gaps to fill to address key emerging issues.

FHW

- Title V Program: Ashley Moore, MPH, has been in block grant coordinator role since May 2022. Ashley brings a wealth of TDH institutional knowledge as she has previously worked in Injury, Tobacco, and Perinatal Services within FHW.
- MCH Emergency Preparedness: Yolanda Vaughn, MS, PMP was started in March 2022 and is responsible for efforts aimed at prioritizing systems of care gaps for emergency preparedness. Currently, CDC Foundation supports this position.
- Emerging Issues in MCH and SSDI: Hanna Santuro stated in September 2021, and she is currently directing the HRSA MCHB Emerging Issues in Maternal and Child Health Grant. She also adds capacity to the SSDI grant and other TDH data modernization efforts.
- Chronic Disease and Health Promotion: Kimothy Warren transitioned into the Section Chief position, and now oversees MCH/Title V Priorities: Decrease Overweight and Obesity Among Children and Decrease Tobacco and E-cigarette Use Among Adolescents
- Maternal Mortality: Tina Evans, a program director, and Osa Ikhile, an epidemiologist, have joined as contractors to support the maternal deaths due to violence program. Linda Hampton joined the program as a nurse abstractor.
- Pediatric Mental Health Access: Angela Okonji recently joined as a contracted program director to support the pediatric mental health access grant. The epidemiologist position is open.
- NAS: Janelle Wenstrup joined the NAS Program as an epidemiologist, a new state position; and Candace Smith joined as a contract public health nurse to support the NAS work.
- CDC/CSTE Applied Epidemiology Fellowship: Emily Lumley, MPH started their fellowship in August 2021 and has contributed to health equity MCH/Title V alignment, emergency preparedness, and pediatric COVID-19 vaccination.
- Technical Training: Amira Wooten provides coordination for SAS, Tableau, and ArcPro courses available to TDH employees.
- Health Equity: Dr. Sophia Kostelanetz served as the physician liaison for health equity until her departure in May 2022. FHW is excited to onboard someone with prior experience in health equity to provide similar support to FHW.
- Fellows and Interns: FHW seeks to strengthen the MCH pipeline through connecting with interns and fellows early in their careers.
 - Graduate Student Epidemiology Program Intern: During Summer 2022, this intern will add capacity to the Birth Defects Program and analyze PRAMS data to inform data-to-action strategies.
 - TDH Public Health Executive Fellows: FHW matched with two fellows starting in June 2022 to increase communications capacity and support MCH/Title V implementation efforts.
 - Title V Interns: TDH matched with 2 Title V interns to support health equity efforts in Title V priorities

and emerging issues.

Tennessee Department of Health

- Commissioner: Lisa Piercey stepped down as Commissioner in May 2022. Governor Lee appointed Morgan McDonald, former Tennessee MCH/Title V Director, to the interim position starting in June 2022.
- Chief Data Officer: Stephen Espy was appointed to a new TDH position, Chief Data Officer, over the Office of Informatics and Analytics.
- Vaccine Medical Director: After a one-year vacancy, the position of Medical Director for Vaccine Preventable Diseases and Immunization Program was filled by Dr. Caitlin Newhouse.
- Interim Director of Vital Statistics: Alyson Holland is the current interim director of Vital Statistics and brings many years of experience within the Office of Vital Statistics.
- Interns: TDH initiating paid internships (starting at \$15/hour) in Summer of 2022.

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

[2022 Application/2020 Annual Report – Needs Assessment Update](#)

[2021 Application/2019 Annual Report – Needs Assessment Summary](#)

III.D. Financial Narrative

	2019		2020	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	\$12,750,000	\$11,449,081	\$12,750,000	\$9,115,297
State Funds	\$32,000,000	\$14,002,061	\$14,000,000	\$10,802,455
Local Funds	\$0	\$0	\$0	\$0
Other Funds	\$0	\$0	\$0	\$0
Program Funds	\$2,881,646	\$1,853,003	\$2,100,000	\$2,331,656
SubTotal	\$47,631,646	\$27,304,145	\$28,850,000	\$22,249,408
Other Federal Funds	\$174,823,962	\$119,705,038	\$159,282,034	\$115,089,592
Total	\$222,455,608	\$147,009,183	\$188,132,034	\$137,339,000
	2021		2022	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	\$11,800,000	\$9,820,712	\$11,800,000	
State Funds	\$14,000,000	\$11,460,032	\$12,100,000	
Local Funds	\$0	\$0	\$0	
Other Funds	\$0	\$0	\$0	
Program Funds	\$1,900,000	\$1,704,676	\$1,200,000	
SubTotal	\$27,700,000	\$22,985,420	\$25,100,000	
Other Federal Funds	\$139,734,625	\$113,033,455	\$153,475,117	
Total	\$167,434,625	\$136,018,875	\$178,575,117	

	2023	
	Budgeted	Expended
Federal Allocation	\$11,800,000	
State Funds	\$11,500,000	
Local Funds	\$0	
Other Funds	\$0	
Program Funds	\$1,800,000	
SubTotal	\$25,100,000	
Other Federal Funds	\$171,947,087	
Total	\$197,047,087	

III.D.1. Expenditures

The Division of Administrative Services within TDH is responsible for all fiscal management. Division staff uses Edison which is the State of Tennessee's Enterprise Resource Planning (ERP) system for budgeting, collection of revenues and distribution of expenditures. Computer generated cumulative expenditure and receipt plan analysis, transaction listings and spending/receipt plans are available statewide on-line for all MCH programs. This information can be accessed by both central and regional office staff. Financial audits are the responsibility of the Comptroller's Office. All departments, offices and programs within state government are subject to frequent audits. Contract agencies are also audited frequently. MCH program staff provide site visits and program monitoring at contract agencies in order to assure compliance with the contract's scope of services. Fiscal monitoring of contract agencies is the responsibility of TDH's Internal Audit staff.

Federal Title V, state and other federal funds were expended in FY 2021 to support MCH programming throughout the state. The outcomes discussed in the state action plan and other sections of the application could not have been achieved without the federal Title V funding. The Title V FY 2021 expenditures, both federal and non-federal, align with Tennessee's MCH priority needs resulting from the 2020 Needs Assessment, as identified in Form 9.

The expenditures for FY 2021 are presented in Form 2, Form 3a and Form 3b of the application. The current indirect cost rate agreement can be found in the Supporting Documents section.

The Tennessee MCH/Title V Program met all legislative requirements regarding the spending of grant funds. This includes a maintenance of effort in the amount of \$13,125,024 set by the state in 1989. This figure is based on the amount the state was spending on maternal and child health programs in 1989. The state is required to continue to contribute at least this amount to the program in order to receive this federal grant. The state is on track to meet the maintenance of effort amount for the FY 2021 award. The state is also required to match the federal dollars. For every four federal dollars the state receives, the state must contribute three dollars. As of May 2022, Tennessee has used \$9,820,712 of the FY 2021 federal allocation, therefore the required match on that amount is \$7,365,534. Tennessee has expended \$13,164,678 of state MCH funds, which meets the required state match. As specified in Section 504(d) and Section 505(a)(3), at least 30% of federal grant funds are spent on preventive and primary care for children, 30% on children with special health care needs, and no more than 10% on administrative cost. Tennessee has met these thresholds for the FY 2021 award (Form 2, Annual Report Expended, Lines 1A-C):

- Line 1A, Preventive and Primary Care for Children – 4,045,404 (41%)
- Line 1B, Children with Special Health Care Needs – \$3,575,196 (36%)
- Line 1C, Title V Administrative Costs – \$588,232 (6%)

In Form 2, Annual Report Expended, Lines 1, 1B, 1C, 3 and 6 were flagged as greater or less than 10% of the Annual Report Budgeted due to the following reason:

- The federal allocation is unknown when the budget is originally submitted with the application. Therefore, the budget is created based on an estimate. In FY2021 the estimate was higher than the actual allocation. Due to this many budget categories had to be adjusted, including this line item.

As illustrated in Form 2, Annual Report Expended, Line 9, improvements to maternal and child health were also supported by a variety of other federal funds in FY 2021, including Women, Infants and Children (WIC), State Systems Development Initiative (SSDI), Maternal, Infant, and Childhood Home Visiting Program (MIECHV), Title X Family Planning, and Tobacco Control Programs, among others.

Each year, the Tennessee Title V/MCH Program completes an assessment of expenditures by the types of individuals served as reflected in Form 3a. In Form 3a, Annual Report Expended, Title V FY 2021 Block Grant federal expenditures totaled \$9,232,480 excluding administrative costs, and included services provided to Pregnant Women (\$39,729), Infants <1 year (\$647,022), Children 1 through 21 years (\$3,536,357), CSHCN (\$2,727,213) and All Others (\$9,232,480). Title V FY 2021 state expenditures totaled \$11,460,032 excluding administrative costs, and included services provided Pregnant Women (\$270,579), Infants < 1 year (\$1,308,969), Children 1 through 21 years (\$4,348,021), CSHCN (\$2,299,767), and All Others (\$3,232,689).

FY 2021 total expenditures for the federal-state Title V Block Grant Partnership was \$20,692,512 excluding administrative costs. The FY 2021 federal award and state match MCH/Title V Program dollars supported programs across the health domains as illustrated below. Some of the programs span multiple domains, and therefore are repeated among the domains.

Federal Funds				
Women's/Maternal	Perinatal/Infant	Child Health	Adolescent Health	CSHCN
Breast and Cervical Cancer Screening Program	Child Fatality Review and Prevention Program	Child Fatality Review and Prevention Program	Child Fatality Review and Prevention Program	Children's Special Services (Tennessee's MCH/Title V CSHCN Program)
Family Planning Program	Genetics/Sickle Cell Centers	Lead Poisoning Prevention Program	Family Planning Program	
	Newborn Screening Follow Up	Primary Care Child Health Services (local health department)	Lead Poisoning Prevention Program	
	Primary Care Child Health Services (local health department)		Primary Care Child Health Services (local health department)	

State Match Funds				
Women's/Maternal	Perinatal/Infant	Child Health	Adolescent Health	CSHCN
Breast and Cervical Cancer Screening Program	Child Fatality Review and Prevention Program	Child Fatality Review and Prevention Program	Child Fatality Review and Prevention Program	Children's Special Services (Tennessee's MCH/Title V CSHCN Program)
Primary Care Women's Health Services (local health department)	Genetics/ Sickle Cell Centers	Child Health and Development Program	Adolescent Pregnancy Prevention	CSHCN Program)
	Newborn Screening Follow Up	Healthy Start (Tennessee program, not federal Healthy Start)	Lead Poisoning Prevention Program	Genetics/ Sickle Cell Centers
	Primary Care Child Health Services (local health department)	Lead Poisoning Prevention Program	Primary Care Child Health Services (local health department)	Lead Poisoning Prevention Program
		Primary Care Child Health Services (local health department)		Newborn Screening Follow Up

In Form 3a, FY 2021 Annual Report Expended, the lines below were flagged as greater than or less than 10% of the Annual Report Budgeted due to the following reasons:

- Form 2, Annual Report Expended, IA. Line 3 – The discrepancy between the amount expended for Children 1-21 Years on Form 3a and the amount expended for Preventive and Primary care for Children (Form 2, Line 1A) is due to classification of particular programs that span multiple populations. For example, family planning funds are used, in part, to serve children ages 1-22 but also serve other populations (and therefore are not counted in the "Preventive and Primary Care for Children" category on Form 2).
- Form 2, Annual Report Expended, IA. Line 4 – The discrepancy between the amount expended for CSHCN on Form 3a and the amount expended for CSHCN (Form 2, Line 1B) is due to classification of particular programs that span multiple populations. For example, child health funds are used, in part, to serve CSHCN but also serve infant and child populations (and therefore are not counted in the "CSHCN" category on Form 2).

Title V expenditures are also assessed types of services. In Form 3b, Annual Report Expended, FY 2021 Title V Block Grant federal expenditures totaled \$9,820,712 for MCH services. Title V FY 2021 federal expenditures for Direct Services totaled \$799,246, which included Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants Up to Age One (\$254,524), Preventive and Primary Care Services for Children (\$29,749), and

Services for CSHCN (\$514,973). Title V FY 2021 federal expenditures for Enabling Services totaled \$6,699,894 and Public Health and Systems totaled \$2,351,572. State expenditures for FY 2021 totaled \$11,460,032 for MCH services. Title V FY 2021 state expenditures for Direct Services totaled \$501,380, which included Preventive and Primary Care Services for Children (\$18,053) and Services for CSHCN (\$483,327). FY 2021 state expenditures for Enabling Services totaled \$8,000,211 and Public Health Services and Systems totaled \$2,958,441.

Estimates of the reach of the MCH/Title V program in terms of population served is listed on Form 5a and 5b. As reflected in Form 5a, the estimated total count of individuals served via Direct, and Enabling Services was 237,522. As reported on Form 5b, Tennessee's MCH/Title V program has the widest reach among Pregnant Women (100%) and Infants < 1 Year of Age (99.6%) categories through the work of the perinatal centers and newborn screening. Approximately 63% of all Children 1 through 21 Years of Age were reached. The CSHCN (1.8%) and Others (4.1%) categories have a much smaller reach. Tennessee's MCH/Title V program continues to build partnerships and explore ways to heighten awareness of programs to expand its reach.

Tennessee supports Title V regulations to use MCH Block Grant funds as a payer of last resort. It also should be noted that none of the services paid by the grant were reimbursable by other agencies (namely Medicaid) or providers. This is assured through eligibility determination processes for programs such as CSS as well as regular communication with TennCare regarding the reimbursement services of the MCOs. Any unobligated balance noted in the report will be used to support program activities through the end of FY2022.

III.D.2. Budget

Tennessee state law requires all departments to submit a complete financial plan and base budget request for the ensuing fiscal year that outlines proposed expenditures for the administration, operation, and maintenance of programs. Budget guidelines are prepared annually by the Department of Finance and Administration. The Department's Budget Management Office, in cooperation with all programs, is responsible for the preparation of the budget documents. The base budget request becomes law after it is approved by the General Assembly and signed by the Governor. A work program budget is then developed for each program.

TDH uses a cost allocation system for the local health departments. Costs are allocated using two specific methods, the direct cost allocation method and the resource based relative value method (RBRVS). The direct cost allocation method is used when costs can be directly allocated to one or more programs. Any cost can be directly allocated when coded correctly on the appropriate accounting document. Direct cost allocation is used primarily for costs that arise from administrative support staff in the Department's central and regional offices and for selected contract expenditures. The RBRVS cost allocation method is used to allocate costs which cannot be directly allocated to one or more programs. These costs arise from the delivery of direct health or patient care services in local health departments. RBRVS adds weighted encounter activities using relative value units and allocates costs based on the percentage of activity for each program. RBRVS is a federally approved cost allocation method for TDH. RBRVS is linked at the service delivery level to AS 400 computers at the regional and central offices.

Program encounter data are entered at local health departments for direct patient care services using Current Procedural Terminology (CPT) codes and program codes. Relative value units assigned to each procedure code allow a proportionate amount of cost to be associated with each procedure. RBRVS provides quarterly cost allocation reports to central and regional office staff. These reports are used to monitor and manage expenditures, determine cost for services provided, and allocate resources as needed.

The Title V FY 2023 budget estimates, both federal and non-federal, align with Tennessee's ten MCH priority needs resulting from the 2020 Needs Assessment, as identified in Form 9. Staff funded through the Title V/MCH Block Grant will coordinate efforts to address the priority needs through the strategies below.

1. **Increase family planning** – Evidence-based or informed activities will be implemented to (a) Increase the knowledge, awareness, and usage of reproductive life plans through PATH; (b) Increase rural access to family planning services through telehealth; and (c) Increase access to women's health services by addressing and eliminating barriers to care through client navigation.
2. **Decrease pregnancy-associated mortality** – Evidence-based or informed activities will be implemented to (a) Increase surveillance of maternal deaths; (b) Increase education at hospitals on topics identified by the Maternal Mortality Review Committee (MMRC); and (d) Increase access to services through community agency involvement to improve maternal health outcomes.
3. **Increase breastfeeding** Evidence-based or informed activities will be implemented to (a) Cultivate a diverse community of professional lactation support through education and training opportunities across health care disciplines; and (b) Re-enforce lactation policies that positively influence breastfeeding practices in the workplace.
4. **Decrease infant mortality** – Evidence-based or informed activities will be implemented to (a) Reduce infant sleep-related deaths, with outreach focused on regions with the highest infant mortality rates, the highest

reported number of sleep-related deaths, and the widest racial disparity among sleep-related deaths (West TN Region, Shelby County, Davidson County East Region and Mid-Cumberland Region); (b) Improve perinatal health outcomes through quality improvement and regionalization efforts; and (c) Reduce infant deaths due to prematurity and low birthweight by reducing infant exposure to tobacco.

5. **Decrease overweight and obesity among children** – Evidence-based or informed activities will be implemented to (a) Support school-based efforts to promote physical activity and good nutrition; (b) Promote Gold Sneaker voluntary recognition program for licensed childcare centers; (c) Partner with healthcare providers to promote physical activity counseling during well-child visits; and (d) Promote policy, systems, and environmental change (PSE) strategies to increase physical activity and promote access to healthy food and beverages.
6. **Increase prevention and mitigation of Adverse Childhood Experiences (ACEs)** – Evidence-based or informed activities will be implemented to (a) Increase knowledge and practice of ACE and Trauma Informed Care (TIC); (b) Ensure a strong start for children by promoting a healthy parent-child attachment through implementation of home visiting programs throughout the 95 counties of Tennessee; (c) Intervene to lessen immediate and long-term harms by linking families to health and social services; and (d) Increase access of non-English speaking families to infant and early child health and development education and services.
7. **Decrease tobacco and e-cigarette use** – Evidence-based or informed activities will be implemented to (a) Engage youth to increase tobacco prevention and anti-tobacco engagement strategies to shift social norms around tobacco use in communities; (b) Engage partner organizations and utilize social media to increase the reach and impact of tobacco cessation programs among youth; and (c) Engage community-based coalitions and LGBTQ-youth serving organizations to promote tobacco control policies and awareness of disparities and existing resources for at-risk youth.
8. **Increase medical homes among children with special health care needs** - Evidence-based or informed activities will be implemented to (a) Create a shared vision for integrating and improving CYSHCN system of care; (b) Inform and educate families and providers to promote systems change; (c) Identify and disseminate resources on medical home best practices in Tennessee to inform and educate families and providers on care-coordination benefits; (d) Inform and provide coordination for CHANT families on medical home and care coordination benefits; and (e) Inform and provide coordination for CHANT families on medical home and care coordination benefits.
9. **Improve transition from pediatric to adult care among children with special health care needs** – Evidence-based or informed activities will be implemented to (a) Inform, educate and link YSHCN, families and providers to available transition resources and services, and how to access those services; and (b) Promote successful transition through educational opportunities and self-advocacy training.
10. **Improve mental health** – Evidence-based or informed activities will be implemented to (a) Use evidence-based screening tools to screen pregnant and postpartum women for perinatal mood and anxiety disorders and refer to mental health resources, if indicated; (b) Implement school-based gatekeeper training; and (c) Launch the Pediatric Mental Health Care Access Program in West TN.

Form 2, Form 3a and Form 3b have been completed in accordance with the guidance. Tennessee is requesting a federal funding amount for FY 2023 that is level with the FY 2022 request, \$11,800,000. The current indirect cost rate agreement can be found in the Supporting Documents section.

Tennessee's planned budget for FY 2023 is in full compliance with the federally mandated 30% - 30% - 10% threshold requirements as specified in Section 504(d) and Section 505(a)(3), (Form 2, Application Budgeted, Lines 1A-C):

- Line 1A, Preventive and Primary Care for Children – 4,838,000 (41%)
- Line 1B, Children with Special Health Care Needs – \$4,248,000 (36%)
- Line 1C, Title V Administrative Costs – \$826,000 (6%)

The maintenance of effort requirement for maternal and child health programs in Tennessee was established in 1989. This requirement specifies that the state must, at minimum, continue to fund Tennessee MCH program efforts using state funds at the level it was in 1989. At that time Tennessee calculated its maintenance of effort to be \$13,125,024.28. This calculation was based on an analysis of 15 months of expenditures for the program, adjusted for differences between the state and federal fiscal years, as well as adjustments for accrued liabilities. The state is also required to match every four federal dollars received with three state dollars. Tennessee fully utilizes Maternal and Child Health Block Grant funding within the 24-month allowable timeframe and meets all targeted maintenance and match requirements set forth in the grant regulations (Form 2, Application Budgeted, Line 7). TDH monitors its maintenance of effort and state match annually and has met requirements in all reporting years.

The Tennessee MCH/Title V Program is not proposing major changes to the reported budget for this year. Apart from Form 2, Application Budgeted, Line 9, which includes other federal funds that were recently added to the MCH/Title V Program portfolio, the budget will mirror that of the FY 2022 budget. Federal dollars are used to extend the reach of state dollars and support some of the efforts and outcomes discussed in the state action plan and elsewhere in the application. The MCH/Title V director leverages other federal dollars from the programs listed below which are under the director's control.

Other Federal Grants

- Birth Defects and Developmental Disabilities
- BOLD Public Health Programs to Address Alzheimer's Disease and Related Dementias*
- Commodity Supplemental Food Program (CSFP)
- Comprehensive Suicide Prevention
- Diabetes, Heart Disease & Stroke Prevention & Management Program (1815)
- Early Hearing Detection and Intervention (EHDI) State Programs
- Injury Prevention and Control
- Maternal, Infant and Early Childhood Home Visiting Program (MIECHV) American Rescue Plan (ARP)*
- Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Formula Grants
- Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Innovation Grant*
- National Breast and Cervical Cancer Early Detection Program (NBCCEDP)
- National Comprehensive Cancer Control Program (NCCCP)
- Partnership Programs to Reduce Maternal Deaths due to Violence*
- Preventing Maternal Deaths: Supporting Maternal Mortality Review Committees
- Pediatric Mental Health Care Access Program*
- Preventive Health Services Block Grant
- Rape Prevention and Education (RPE) Program
- Sexual Risk Avoidance Education (SRAE)
- State and Local Healthy Homes and Childhood Lead Poisoning Prevention Programs (CLPPPs)
- State Systems Development Initiative (SSDI)
- Sudden Death in the Young (SDY) Registry

- TBI Workforce Development*
- The Loving Support Peer Counseling Program (Breastfeeding)
- Title X Family Planning
- Tobacco Control Programs
- Traumatic Brain Injury
- Universal Newborn Hearing Screening and Intervention
- Women, Infants, and Children (WIC)

*Denote grants added since last year.

All programs of the TDH must be free from discrimination. TDH's non-discrimination policy is as follows: Title VI of the Civil Rights Act of 1964 requires that federally assisted programs be free of discrimination. In accordance with Federal civil rights laws, the Tennessee Department of Health does not tolerate harassment and discrimination based upon any protected class including race, color, national origin, sex, age, disability or reprisal or retaliation, in any program or activity conducted or funded by TDH. Such harassment and discrimination constitute misconduct which undermines the integrity of the employment relationship and is subject to disciplinary action, up to and including dismissal.

In Form 3a, Application Budgeted, the FY 2023 federal Title V Block Grant planned budget totals \$10,974,000 excluding administrative costs, and the planned state budget totals \$11,500,000 excluding administrative costs. The FY 2023 planned budget for the federal-state Title V Block Grant Partnership is \$22,474,000 excluding administrative costs. In Form 3a, Application Budgeted, lines were flagged as not equal to Form 2, Application Budgeted, due to the following reasons:

- IA., Line 3 – The discrepancy between the amount budgeted for Children 1-21 Years on Form 3a and the amount budgeted for Preventive and Primary care for Children (Form 2, Line 1A) is due to classification of particular programs that span multiple populations. For example, family planning funds are used, in part, to serve children ages 1-22 but also serve other populations (and therefore are not counted in the "Preventive and Primary Care for Children" category on Form 2).
- IA, Line 4 – The discrepancy between the amount budgeted for CSHCN on Form 3a and the amount budgeted for CSHCN (Form 2, Line 1B) is due to classification of particular programs that span multiple populations. For example, child health funds are used, in part, to serve CSHCN but also serve infant and child populations (and therefore are not counted in the "CSHCN" category on Form 2).

Budgeted amounts outlined in Form 3b support Tennessee's intention to spend the majority of its anticipated FY 2023 Title V federal and state funding on enabling and public health services and systems. Tennessee supports Title V regulations to use MCH Block Grant funds as a payer of last resort. The amounts budgeted for direct services are estimates of costs not reimbursable by other agencies (namely Medicaid) or providers.

III.E. Five-Year State Action Plan

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

State: Tennessee

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 in Accomplishing Goals and Mission

The purpose of the MCH/Title V Program is to broadly support and improve the health of the maternal and child population in Tennessee. This is done by identifying priority needs and working with partners to leverage program capacity to meet those needs, which ultimately improves health outcomes for women, infants, children, and families across the state. Tennessee's MCH/Title V Program works to convene MCH partners at least twice a year, so that all programs serving these populations can be strategically aligned statewide. This strategic alignment is imperative for utilizing resources efficiently and assuring the greatest impact.

Framework and Approach to Addressing the MCH Priorities

The MCH Block grant works within a life course framework, operationalized by the population health domains below. Through these domains the MCH population is subdivided into time periods that represent important stages in life. States are required to choose at least one priority within each domain, ensuring that priorities are spread across the life course.

Population Health Domains:

- Women/Maternal Health
- Perinatal/Infant Health
- Child Health
- Adolescent Health
- Children with Special Health Care Needs (CYSHCN)
- Cross-cutting/Life Course

Utilizing information gathered through the comprehensive needs assessment, the Tennessee Title V/MCH program identifies priority areas and then assembles teams to work on each area. Each FHW senior leader, and their program/epidemiology staff, are entrusted to lead at least one priority. The teams are responsible for developing action plans, implementing the plans, reporting on progress, and measuring success. All of this is done in collaboration with MCH partners at multiple touchpoints throughout the year.

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

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

State-level program planning is provided by individual program directors, in consultation with Tennessee's MCH/Title V Director and senior leadership within FHW. FHW program directors gather monthly for a Program Management meeting, during which staff outline program goals and objectives, map program activities to state priority measures, discuss opportunities for linkages between MCH programs, and work through challenges common across programs. The Program Management meetings also provide an opportunity for ongoing professional development among the Central Office MCH workforce. These monthly meetings also provide an opportunity to familiarize staff with Departmental operations, procedures and policies. FHW staff development is also incorporated into monthly administration meetings and less formal monthly staff lunch and learn sessions. Quarterly staff meetings bring all FHW staff together to celebrate successes, share key information, and develop strategy for key division and department priorities.

Some staff participate in LEAD Tennessee, a statewide, 12-month development initiative which includes six one-day summits of intense, personally tailored, high impact learning focused on twelve core leadership competencies. The goal of LEAD Tennessee is to increase the state's leadership bench strength by providing agencies with a continuous pipeline of motivated and prepared leaders that share a common language and mindset about great leadership.

Since 2016, TDH has partnered with the Public Health Information Access Project through the National Library of Medicine (NLM). This partnership provides TDH staff with full-text access to over 240 peer-reviewed journals (including MCH-related journals). Additionally, a partnership with East Tennessee State University facilitates inter-library loan access to other articles not available through the NLM project. MCH/Title V Program funds are used to support the NLM project. MCH/Title V program staff have been instrumental in developing workforce development opportunities in the use of the public health library and teaching of literature reviews for both FHW and TDH.

In May of 2021 a new position was established in FHW for a Director of Strategic Development. This position is responsible for developing staff knowledge and skills as well as fostering partnerships with other MCH population serving agencies. The director surveyed division staff to identify topic areas for development. The survey results ranged from developing leadership skills to learning new data analysis software. Over the coming year the MCH/Title V Program is planning to offer development opportunities on a wide range of topics gathered from the survey. Participation will be voluntary in order to garner genuine interest.

Since 2020 special effort has been made to provide professional development specifically to FHW epidemiologists. This included purchasing software licenses and training for Tableau, a data visualization software. Program staff were also welcomed to join the training, but most participants were epidemiologists. The only requirement to participate was to create a dashboard that was beneficial to an FHW program. In 2021 epidemiology staff were also trained on how to use SQL in SAS, which will allow epidemiology staff to use large, linked datasets available within the department. This was funded through both the MCH/Title V Program and the Emerging Issues in MCH grant.

Over the last year the MCH/Title V Program has worked to expand the workforce where possible. The MCH Block Grant Coordinator position was filled in May. A new position of MCH Emergency Preparedness and Response Coordinator was created and hired with support from the CDC Foundation. Two TDH Public Health Executive Fellows were recruited to help priority teams implement their action plans and develop communication materials to advertise MCH/Title V programs to the public.

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

FHW recognizes the vital nature of parental involvement throughout our division in program development, implementation, and evaluation. The Division has a longstanding collaborative relationship with Tennessee Family Voices, beginning with an enhanced effort to integrate parent and youth input in all aspects of MCH and FHW services. Advances have been made over the past few years to further involvement of parents in planning, programming and implementing Tennessee's Title V Programs. Family members have attended and participated in Tennessee's Block Grant Review since 2015 and have attended the AMCHP meeting as a Family Delegate and part of the Tennessee delegation since 2013.

TDH continues to partner with Family Voices and provides funds to ensure the Parent-to-Parent mentoring program can continue to provide parent matching, mentoring and build skill and capacity for parents to be active, engaged partners in their child's health. The CSHCN Program has implemented a number of activities in partnership with Family Voices to further expand parent involvement including development of training and leadership opportunities. Significant accomplishments include:

- Youth, parents and family members participate in youth and parent led training and workshops that include training on partnering in decision-making, self-advocacy, transition and reinforcing expectations with their health care provider for comprehensive and coordinated care.
- TDH contracts with Family Voices to hire parent and youth consultants to assist with the coordination of family and youth activities and the coordination of the youth advisory committee.
- TDH and Family Voices collaborated on several projects during this reporting period and co-presented on both Family Voices and AMCHP's annual conferences regarding the importance of Family Led Organizations and State Title V agencies working together to strengthen youth and family engagement. FHW collaborated with Family Voices and LEND to create the Youth Advisory Committee (YAC). Currently there are nineteen active members who continue to meet and focus on several priorities, i.e., self-advocacy, funding opportunities, transition – speaking to your provider and member recruitment and retention. The Family Voices' Youth Consultant and the FHW CYSHCN Integrated System of Services Coordinator have primary responsibility for this committee and continue to engage LEND participants who assist with planning and facilitating meetings. During FY 2020, YAC participants and their parents received training on self-advocacy, leadership and "speaking to your elected officials". Youth and parents attended Disability Day on the Hill and participated in legislative forums individually and in groups. During the height of the COVID-19 pandemic, the youth met to discuss virtual versus in-person learning and mask mandates. The Youth Advisory Council utilized several virtual platforms to continue mentoring and meeting with youth from different programs. Prior to COVID-19, there were serious concerns about individualized education plans and understanding IEP meetings. The Tennessee Department of Education was invited to meet with the youth and parents/guardians and address all questions. Lastly, several members of the youth advisory council continue to participate in Disability Day on the Hill and have opportunities to speak with their legislature.

Through the newborn hearing screening grant, TDH contracts with Family Voices to conduct the Parent Empowerment Access and Resources (PEARS) program. PEARS is dedicated to directly supporting families, their infants and toddlers who are identified with any degree of hearing loss by offering them the opportunity to talk to or meet face-to-face with a Parent Guide. PEARS provides a strong foundation in supporting families without bias regarding communication modes or methods as well as functional understanding of supports and services available to families and their children. Parents also serve on the newborn hearing screening and follow-up task force.

Family representatives routinely attend and participate in the Genetics Advisory Committee (GAC) and Children's Special Services (CSS) Advisory Committee meetings and the Tennessee Birth Defects Advisory Committee (TNBDSS). The GAC meetings focus on the state's newborn screening and follow-up program, and members advise the Department on program operations and the addition of screening tests to the state's testing panel. The CSS Advisory Committee meetings focus on issues related to the management and operation of the CSS program (Tennessee's Title V CSHCN Program) as well as broader issues impacting all CYSHCN. The Birth Defects meetings focus on prevalence, trends and preventive measures for birth defects and infant mortality.

In 2019, TDH partnered with Family Voices to host focus groups with families of CYSHCN as part of the five-year Title V Needs Assessment and participated in all activities related to the Needs Assessment and the block grant development. The Family Voices Director and former AMCHP Family Scholar and Delegate partners with the CYSHCN Director to co-chair the stakeholder meetings during which key MCH stakeholders provide input on the selection of priority areas and national performance measures. Family members continue to participate on the MCH Block Grant Stakeholder group for children and youth with special health care needs and the other seven domains. Family Voices staff continue to work with families on issues related to violence in the Injury and Prevention section of FHW.

Family members have continued to participate in the annual statewide professional development training for Children's Special Services staff. Parents spoke about how Tennessee's Title V CSHCN program had impacted their family and provided care coordinators and administrative staff with guidance on how to engage families and partner in the care of their child with special health care needs. This was particularly impactful for the 100th anniversary of the CSS program.

During FY18, the CYSHCN staff developed a state-wide youth workgroup comprised of multiple state departments and local agencies that target youth with special health care needs ranging from 14-24 years of age. Agencies in this work group include Departments of Health, Education, Mental Health and Substance Abuse Services, Intellectual and Developmental Disabilities, Human Services (Vocational Rehabilitation), Labor (Workforce and Development), Children's Services, TN Voices and Family Voices. This group initially met to strategize around recruitment and retention of members, however realized that many of them have the same requirements and concerns regarding youth engagement and involvement. The workgroup meets monthly in which agency and youth council updates, new projects and effective advice are shared. In June 2022, the workgroup held the third statewide Youth Summit focusing on youth/family engagement and involvement. The summit included youth and families from all departments; and chose "*Advocating for U(s) as the theme*. Youth from each of these groups were integral in planning the summit and facilitated break-out sessions. The summit provided opportunities for the attendees to learn tools for transition to adulthood and tips on how to navigate systems of care, including mental and behavioral health, successfully.

Family Voices staff, members of the Youth Workgroup, parents of CYSHCN and youth are all active participants in the MCH Block Grant process. Members of each group participated in the Five-Year Needs assessment, helped to choose the CYSHCN priority, assisted in developing the CYSHCN logic model, strategies, activities, ESMs, NPMs, SPMs, NOMs, and SOMs. TDH was intentional in providing opportunities for all to participate, there were meetings held during the normal working hours and meetings held at night and on the weekend to ensure that youth and family members would be able to participate. These initiatives led to a well thought-out process with invaluable input from all participants.

The CYSHCN program continues to work towards system building for all children and have created partnerships with numerous interdisciplinary stakeholders, including TEIS, evidence based home visiting, the TN Council on Developmental Disabilities, TN Department of Labor and Workforce Development, TN AWARE, the Council on

Children's Mental Health, Family Voices, Tennessee Voices for Children, LEND, TN Disability Pathfinders, Vocational Rehabilitation, Tennessee Commission on Children and Youth, Transition Tennessee and several employment programs and task forces for children with and without disabilities. The CYSHCN program also continues working towards improving the quality of care across systems, the department's newly formed CHANT program will increase opportunities for engagement, navigation and resource referral for all children and families. Collaborative efforts with TennCare, TNAAP and other public health programs are aimed at building systems and improving quality of care across systems. The CYSHCN program also promotes program and policy change for system building and is engaged in the Division's efforts around creating optimal health for all and works to ensure health equity is included in CYSHCN, Division, and Departmental policies and procedures.

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

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

MCH Epidemiology Workforce

FHW recognizes the value of using data to understand population health in order to implement programs that meet the health needs of the MCH population. As a division, significant investments have been made to increase data analysis capacity over the last decade. In 2010 there were zero epidemiologists within the division, now there are nineteen including one CDC Senior Maternal and Child Health Epidemiology Program Assignee and one CDC/CSTE Applied Epidemiology Fellow. All nineteen epidemiologists are full time staff members who support individual programs, or multiple programs, within the division as well as Tennessee's Title V/MCH Program. The MCH/Title V Program links the work within the division together, therefore it is a collaborative division-wide effort led by our Division Director/Title V Director.

Funding Structure

Most epidemiologists are paid through federal grants within their specific sections based on the individual programs they support. However, for many a portion of their salary comes from the MCH/Title V Program. Due to limited state hiring abilities, some epidemiologists come in as contract employees.

New epidemiologist positions hired in 2021 – 2022 include positions to support the following grants. Due to hiring processes at the state level, three new epidemiologists were hired through contracts rather than state positions.

- Birth Defects (Epi II)
- Pediatric Mental Health Access (Epi I)
- NAS (Epi I)
- Maternal Deaths due to Violence (Epi I)

Education and Training

Of the nineteen epidemiologists, four hold terminal degrees in epidemiology or statistics. The others possess master's degrees in either epidemiology, biostatistics, healthcare informatics, or health policy. Together, there is over 75 years of experience working in the field of epidemiology.

Roles and Responsibilities

The epidemiologists provide broad support for data analysis and program evaluation across FHW and specialized support in each section including reproductive and women's health, supplemental nutrition, injury prevention and detection, early childhood initiatives, chronic disease prevention and health promotion, perinatal infant and pediatric care, and children and youth with special healthcare needs. The specific programs within those sections include:

- Reproductive and Women's Health:
 - Family Planning, Perinatal Regionalization, Presumptive Eligibility, Sexual Risk Avoidance Education, Rape Prevention and Education, Breast and Cervical Cancer Screening Program
- Perinatal Infant and Pediatric Care
 - Newborn Metabolic Screening, Newborn Hearing Screening, Childhood Lead Poisoning Prevention
- Supplemental Nutrition
 - WIC, WIC Loving Support Program, Commodity Supplement Nutrition Program, Breastfeeding Hotline

- Injury Prevention and Detection
 - Infant Mortality Reduction, Child Fatality Review, Maternal Mortality Review, Maternal Deaths due to Violence, Traumatic Brain Injury, General Injury Prevention, Suicide Prevention
- Early Childhood Initiatives
 - Home Visiting, Healthy Start (state program, not federal healthy start), CHANT, NAS, Pediatric Mental Health Access
- Chronic Disease Prevention and Health Promotion
 - Gold Sneaker, Preventive Health and Health Services Block Grant, Tobacco, Project Diabetes, Diabetes, Heart Disease, and Stroke (1815), Comprehensive Cancer
- Children and Youth with Special Healthcare Needs
 - CSS, Birth Defects

Specific to MCH/Title V Program responsibilities, there is a programmatic and epidemiology lead for each priority. All other epidemiologists are assigned to a priority as additional support staff. They fill in as needed and broaden the bandwidth for data analysis work around each priority. This allows for more in-depth and therefore richer understanding of the health needs and programmatic impacts for each priority. They have a very active role in the comprehensive and ongoing needs assessment as well as state measure development and tracking for the annual action plan and report.

Additional MCH Epidemiology Capacity

CDC/HSPH Evaluation Practicum

In 2022, Tennessee participated in the CDC/Harvard School of Public Health Program Evaluation Practicum for its Birth Defects Surveillance System. The purpose of the Tennessee Birth Defects Surveillance System (TNBDSS) is to collect and utilize statewide birth defects data to describe the epidemiology of birth defects, to identify disparities, risk factors, and emerging threats, and to evaluate and support interventions, with the overall goal to reduce the occurrence of birth defects and improve health outcomes of affected children. This project was aimed to develop an evaluation to address the following questions:

- What is the accuracy of the TNBDSS before and after the enhanced surveillance interventions?
- How is TNBDSS supporting primary prevention efforts?
- What are barriers to enrolling families of infants born with a qualifying birth defect into supportive services?

Graduate Student Epidemiology Program

In 2022, Tennessee participated as a host site for the Graduate Student Epidemiology Program. With the mentorship of both PRAMS epidemiologist and the Birth Defects program, the intern analyzed multivitamin use questions on PRAMS data by demographic characteristics to inform programmatic efforts.

Title V Interns

TDH FHW is pleased to have matched with Title V Interns focused on advancing health equity within the MCH/Title V priorities and emerging issues. The key areas they will work to advance during Summer 2022 include:

- Medical Home & Transition Priorities: Conducting key informant interviews with CSS staff and participants on barriers and facilitators to transition planning and medical home enrollment
- Emergency Preparedness: Conducting key informant interviews with parents of children with medical technology dependence to understand their experiences related to power outage situations and emergency

preparedness

- Family Planning: Conducting key informant interviews with MCH Regional Directors to understand the challenges and experiences associated with the implementation of telehealth for family planning in health departments

-

MCH Workforce Capacity Assessment

An annual survey is administered to all FHW epis to determine priorities for professional development opportunities. In 2022, additional questions related to employee connectedness and professional advancement were also included. There were 15 responses to the survey, for a response rate of 71%. Key takeaways from the survey included:

Development

Almost all respondents, 94%, strongly agreed/agreed they have the professional development resources needed to learn and grown as an epidemiologist. More than half, 54% found the 2021 FHW Epi professional development series helpful, particularly sessions on missing data, surveillance systems, and SAS. Specific interests for further professional development opportunities in 2022 included: SAS Macros (86%); SAS SQL Essentials (79%); Needs Assessment Skill Development (50%); ArcGIS Mapping (50%), and Canva/Infographic Design (50%). Further, SAS certification preparation courses was another item that arose in the comments and was verified as a need in the group discussion. Newer desired skillsets involve using syndromic surveillance, ESSENCE, and applying it appropriately to MCH-related issues.

There were a number of trainings TDH was able to offer to MCH epidemiologists funded by CDC Crisis Response Cooperative Agreement, the emerging issues grant, and SSDI. They included: ArcGIS (Spatial Analysis with ArcGIS Pro, Managing Geospatial Data in ArcGIS, Online and Disaster Management), Tableau (Introductory, Intermediate, and Tableau training), SAS (Certification Program, eLearning Portal, Longitudinal Data Analysis, ANOVA and Regression), and R (DataCamp, Advanced Data Cleaning Methods for Daily Tasks). Staff were also invited to the Data Modernization, Data Science & Informatics lecture series. TDH User Groups for SAS, ArcGIS, and R continued to meet on a regular basis.

Advancement

Among respondents, 46% do not have a clear understanding for professional advancement in their positions. Advancement goals included: advancing in epidemiology professional series, entering a PhD program, earning a Data Science graduate certificate, and maintaining current position. Implementation supports to help epidemiologists reach professional development goals included training and supervision. Division Director Dr. Tobi Amosun met with FHW Epidemiologists in June 2022 to further discussion around FHW epidemiologist professional advancement.

Social Connectedness

Among respondents, 50% strongly agreed and 50% agreed they have the support needed to do their job well. With most work still being conducted in a remote environment, there were identified needs to provide more informal opportunities to hear about the work other MCH epidemiologists are doing. In July 2022, FHW epis came together to share successes and challenges in their work in the first half of the year.

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

The SSDI grant complements the MCH Block grant by setting aside funds for MCH data infrastructure. This ensures that grantees have MCH data collection and analysis capacity. Grantees are then able to leverage this capacity to make data informed decisions, particularly for program planning. This in turn facilitates the creation of effective programs, which leads to health improvements in the MCH population.

The SSDI grant supports direct, consistent, electronic, and timely access to data by coordinating with the Division of Vital Records and Statistics (VRS) within TDH. The SSDI coordinator and MCH/Title V Director maintain the data sharing relationship between the two divisions. This relationship enables FHW epidemiologists to have access to many vital record datasets. As data sharing issues arise, they are discussed and resolved in a way that addresses the needs and concerns of both divisions.

FHW epidemiologists have direct, consistent, electronic access to these VS data:

- Vital Records Birth
- Vital Records Death
- Vital Records Birth-Death Linked
- Vital Records Fetal Death
- Youth Risk Behavior Surveillance System (YRBSS)
- Behavioral Risk Factor Surveillance System (BRFSS)
- Pregnancy Risk Assessment Monitoring System (PRAMS)
- Hospital Discharge
- Vital Records Induced Termination of Pregnancy
- Population Estimation
- Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE)

The FHW epidemiologists have direct consistent, electronic, timely access to these FHW datasets:

- Patient Tracking and Billing Management Information System (direct care in LHDs)
- Women, Infants, and Children (WIC)
- Newborn Bloodspot Screening
- Newborn Hearing Screening
- Newborn Screening for Critical Congenital Heart Disease
- Evidence-Based Home Visiting
- Healthy Start (Tennessee specific program)
- Tobacco Quitline
- Baby and Me Tobacco Free
- Neonatal Abstinence Syndrome Surveillance
- Child Fatality Review
- Maternal Mortality Review
- Traumatic Brain Injury Registry
- Tennessee Birth Defects Registry
- Children's Special Services (Title V CSHCN program)
- Childhood Lead Screening

If FHW epidemiologists outside of these programs need to access this data, they can access it by coordinating with the epidemiologist for that program.

Current Dataset Linkages:

- The Division of Vital Records and Statistics houses all vital record data - which includes birth, death and fetal

death. The only continual linkage completed is between birth and death certificate data. The division links other datasets on an ad hoc basis when requests are submitted. The main barrier to continuous linkage of additional datasets is staff time needed to maintain the linkages.

- The epidemiologist within FHW's Supplemental Nutrition section links WIC data with birth certificate data to assess breastfeeding data.
- The epidemiologist within the Injury Prevention section links TBI data with death certificate data quarterly to identify and remove any non-survivor patients from their survivor list.
- The epidemiologist within the Injury Prevention section links death and birth data for routine identification of child and maternal deaths for the Child & Maternal Mortality Review programs.
- The epidemiologist within the Newborn Screening (NBS) program section links the newborn screening data to the birth certificate data weekly for multiple reasons: 1) to identify infants who were not screened so that they can be followed up with to complete screening, 2) to determine screening rates, and 3) to identify infants at high risk for mortality for outreach staff to intervene.
- The epidemiologist within the Tennessee Birth Defects Surveillance System program links hospital discharge data with birth certificate data to match identified birth defect cases with the birth record as well as death and fetal death data.
- The epidemiologist within the Chronic Disease Prevention and Health Promotion section links prenatal smoking cessation program (Baby & Me Tobacco Free) data to birth data annually to assess birth outcomes.

By ensuring access to MCH data, FHW epidemiologists are able to analyze and present information which programs can then use to make data informed decisions. For example, access to MCH data allows for population assessment, program development, and progress monitoring of the MCH Block grant Action Plan. At the beginning of each grant cycle FHW epidemiologists and program staff complete a needs assessment which provides data on the MCH population. FHW staff and other stakeholders use this data to select priorities for the upcoming grant cycle. Once the priorities are chosen an action plan is developed (i.e. program development) to impact each priority. Lastly FHW epidemiologists assist in developing process and outcome measures to measure the impact of the Action Plan on the health of the MCH population. Progress is monitored on each measure by FHW staff and other internal and external partners at the bi-annual public MCH partner meetings. Based on measurement performance and collective feedback received at the bi-annual meetings, FHW staff revise the Action Plan as needed to improve health impact.

The SSDI grant also supports key MCH data priority needs. For example, the SSDI coordinator has been supporting the building of the birth defects surveillance system for the state. This includes how birth defect data is collected, transferred, and stored within the system by uploading and matching birth defects cases to existing NBS cases. In 2022, remote electronic health records access will be obtained from the state's hospital systems. This will allow the birth defects and maternal mortality review teams to access medical records more securely, quicker, and in an electronic format. The birth defects team will also soon begin receiving access to admission discharge transfer payer claims data for quicker case identification compared to current hospital discharge data used. Also, in 2021-2022 the SSDI coordinator has been involved in the integration of birth data into the Integrated Data System (IDS) at TDH. This system already includes death data, hospital discharge, and controlled substance monitoring database data. The addition of birth data will allow FHW epidemiologists to better understand topics longitudinally, such as infant and maternal risk factors and outcomes among pregnant women who use opioids. Information such as this could be used to better serve the needs of the MCH population in general.

Over the last few years, a portion of the SSDI grant has been used to support training opportunities for FHW epidemiologists. This included data visualization training on Tableau software which resulted in the creation of nine data dashboards. A list of dashboard topics is below.

Tableau Dashboards

- Newborn Screening
- CHANT
- Child Fatality and Infant Mortality
- FHW Expenditure Tracker
- Lead in Water Testing in Tennessee Public Schools
- Monitoring Suicidal Behavior in TN
- NAS
- Neonatal Levels of Care
- SARS-CoV-2 Child
- QuitLine
- Prenatal Smoking Cessation (Baby & Me Tobacco Free)

FHW epidemiologists also receive additional training opportunities for SAS and ArcPro funded through the CDC Crisis Response Cooperative Agreement. Providing these training opportunities has resulted in the creation of several ArcPro maps, and prepared staff to be able to analyze data from the IDS once it is up and running. Over the last year, a portion of the SSDI grant has been used to support opportunities for FHW epidemiologists and staff to attend various conferences virtually and in person. A list of conferences is below:

- Association of Maternal and Child Health Programs (AMCHP) Annual Conference
- CityMatCH Leadership and MCH Epidemiology Conference
- National Association of County and City Health Officials (NACCHO) 360
- Council of State and Territorial Epidemiologists (CSTE) Annual Conference

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

State Partnership and Collaboration in Implementing National Surveys

Pregnancy Risk Assessment Monitoring System (PRAMS)

The MCH/Title V Program coordinator and CDC Senior Maternal and Child Health Epidemiology Program Assignee to Tennessee represent FHW on the PRAMS Steering Committee which is housed within TDH's Division of Population Health Assessment. Most recently, TN PRAMS fielded both the COVID-19 supplement and the COVID-19 Vaccine supplement. The initial analysis of the TN COVID-19 supplement data were presented to the Perinatal Advisory Committee in fall 2021.

Additionally, FHW representatives provided input to the PRAMS program on which topics should be added or removed for Phase 9 of the questionnaire to promote data-to-action efforts within the state. This work will directly affect MCH data available to MCH programs on the health-related experiences of new mothers.

National Survey for Children's Health Oversample

The MCH/Title V Program has partnered with Tennessee COVID-19 Health Disparities Initiative to fund an oversample of the state for the National Survey of Children's Health. The goal is to collect enough data that indicators can be stratified by race and ethnicity, specifically for priorities around children and youth with special health care needs. It is important to have this information to better understand where health disparities exist so they can be addressed and eliminated. Currently the sample size for the state is too small to stratify for all measures.

Advances in Availability/Accessibility of State MCH Data Information Systems

Emerging Issues in Maternal and Child Health Grant

The division applied for and was awarded the Emerging Issues in Maternal and Child Health for FY2022 from MCHB. FHW used this grant to facilitate the addition of birth data to the TDH Integrated Data System (IDS) housed within the Office of Informatics and Analytics (OIA) at TDH. It also supported the training of FHW epidemiology staff on how to use the system and specific SAS training on data linkage and analysis. This will enhance epidemiologists' skills around using large linked longitudinal datasets. SSDI will continue to support the sustainability of the the FHW epidemiology workforce.

The IDS currently includes data from the vital records death file, hospital discharge, and controlled substance monitoring database data. Adding birth data will allow FHW epidemiologists to conduct analysis to understand emerging issues, including opioid and substance use disorder among pregnant and postpartum women throughout the state. Currently in Tennessee the leading cause of pregnancy-associated death was overdose, and about one-third (34%) of all pregnancy-associated deaths had substance use disorder as a contributing factor to death. Decreasing pregnancy-associated mortality is a MCH/Title V Program priority. There is an unmet need to understand the non-fatal impact of the opioid and substance use disorder crisis among pregnant and postpartum women to identify upstream opportunities for prevention and intervention. This grant will help meet that need and prioritizes sustainability to address the needed technological and workforce infrastructure so TDH can identify and address future emerging maternal and child health issues.

ASTHO PRAMS

Tennessee was selected to participate in a new learning community through ASTHO aimed at linking Pregnancy Risk Assessment Monitoring System (PRAMS) data to hospital discharge data. This linkage supports maternal and child health Patient-Centered Outcomes Research to inform clinical and programmatic

improvement initiatives that help patients and those who support them communicate and make informed healthcare decisions.

Decreases in Hospital Discharge Data Reporting Lag

Prior to 2022, TDH Maternal Mortality Program was unable to use hospital discharge dataset (HDDS) to inform case identification efforts for pregnancy-associated mortality due to the lag time of access to the provisional data set. The CDC MCH Epidemiology Assignee worked with the Maternal Mortality Review (MMR) Program Division of Population Health Assessment to conduct a pilot project to increase timely access to HDDS data. Due to these efforts, the pilot project is systemwide and data for 2022 is available within 5.5 months compared to 9 months. HDDS 2021 are now being used to inform MMR case identification efforts. The MMR Program reports there have been additional cases have been identified and verified that otherwise would not have been found through other case identification methods.

TDH Data Portal Project

Presently, the Tennessee Department of Health (TDH) does not have a full service, single location for publicly available data and data products. Stakeholders, internal and external to TDH, seeking data would have to know what data they are looking for and where to look for it. Additionally, there is no catalog of all existing publicly available data and data products making maintenance, standardization, and governance extremely variable, distributed, and inefficient. This project aims to explore and implement a dynamic, public-facing TDH data portal to enhance data accessibility and availability, data quality, and data governance. This data portal would serve as a one-stop shop for publicly available TDH data and associated data products leveraging a variety of visualization techniques as well as links to existing data and data product pages currently available, via self-service features and data request functionality.

The data portal should be user friendly, permit users to extract and explore data using innovative visualizations that will include maps, tables, graphs, and reports. Existing resources, like the Office of Informatics and Analytics Integrated Data System (IDS), can be used to make available linked data integrated from various data sources from different divisions and make available following necessary security, privacy, and data steward requirements and needs. For the proof of concept, the aim will be to include data from at least 2 participating TDH organizations, including Public Health Assessment (PHA), Vital Statistics (VS), Family Health and Wellness (FHW), Environmental Epidemiology (EE), Primary Prevention (PP), and the Office of Informatics and Analytics (OIA). For this project, the CDC MCH Epidemiology Assignee and the Emerging Issues Project Manager represent FHW.

Collection and Tracking of Real-Time Data

ESSENCE

TDH is applying syndromic surveillance to Title V-related issues. Currently, the Suicide Prevention Program, which aligns with the Title V cross-cutting Mental Health priority, uses ESSENCE to track suicide attempts among children 10-21 that result in emergency department utilization across Tennessee. TDH disseminates regional alerts when data are significantly higher than expected to partner organizations, including the Department of Education, to address potential clustering of cases through programmatic activities.

Title V also uses ESSENCE to understand sexual violence and intimate partner violence among women of reproductive age to inform the Title V priority of decreasing pregnancy-associated deaths. Further, in 2022, ESSENCE was used to inform the impacts of the infant formula shortage on emergency department visits for infants.

Neonatal Abstinence Surveillance

TDH reports on NAS are on hold since October 2021 due to the COVID-19 pandemic and resulting issues in data collection and data quality. The NAS Surveillance Program is currently reviewing NAS data submitted via REDCap from 2021 to present. The program wants to ensure that high-quality data is released and will resume monthly reports once the data review and analysis is completed.

Welcome Baby Program

Welcome Baby is the Tennessee Department of Health's universal outreach program for newborns. The purpose of Welcome Baby is to:

- Provide timely information to address the needs of families with newborns
- Connect children and families with appropriate services in the community
- Screen for family and child risks at the time of a child's birth
- Improve utilization of community resources

Since the fall of 2013, the parents of every newborn in Tennessee receive a "Welcome Baby" packet in the mail. This packet is full of information helpful to new parents, even those with other children. Some families may also receive either a phone call or a voluntary outreach visit to receive additional information or support. This is accomplished through access to the provisional access to birth certificate data, which has had its timelag decreased through the implementation of VRISM. An algorithm is applied to all birth data that stratifies infants into three categories, based on the risk of infant mortality. Those in higher risk categories will receive specific outreach from the Call Center to help with assessment and program navigation services, if needed through CHANT.

Newborn Screening (NBS)

NBS has made steps to increase timeliness and decrease data entry by NBS staff using two new systems - Remote Diagnostics (RDx) and Hearing Device Uploads (HDU). Previously, audiologists had to fax or email in hearing diagnostic test results and NBS staff would enter each result into our internet-base Case Management System (iCMS). With RDx, audiologists can directly submit results electronically into iCMS, decreasing the time it takes for results to be entered into iCMS. RDx also allows the audiologist to mark upcoming appointments and view previous results for the child. HDU allows birthing hospitals to directly upload hearing screening results into iCMS from their hearing screening equipment. Previously, screening results had to either be mailed in along with dried blood specimens or emailed/faxed in separately if screening occurs after dried blood specimens were mailed in.

Creation of Data Review Boards

TDH Institutional Review Board

The MCH Epidemiology Assignee serves as the Division of Maternal and Child Health representative to the TDH IRB. The Principal Investigator of PRAMS also sits on the IRB. Meetings are held monthly to review projects.

TDH Data Governance Board

The Data Release Committee (DRC) considers the strategic management of data throughout its lifecycle at Tennessee Department of Health. It includes defined principles and practices that support data availability, usability, quality, security and privacy. Key aims of our data governance program are to support the needs of data stewards and users, ensure transparency of data management roles and responsibilities throughout the department and establish standard, repeatable processes for effective data management. The MCH Epidemiology Assignee serves on this Committee, which meets monthly.

Provision and Sharing Data with Partners

TDH has published reports, dashboards, and infographics on Title V-related activities that inform the MCH population. In recent years, reports have focused more on data visualization. Highlights include:

- [Maternal Mortality in Tennessee 2017-2020](#)
- [2022 Child Fatality Annual Report](#)
- [Suicide Prevention Report 2021](#)
- [Domestic Violence Tennessee 2020 Report](#)
- [Sexual Violence Tennessee 2020 Report](#)
- [Child Fatality Dashboard](#)
- [Newborn Screening Dashboard](#)
- [Suicide Deaths in Tennessee 2020 Infographic](#)
- [Tennessee Regional Perinatal Centers FY2021 Fact Sheet](#)
- [Tennessee Early Hearing Detection and Intervention Provider Infographic](#)
- [Racial Inequity in Pregnancy-Related Deaths](#)

Advances in Information Technology

Data Modernization

Part of the Epidemiology and Laboratory Capacity Cooperative Agreement supports data modernization. This year the team has been worked on two plans – a data modernization plan and a workforce development plan. Part of the workforce development plan was implemented this year including an academic lecture series on various data analysis topics.

EHR

TDH is building a new EHR for local health department use. The current system is fragmented between two systems – one for the electronic medical record and the other for scheduling, registration, orders and billing. The new system will combine all these tasks into one system, improving quality and efficiency in clinical care and public health data management.

Key Challenges

A key challenge faced when trying to improve the use of MCH data is funding to build data infrastructure. The SSDI grant is helpful in this area but it is small amount of money when it comes to data projects. It cost money to hire staff with the skills and expertise to build and analyze MCH information systems, not to mention the systems themselves.

TDH has transitioned from a HIPAA fully covered entity to a HIPAA hybrid entity. Under this structure business units are designated as performing “health care functions” or “non-covered functions”. Only those performing “health care functions” must comply with the full scope of the HIPAA Privacy Rule. This should ultimately make data sharing for public health functions easier but currently there is some confusion and processes to sort out.

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

MCH Considerations in Emergency Operations Plan

State EOP

The State has a written EOP that specifically considers the need of pregnant people, infants, and children, including those with special health care needs. Title V representatives have monthly coordination calls with the EPR team to ensure collaboration and coordination of efforts, specifically in the EPR needs assessment.

Incident Management Structure

The IMS is dependent upon the specific incident. For example, during COVID-19, the Deputy Commissioner who oversees the Division of Family Health and Wellness was a part of the Mission Coordination Group, who oversaw the Direction & coordination Officers. During COVID, the MCH Epidemiology Assignees co-lead the enhanced pregnancy surveillance group, which is under the Operations: Surveillance and Response Team and Investigations group. For monkeypox, the CDC/CSTE Applied Epidemiology Fellow is on the Data Support team.

Critical Gaps Identified and Addressed

Capacity for MCH EPR Activities

Title V Leadership identified a gap in MCH Emergency Preparedness and Response based on state reporting from AMCHP's Public Health Emergency Preparedness and Response [Checklist](#) for Maternal and Infant Health as well as early experiences in COVID-19 pandemic response. Through CDC Foundation, TDH was able to hire a MCH Emergency Preparedness and Response Program Director in March 2022. The role of this position is to coordinate Title V EPR efforts with internal and external partners to prioritize emergency preparedness, response, and recovery efforts among the Tennessee MCH population.

Coordination with Public Health Programs

Monthly TDH EPR/MCH Collaboration Calls

This position has facilitated ongoing collaboration between Title V and the TDH EPR team, including monthly coordination calls. Priority areas for the group have included preparedness efforts and coordination of needs assessments, data analysis and surveillance, and responses for COVID-19, monkeypox, parechovirus as well as collaboration around the infant formula shortage.

National Presentations

- In January 2022, the MCH Epidemiology Assignee was an invited presenter for AAP Disaster Recovery ECHO "Applying Lessons Learned During Disaster and Pandemic Recovery"
- In April 2022, the Director of Strategic Initiatives gave a presentation to NAACHO on "Assessing Tennessee's Emergency Preparedness and Response for Maternal and Infant Health During Emergencies"

American Academy of Pediatrics Enhancing Systems of Care Project

Co-led by TDH and parents at the Tennessee Chapter of Family Voices, this project focuses on gaps in discharge planning for emergency preparedness specifically for children sent home with electricity-dependent medical equipment. This need was identified through centering the needs of families in determining gaps in systems of care in emergencies. Members on this group include TDH MCH, TDH EPR, TN Chapter of Family Voices, and clinicians from 2 children's hospitals in TN. Formative focus groups and key informant interviews held with children with special health care needs and parents of these children will shed light on current gaps in the discharge education as well as

understanding the role of utility companies during emergencies. Two focus groups have been held in June – July 2022, which have emphasized the mental health and anxiety related to emergency preparedness drills and emergencies themselves. Meetings are held bi-weekly through the project with monthly reports to AAP.

Children and Youth with Special Health Care Needs EPR Decal & Toolkits

- The Emergency Alert Decals and Magnets were developed to alert first responders and emergency personnel that there is a child or youth with a special health care need in the home or vehicle. As of July 1, 2022, 11,000 decals and magnets have been distributed. A press release was launched on May 26, 2021, which sparked the interest of countless agencies across the state. CSHCN worked with local health departments, fire departments, police departments, highway patrol, hospitals, family resource centers, schools, family readiness groups with the Army, and community partners to get these distributed. 333 families connected with TDH directly to request the decals and magnets. Requested decals were disseminated to families located across the state, including Memphis, Cordova, Franklin, Knoxville, Gray, Johnson City, Harriman, Oliver Springs, Oak Ridge, among many other locations.
- The Emergency Toolkits were designed to assist families in emergency situations, especially after the tornados and floods took place. The toolkits are composed of adult and youth masks, hand sanitizer, a first aid kit, flashlight, document holder, resource card, and fillable checklist. All the items are secured in a backpack light enough for youth or adults to carry. A total of 11,000 toolkits were ordered and 5,100 have been sent out. We are working with all region and metro health departments, Family Voices of TN, local parks, recreation centers, and daycares. CSHCN plans to collaborate with EBHV, schools, and hospitals to distribute the remaining toolkits.

Data Assessment and Surveillance

COVID-19 Pandemic

- Pregnancy and Infancy: the CDC MCH Epidemiology Assignee co-leads the statewide COVID-19 pregnancy surveillance group with the Viral Hepatitis Program Director. Data linkages are performed quarterly with a [public dashboard](#) available. Updates are provided at each statewide Perinatal Advisory Committee meeting (3x/year). Chart abstraction using a sampling approach continues to prioritize maternal, infant, and fetal deaths and infant COVID-19 cases. Infant follow-up with chart abstraction occurs for those sampled through 6 months of age. COVID-19 pregnancy surveillance calls are held monthly with members from EPR and Title V. Additionally, TDH is participating in a stillbirth project with CDC among pregnant people with COVID-19 infection in pregnancy.
- Pediatric: Dashboards for [pediatric COVID-19 cases](#) and [MIS-C](#) are updated on a regular basis and available publicly. The CDC/CSTE Applied Epidemiology Fellow has worked with internal and external partners to share COVID-19 pediatric vaccination and provider inventory maps to identify priority populations for outreach.
- [Communications materials](#) were also created and available in English, Spanish, Arabic, Kurdish, and Somali due to an identified critical gap of COVID-19 disproportionately impacting people of color.
- PRAMS data were analyzed to determine preparedness among recently pregnant people, with the development of an infographic.

Monkeypox

- The CDC/CSTE Applied Epidemiology Fellow is on the data support team in the Incident Command Structure for monkeypox.
- If cases of monkeypox were to occur in pregnant people, SET-NET may be activated.

MCH Priority Populations Preparedness Maps

- Using the CDC's Division of Reproductive Health guidance, the CDC/CSTE Applied Epidemiology Fellow

calculated estimates of pregnant people at any given time point statewide and by county and visualized these data through county maps. In addition, maps of infants <1 and children <5 years were also created by county to inform EPR efforts at the county and regional level. These resources will be included in the EPR Needs Assessment process and are also including in the Ongoing Needs Assessment portion of this report.

- Members of the EPR team created an internal pediatric bed capacity dashboard to inform bed availability and transfers. They are also currently working on doing this for behavioral health pediatric bed capacity as well.

Infant Formula Shortage

- Working with EPR partners, the CDC/CSTE Applied Epidemiology Fellow conducted analyses in ESSENCE using CDC's National Syndromic Surveillance Program's queries to better understand the impact of the infant formula shortage among Tennessee infants and their families. Queries included: formula recall, formula shortage, malnutrition, water intoxication/hyponatremia. Since the February 2022 recall, there have been 131 ED visits with a discharge diagnosis of water intoxication/hyponatremia and 88 hospital admissions among infants. There have been 357 ED visits with a chief complaint including formula recall and 418 ED visits with a chief complaint including formula change.

Training

Preparedness Exercises

- In July 2022, based on collaborative efforts, the CDC/CSTE Applied Epidemiology Fellow attended the nuclear radiation exercise in Chattanooga and provided insight into considerations for pregnant people, infants, children, and those with special health care needs through after-action approaches debriefs.

Incident Management Structure (IMS):

- Incident Command Center Training: In July 2022, select Title V staff were invited to attend a training for Basic Incident Command System held by the TDH Emergency Preparedness and Response Office.

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

III.E.2.b.v.a. Public and Private Partnerships

Tennessee's modern efforts at health reform began in 1994 with the introduction of TennCare, Tennessee's Medicaid program. Given the significant overlap in priority population and the opportunity for population health improvement, TDH partners extensively with the agency. The TennCare program operates under a Section 1115 waiver from the Centers for Medicare and Medicaid Services (CMS) in the United States Department of Health and Human Services. Unlike traditional fee-for-service Medicaid, TennCare is an integrated, full-risk, managed care program.

TDH has developed arrangements whereby traditional public health services, including family planning, STI screening and treatment, EPSDT, and tuberculosis screening and treatment are provided in county health departments and generally reimbursed without a primary care provider referral. TDH has current Participating Provider Agreements with all three TennCare (Medicaid) MCO plans (Amerigroup, BlueCare, United Healthcare Community Plan), DentaQuest (TennCare dental), Magellan (TennCare pharmacy), Humana (private insurance), Cigna (private insurance), Aetna (private insurance), Oscar Health Plan (ACA marketplace), Bright Healthcare (ACA marketplace), Medicare (flu/pneumonia credentialed in all county health departments and all Federally Qualified Health Centers are credentialed part A providers), and Blue Cross Blue Shield of Tennessee (ACA marketplace and private insurance). Traditional public health services (i.e., family planning, STI screening and treatment, EPSDT, tuberculosis screening and treatment, vaccines) are billable to these third-party plans. In most cases, these services are available to third party plan members without a primary care provider referral.

TDH continues to partner with the TennCare MCOs to set up an electronic portal for referral of pregnant women who smoke to connect them with cessation counseling and incentives which are billable services reimbursed by the MCOs. TDH was able to prove efficacy of this model with state tobacco prevention funds and then partner with the MCOs to sustain this important public health intervention as a billable service. This has been a significant achievement for TDH, TennCare, and the MCOs.

Over the past five years, the Department has greatly expanded its ability to bill third party insurance by negotiating contracts with carriers. Nonetheless, the state has been significantly impacted by increasing premiums in the federally run health insurance marketplace. There are three marketplace plans in the state, and increasingly only one plan is offered in any given area. State and federal discussions are rapidly evolving and have the potential to dramatically affect insurance coverage and access for Tennesseans.

Partnership

The scope of MCH/Title V partnership with TennCare extends far beyond reimbursement for MCH services in local health departments. The agencies partner together in multiple population health priorities. For example, TennCare partially funds infant mortality reduction initiatives through MCH/Title V programs such as group prenatal care pilots, FIMR teams, safe sleep promotion, and training in long-acting reversible contraception insertion. TennCare representatives routinely participate in the Perinatal Advisory Committee to discuss issues such as delivery at appropriate levels of care, implementation of the LOCATe tool, NAS management, and back transport policies. TennCare, TDH, and the MCOs also meet at least quarterly with the Tennessee Chapter of the American Academy of Pediatrics to coordinate efforts around EPSDT, immunizations, PCMH, and emerging population health priorities. In addition, the MCH/Title V director meets regularly with TennCare in context such as the NAS subcabinet, TIPQC, and on an ad hoc basis. TennCare has intentionally included input from TDH and the MCH/Title V Program regarding the implementation of its episodes of care model for payment reform. TennCare funding also supports TDH outreach efforts and partially supports the HUGS care coordination services, and TDH has worked extensively with TennCare and the MCOs to align service delivery via CHANT. The agencies collaborate on multiple other MCH related efforts

such as lead screening and EPSDT outreach. There has been ongoing joint action to minimize barriers to contraception and particularly voluntary long acting reversible contraception in the immediate post-partum period, co-authorship of the legislatively mandated diabetes report, co-authorship of a 2017 legislatively mandated report on neonatal abstinence syndrome, joint work around maternal mortality reduction initiatives, and support for the perinatal quality collaborative roll out of its quality bundles for substance exposed mothers and neonates.

New Innovative Health Care Delivery Models

TennCare is seeing positive results from several changes it has made to how health care is paid for and delivered in Tennessee. The state's innovative programs are resulting in improvements in the care of TennCare members, as well as significant programmatic savings. Tennessee's Health Care Innovation Initiative is moving from paying for volume to paying for value. The mission is to reward health care providers for high quality and efficient treatment of medical conditions and help maintain member's health over time. Tennessee is leading by example through the TennCare program and Tennessee state employee's benefits administration in hopes other stakeholders are asked to join in statewide payment and delivery system reform.

The Tennessee Health Care Innovation Initiative has three strategies, primary care transformation, episodes of care, and long-term services and supports. Primary care transformation focuses on the role of the primary care provider in promoting the delivery of preventive services and managing chronic illnesses over time. The initiative has developed an aligned model for Patient Centered Medical Homes (PCMH), Tennessee Health Link for TennCare members with the highest behavioral health needs as well as a shared care coordination tool that allows providers to identify and track the closure of gaps in care linked to quality measures. Episodes of care focus on the health care delivered in association with acute health care events such as a surgical procedure or an inpatient hospitalization. Episodes encompass care delivered by multiple providers in relation to a specific health care event. The long-term services and supports (LTSS) component focuses on improving quality and shifting payment to outcomes-based measures for the QUILTSS program and for enhanced respiratory care.

MCH/Title V Funding for Gap-Filling Health Care Services to MCH Populations

Tennessee continues to use MCH/Title V funding to provide gap-filling services to MCH populations. Examples include:

Children's Special Services: MCH/Title V funding supports care coordination as well as reimbursement for direct services (inpatient/outpatient hospitalizations, physician office visits, laboratory testing, medications, supplies, durable medical equipment, and therapies). Payment for medical services is available for children with a chronic physical diagnosis whose family income is at or below 200% of the federal poverty level. In 2017, CSS piloted increasing the income eligibility to 225% of federal poverty level in one region successfully. As of January 1, 2020, income eligibility has increased to 225% statewide.

Breast and Cervical Cancer Screening: MCH/Title V funding is used to support screening and diagnostic services for uninsured or underinsured women at or below 250% of the federal poverty level. This funding augments other federal funding (CDC) as well as dedicated state appropriations and funding from the Susan G. Komen Foundation.

Family Planning: MCH/Title V funding augments federal Title X funding, state appropriations, and patient billing collections. In CY 2020, 70% of individuals served through the program were at or below 100% of the federal poverty level and 96% were at or below 250% of the federal poverty level.

EPSDT: MCH/Title V funding provides funding for EPSDT visits for uninsured children in local health departments. Likewise, children seen in WIC, immunization clinic, or adolescents in family planning clinics are offered EPSDT services if desired by the family in cooperation with TennCare to increase screening rates across the state. TDH provided 31,453 of TennCare EPSDT visits in the state in CY 2020. TennCare, TDH, and the MCOs share data to outreach to target counties to increase adherence to the AAP periodicity schedule. TDH is enhancing efforts to connect EPSDT visits to the medical home via CHANT pathways.

III.E.2.b.v.b. Title V MCH – Title XIX Medicaid Inter-Agency Agreement (IAA)

TDH Efforts for Outreach and Enrollment

TDH has undertaken several efforts to assist clients seeking services in public health departments to access public insurance or insurance available through the health insurance marketplace. In the 89 rural counties, there are at least two (and in many cases more) options for obtaining assistance with Medicaid and ACA insurance enrollment. TDH clinic management staff can provide clients with information (verbal and written) about how to access enrollment assistance for these plans. In all clinic sites, TDH staff provides presumptive eligibility determination for Medicaid for pregnant women and for individuals diagnosed with breast or cervical cancer.

A map was developed in 2014-15 that indicated the locations of state agencies and partners across the state who could assist with insurance enrollment and outreach. The map and list of referral sources was shared with both local and regional health department leadership. Local staff have this map and resource listing as a tool to assist patients in finding navigator and application assistance services.

Clinical Application Coordinators (CACs) are also available in 16 counties (Stewart County, Gibson County and all 14 counties of the Upper Cumberland Region) as well as in metro health departments. These CACs provide outreach and on-site enrollment services in communities across the state for marketplace plans. Additionally, the TDH Breast and Cervical Cancer Screening Program (partially funded by Tennessee's MCH/Title V Program) and the Ryan White HIV/AIDS Program each have one CAC in each rural region to assist with outreach and on-site enrollment efforts. Care coordinators for CSS also assist with enrollment through the marketplace and with appeals for third-party payer denials.

In all clinic sites, TDH staff provides presumptive eligibility (PE) determination for Medicaid for pregnant women and for individuals diagnosed with breast or cervical cancer. TDH has begun including a checklist for those who qualify for Presumptive Eligibility or CoverKids (Tennessee's SCHIP) enrollment. This checklist includes in simple terms what Medicaid could request to prevent their coverage from being dropped after the Presumptive period ends. The checklist includes how to sign up and use TennCare Connect so the applicant can manage their Medicaid coverage and contact information on their own. Several health departments provide lists of resources available locally for pregnant women, but this varies by county and region. Central Office reviews equity data from enrollments to determine which communities or groups are being underserved and working to provide services and outreach to those underserved groups and communities.

In CY 2020, TDH assisted 14,149 presumptive eligibility and CoverKids applicants. TDH conducts routine training with local staff on changes in the Medicaid enrollment process to ensure that eligible persons can be served.

Healthcare Financing

TennCare services are offered through managed care entities. Medical, behavioral and Long-Term Services and Supports are covered by "at-risk" Managed Care Organizations (MCOs). All of TennCare's MCOs have recently been ranked among the top 100 Medicaid health plans in the country. The care provided by TennCare's MCOs is assessed annually by the National Committee for Quality Assurance (NCQA) as part of the state's accreditation process.^[1] In addition to the MCOs, there is a Pharmacy Benefits Manager for coverage of prescription drugs and a Dental Benefits Manager for coverage of services to children under age 21.

Policy Waivers and State Plan Amendments

A Katie Beckett Waiver program was signed into Tennessee state law in May 2019. TennCare subsequently submitted an amendment request to the Centers for Medicare and Medicaid Services (CMS) to implement the program in September 2019. CMS approved the request in November of 2020. The program was made available to families that same month. Within two months 849 referrals were received; 600 were received the first day. As of January 2021, 290 children have been enrolled in the program.

The Katie Beckett Program helps kids in Tennessee with disabilities and complex medical needs under the age of 18. The Katie Beckett Program provides care for children under the age of 18 with disabilities and complex medical needs whose parent's income may make them ineligible for Medicaid.

Katie Beckett Part A assists children in Tennessee with the most significant disabilities or complex medical needs. A child must meet "institutional" level of care but want to receive care in the home. Children in Part A receive full Medicaid Benefits and also can get up to \$15,000 in nonmedical services called home and community-based services. A child must have private insurance, and a premium may be required based on the family's income.

Katie Beckett Part B is for children in Tennessee who have disabilities and complex medical needs who do not qualify for care in a medical institution. They meet "at risk" level of care. Children in Part B do not receive Medicaid. Families get up to \$10,000 a year in services to care for their child. Families can spend the money in Part B in any or all of 5 different ways: a card to pay for medical expenses, paying for a child's private insurance premium, getting paid back for certain services including non-traditional therapies, hiring your own staff to provide respite and supportive home care or having a community provider for services.

Due to the ongoing COVID-19 pandemic a new law addressing telemedicine was enacted in August of 2020 and will remain in place through April 2022. This new law requires health insurers to cover virtual care the same way they would in-person care. Specifically, the new law establishes payment and reimbursement parity between telehealth and in-person visits, removes geographic requirements on original service location and expands the list of healthcare providers who are permitted to provide telehealth services most notably, to include drug addiction counselors. These changes remove many barriers to care and help to reduce possible transmission of COVID-19 infection through person-to-person contact.

Title V/Title XIX Joint Policy Making

MCH/Title V Director and direct supervisor meeting monthly with Title XIX's Chief Medical Officer to discuss joint efforts and brainstorm solutions common challenges. Regular meetings also occur for joint workgroups addressing EPSDT, CHANT, and PE. Over the last year these meetings have produced formal contracts between the two agencies to address the health department's role in EPSDT services for children, care coordination for families including CSHCN (CHANT), immunization outreach, data sharing, and additional support for presumptive eligibility and care coordination for pregnant women.

[1] <https://www.tn.gov/tenncare/information-statistics/annual-reports.html>

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

State Action Plan Introduction

The purpose of the MCH/Title V Program is to broadly support and improve the health of the maternal and child population in Tennessee. This is done by identifying priority needs and working with partners to leverage program capacity to meet those needs, which ultimately improves health outcomes for women, infants, children, and families across the state. Tennessee's MCH/Title V Program works to convene MCH stakeholders at least twice a year, so that all programs serving these populations can be strategically aligned statewide. This strategic alignment is imperative for utilizing resources efficiently and assuring the greatest impact.

The MCH Block grant works within a life course framework, operationalized by the population health domains below. Through these domains the MCH population is subdivided into time periods that represent important stages in life. States are required to choose at least one priority within each domain, ensuring that priorities are spread across the life course.

Population Health Domains:

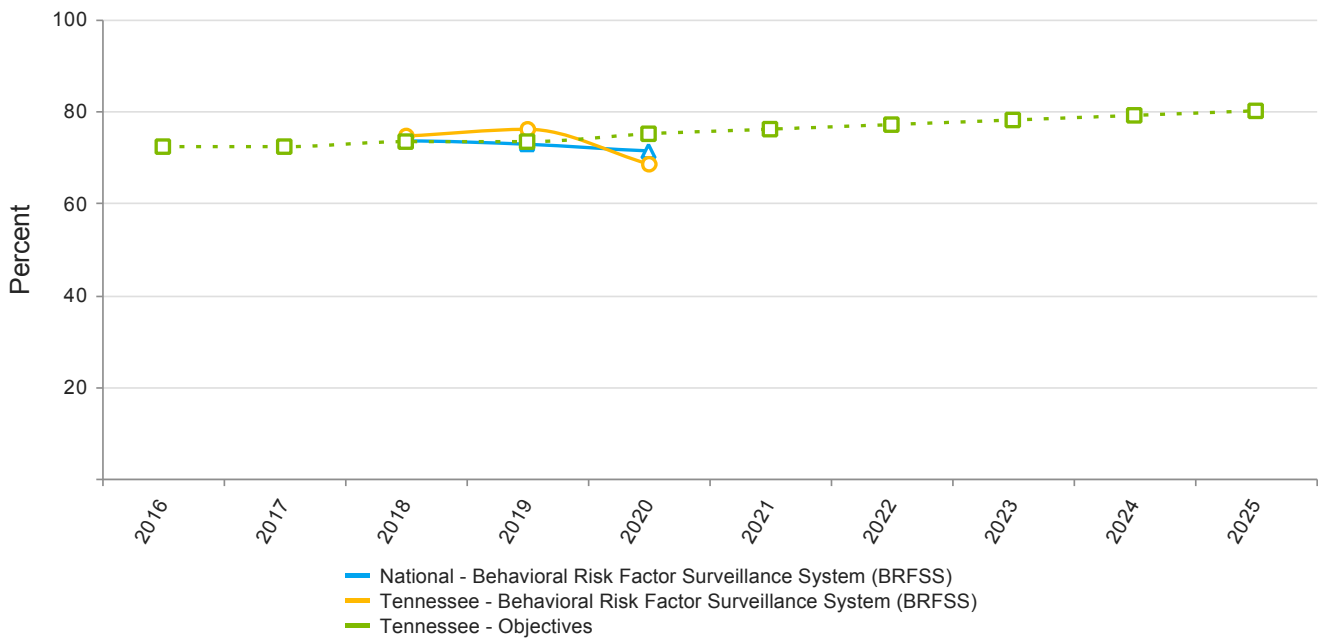
- Women/Maternal Health
- Perinatal/Infant Health
- Child Health
- Adolescent Health
- Children with Special Health Care Needs (CYSHCN)
- Cross-cutting/Life Course

Utilizing information gathered through the comprehensive needs assessment, the Tennessee Title V/MCH program identifies priority areas and then assembles teams to work on each area. Each FHW senior leader, and their program/epidemiology staff, are entrusted to lead at least one priority. The teams are responsible for developing action plans, implementing the plans, reporting on progress, and measuring success. All of this is done in collaboration with stakeholders at multiple touchpoints throughout the year.

Women/Maternal Health

National Performance Measures

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



Federally Available Data

Data Source: Behavioral Risk Factor Surveillance System (BRFSS)

	2017	2018	2019	2020	2021
Annual Objective				75	76
Annual Indicator			74.6	76.0	68.3
Numerator			875,792	897,415	808,894
Denominator			1,174,631	1,180,193	1,185,003
Data Source			BRFSS	BRFSS	BRFSS
Data Source Year			2018	2019	2020

i Previous NPM-1 BRFSS data for survey years 2016 and 2017 that was pre-populated under the 2017 and 2018 Annual Report Years is no longer displayed since it is not comparable with 2018 survey data.

Annual Objectives

	2022	2023	2024	2025
Annual Objective	77.0	78.0	79.0	80.0

Evidence-Based or –Informed Strategy Measures

ESM 1.2 - Create pre/posttests to assesses provider knowledge of and confidence using PATH (Parenthood/Pregnancy Attitude, Timing, and How important is pregnancy prevention).

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		No
Numerator		
Denominator		
Data Source		TDH
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	Yes	Yes	Yes	Yes

ESM 1.3 - Percent of family planning encounters that occur via telehealth

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		0.3
Numerator		
Denominator		
Data Source		PTBMIS
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	0.4	0.8	1.6	3.2

ESM 1.6 - Number of women receiving patient navigation for women’s health services

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		0
Numerator		
Denominator		
Data Source		REDCap
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	250.0	250.0	250.0	250.0

ESM 1.8 - Percent of births covered by hospitals implementing data-driven, clinical recommendations

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		55
Numerator		
Denominator		
Data Source		NVSS
Data Source Year		2020
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	65.0	75.0	85.0	90.0

ESM 1.9 - Percent of birthing hospital providers trained reporting a change in knowledge

Measure Status:	Inactive - ESM 1.9 is being retired because organizations offering training do not track change in knowledge.	
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		0
Numerator		
Denominator		
Data Source		MMR Program
Data Source Year		2021
Provisional or Final ?		Final

ESM 1.10 - Percent of non-clinical members participating in the action group

Measure Status:	Inactive - The information captured by this measure is not helpful to moving work forward. Some of the non-clinical members serve in a clinical-like capacity.		
State Provided Data			
	2019	2020	2021
Annual Objective			45
Annual Indicator			70
Numerator			
Denominator			
Data Source			Maternal Health Task Force files
Data Source Year			2021
Provisional or Final ?			Final

ESM 1.11 - Percent of postpartum women with positive screenings for depression (using a validated screening tool) who will receive resources/education or referrals for professional services

Measure Status:	Inactive - This measure was not tracked in 2021 and should have been retired after the review with technical advisors from MCHB.		
State Provided Data			
	2020	2021	
Annual Objective			
Annual Indicator			0
Numerator			
Denominator			
Data Source			TDH
Data Source Year			2021
Provisional or Final ?			Final

ESM 1.12 - Percent of recommendations with who/what/when components

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			75	
Annual Indicator			68	
Numerator				
Denominator				
Data Source			MMR Program	
Data Source Year			CY 2020	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	79.0	84.0	89.0	94.0

State Performance Measures

SPM 1 - Percent of new mothers whose pregnancy was intended

Measure Status:				Active	
State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	51.6	49.9	49.9	62	62
Annual Indicator	54.1	50.6	51.5	62	59
Numerator					
Denominator					
Data Source	PRAMS	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2014	2015	2017	2016-2018	2020
Provisional or Final ?	Final	Provisional	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	63.0	63.0	64.0	64.0

SPM 2 - Percent of facilities implementing patient safety recommendations

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			12.5
Annual Indicator		54	25
Numerator			
Denominator			
Data Source		MMR Annual Performance Review Report	MMR Annual Performance Review Report
Data Source Year		2019	2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	63.0	66.0	69.0	72.0

SPM 3 - Percent of community level recommendations implemented

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			10	
Annual Indicator			15	
Numerator				
Denominator				
Data Source			MMRIA and ERASE MM APR document	
Data Source Year			2020	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	12.5	20.0	20.0	25.0

State Outcome Measures

SOM 1 - Rate of pregnancy-associated mortality to live birth

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			95.6	
Annual Indicator		78.3	124.5	
Numerator				
Denominator				
Data Source		MMRIA and birth records	MMRIA and birth records	
Data Source Year		CY 2019	CY 2020	
Provisional or Final ?		Final	Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	93.2	90.9	89.5	88.2

SOM 2 - Rate of pregnancy-related mortality to live births

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			25.6
Annual Indicator		28.6	58.5
Numerator			
Denominator			
Data Source		MMRIA and birth records	MMRIA and birth records
Data Source Year		CY 2019	CY 2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	23.5	22.0	21.8	20.5

State Action Plan Table

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

Priority Need

Decrease pregnancy-associated mortality

NPM

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

Objectives

Increase the percent of women, ages 18-44, with a preventive medical visit in the past year from 70% on October 1, 2020 to 82% on September 30, 2025.

Strategies

Increase surveillance of maternal deaths

ESMs

Status

ESM 1.2 - Create pre/posttests to assesses provider knowledge of and confidence using PATH (Parenthood/Pregnancy Attitude, Timing, and How important is pregnancy prevention).	Active
ESM 1.3 - Percent of family planning encounters that occur via telehealth	Active
ESM 1.6 - Number of women receiving patient navigation for women's health services	Active
ESM 1.8 - Percent of births covered by hospitals implementing data-driven, clinical recommendations	Active
ESM 1.9 - Percent of birthing hospital providers trained reporting a change in knowledge	Inactive
ESM 1.10 - Percent of non-clinical members participating in the action group	Inactive
ESM 1.11 - Percent of postpartum women with positive screenings for depression (using a validated screening tool) who will receive resources/education or referrals for professional services	Inactive
ESM 1.12 - Percent of recommendations with who/what/when components	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 - Percent of women who drink alcohol in the last 3 months of pregnancy

NOM 11 - Rate of neonatal abstinence syndrome per 1,000 birth hospitalizations

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 (Tennessee) - Women/Maternal Health - Entry 2

Priority Need

Increase family planning

SPM

SPM 1 - Percent of new mothers whose pregnancy was intended

Objectives

Increase the percentage of mothers whose pregnancy was intended from 62% on October 1, 2020 to 64% on September 30, 2025.

Strategies

Increase knowledge, awareness, and usage of reproductive life plans through PATH across the state of Tennessee

Increase rural access to family planning services through telehealth

Increase access to women's health services by addressing and eliminating barriers to care through client navigation

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

Priority Need

Decrease pregnancy-associated mortality

SPM

SPM 2 - Percent of facilities implementing patient safety recommendations

Objectives

Increase the percent of facilities implementing patient safety recommendations from 24% on October 1, 2020 to 33% on September 30, 2025.

Strategies

Increase evidence-based education at hospitals on topics identified by the Maternal Mortality Review Committee (MMRC)

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

Priority Need

Decrease pregnancy-associated mortality

SPM

SPM 3 - Percent of community level recommendations implemented

Objectives

Increase the percent of community level recommendations implemented from 10 on October 1, 2020 to 25% on September 30, 2025.

Strategies

Increase access to services through community agency involvement to improve maternal health outcomes

State Action Plan Table (Tennessee) - Women/Maternal Health - Entry 5

Priority Need

Decrease pregnancy-associated mortality

SOM

SOM 2 - Rate of pregnancy-related mortality to live births

Objectives

Decrease the rate of pregnancy-related mortality to live births from 25.6 per 100,000 live births on October 1, 2020 to 20.5 per 100,000 live births on September 30, 2025.

Strategies

Increase evidence-based education at hospitals on topics identified by the Maternal Mortality Review Committee (MMRC)

State Action Plan Table (Tennessee) - Women/Maternal Health - Entry 6

Priority Need

Decrease pregnancy-associated mortality

SOM

SOM 1 - Rate of pregnancy-associated mortality to live birth

Objectives

Decrease pregnancy-associated mortality from 51 on October 1, 2020 to 42 on September 30, 2025.

Strategies

Increase access to services through community agency involvement to improve maternal health outcomes

PRIORITY: Increase Access to Family Planning Services

Interpretation of Performance Data on NPMs, ESMs, SPMs, and SOMs:

ESM 1.2: Create pre/posttests to assess provider knowledge of and confidence using PATH (Parenthood/Pregnancy Attitude, Timing, and How important is pregnancy prevention)

Pre/post tests have not yet been created.

ESM 1.3: Percent of family planning encounters that occur via telehealth

Baseline for this ESM was 0.2% based on federal fiscal year 2020. The objective for grant year 1 (i.e., fiscal year 2021) was to maintain this percentage at 0.2%. The actual percentage for fiscal year 2021 was 0.3% which exceeded the objective.

ESM 1.6: Number of women receiving patient navigation for women's health services

Grant year 1 was used to establish funding for women's health navigators, so the objective for number of women navigated was zero (0). No women received navigation services in grant year 1, but these services are expected to begin in July 2022.

SPM 1: Percent of new mothers whose pregnancy was intended

Baseline for this SPM was 62% based on a three-year average for 2016-2018. The objective for grant year 1 was to maintain this measure at 62%. Grant year 1 performance is based on 2020 PRAMS data during which time the percent of new mothers whose pregnancy was intended was 59%. Compared to baseline, the difference is not statistically significant, and the objective was therefore met.

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

The National Vital Statistics System does not provide state-level maternal mortality rates every year. For this NOM, the closest estimate we have is the pregnancy-related mortality ratio. In 2020, 46 Tennessee women died from causes aggravated by pregnancy, either during pregnancy or within a year from the end of pregnancy, and the pregnancy-related mortality ratio was 58.5 deaths per 100,000 live births. This was an increase compared to previous years. However, this increase may have occurred due to the increase in overall deaths in 2020 and the implementation of the Utah Criteria when determining the pregnancy relatedness of overdose deaths.

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

The infant mortality rate decreased from 7.0 per 1,000 live births in CY 2019 to 6.3 per 1,000 in CY 2020. This rate exceeds the fiscal year objective. Potential mechanisms contributing to this decrease, including data quality issues, fetal deaths, and changes in program provision due to the COVID-19 pandemic, are being investigated.

Accomplishments and Challenges (based on FY2021 Action Plan):

Strategy 1: Remove barriers to care at Title X clinics across the state and provide high-quality, non-coercive, culturally competent family planning services to all clients

- Activity 1a: Utilize the results of teen/male/LGBTQ+ friendly surveys that were conducted in all Title X clinics in FY20 to guide the implementation of strategies to reduce barriers to care among these vulnerable populations.

Report 1a: Results from the friendly surveys were presented to statewide Family Planning staff. Results were also shared with Family Planning Administrators, who were encouraged to implement strategies to address these results in their regions.

Activity 1b: Promote the use of reproductive life plan assessments at Title X clinics by training Tennessee Department of Health family planning providers.

Report 1b: Family Planning Providers know when to assess the client's reproductive life plans. Quality Family Planning (QFP) training through RHNTC is recommended and encouraged. Many Family Planning providers have completed QFP training, but total uptake of QFP training is ongoing.

Activity 1c: Deliver family planning services through telehealth as a means to reach underserved populations.

Report 1c: Family Planning gradually increased its telehealth services during this performance period with 224 encounters. There were 68 patient encounters in September 2021. Covid remained a challenge as health departments had competing priorities.

Activity 1d: Pilot the Person-Centered Contraceptive Counseling Measure survey at one Title X site. In order to ensure a racially/ethnically diverse sample, the pilot site will be chosen based on the demographic distribution of family planning patients.

Report 1d: This activity was not completed due to challenges surrounding the Covid-19 Pandemic. It has been added to current work plans for completion.

Strategy 2: Increase awareness of the availability of Title X family planning services in Tennessee and of how to access these services through community education and outreach

Activity 2a: Create an information packet with resources and information on birth spacing and on how to access postpartum family planning services for distribution during TennCare presumptive eligibility visits.

Report 2a: Although presumptive eligibility clients are provided local resources including family planning resources, a complete information packet was not completed. Presumptive Eligibility enrollments have decreased over the past four years. Due to the public health emergency, many pregnant women opted to complete applications online or by phone reducing the ability to share resources.

Activity 2b: The Adolescent Pregnancy Prevention and Rape Prevention Education Program Directors will educate sub-grantees about family planning services available through the Tennessee Department of Health.

Report 2b: The Family Planning Director presented information on family planning services to 20 health promotion directors during a Rape Prevention Education Support call. Education to TAPPP, SRAE, and RPE sub-awardees regarding reproductive and women's health services is ongoing.

Activity 2c: The Tennessee Breast and Cervical Screening Program will educate contracting providers outside of local health departments about the availability of family planning services through the Tennessee Department of Health.

Report 2c: TBCSP has included FP information in 2 quarterly newsletters that are distributed to TBCSP external vendors. The information included telehealth and the availability of services inside the HD. TBCSP plans to regularly include FP in newsletters as a means of promotion. TBCSP also plans to have a virtual meeting for external providers and will allow time for FP to promote services.

Strategy 3: Promote mental health and increase client confidence in care through the provision of client-centered, trauma-informed care

Activity 3a: Require completion of a webinar on providing trauma-informed care for Tennessee Department of Health family planning providers as part of the Title X annual training.

Report 3a: Trauma-informed care training was completed by all Family Planning staff. It was completed during orientation or through annual FP training.

Activity 3b: Form a collaborative working group between the Tennessee Department of Health's Family Planning Program and the Tennessee Department of Mental Health and Substance Abuse.

Report 3b: Progress on this activity has been limited due to competing priorities. Multiple attempts were made to connect with individuals at Mental Health. We plan to reach out to internal FHW partners for additional contacts at the Department of Mental Health.

PRIORITY: Decrease Pregnancy-Associated Mortality

Interpretation of Performance Data on, NPMs, ESMs, SPMs, and SOMs:

ESM 1.8: Percent births covered by hospitals implementing data-driven, clinical recommendations
In FY2021, 55% of hospital statewide births were covered by facilities implementing data-driven, clinical recommendations.

ESM 1.9: Percentage of birthing hospital providers trained reporting a change in knowledge
The team is unable to report on this measure. TIPQC does not track change in knowledge. Therefore, ESM 1.8 has been retired.

ESM 1.10: Percent of non-clinical members participating in the action group
The percent of non-clinical members participating in the action group was higher than projected at 70%.

ESM 1.11: Percent of postpartum women with positive screenings for depression (using a validated screening tool) who will receive resources/education or referrals for professional services
This measure was not tracked in 2021 and should have been retired after the review with technical advisors from MCHB. ESM 1.11 has now been retired.

ESM 1.12: Percent of recommendations with who/what/when components
The percent of recommendations with a who/what/when component was higher than the projected objective at

68%.

SPM 2: Percent of facilities implementing patient safety recommendations

The percent of facilities implementing patient safety recommendations, was higher than the projected objective with 54% participating in 2019 and 25% participating in 2020.

SPM 3: Number of community level recommendations implemented

The number of non-clinical recommendations implemented, was higher than the projected number with 53 for 2019 and 18 for 2020. Funding from other sources allowed us to fund community projects that address the recommendations.

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

NPM 1, percent of women with a preventive medical visit was higher than projected with 82.4% for 2020 and 79.1% for 2021.

SOM 1: Rate of pregnancy-associated mortality to live births

The rate of pregnancy-associated mortality was lower than the projected objective for 2019 with a rate of 78.3 but higher than the objective for 2020 with a rate of 124.5 per 100,000.

SOM 2: Rate of pregnancy-related mortality to live births

The rate of pregnancy-related mortality, increased from the projected objective with a rate of 28.6 in 2019 and a rate of 58.5 from 2020.

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

This measure is not actively tracked by the program. There are plans to start tracking this measure in Year 2.

NOM 3: Maternal mortality rate per 100,000 live births (WHO definition)

The program does not use the WHO definition to calculate the maternal mortality rate for Tennessee. This measure is not actively tracked by the program.

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

The percent of low birthweight deliveries (<2,500 grams) (NOM 4) did not change significantly between CY 2019 (8.8%) and CY 2020 (8.6%).

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

The percent of preterm births (<37 weeks) (NOM 5) did not change significantly between CY 2019 (10.8%) and CY 2020 (10.6%).

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

The percent of early term births (37, 38 weeks) (NOM 6) did not change significantly between CY 2019 (28.6%) and CY 2020 (28.5%).

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

The perinatal mortality rate per 1,000 live births+ fetal deaths in CY2019 (6.0) remained the same in CY2020 (6.0).

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

In FY2021, 495 Tennessee children under 1 year died. The FY2021 infant mortality rate of 6.3 deaths per 1,000 live births represents a decrease, though not statistically significant, from the FY2020 rate of 7.0 deaths per 1,000 live births. The 10% decrease in IMR between FY2020 and FY2021 may be explained by a decline in perinatal mortality. From FY2020 to FY2021, there was a 19% decrease in early neonatal mortality (death within the first seven days of life) and 10% reduction in perinatal mortality (fetal death at 28 or more weeks of pregnancy to first seven days of life).

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

The neonatal mortality rate per 1,000 live births in CY2019 fell from 4.54 to 3.89 in CY2020.

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

In FY2021 and FY2020, there were 102 and 101 post-neonatal deaths (death between 28 days and 1 year of life) in Tennessee. Due to a minimal difference in deaths and a similar total of live births across both years, the FY2021 post-neonatal mortality rate of 1.3 deaths per 1,000 live births is no different than the FY2020 rate of 1.3 deaths per 1,000 live births.

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

The preterm-related mortality rate per 1,000 live births in CY2019 fell from 3.64 to 2.94 in CY2020.

NOM 24: Percent of women who experience postpartum depressive symptoms following a recent live birth

The percentage of women who experience postpartum depressive symptoms following a recent live birth decreased to 15.1% in Year 1 from 15.7% in FY 2020. This percentage exceeds the Year 1 objective of 16.1%.

Accomplishments and Challenges (based on FY2021 Action Plan):

Strategy 1: Increase evidence-based practice implementation at hospitals on topics identified by the Maternal Mortality Review Committee (MMRC)

Activity 1a: Contract with Tennessee Hospital Association to provide simulation training to birthing hospitals on the leading causes of maternal death as identified by the MMRC. Birthing hospitals in the grand region of the state with highest disparities will be given top priority for simulation training.

Report 1a: A contract was in place with THA to provide the 20 non-delivering hospitals with education for emergency department personnel on the signs and symptoms of cardiovascular disease in pregnancy. The training included simulation on proper blood pressure measurement and education about maternal early warning signs. Hospital staff were trained by the regional perinatal nurse educators.

Activity 1b: Contract with Tennessee Initiative for Perinatal Quality Care (TIPQC) to develop a speaker's bureau to train birthing hospital staff on topics identified by the MMRC. Birthing hospitals in the grand region of the state with the highest disparities will give given top priority for training.

Report 1b: TIPQC has trained birthing hospitals on topics identified by the MMRC. On June 7-10,

2021, a simulation training was held on maternal hypertension and maternal hemorrhage. On June 22-24, 2021, a simulation training was held on hemorrhage and hypertension with 141 attendees from 49 hospitals. On June 23, 2021, a presentation on Disparities was recorded and made available on the TIPQC website. Maternal mental health videos were recorded in July 2021 and shared with the speaker's bureau.

Activity 1c: Provide real-time alerts quarterly to hospitals and other healthcare providers on emerging issues as identified by the MMRC with a minimum of 1 recommendation in each alert focused on disparities.

Report 1c: Recommendations are developed after each quarterly review meeting. These recommendations are based on the deaths reviewed during that meeting thus creating a more real time alert on emerging issues (e.g., for deaths with covid-19 as contributing factors) being seen during reviews. The alerts were sent to hospitals and posted on the maternal mortality website on January 11, 2021, April 12, 2021, July 15, 2021. For the meeting that occurred in September 2021, the recommendations were posted on October 13, 2021.

Activity 1d: Provide consultation and education on high-risk OB care to health care providers through the regional perinatal centers with the highest number of educational consults being in the grand region with the most disparities.

Report 1d: Throughout the year, MCH staff have continued to work closely with the five Regional Perinatal Centers and the Perinatal Advisory Committee. In state fiscal year 2021, the five Centers provided direct care for 3,406 high-risk neonates and 16,206 high-risk maternal patients; provided 101,842 consultations; and 7,133 hours of education and training were provided to staff at community hospitals to help them prepare for recognizing and treating complex medical conditions.

Updates were made to the maternal care sections of the perinatal regionalization guidelines. The Perinatal Advisory Committee met three times during the year; members heard data presentations on pregnancy and COVID in Tennessee and continued to monitor hepatitis C work.

Strategy 2: Increase community involvement to improve maternal health outcomes

Activity 2a: Convene a maternal health task force, with a minimum of 25 members, quarterly to highlight innovative and best practices for preventing maternal death. The task force will include membership from the Office of Minority Health and Disparities Elimination to represent disparate populations.

Report 2a: Maternal health task force meetings were held quarterly through a virtual platform. The task force has 89 multidisciplinary members representing 68 different organizations in all parts of the state including the Office of minority health. Meetings highlighted best practices for implementing recommendations to improve maternal health. Best practices highlighted have included interpersonal violence and risk assessment and maternal mental health.

Activity 2b: Fund up to 5 community agencies to implement MMR recommendations related to top topics identified by the MMRC including substance abuse, domestic violence and mental health issues. Proposals will be evaluated on how well they are addressing disparate populations.

Report 2b: In January 2021, four community agencies were funded to implement MMR recommendations through a competitive request for applications. These agencies included Vanderbilt University Medical Center, East Tennessee State University, St. Thomas Medical Center, and Erlanger Medical Center. Projects that implemented MMRC recommendations included implicit bias training, training for staff on recognizing and addressing substance use disorder and mental health disorders, developing cardiovascular disease educational materials and implementing a cardiac screening tool, and developing a toolkit of information on preventing firearm injuries and drug overdose.

Strategy 3: Improve mental health among women of childbearing age

Activity 3a: Screen women enrolled in CHANT and evidence-based home visiting (EBHV) for depression with a specific emphasis on Middle Tennessee participants.

Report 3a: In FY2021, 88.3% of EBHV and 95.2% CHANT participants were screened with the Edinburgh postnatal depression scale. For CHANT the number of enrolled families for October 1, 2020 – September 30, 2021=5,992. For EBHV there were 2,641 participants. The proportion of EBHV participants screened for depression increased by 4% between FY2020 and FY2021 while the already high proportion of CHANT participants changed minimally between FY2020 (95.8%) and FY2021 (95.2%).

Activity 3b: Provide Question, Persuade, and Refer (QPR) training to CHANT and evidence-based home visiting staff with a particular emphasis on Middle Tennessee participants.

Report 3b: Six one-hour trainings were provided virtually. Ninety-nine staff in CHANT and EBHV completed the QPR training during this reporting period.

Strategy 4: Improve preconception and prenatal health through increased enrollment in both family planning and presumptive eligibility

Activity 4a: Increase the number of women of childbearing age participating in family planning by expanding and promoting telehealth to better reach those people living in rural areas.

Report 4a: Since implementation of telehealth services in late 2/2020, participation increased from 182 in 2020 to 305 in 2021. Every rural health clinic has a laptop reserved for client use in telehealth appointments. Satisfaction surveys show that 95% of respondents stated they were very satisfied with telehealth services, and 99% of the survey respondents stated they were able to obtain their 1st choice of contraceptive method. Challenges to telehealth services include low reimbursement rates from Insurance, regulations that change frequently, staff & provider resistance to change and feel that telehealth creates a competition for client service, lack of access to internet, and connectivity services.

Activity 4b: Increase the number of women applying for presumptive eligibility (PE) by developing an outreach plan and collaborating with a minimum of 1 partner to reach disparate populations.

Report 4b: Successes around Prenatal PE include making new connections with community members and continuing to identify new community organizations. The program has begun working with the Firefly program at Vanderbilt, which provides services for pregnant and new mothers experiencing opioid use disorders. The PE program also works with Choices Chattanooga, which provides pregnancy related services for unexpected pregnancies. To increase enrollment, the PE program is contacting other Pregnancy Centers around the state and looking at other partners such as housing authorities around the state and Catholic Charities in Tennessee.

Some challenges the PE program has encountered is another drop in PE enrollments over the last fiscal year. There can be several explanations for the decrease in PE enrollments. Pregnancy rates have declined since the start of the COVID-19 pandemic. TennCare/CMS has not been dropping TennCare recipients who receive full TennCare due to the Public Health Emergency of the

Strategy 5: Increase surveillance of maternal deaths

Activity 5a: Identify pregnancy-associated deaths and facilitate state Maternal Mortality review Committee meetings. The Committee will identify age, race and place for each death reviewed to identify disparities.

Report 5a: Pregnancy-associated deaths were identified monthly, and Maternal Mortality Review Committee (MMRC) meetings were held quarterly. Key indicators—including age, race, and the place of residence—were identified and assessed to better understand the health and demographic characteristics of decedents. A total of 98 deaths occurring in 2020 were identified and reviewed in calendar year 2021. Many of the decedents were ages 30-39 (52%), non-Hispanic White (59%) and resided in Middle Tennessee (37%).

Activity 5b: Through the Maternal Mortality Review Committee, determine proportion of deaths that are pregnancy related along with contributing factors. For each pregnancy-related death determine age, race and place of death to identify disparities.

Report 5b: The MMRC reviewed all deaths to determine whether they are pregnancy-related deaths. Out of the 98 deaths reviewed in 2021, 46 (47%) were determined to be pregnancy related. The team also assessed factors contributing to each death such as mental health (27%), substance use disorder (26%) and obesity (24%).

Activity 5c: Develop recommendations based upon MMRC findings for inclusion in the Maternal Mortality annual report and dissemination to relevant stakeholders. These recommendations will include reference to specific disparities identified in the reviews.

Report 5c: The 2021 annual Maternal Mortality Review Report was released in March 2021 and includes recommendations for prevention based on the findings in the reviews. The

report was disseminated to the maternal health task force and posted on the MMR website. Examples of recommendations include: 1. Facilities should implement diversity training to prevent interpersonal racism and bias; 2. Healthcare payors should extend insurance coverage for pregnant women to one year postpartum, including coverage for case management services and home-based services and 3. Healthcare providers should educate staff on trauma-informed care in marginalized populations with substance use disorder. The MMR Report is available on TDH's website, and the PDF version of the report was disseminated to stakeholders across the state and federal partners.

Women/Maternal Health - Application Year

PRIORITY: Increase Access to Family Planning Services

Objective for SPM 1: Increase the percentage of mothers whose pregnancy was intended from 62% in October 1, 2020 to 64% in September 30, 2025.

Description: Between 2016 and 2020, 39% of new mothers in Tennessee said that their pregnancy was unintended (i.e., it was mistimed or unwanted), while 18% said they were unsure how they felt about their pregnancy (PRAMS). Unintended pregnancies were most common among Black non-Hispanic mothers (63%), followed by Hispanics (42%) and White non-Hispanics (32%). The prevalence of unintended pregnancies decreased with increasing maternal age. Among teens less than 18 years of age, 93% of pregnancies resulting in a live birth were unintended. This compares to 54% among women aged 18-24 and 32% among those aged 25 and older.

To estimate what percentage of the eligible population is being served by the Tennessee Family Planning program, we compared the number of unique female clients seen in 2019 (first full year prior to COVID) who were 19-44 years of age and uninsured, to the estimated number of uninsured females aged 19-44 in the population (family planning program data and American Community Survey). State-wide, the program is serving approximately 18% of the potentially eligible population. Within individual counties this percentage ranged from 5% to 85%. There were 54 counties (out of 95) that served less than 21% of the eligible population [24 nonurban counties (i.e., micropolitan and noncore) and 20 urban counties (i.e., large core, large fringe, medium and small metros)], highlighting geographic disparities in the need for family planning services.

Disparity Elimination Focus: While race, age and other disparities will be analyzed, the focus will be on geographic disparities. Out of the 95 counties served by the family planning program, only 54 are serving more than 21% of the eligible population. More than half of these counties are classified as nonurban. The goal is to increase the utilization of family planning services and women's health services in these areas and reach clients facing place-based disparities through Strategies 2 and 3 below.

The following strategies and activities are planned for *October 1, 2022, to September 30, 2023*:

Strategy 1: Increase knowledge, awareness, and usage of reproductive life plans through PATH across the state of Tennessee

Supporting Evidence for Strategy 1: A reproductive life plan (RLP) is a set of personal goals about having or not having children which is based on each individual's own values, goals, and resources. Family planning providers play a key role in helping both women and men to reflect on their reproductive intentions, to complete a RLP and to access appropriate services to meet their RLP goals. PATH is a client-centered approach to assess parenthood/pregnancy, attitude, timing and the importance of pregnancy prevention. PATH can be used with any gender, sexual orientation or age. PATH is designed to facilitate listening and efficient client-centered conversations about preconception care, contraception and fertility as appropriate. PATH training is critical to ensuring a skilled family planning workforce that is able to provide client-centered, non-coercive, and culturally competent services.

Activity 1a: Facilitate PATH trainings with various internal and external partners including TPCA, TPHA, colleges and universities, rural health clinics, federally qualified health centers etc.

Activity 1b: Provide community outreach and education surrounding the importance of a

reproductive life plan and birth spacing to faith-based communities and community partners.

Activity 1c: Create pre and post PATH training evaluations to identify gaps in learning.

Activity 1d: Increase assessment with PATH with non-family planning clients within TDH.

Strategy 2: Increase rural access to family planning services through telehealth

Supporting Evidence for Strategy 2: TDH seeks to ensure that minority communities, individuals residing in underserved rural and urban areas, and individuals with disabilities can reap the benefits of telehealth by overcoming barriers. These barriers can include taking time off work, transportation, childcare and confidentiality among others. Telehealth has the potential to help clients overcome these barriers and improve access to care.

Activity 2a: Promote Family Planning Telehealth services through key partners using flyers, posters, social media posts and other identified promotional materials. Efforts to engage partners with direct ties in counties that serve <21% of the eligible population will be prioritized.

Activity 2b: Create, disseminate, and evaluate a client satisfaction survey to identify areas for program improvement.

Activity 2c: Continue to expand telehealth services in additional rural health regions by providing additional education and training to key staff and researching additional locations where family planning clients can access a safe space for telehealth visits.

Activity 2d: Establish partnerships with health clinics at colleges and universities as well as non-traditional partners to refer clients for telehealth family planning services.

Activity 2e: Promote family planning through the initiation of a mass media campaign, with additional outreach occurring in the counties that served <21% of the eligible population.

Strategy 3: Increase access to women's health services by addressing and eliminating barriers to care through client navigation.

Supporting Evidence for Strategy 3: There are many health inequities surrounding women's health, obstetrics and gynecology. Client navigation can support efforts to address barriers to care and help to reduce these disparities.

Activity 3a: Develop a scope of service for client navigation contracts that at a minimum identify priority populations and expectations of contracted organization.

Activity 3b: Contract with health departments, community clinics, healthcare facilities or federally qualified health centers to secure women's health client navigators.

Activity 3c: Update the navigation tracking tool in REDCap to ensure accurate tracking of clients' barriers and resolutions.

Activity 3d: Provide navigation services according to identified scope while identifying and addressing disparities in care.

Planned Partnerships:

- Rural and Metro health departments
- Community Health Services within TDH
- FQHCs/rural health clinic
- Colleges and Universities
- Title X
- National Family Planning and Reproductive Health Association
- Reproductive Health National Training Center
- Faith-based community
- Tennessee Primary Care Association
- Tennessee Public Health Association
- A Step Ahead
- Tennessee Initiative for Perinatal Quality Care
- TennCare
- Association of Maternal and Child Health Programs
- Association of State and Territorial Health Officials
- STD/HIV Program

Contextual Factors:

- Ongoing COVID-19 Pandemic
- Access to Technology
- National Program Guidelines and Policies
- Political Environment
- Socioeconomic Factors

Assumptions:

- State and Federal funding will be secure throughout the program period
- PATH training will be adopted and used in the way we intended
- Professionals will be motivated to attend trainings and implement what they have learned
- Staff with the necessary skills and abilities can be recruited, hired and retained.
- Continuation of essential health services
- Medical leadership buy-in
- Continued support of increased access to care

Percent of Population Served by the Family Planning Program:

Region	County	Percent Served	Region	County	Percent Served	Region	County	Percent Served
East	Roane	10%	Mid-Cumberland	Stewart	85%	Upper Cumberland	Overton	14%
East	Morgan	11%	Northeast	Johnson	16%	Upper Cumberland	Jackson	16%
East	Cocke	11%	Northeast	Carter	16%	Upper Cumberland	DeKalb	16%
East	Campbell	11%	Northeast	Hawkins	19%	Upper Cumberland	Cannon	19%
East	Claiborne	11%	Northeast	Greene	21%	Upper Cumberland	Clay	22%
East	Jefferson	13%	Northeast	Washington	25%	Upper Cumberland	Smith	25%
East	Grainger	16%	Northeast	Hancock	33%	Upper Cumberland	Fentress	27%
East	Scott	16%	Northeast	Unicoi	36%	Upper Cumberland	Cumberland	29%
East	Monroe	17%	South Central	Moore	5%	Upper Cumberland	Macon	30%
East	Union	18%	South Central	Hickman	10%	Upper Cumberland	Warren	31%
East	Anderson	18%	South Central	Lewis	12%	Upper Cumberland	Putnam	48%
East	Loudon	20%	South Central	Perry	13%	Upper Cumberland	Pickett	100%
East	Sevier	23%	South Central	Wayne	16%	West	Tipton	10%
East	Blount	24%	South Central	Giles	21%	West	Chester	12%
East	Hamblen	32%	South Central	Lawrence	21%	West	McNairy	14%
Metro	Davidson	19%	South Central	Marshall	22%	West	Fayette	15%
Metro	Hamilton	17%	South Central	Mauzy	29%	West	Decatur	16%
Metro	Knox	23%	South Central	Lincoln	33%	West	Carroll	19%
Metro	Madison	22%	South Central	Coffee	37%	West	Obion	21%
Metro	Shelby	8%	South Central	Bedford	43%	West	Lauderdale	22%
Metro	Sullivan	19%	Southeast	McMinn	8%	West	Dyer	23%
Mid-Cumberland	Trousdale	8%	Southeast	Bledsoe	10%	West	Henry	23%
Mid-Cumberland	Rutherford	9%	Southeast	Polk	10%	West	Benton	24%
Mid-Cumberland	Wilson	12%	Southeast	Grundy	11%	West	Hardin	25%
Mid-Cumberland	Humphreys	13%	Southeast	Sequatchie	12%	West	Hardeman	25%
Mid-Cumberland	Williamson	14%	Southeast	Franklin	13%	West	Gibson	26%
Mid-Cumberland	Sumner	14%	Southeast	Meigs	15%	West	Lake	28%
Mid-Cumberland	Montgomery	16%	Southeast	Bradley	15%	West	Haywood	32%
Mid-Cumberland	Cheatham	17%	Southeast	Rhea	16%	West	Henderson	33%
Mid-Cumberland	Dickson	19%	Southeast	Marion	23%	West	Weakley	38%
Mid-Cumberland	Robertson	25%	Upper Cumberland	Van Buren	12%	West	Crockett	41%
Mid-Cumberland	Houston	35%	Upper Cumberland	White	12%			

PRIORITY: Decrease Pregnancy-Associated Mortality

Objective for SPM 2: Increase the percent of facilities implementing patient safety recommendations from 24% on October 1, 2020 to 33% on September 30, 2025.

Objective for SPM 3: Increase the percent of community level recommendations implemented from 10 on October 1, 2020 to 25% on September 30, 2025.

Description: Disparities exist among women who die during pregnancy or within a year of pregnancy. Among all deaths, non-Hispanic Black women were 1.5 times as likely to die during or within a year of pregnancy compared to non-Hispanic White women. The disparity is much greater among pregnancy-related causes of death, where non-Hispanic Black women are 3.9 times as likely to die from pregnancy-related causes compared to non-Hispanic White women. The highest risk age group was women forty and older. This group was nearly four times as likely to die within one year of pregnancy compared to women less than 30. There was also a disparity in place of pregnancy-associated mortality. The West and Shelby County area had the highest rate (124.1) while Mid-Cumberland had the lowest (57.5).

Disparity Elimination Focus: The team will focus on addressing place and race-based disparities. There is a large difference in rate of pregnancy-associated death in Shelby County/West TN, and many of the causes of death in this region of the state have been determined to be preventable. Additionally, non-Hispanic black women are more likely to die overall and even more likely to die from pregnancy-related causes. The goal is to reduce pregnancy-associated deaths in the Shelby County/West TN area through Strategies 1, 2 and 3 below.

The following strategies and activities are planned for *October 1, 2022 to September 30, 2023*:

Strategy 1: Increase surveillance of maternal deaths

Supporting Evidence for Strategy 1: Moderate evidence to suggest maternal mortality review provides comprehensive information on causes of death, preventability, contributing factors, and leads to actions

improving maternal deaths.

Activity 1a: Identify pregnancy-associated deaths and facilitate state Maternal Mortality Review Committee meetings. The Committee will identify age, race and place for each death reviewed to identify disparities.

Activity 1b: Through the Maternal Mortality Review Committee, determine the relatedness of all deaths to pregnancy, contributing factors, cause(s) of death, and preventability of all deaths. For each pregnancy-related death determine age, race and place of death to identify disparities. For each pregnancy-related death, the MMRC will determine the cause as specified by Pregnancy Mortality Surveillance System.

Activity 1c: Analyze data for the annual maternal mortality report. Additional data on causes of death by race and place for each death reviewed will be included in order to identify disparities. Data will show the disparity in race, top causes of death by race and region of the states in which the death occurs. Qualitative data will also be included to identify gaps in care among these deaths.

Activity 1d: Develop recommendations for preventing subsequent maternal deaths based upon MMRC findings and for inclusion in the Maternal Mortality annual report and dissemination to relevant stakeholders quarterly. These recommendations include reference to specific disparities, contributing factors, and cause(s) of death identified in the reviews.

Strategy 2: Increase evidence-based education at hospitals on topics identified by the Maternal Mortality Review Committee (MMRC).

Supporting Evidence for Strategy 2: *Moderate.* Provider education, such as continued medical educational opportunities appear to be effective.

Activity 2a: Contract with Tennessee Hospital Association (THA) and Tennessee Initiative for Perinatal Quality Care (TIPQC) to provide training to birthing and non-birthing hospitals on top causes leading to maternal death as identified by the MMRC. THA will use claims data to identify areas of the state with the top causes of death and then provide simulation training on the top causes at non-birthing hospitals located in those areas. TIPQC will offer birthing hospitals education on pre-eclampsia. Areas of the state with the highest numbers of deaths due to pre-eclampsia will be prioritized. Birthing hospitals in West TN will be given top priority for trainings provided by THA and TIPQC since the highest disparities in maternal deaths overall are observed in this region.

Strategy 3: Increase access to services through community agency involvement to improve maternal health outcomes.

Supporting Evidence for Strategy 3: *Moderate.* There is evidence to suggest that expanded insurance coverage is effective.

Activity 3a: Convene a maternal health task force, with a minimum of 25 members, quarterly to

highlight innovative and best practices for preventing maternal death. The task force will include membership from the Office of Minority Health and Disparities Elimination to represent vulnerable populations. Analyze membership to determine whether additional participants are needed to represent top causes of maternal death such as homicide and cardiovascular disease. Collaborate with the Office of Health disparities to identify new members that represent/serve individuals who are at the highest risk of dying from the leading causes of maternal death.

- Activity 3b:** Fund a minimum of 3 community agencies to implement MMR recommendations on top causes of maternal death identified by the MMRC. Funded community agencies will be tasked with implementing recommendations to address the leading causes of maternal death (i.e., cardiovascular diseases and violent death) among the most at-risk populations. Applicants will be asked to describe how the proposed project addresses disparities (race and/or place). Proposals will be evaluated on how well they are addressing at-risk populations.
- Activity 3c:** Increase the number of women of childbearing age participating in family planning and well woman visits by expanding and promoting telehealth to better reach those people in areas at risk for pregnancy-associated deaths.
- Activity 3d:** Increase the number of women applying for presumptive eligibility by implementing an outreach plan and collaborating with community partners to reach vulnerable populations.
- Activity 3e:** Disseminate recorded domestic violence trainings to community groups in Shelby County to increase awareness of DV resources. Domestic (intimate partner) violence is a contributing factor to many maternal deaths by homicide. Therefore, this activity addresses the disparity in place of maternal deaths by homicide (almost half of maternal homicide deaths occur in Shelby County).
- Activity 3f:** Contract with agency to provide training on the danger assessment and work with local community agencies to implement the assessment. Community agencies within Shelby County/West TN will be prioritized to address the place-based disparity of maternal death by homicide (almost half of maternal deaths by homicide occur in Shelby County and firearms were the lethal weapon used in 74% of maternal homicides).

Planned Partnerships: TIPQC, THA, Maternal Health Action Team Members, Maternal Mortality Review Committee, Family Planning, Presumptive Eligibility

Contextual Factors:

- TIPQC and THA have a long-standing history of statewide education to providers.
- TIPQC only has capacity to assist providing hospitals with implementing one AIM bundle at a time
- Funding of agencies is competitive and dependent upon agencies applications for funding.

Assumptions:

- Training healthcare providers will improve maternal outcomes.
- Increasing enrollment in family planning will improve preconception health and prevented unplanned pregnancies, thus decreasing the risk for maternal death.

Perinatal/Infant Health

National Performance Measures

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

Indicators and Annual Objectives

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

State Provided Data			
	2019	2020	2021
Annual Objective			85
Annual Indicator	84.5	84.5	80
Numerator			
Denominator			
Data Source	Birth Statistical System	Birth Statistical System	Birth Statistical System
Data Source Year	CY 2018	CY 2019	CY 2020
Provisional or Final ?	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	85.5	86.0	86.5	87.0

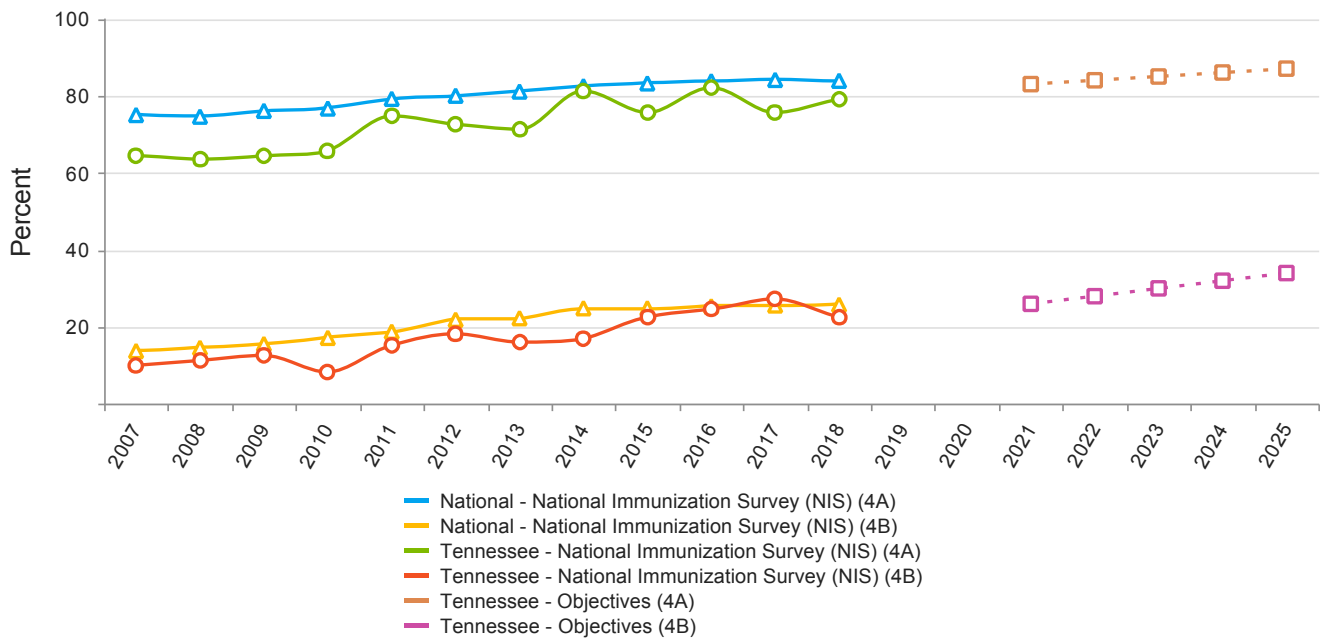
Evidence-Based or –Informed Strategy Measures

ESM 3.1 - Percent of Tennessee birthing hospitals participating in perinatal quality collaborative projects

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			33
Annual Indicator		41	43.3
Numerator			
Denominator			
Data Source		TIPQC	TIPQC
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	33.0	33.0	33.0	33.0

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



NPM 4A - Percent of infants who are ever breastfed

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2019	2020	2021
Annual Objective			83
Annual Indicator	82.2	75.8	79.1
Numerator	63,360	53,802	60,163
Denominator	77,089	70,947	76,011
Data Source	NIS	NIS	NIS
Data Source Year	2016	2017	2018

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	84.0	85.0	86.0	87.0

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

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2019	2020	2021
Annual Objective			26
Annual Indicator	24.5	27.2	22.4
Numerator	18,257	19,012	16,600
Denominator	74,506	69,987	73,999
Data Source	NIS	NIS	NIS
Data Source Year	2016	2017	2018

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	28.0	30.0	32.0	34.0

Evidence-Based or –Informed Strategy Measures

ESM 4.1 - Number of credentialed lactation professionals within WIC

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			166
Annual Indicator		156	148
Numerator			
Denominator			
Data Source		WIC Monitoring Reports	WIC Monitoring Reports
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	176.0	186.0	196.0	206.0

ESM 4.2 - Percent of Breastfeeding Welcomed Here (BFWH)-designated businesses with ideal workplace lactation policies

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			0
Annual Indicator			0
Numerator			
Denominator			
Data Source			BFWH Tracking Spreadsheet
Data Source Year			2021
Provisional or Final ?			Final

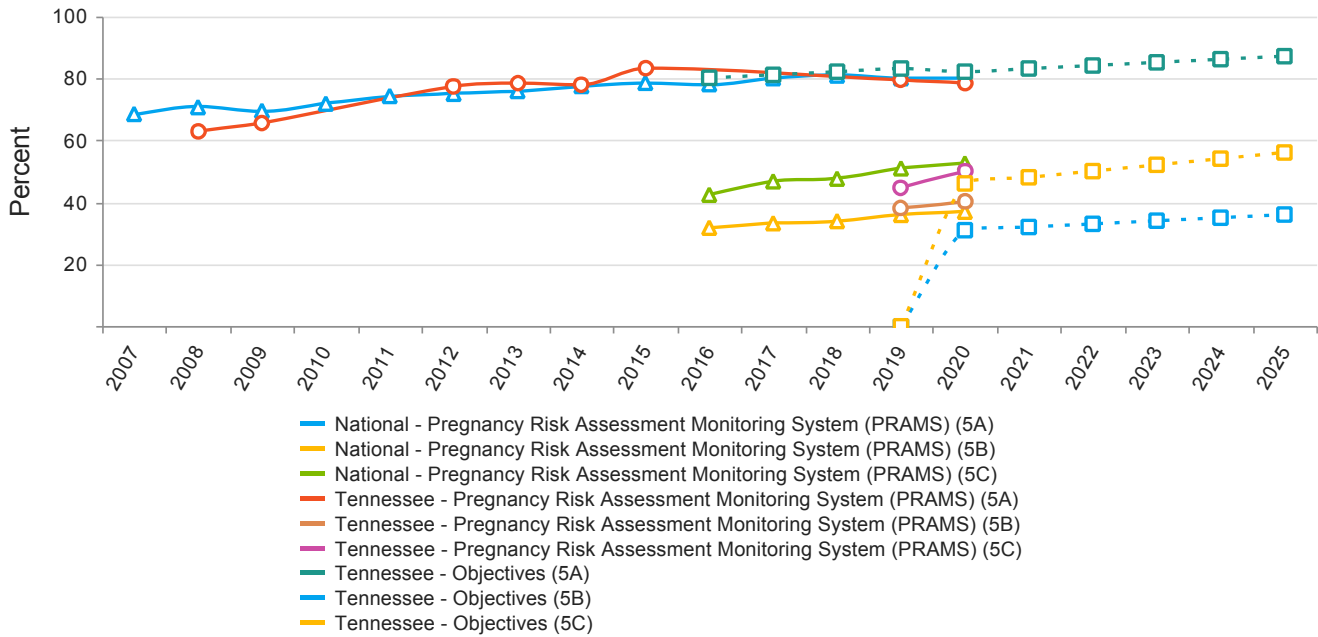
Annual Objectives				
	2022	2023	2024	2025
Annual Objective	0.0	0.0	0.0	0.0

ESM 4.3 - Recognition process implemented for Breastfeeding Welcomed Here (BFWH)-designated businesses

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			Yes	
Annual Indicator			No	
Numerator				
Denominator				
Data Source			BFWH Tracking Spreadsheet	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	Yes	Yes	Yes	Yes

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



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

Federally Available Data					
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)					
	2017	2018	2019	2020	2021
Annual Objective	81	82	83	82	83
Annual Indicator	83.0	83.0	83.0	79.4	78.4
Numerator	63,387	63,387	63,387	59,805	58,480
Denominator	76,381	76,381	76,381	75,369	74,548
Data Source	PRAMS	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2015	2015	2015	2019	2020

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	84.0	85.0	86.0	87.0

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)		
	2020	2021
Annual Objective	31	32
Annual Indicator	37.9	40.1
Numerator	27,572	29,031
Denominator	72,769	72,337
Data Source	PRAMS	PRAMS
Data Source Year	2019	2020

State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective			0	31	32
Annual Indicator	0	0	0		
Numerator					
Denominator					
Data Source	No data source	No data source	No data source		
Data Source Year	No data	No data	No data		
Provisional or Final ?	Final	Final	Final		

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	33.0	34.0	35.0	36.0

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)		
	2020	2021
Annual Objective	46	48
Annual Indicator	44.8	50.2
Numerator	32,496	36,072
Denominator	72,533	71,863
Data Source	PRAMS	PRAMS
Data Source Year	2019	2020

State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective			0	46	48
Annual Indicator	0	0	0		
Numerator					
Denominator					
Data Source	No data source	No data source	No data source		
Data Source Year	No data	No data	No data		
Provisional or Final ?	Final	Final	Final		

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	50.0	52.0	54.0	56.0

Evidence-Based or –Informed Strategy Measures

ESM 5.1 - Percent of hospitals receiving national recognition or implementing approved safe sleep policy

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			100	
Annual Indicator			100	
Numerator				
Denominator				
Data Source			TDH	
Data Source Year			2021	
Provisional or Final ?			Final	

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

ESM 5.2 - Number of diaper bags with safe sleep educational materials distributed

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			663
Annual Indicator		1,628	1,928
Numerator			
Denominator			
Data Source		TDH	TDH
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	676.0	690.0	704.0	718.0

State Performance Measures

SPM 4 - Percent of newborns who initiated breastfeeding

Measure Status:				Active	
State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	80	82	84	80.7	81.2
Annual Indicator	79.8	80.9	80.8	80.6	81.2
Numerator					
Denominator					
Data Source	TDH PPA - Birth Statistical System	TDH PHA - Birth Statistical System	TDH PHA - Birth Statistical System	TDH PHA - Birth Statistical System	TDH PHA - Birth Statistical System
Data Source Year	CY2016	CY2017	CY2018	CY2019	CY2020
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	81.7	82.2	82.7	83.2

SPM 5 - Percent of safe sleep diaper bag recipients who reported making a behavioral change in their infant sleep practices because of the items included in the bag

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		45
Numerator		
Denominator		
Data Source		TDH
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	47.0	50.0	52.0	55.0

State Action Plan Table

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

Priority Need

Increase breastfeeding

NPM

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

Objectives

Increase the percent of infants who were ever breastfed from 83% on October 1, 2020 to 84% on September 30, 2025.

Strategies

Cultivate a diverse community of professional lactation support through education and training opportunities across health care disciplines

ESMs

Status

ESM 4.1 - Number of credentialed lactation professionals within WIC

Active

ESM 4.2 - Percent of Breastfeeding Welcomed Here (BFWH)-designated businesses with ideal workplace lactation policies

Active

ESM 4.3 - Recognition process implemented for Breastfeeding Welcomed Here (BFWH)-designated businesses

Active

NOMs

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

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

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

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

Priority Need

Decrease infant mortality

NPM

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

Objectives

Increase the percent of infants placed to sleep on their backs from 82% on October 1, 2020 to 87% on September 30, 2025.

Increase the percent of infants placed to sleep on a separate approved sleep surface from 31% on October 1, 2020 to 36% on September 30, 2025.

Increase the percent of infants placed to sleep without soft objects or loose bedding from 46% on October 1, 2020 to 56% on September 30, 2025.

Strategies

Reduce infant sleep-related deaths, with outreach focused on regions with the highest infant mortality rates, the highest reported number of sleep-related deaths, and the widest racial disparity among sleep-related deaths (West TN, Shelby and Davidson)

ESMs

Status

ESM 5.1 - Percent of hospitals receiving national recognition or implementing approved safe sleep policy Active

ESM 5.2 - Number of diaper bags with safe sleep educational materials distributed Active

NOMs

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

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

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

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

Priority Need

Decrease infant mortality

NPM

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

Objectives

Increase the percent of VLBW infants born in a hospital with a Level III+ NICU from 84.5% on October 1, 2020 to 87% on September 30, 2025.

Strategies

Improve perinatal health outcomes through quality improvement and regionalization efforts

ESMs

Status

ESM 3.1 - Percent of Tennessee birthing hospitals participating in perinatal quality collaborative projects

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 (Tennessee) - Perinatal/Infant Health - Entry 4

Priority Need

Increase breastfeeding

SPM

SPM 4 - Percent of newborns who initiated breastfeeding

Objectives

Increase the percent of Tennessee newborns who initiate breastfeeding from 80.6% on October 1, 2020 to 83.2% on September 30, 2025.

Strategies

Re-enforce lactation policies that positively influence breastfeeding practices in the workplace

State Action Plan Table (Tennessee) - Perinatal/Infant Health - Entry 5

Priority Need

Decrease infant mortality

SPM

SPM 5 - Percent of safe sleep diaper bag recipients who reported making a behavioral change in their infant sleep practices because of the items included in the bag

Objectives

Increase the percent of safe sleep diaper bag recipients who reported making a behavioral change in their infant sleep practices because of the items included in the bag from 43% on October 1, 2020 to 55% on September 30, 2025.

Strategies

Reduce infant deaths due to prematurity and low birthweight by reducing infant exposure to tobacco

PRIORITY: Increase Breastfeeding

Interpretation of Performance Data on, NPMs, ESMs, SPMs, and SOMs:

ESM 4.1: Number of credentialed lactation professionals within WIC

The number of credentialed lactation professionals in WIC declined from 2020 to 2021. In response to the emergent pandemic, trainings were converted to virtual platforms which staff found challenging and staff were reassigned to COVID duties removing the possibility of completion. Fewer staff were able to complete certifying training, complete continuing education requirements for recertification, and credentialed staff retired resulting in a decline in credentialed lactation professionals within WIC.

ESM 4.2: Breastfeeding Welcomed Here (BFWH)-designated businesses with ideal workplace lactation policies

During Year 1, a survey to measure the number of Breastfeeding Welcomed Here (BFWH) designated businesses with ideal workplace lactation policies was created. This survey will be piloted in Knox County and is set to be disseminated October of Year 2. The survey will be sent to all BFWH-designated businesses in Knox County via the email they provided at the time they took the pledge. Results from the pilot survey will be reported in Year 2.

ESM 4.3: Recognition process implemented for Breastfeeding Welcomed Here (BFWH)-designated businesses

During Year 1, a recognition process for Breastfeeding Welcomed Here (BFWH)-designated businesses was not implemented. During Year 1, a survey to assess BFWH-designated businesses interest and readiness for the implementation of a tiered recognition program was created. This survey will be piloted in Knox County and is set to be disseminated October of Year 2. The survey will be sent to all BFWH-designated businesses in Knox County via the email they provided at the time they took the pledge.

SPM 4: Percent of Tennessee newborns who initiated breastfeeding

Breastfeeding initiation among newborns increased from 80.6% in 2019 (Year 5) to 81.2% in 2020 (Year 1). This rate met the fiscal year objective of an initiation rate of 81.2%. Tennessee continues to engage with community-based partners, health care providers, and lactation care providers in WIC to promote breastfeeding efforts.

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

The infant mortality rate decreased from 7.0 per 1,000 in CY 2019 to 6.3 per 1,000 in CY 2020. This rate exceeds the fiscal year objective. Potential mechanisms contributing to this significant decrease, including data quality issues, fetal deaths, and changes in program provision due to the COVID-19 pandemic are being investigated.

NOM 24: Percent of women who experience postpartum depressive symptoms following a recent live birth

The percentage of women who experience postpartum depressive symptoms following a recent live birth decreased to 15.1% in Year 1 from 15.7% in FY 2020. This percentage exceeds the Year 1 objective of 16.1%.

Accomplishments and Challenges (based on FY2021 Action Plan):

Strategy 1: Partner with Tennessee birthing hospitals to increase lactation support and provision of breast milk, particularly among communities with low breastfeeding rates

Activity 1a: Re-establish connection between birthing hospitals and Tennessee Breastfeeding Hotline services to ensure lactation support at discharge

Report 1a: Hotline promotion materials were updated and reprinted.



Advertising was placed in the Tennessee Nursing Association newsletter in May 2021 and February 2022 <https://tna.nursingnetwork.com/>:



Pacify, the contracted provider of Tennessee Breastfeeding Hotline services, has provided presentations to the State for approval to be presented to hospitals and other healthcare providers in Tennessee. These are currently under review. Contact with hospitals and hospital-related State entities was put on hold due to staffing overload caused by the pandemic. This activity has been rolled into education/training for hospitals.

Activity 1b: Partner with hospitals to develop a Memorandum of Understanding (MOU) Agreement to provide on-site breastfeeding peer counselor support

Report 1b: Current MOUs have been reviewed and a standard template is in early stages of development in partnership with the Procurement Management Office as part of a toolkit to support Breastfeeding Peer Counselor placement with hospital partners. Challenges continue based on limited hospital and peer counseling staffing as well as restricted access to hospitals due to Covid concerns.

Activity 1c: Promote the use of breast and donor milk in neonatal intensive care unit (NICU) settings and at discharge facilitating culturally appropriate staff interventions

Report 1c: This Activity was placed on hold and discontinued due to the impacts of Covid 19. The Mothers' Milk Bank of Tennessee <https://www.milkbanktn.org/> has been established and is providing human milk to multiple hospitals in the state. This is a great partner to develop and provide trainings together with in the future.

Activity 1d: Monitor and assess maternity and infant care practices that create a supportive environment for breastfeeding

Report 1d: This Activity was placed on hold due to the impacts of Covid 19. Progress is anticipated on the development and pilot of a survey as part of the hospital staff training activity. This survey may then be used for all birthing hospitals in the state.

Strategy 2: Cultivate a diverse community of professional lactation support through education and training opportunities across health care disciplines

Activity 2a: Advertise the 20-hour lactation curriculum to health care providers that serve in communities with low breastfeeding engagement

Report 2a: Seats for the existing purchased training were utilized and assessment of that training identified the need to determine an alternative to ensure compliance with changing Baby-friendly training requirements and the inclusion of health equity or bias topics. Alternative trainings have been identified and the purchase request is under development to obtain two hours of the final 20-hour curriculum planned.

Activity 2b: Provide advanced lactation training to WIC public health nutritionists and nursing staff within local health departments, focusing on areas with limited community breastfeeding support professionals.

Report 2b: The shift to online training and pandemic workload decreased staff availability to complete trainings and the time or technical skills to be successful in the new format. Out of the eighteen staff enrolled in the Spring 2021 cohort, 13 have completed the 40-hour training and of those 9 have received the Certified Lactation Counselor designation. one staff started but did not complete the training and three did not start the training. Another cohort is being pursued in 2022.

Activity 2c: Partner with Historically Black Colleges and Universities (HBCUs) to develop lactation education within health care curriculums for students of color

Report 2c: Initial letters of introduction and interest were drafted and submitted for approval. This activity was removed so concentration could be placed towards hospital education/training in hospitals with high numbers of births to parents who are identified as African American.

Strategy 3: Influence community-based breastfeeding and mental health support through program enhancements and partnerships

Activity 3a: Pilot WIC Breastfeeding Buddy Program within three counties with limited access to community

breastfeeding resources

Report 3a: This activity was put on hold due to Covid pandemic and removed to focus concentration on other activities.

Activity 3b: Establish a unique Designated Breastfeeding Experts (DBEs) for each county

Report 3b: Challenges have included increased retirements, increased staffing turnover, difficulty rehiring positions, decreased staff availability for extended absence from the worksite due to workloads and restrictions, limited technology or technological skills to complete virtual advanced lactation training.

Activity 3c: Promote Breastfeeding Welcomed Here (BFWH) designation in rural areas and among minority-owned businesses

Report 3c: Historically, BFWH has been promoted in person one business at a time. This has been restricted due to the Covid pandemic. A pilot to develop the program through social media is in the planning stages with the launch and assessment scheduled in Year 2.

Activity 3d: Provide telehealth services among WIC participants receiving nutrition and breastfeeding education in rural areas with access limitations based on internet and transportation issues

Report 3d: Some WIC offices continue to utilize USDA/FNS waivers and provide virtual options for nutrition education and certifications. A pilot project for establishing permanent virtual access will be launched in Year 2.

Activity 3e: Partner with Department of Mental Health and Substance Abuse to obtain and provide mental health resources to Tennessee Breastfeeding Hotline's referral list

Report 3e: Information was gathered and shared with Pacify, the contracted provider of the Tennessee Breastfeeding Hotline to utilize for mental health resources to be shared with callers as needed. This activity is completed.

Strategy 4: Re-enforce lactation policies that positively influence breastfeeding practices in the workplace

Activity 4a: Assess workplace lactation policies for businesses with BFWH designation

Report 4a: During Year 1, a recognition process for Breastfeeding Welcomed Here (BFWH)-designated businesses was not implemented. During Year 1, a survey to assess BFWH-designated businesses interest and readiness for the implementation of a tiered recognition program was created. This survey will be piloted in Knox County and is set to be disseminated October of Year 2. The survey will be sent to all BFWH-designated businesses in Knox County via the email they provided at the time they took the pledge.

Activity 4b: Acknowledge BFWH-designated businesses that have established lactation workplace policies

for employees

Report 4b: During Year 1, a recognition process for Breastfeeding Welcomed Here (BFWH)-designated businesses was not implemented. During Year 1, a survey to assess BFWH-designated businesses interest and readiness for the implementation of a tiered recognition program was created. This survey will be piloted in Knox County and is set to be disseminated October of Year 2. The survey will be sent to all BFWH-designated businesses in Knox County via the email they provided at the time they took the pledge.

PRIORITY: Decrease Infant Mortality

Interpretation of Performance Data on, NPMs, ESMs, SPMs, and SOMs:

ESM 5.1 Percent of hospitals receiving national recognition or implementing approved safe sleep policy

In FY2020, 27 Tennessee hospitals received national recognition or implemented an approved policy. Between FY2020 and FY2021, hospitals renewed their certification, and no new ones were added.

ESM 5.2: Number of diaper bags with safe sleep educational materials distributed

There was a total of 1,928 diaper bags with sleep educational materials distributed in FY2021, approximately triple the FY2021 objective and 292 more bags than FY2020. These diaper bags were distributed through the Evidence Based Home Visiting (EBHV) and Community Health Access & Navigation in Tennessee (CHANT) programs, delivering services to all 95 counties in TN. The high achievement in material distribution is most likely due to the programs' wide reach and voluntary participation of eligible mothers. The high distribution of educational materials may have a positive implication on safe sleep habits, as educational materials in the past have promoted changes in behavior.

ESM 3.1: Percent of Tennessee birthing hospitals participating in perinatal quality collaborative projects

In FY2020 and FY2021, 21 and 23 hospitals, respectively, participated in the opioid exposed newborns and opioid use disorder projects. On average, that was 4 more hospitals than the state objective, with 90% retention of participating hospitals. Between FY2020 and FY2021, a net of 2 hospitals were recruited.

SPM 5: Percent of safe sleep diaper bag recipients who reported making a behavioral change in their infant sleep practices because of the items included in the bag

This indicator was measured by data obtained from the Evidence Based Home Visiting (EBHV) and Community Health Access & Navigation in Tennessee (CHANT) programs. In FY2021, 45% of EBHV and CHANT safe sleep diaper bags recipients, combined, reported making behavioral changes in their infant sleep practices because of the items included in the bag. Based on the follow-up reports obtained, the sleep sack was the most successful intervention tool that contributed to a behavioral change in FY2021.

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

In FY2021, the percentage of VLBW births that took place at level 3 or level 4 facilities fell from 84% to 80%, and therefore, did not meet the state objective. However, when looking at the distribution of VLBW deliveries by perinatal region, the FY2021 objective was exceeded by the Southeast (92.5%) and West (88.7%) regions, and closely followed by the Middle (82.7%) and Northeast (73.4%) regions. The East region had the

lowest (47.1%) percentage of VLBW births occurring in a level 3 or level 4 facility, reducing the state's overall performance. The East region's low percentage can be attributed to a high number of VLBW births occurring at a level 2 facility acquiring care at a closely affiliated level 4 facility; as well as the overall decline could be attributed to barriers that arose during the COVID-19 pandemic.

NPM 5: (A) Percent of infants placed to sleep on their backs

Data from the Centers for Disease Control and Prevention (CDC) indicates Tennessee had one of the highest death rates from SUID between 2015 and 2019. While there are multiple factors associated with SUID, in approximately 50.6% of SUID deaths infants were not placed on their backs to sleep. In FY2021, 78.5% of infants were practicing safe sleep habit: back only sleeping position. This percentage does not meet the FY2021 objective and is preceded by safe sleep habits: baby sleeping alone (80%), baby sleeping in room with mom (84.2%), and baby sleeping in an approved sleep surface (89.5%).

NPM 5: (B) Percent of infants placed to sleep on a separate approved sleep surface

In FY2021, the percentage of infants placed to sleep on a separate safety approved sleep surface fell from 92.0% to 89.5%. This decline could be attributed to barriers that arose during the COVID-19 pandemic. Despite the approximate 2.0% decrease in behavior, it still exceeded the state objective of 32.0% for FY2021. When looking at Safe Sleep Habits by race, all three major groups also exceeded the state objective for FY2021. NH Blacks had the highest (90.8%) percentage, followed by Hispanics (90%), followed by NH Whites (88.3%).

NPM 5: (C) Percent of infants placed to sleep without soft objects or loose bedding

The percent of infants placed to sleep without soft objects or loose bedding was measured by safe sleep habit: baby sleeping alone: always/often/most always. Based on the data collected in FY2021, 80% of infants were practicing the safe sleep habit, exceeding the FY2021 objective. This was approximately a 3% improvement from data collected in FY2020. When looking at Safe Sleep Habits by race, all three major groups also exceeded the state objective for FY2021. NH Whites had the highest (80.1%) percentage, followed by Hispanics (71.1%), followed by NH Blacks (61.8%).

NOM 8: Perinatal mortality rate per 1,000 live births

The perinatal mortality rate per 1,000 live births+ fetal deaths in CY2019 (6.0) remained the same in CY2020 (6.0).

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

In FY2021, 495 Tennessee children under 1 year died. The FY2021 infant mortality rate of 6.3 deaths per 1,000 live births represents a decrease, though not statistically significant, from the FY2020 rate of 7.0 deaths per 1,000 live births. The 10% decrease in IMR between FY2020 and FY2021 may be explained by a decline in perinatal mortality. From FY2020 to FY2021, there was a 19% decrease in early neonatal mortality (death within the first seven days of life) and 10% reduction in perinatal mortality (fetal death at 28 or more weeks of pregnancy to first seven days of life).

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

The neonatal mortality rate per 1,000 live births in CY2019 fell from 4.54 to 3.89 in CY2020.

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

In FY2021 and FY2020, there were 102 and 101 post-neonatal deaths (death between 28 days and 1 year of life) in Tennessee. Due to a minimal difference in deaths and a similar total of live births across both years,

the FY2021 post-neonatal mortality rate of 1.3 deaths per 1,000 live births is no different than the FY2020 rate of 1.3 deaths per 1,000 live births.

NOM 9.4: Preterm-related mortality rate per 1,000 live births

The preterm-related mortality rate per 1,000 live births in CY2019 fell from 3.64 to 2.94 in CY2020.

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

There were 115 sleep-related infant deaths in FY2021. This is comparable to the 103 sleep-related infant deaths that occurred in FY2020. Despite a slight increase in sleep-related deaths from FY2020 to FY2021, the increase in sleep-related death rate in FY2021 (1.5 per 1,000 live births) was not statistically different to the FY2020 rate of 1.3 per 1,000 live births. This observed increase could be attributed to the difficulty in determining the exact cause of death for SUID.

Accomplishments and Challenges (based on FY2021 Action Plan):

Strategy 1: Reduce infant sleep-related deaths, with outreach focused on regions with the highest infant mortality rates, the highest reported number of sleep-related deaths, and the widest racial disparity among sleep-related deaths (West TN, Shelby and Davidson)

Activity 1a: Increase the number of birthing hospitals (1) recognized as a National Cribs for Kids certified hospital or with an approved safe sleep policy, and (2) submitting crib audit reports with ≤ 10% of infants being found in an unsafe sleep environment

Report 1a: In 2020 50% of birthing hospitals in Tennessee had the National Cribs for Kids Certification in either the bronze, silver, or gold levels. Hospitals were sent the report link to submit crib audits. The link included counting the number of cribs audited, the number of cribs that were safe and unsafe, and what was unsafe about the cribs. In 2021 we had 11 hospitals earn the Best for Babies Award. 60% of the birthing hospitals submitted crib audits. 100% of the hospitals have a safe sleep policy utilizing the AAP recommendation that were released in 2016.

Activity 1b: Distribute educational materials

Report 1b: Infant safe sleep educational materials were distributed to agencies that requested them. These agencies included evidence-based home visiting, care coordination, hospitals, in home childcare centers, pediatrician offices, health departments, and first responder agencies. All birthing hospitals received Sleep Baby Safe and Snug books for all births in Tennessee.

Activity 1c: Increase distribution of safe sleep materials with particular focus on areas with the highest disparities

Report 1c: All areas within the state are provided materials free of charge. The areas with the highest disparities also have the highest level of agencies requesting materials.

Activity 1d: Partner with Tennessee Commission on Aging to expand availability of safe sleep training for elderly caregivers

Report 1d: Due to COVID-19 pandemic during the reporting timeframe there were no meetings within the communities with the TN Commission on Aging. To substitute this educational component, there were three trainings held with in home childcare centers.

Activity 1e: Increase the number of local housing authority agencies and first responders that have received Direct On-Scene Education training in targeted regions with highest disparities

Report 1d: Program staff collaboration with local Safe Kids Coalition with West TN, Shelby County, and East TN allowed for us to provide materials to these agencies to engage with first responder agencies in their communities. There will be engagement with first responding agencies with Safe Kids helping with training and collecting data in 2022. Due to COVID-19 our engagement was limited during the reporting period.

Strategy 2: Improve perinatal health outcomes through quality improvement and regionalization efforts

Activity 2a: Contract with the state's perinatal collaborative, TIPQC, to maintain professional oversight committee, implement statewide quality improvement projects, and host professional training and educational opportunities for health care providers

Report 2a: The Department of Health continued to contract with Vanderbilt to coordinate the work of the Tennessee Initiative for Perinatal Quality Care (TIPQC). Under the direction of the Oversight Committee, hospital teams have created and implemented new quality improvement projects, continued with existing projects, collected data to track progress and outcomes, attended learning sessions, and participated in the annual educational conference.

During calendar year 2021, the TIPQC quality improvement project addressing opioid use disorder and opioid exposure in newborns went into sustainment. The Safe to Sleep project and the maternal hypertension project both continued throughout the year. 520 attendees were at the annual meeting; 22 podcasts were created; simulation training was provided in the summer; the speaker's bureau continued to provide training; and work started on three new projects.

Activity 2b: Review state's current maternal care guidelines for levels 1-4 and make revisions and additions as per latest guidance issued by SMFM/ACOG

Report 2b: A work group of experts from across the state and representing all perinatal levels of maternal care reviewed and revised the perinatal guidelines for maternal care and incorporated the changes into the perinatal guidelines. The document was approved by the Perinatal Advisory Committee and posted on the Department website.

Activity 2c: Provide transport and consultative services to all hospitals, promote utilization of the regionalization guidelines, and offer professional education to hospital staff and healthcare providers through the state's five regional perinatal centers.

Report 2c: Throughout the year, MCH staff have continued to work closely with the five Regional Perinatal Centers and the Perinatal Advisory Committee. In state fiscal year 2021, the five Centers provided direct care for 3,406 high-risk neonates and 16,206 high-risk

maternal patients; provided 101,842 consultations; and 7,133 hours of education and training were provided to staff at community hospitals to help them prepare for recognizing and treating complex medical conditions.

Updates were made to the maternal care sections of the perinatal regionalization guidelines. The Perinatal Advisory Committee met three times during the year; members heard data presentations on pregnancy and COVID in Tennessee and continued to monitor hepatitis C work.

Strategy 3: Support the newborn screening follow-up program, particularly amongst low-performing hospitals, through quality improvement efforts

Activity 3a: Provide case management follow-up for tested newborns with abnormal screening results and unsatisfactory tests

Report 3a: All babies born in Tennessee are required to be screened for metabolic conditions, hearing, and CCHD by the birthing facility. All newborn screening test results which are abnormal or unsatisfactory are sent to the follow-up staff for action. Providers are contacted and referrals made to the tertiary centers across the state for confirmation testing, counseling, and long-term follow-up. Case management was provided for 100% of tested newborns with abnormal screening results and unsatisfactory tests. This was done through reporting to primary care providers, parents, and tertiary centers with recommendations for action. The main challenges included identifying the correct primary care provider if it was not the one listed on the newborn screening filter paper and obtaining the correct address for parents if letter is returned due to address change.

Activity 3b: Provide education and consultative outreach to low performing hospitals with a monthly unsatisfactory dried blood spot submission rate above 10%

Report 3b: Education and consultative outreach were provided to 100% of low performing hospitals with a monthly unsatisfactory rate above 10% for the dried blood spot specimen either via phone call or in person site visit. Many improvements in the unsatisfactory rate for these facilities have been noted. The main challenge is for those birthing hospitals with very low numbers of births. Even a few unsatisfactory specimens will result in a high unsatisfactory rate.

Activity 3c: Improve newborn screening transit time of the dried blood spot from collection to arrival at the state lab through implementation of the OZ tracking system, conducting site visits and providing education to the top 20 facilities with the highest transit times

Report 3c: Newborn screening transit time has continued to improve with many targeted interventions for hospitals. With implementation of the OZ tracking system in 18 hospitals during this reporting period, 6 onsite in-person and 14 virtual site visits to selected facilities, and education provided to the top 20 facilities with the highest transit time, the program continues to see improvement. Transit time for all facilities has improved to 87.9% of all specimens arriving at the lab within 48 hours from collection.

Strategy 4: Support the healthy social and emotional development of infants

Activity 4a: Contract with the Association of Infant Mental Health in Tennessee (AIMHiTN) to maintain the IMH Endorsement® system in Tennessee

Report 4a: TDH continues to contract with AIMHiTN for the Infant Mental Health Endorsement (IMH Endorsement) system in Tennessee. EBHV Local Implementing Agency (LIA) staff are required per TDH EBHV service contracts to pursue and/or maintain IMH Endorsement.

Activity 4b: Contract with AIMHiTN to build Infant and Early Childhood Mental Health (IECMH) best practices, core competencies, professional standards, and reflective practice among the Evidence-Based Home Visiting (EBHV) workforce

Report 4b: TDH continues to contract with AIMHiTN to provide Reflective Supervision consultation and cohort groups to EBHV LIA supervisors and administrators to ensure a standardized level of reflective practice is provided among EBHV LIA staff.

Perinatal/Infant Health - Application Year

PRIORITY: Increase Breastfeeding

Objective for SPM 4: Increase the percent of Tennessee newborns who initiate breastfeeding from 80.6% in October 1, 2020 to 83.2% in September 30, 2025.

Disparity Description: Tennesseans experience breastfeeding initiation disparities based on a variety of sociodemographic factors. Disparities occur by mother's age, with initiation rates being highest in the 35-39 age group (85.5%) and lowest in the <20 age group (71.1%). Breastfeeding initiation disparities exist between racial and ethnic groups, with initiation at 73.2% for Non-Hispanic African Americans, 82.7% for Non-Hispanic Whites, and 85.0% for Hispanic/Latinos. Breastfeeding initiation rates differ by place, including disparities by county, rural vs. urban areas, and TN WIC regions. Lower mother education levels are associated with lower breastfeeding initiation rates: less than high school 69.2%, high school/GED 71.2%, some college 83.9%, and college graduate 94.0%. Breastfeeding initiation disparities exist based on WIC status, with the initiation rate being 72.1% in mothers who had prenatal participation in WIC and 85.8% in mothers who did not have prenatal participation in WIC. Breastfeeding initiation rates also differ by marital status. Married individuals had a breastfeeding initiation rate of 88.6%, while non-married individuals had an initiation rate of 72.0%. Disparities in breastfeeding duration are also observed based on age, race, place, education, WIC status, and marital status.

Data source: 2020 Birth Statistical System. Prepared December 2021.

Disparity Elimination Focus: The team will prioritize addressing the racial disparity observed in breastfeeding initiation. Increasing breastfeeding in Hispanic African American families can reduce the risk of adverse health conditions like high blood pressure and type 2 diabetes, which Non-Hispanic African Americans also disproportionately experience. The goal is to increase breastfeeding initiation and duration rates for non-Hispanic African Americans through Strategy 1 below.

The following strategies and activities are planned for *October 1, 2022 to September 30, 2023*:

Strategy 1: Cultivate a diverse community of professional lactation support through education and training opportunities across health care disciplines

Supporting Evidence for Strategy 1: HCP who identify as racial or ethnic minorities are more likely to provide care to underserved populations and group diversity is shown to improve task related outcomes.^{1,2}

While physicians feel they received adequate education on lactation, patients report they do not receive sufficient information from their PCP. However, additional skill targeted education with HCPs is shown to improve knowledge, attitudes, and confidence related to lactation support.^{3,4} Increased breastfeeding rates for practices have also been documented.⁵

Increased presence of lactation counselors and other supports are shown to increase breastfeeding duration through the first year of life.^{6,7} Staff training in advanced lactation provides community-wide lactation counseling through the local health departments and increases the access to lactation support across the state. Increased referral and use of the hotline are an added layer of access, especially in those areas with little access to lactation professionals.⁸

Activity 1a: Advertise the 20-hour lactation curriculum to health care providers that serve in

communities with low breastfeeding engagement. Advertisement efforts will be prioritized for birthing hospital delivery staff at hospitals identified as serving a large non-Hispanic African American delivery population.

Activity 1b: Provide advanced lactation training to WIC public health nutritionists and nursing staff within local health departments, focusing on rural areas with limited community breastfeeding support professionals –WIC participant race, ethnic, or language concordance.

Activity 1c: Re-establish connection between birthing hospitals and Tennessee Breastfeeding Hotline services to ensure lactation support at discharge. Additional outreach to re-establish a connection with the hotline will be planned for birthing hospitals identified as serving a large non-Hispanic African American delivery population.

Activity 1d: Engage at least four birthing hospitals to conduct a needs assessment in order to gather information on their training needs, barriers, perceived diversity of staff, and healthcare workers perceptions of doulas

Activity 1e: Engage with African American doula groups to learn about their training needs and their perceptions of health care workers as it relates to breastfeeding.

Strategy 2: Re-enforce lactation policies that positively influence breastfeeding practices in the workplace

Supporting Evidence for Strategy 2: Within the community, partnerships are vital to create system and environmental change.^{9, 10} “Effective workplace breastfeeding interventions activate three mechanisms: 1) awareness of the intervention, 2) changes in workplace culture, manager/supervisor support, co-worker support and physical environments, and 3) provision of time.”¹¹ By systematically evaluating and addressing the barriers to workplace accommodations TDH will improve workplace support in areas with low access to supports^{12, 13} and promote those businesses with best practices¹⁰.

Activity 2a: Assess workplace lactation policies for businesses with BFWH designation

Activity 2b: Acknowledge BFWH-designated businesses that have established lactation workplace policies for employees

Activity 2c: Promote Breastfeeding Welcomed Here (BFWH) designation in rural areas and among minority-owned businesses

Planned Partnerships:

- Department of Economic & Community Development
- Tennessee State University
- Meharry Medical College
- Eastern Tennessee State University
- Tennessee Hospital Association
- Tennessee County Health Councils
- TDH Office of Minority Health

- Local area Chamber of Commerce

Contextual Factors:

- Competing or supporting initiatives sponsored by other agencies.
- Socioeconomic factors of the target audience.
- The motivations and behavior of the target population.
- Social norms and conditions that either support or hinder your outcomes in reaching disparate populations, such as the background and personal experiences of participants.

Assumptions:

- Funding will be secure throughout the course of the project.
- Professionals, businesses, and families will be encouraged to attend learning sessions.
- Staff with the necessary skills and abilities are dedicated to fulfilling the strategies and activities.
- Partnerships or coalitions are encouraged to address each strategy and participate in activities.
- Policy adoption can lead to individual behavior change.

PRIORITY: Decrease Infant Mortality

Objective for NPM 5: Increase the percent of infants placed to sleep on their backs from 82.0% on October 1, 2020, to 87% on September 30, 2025.

Objective for NPM 5: Increase the percent of infants placed to sleep on a separate approved sleep surface from 31% on October 1, 2020, to 36% on September 30, 2025.

October for NPM 5: Increase the percent of infants placed to sleep without soft objects or loose bedding from 46% on October 1, 2020, to 56% on September 30, 2025.

Objective for NPM 3: Increase the percent of VLBW infants born in a hospital with a Level III+ NICU from 84.5% on October 1, 2020, to 87% on September 30, 2025.

Disparity Description: The overall infant mortality rate for TN in 2020 was 6.3 deaths per 1,000 live births. Racial disparity continues to exist among infants who die in TN. The non-Hispanic black infant mortality rate (10.3 deaths per 1,000 live births) continues to be more than double the non-Hispanic white infant mortality rate (5.0 per 1,000 live births) in 2020. This has been a consistent ratio for over the last 5 years. Infant sleep-related deaths are preventable deaths that occur while an infant is in a sleep environment; these deaths accounted for 23% of all infant deaths in 2020. While non-Hispanic white infants account for the majority of sleep-related infant deaths in Tennessee. Over the past five years, non-Hispanic black infants (rate of 2.6 per 1,000 births) were cumulatively 3 times as likely to suffer a sleep-related fatality as non-Hispanic white infants (1.2 per 1,000 live births). Disparity also exists by location. In 2020, the regions with the highest number and rates of sleep-related infant deaths included the metropolitan areas of Shelby County, Davidson County and Mid-Cumberland Region. The leading factors in infant sleep-related deaths include unsafe bedding or toys in the sleeping area (86% of deaths), infant not sleeping in a safety approved crib or bassinet (69% of deaths), infant sleeping with another person (58% of deaths), and infant not sleeping on his/her back (56% of deaths).

Disparity Elimination Priority Area: Infant deaths related to an unsafe sleep environment account for 23% of all infant deaths, are the 3rd leading factor in deaths amongst non-Hispanic black infants and are 100% preventable.

The team will focus on reducing racial disparities observed within regions with the highest reported number of sleep-related infant deaths through Strategy 1 below.

The following strategies and activities are planned for *October 1, 2022, to September 30, 2023*:

Strategy 1: Reduce infant sleep-related deaths, with outreach focused on regions with the highest infant mortality rates, the highest reported number of sleep-related deaths, and the widest racial disparity among sleep-related deaths (West TN Region, Shelby County, Davidson County East Region and Mid-Cumberland Region).

Supporting Evidence for Strategy 1: There is emerging evidence to suggest hospitals implementing a safe sleep policy will reduce sleep-related deaths. There is also emerging evidence to suggest educating caregivers will change their behavior.

Activity 1a: Increase the percent of birthing hospitals recognized as a National Cribs for Kids certified hospital or with an approved safe sleep policy that aligns with the AAP Safe Sleep Recommendations.

Activity 1b: Improve infant caregiver safe sleep behaviors through the education provided by the safe sleep diaper bag project in Evidence Based Home Visiting Programs and care coordination (CHANT) programs.

Activity 1c: Identify and engage new community partners (i.e., doulas, mental health, fatherhood-related interest groups, universities/HBCUs, etc.) with trusted ties to non-Hispanic Black communities in Shelby County, West Region, Davidson County, East Region, and Mid Cumberland Region.

Activity 1d: Modify the safe sleep campaign to include the creation and broadcast of public service announcements and printing of updated materials. Special emphasis will be placed on including culturally competent messaging and materials that resonate with non-Hispanic black parents and caregivers.

Strategy 2: Improve perinatal health outcomes through quality improvement and regionalization efforts.

Supporting Evidence for Strategy 2: A 2017 review of three online databases (Johns Hopkins University) showed moderate evidence for continuing education of hospital providers plus state guidelines/policy. Tennessee Initiative for Perinatal Quality Care (TIPQC) projects educate hospital providers. Tennessee has had regionalization guidelines in place for decades for all levels of perinatal care and for both obstetrics and neonatal care.

Activity 2a: Support quality improvement collaborative projects for hospitals regarding care for high risk maternal and/or neonatal patients.

Strategy 3: Reduce infant deaths due to prematurity and low birthweight by reducing infant exposure to tobacco.

Supporting Evidence for Strategy 3: The Association of Maternal & Child Health Programs (AMCHP)

considers the Baby and Me Program as a best practice/evidence-based model. Details from three states including Tennessee are included on the AMCHP Innovation Station website.

Activity 3a: Support tobacco cessation among women of childbearing age or individuals living with an infant < 1 year by providing nicotine replacement therapy (NRT) to individuals through the local health departments.

Activity 3b: Promote enrollment in Baby and Me Tobacco Free to reduce smoking during pregnancy.

Planned Partnerships:

- TIPQC
- Birthing hospitals
- Health care providers
- Regional Perinatal Centers
- TDH Smoking Cessation Program

Contextual Factors:

- TIPQC has a long-standing history of creating, promoting and implementing quality improvement projects with Tennessee birthing hospitals.
- TIPQC projects only work with birthing hospitals and their health care providers and only reach indirectly into the community health care providers.

Assumptions:

- Partnership with TIPQC can effectively address problems or reach into areas we cannot.
- Past experiences with QI projects show ability to succeed.
- Perinatal collaborations across the country continue to show improvement in birth outcomes through their projects.
- Training health care providers will improve birth outcomes.

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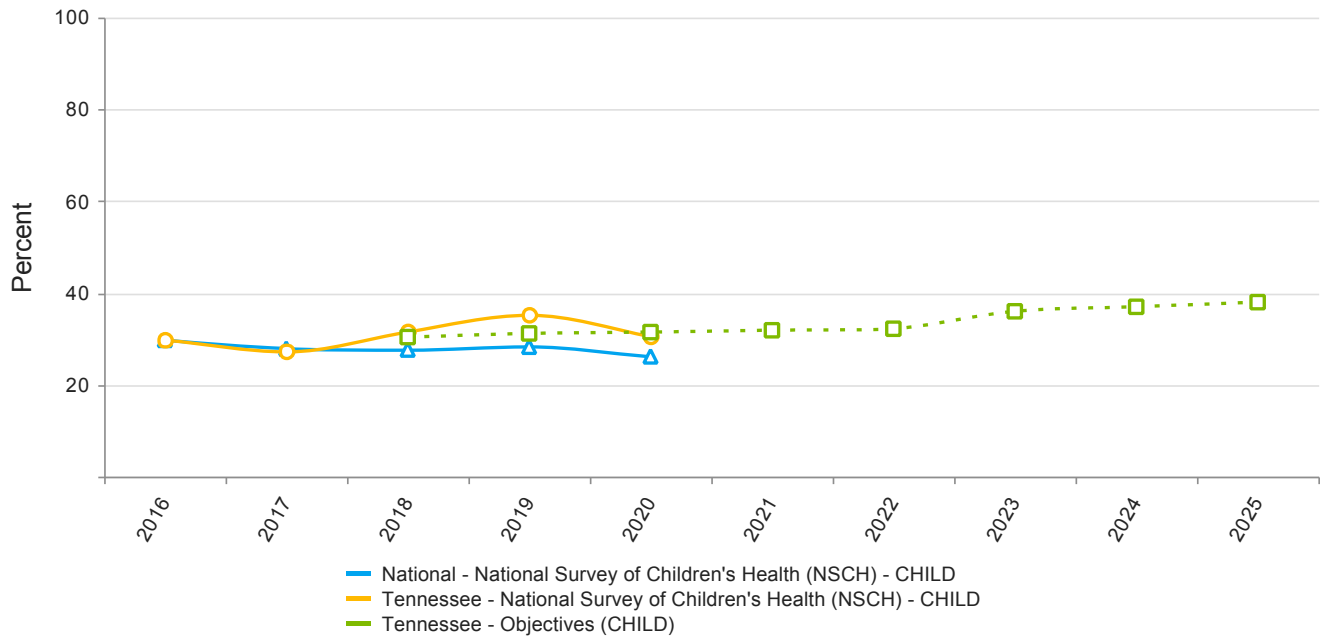
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Child Health

National Performance Measures

NPM 8.1 - Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day Indicators and Annual Objectives



Federally Available Data

Data Source: National Survey of Children's Health (NSCH) - CHILD

	2017	2018	2019	2020	2021
Annual Objective		30.4	31.2	31.5	31.9
Annual Indicator	29.6	27.3	31.5	35.2	30.6
Numerator	152,452	140,812	163,612	176,434	148,444
Denominator	514,521	516,001	519,562	500,965	485,754
Data Source	NSCH-CHILD	NSCH-CHILD	NSCH-CHILD	NSCH-CHILD	NSCH-CHILD
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives

	2022	2023	2024	2025
Annual Objective	32.2	36.0	37.0	38.0

Evidence-Based or –Informed Strategy Measures

ESM 8.1.1 - Percent of physical education teachers receiving professional development related to 50% of PE class time spent in moderate to vigorous physical activity

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			5	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			N/A	
Data Source Year			N/A	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	15.0	25.0	35.0	45.0

ESM 8.1.2 - Percentage of TN counties in which trainings related to mental health and physical health have occurred

Measure Status:		Active		
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	10.0	20.0	30.0	40.0

ESM 8.1.3 - Number of Gold Sneaker certified childcare facilities

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			700
Annual Indicator		549	643
Numerator			
Denominator			
Data Source		Gold Sneaker Database	Gold Sneaker Database
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	800.0	900.0	950.0	1,000.0

ESM 8.1.4 - Percent of LHD primary care clinics writing HPHP prescriptions annually

Measure Status:		Active	
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	25.0	40.0	55.0	65.0

ESM 8.1.5 - Number of Healthy Parks Healthy Person prescriptions written

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			125
Annual Indicator		0	195
Numerator			
Denominator			
Data Source		TDEC HPHP Rx portal	TDEC HPHP Rx portal
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	400.0	550.0	700.0	850.0

ESM 8.1.6 - Percentage of TN counties with completed built environment projects

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			20	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			OPP and Project Diabetes tracking databases	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	30.0	40.0	50.0	60.0

ESM 8.1.7 - Percent of eligible venues offering the Double Up Food Bucks Program

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			35
Annual Indicator			0
Numerator			
Denominator			
Data Source			Nourish Knoxville tracking database
Data Source Year			2021
Provisional or Final ?			Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	45.0	55.0	65.0	75.0

ESM 8.1.8 - Percent of staff with an increase in ACEs and TIC knowledge as evidenced by post training evaluation

Measure Status:		Active	
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	80.0	80.0	80.0	80.0

ESM 8.1.9 - Percent of families with improved protective factors score

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			50	
Annual Indicator			49.9	
Numerator				
Denominator				
Data Source			EBHV	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	52.0	54.0	56.0	58.0

ESM 8.1.10 - Percent of families enrolled in CHANT care coordination who partially or fully complete pathways identified

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			41	
Annual Indicator			42.6	
Numerator				
Denominator				
Data Source			CHANT	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	42.0	43.0	44.0	45.0

State Performance Measures

SPM 6 - Percent of schools with at least 50% physical education class time spent in moderate to vigorous physical activity

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			10	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			N/A	
Data Source Year			N/A	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	20.0	30.0	40.0	50.0

SPM 7 - Rate of Double Up Food Bucks purchases per SNAP recipient

Measure Status:		Active		
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	0.0	0.0	0.0	0.0

SPM 8 - Percent of children with two or more ACEs

Measure Status:				Active	
State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	27.5	27.5	24	23	22.5
Annual Indicator	27.5	24.6	24.1	20.1	0
Numerator					
Denominator					
Data Source	NSCH	NSCH	NSCH	NSCH	N/A
Data Source Year	2011_2012	2016	2017	2018	N/A
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	22.0	21.6	21.2	21.0

SPM 9 - Percent of substantiated child maltreatment cases among families served by home visiting programs

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			0.3
Annual Indicator		4.2	1.5
Numerator			
Denominator			
Data Source		EBHV	EBHV
Data Source Year		2019	2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	3.3	3.2	3.2	3.1

SPM 10 - Percent of caregivers who experience intimate partner violence and do not receive professional support services among families served by home visiting

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			7	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			EBHV	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	5.0	4.0	3.5	3.0

State Outcome Measures

SOM 3 - Percent of public school 6th graders who are overweight or obese

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			43.3
Annual Indicator		43.6	45
Numerator			
Denominator			
Data Source		CSH BMI Report	CSH BMI Report
Data Source Year		2017-2018	2019-2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	44.8	44.4	43.9	43.2

SOM 4 - Percent of WIC recipients aged 2-4 years who are overweight or obese

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator	31.2	32
Numerator		
Denominator		
Data Source	WIC	WIC
Data Source Year	CY 2020	CY 2021
Provisional or Final ?	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	31.0	30.0	28.0	26.0

State Action Plan Table

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

Priority Need

Decrease overweight and obesity among children

NPM

NPM 8.1 - Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Objectives

Increase the percentage of children ages 6-11 years who are physically active at least 60 minutes per day from 31.5% on October 1, 2020 to 40.0% on September 30, 2022.

Strategies

Support school-based efforts to promote physical activity and good nutrition

ESMs

Status

ESM 8.1.1 - Percent of physical education teachers receiving professional development related to 50% of PE class time spent in moderate to vigorous physical activity	Active
ESM 8.1.2 - Percentage of TN counties in which trainings related to mental health and physical health have occurred	Active
ESM 8.1.3 - Number of Gold Sneaker certified childcare facilities	Active
ESM 8.1.4 - Percent of LHD primary care clinics writing HPHP prescriptions annually	Active
ESM 8.1.5 - Number of Healthy Parks Healthy Person prescriptions written	Active
ESM 8.1.6 - Percentage of TN counties with completed built environment projects	Active
ESM 8.1.7 - Percent of eligible venues offering the Double Up Food Bucks Program	Active
ESM 8.1.8 - Percent of staff with an increase in ACEs and TIC knowledge as evidenced by post training evaluation	Active
ESM 8.1.9 - Percent of families with improved protective factors score	Active
ESM 8.1.10 - Percent of families enrolled in CHANT care coordination who partially or fully complete pathways identified	Active

NOMs

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)

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

Priority Need

Decrease overweight and obesity among children

SPM

SPM 6 - Percent of schools with at least 50% physical education class time spent in moderate to vigorous physical activity

Objectives

Increase the percentage of public schools with at least 50% physical education class time spent in moderate to vigorous physical activity from 10% on October 1, 2020 to 60% on September 30, 2025.

Strategies

Promote Gold Sneaker voluntary recognition program for licensed childcare centers

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

Priority Need

Decrease overweight and obesity among children

SPM

SPM 7 - Rate of Double Up Food Bucks purchases per SNAP recipient

Objectives

Increase the rate of Double Up Food Bucks purchases per SNAP recipient in the targeted counties. (new program therefore no baseline to set objectives)

Strategies

Promote policy, systems, and environmental change (PSE) strategies to increase physical activity and promote access to healthy food and beverages

State Action Plan Table (Tennessee) - Child Health - Entry 4

Priority Need

Increase prevention and mitigation of Adverse Childhood Experiences (ACEs)

SPM

SPM 8 - Percent of children with two or more ACEs

Objectives

Decrease the percent of children with two or more ACEs from 23% on October 1, 2020 to 21% on September 30, 2025.

Strategies

Increase knowledge and practice of ACE and Trauma Informed Care (TIC)

State Action Plan Table (Tennessee) - Child Health - Entry 5

Priority Need

Increase prevention and mitigation of Adverse Childhood Experiences (ACEs)

SPM

SPM 9 - Percent of substantiated child maltreatment cases among families served by home visiting programs

Objectives

Decrease the percent of investigated child maltreatment cases among families served by home visiting programs from 3.3% on October 1, 2020 to 3.0% on September 30, 2025.

Strategies

Ensure a strong start for children by promoting a healthy parent-child attachment through implementation of home visiting programs throughout the 95 counties of Tennessee

State Action Plan Table (Tennessee) - Child Health - Entry 6

Priority Need

Increase prevention and mitigation of Adverse Childhood Experiences (ACEs)

SPM

SPM 10 - Percent of caregivers who experience intimate partner violence and do not receive professional support services among families served by home visiting

Objectives

Decrease the percent of caregivers who experience intimate partner violence and do not receive professional support services among families served by home visiting programs from 8.0% on October 1, 2020 to 3.0% on September 30, 2025.

Strategies

Intervene to lessen immediate and long-term harms by linking families to health and social services

State Action Plan Table (Tennessee) - Child Health - Entry 7

Priority Need

Decrease overweight and obesity among children

SOM

SOM 3 - Percent of public school 6th graders who are overweight or obese

Objectives

Decrease the percent of public school 6th graders who are overweight or obese from 43.3% on October 1, 2020 to 41.9% on September 30, 2025.

Strategies

Partner with healthcare providers to promote physical activity counseling during well-child visits

State Action Plan Table (Tennessee) - Child Health - Entry 8

Priority Need

Decrease overweight and obesity among children

SOM

SOM 4 - Percent of WIC recipients aged 2-4 years who are overweight or obese

Objectives

Decrease the percent of WIC recipients ages 2-4 years who are overweight or obese

Strategies

Partner with healthcare providers to promote physical activity counseling during well-child visits

PRIORITY: Decrease Overweight and Obesity Among Children

Interpretation of Performance Data on, NPMs, ESMs, SPMs, and SOMs:

ESM 8.1.1: Percent of physical education teachers receiving professional development related to 50% of PE class time spent in moderate to vigorous physical activity

This is a new Year 2 ESM, which was not included among the Year 1 ESMs for the child overweight and obesity priority area.

ESM 8.1.2: Percentage of TN counties in which trainings related to mental health and physical health have occurred

This is a new Year 2 ESM, which was not included among the Year 1 ESMs for the child overweight and obesity priority area.

ESM 8.1.3 Number of Gold Sneaker certified childcare facilities

There were 643 Gold Sneaker certified childcare facilities at the end of Year 1. This number was just shy of the target of 700. However, there was improvement as 94 centers were added since the baseline of 549 in 2020. One major challenge was the COVID pandemic, which hindered any further progress being made as many facilities had to close or otherwise change their operations. In addition, during this period, the Gold Sneaker initiative was still in the process of conducting new training and recertifying all facilities due to changes in policies.

ESM 8.1.4: Percent of LHD primary care clinics writing HPHP prescriptions annually

This is a new Year 2 ESM, which was not included among the Year 1 ESMs for the child overweight and obesity priority area.

ESM 8.1.5: Number of Healthy Parks Healthy Person prescriptions written

There was a cumulative total of 195 HPHP prescriptions written by local health department (LHD) health care providers as of the end of Year 1. This number far exceeded the target value of 50. As the HPHP prescription program only commenced in the fall of 2020, there was no baseline value on which to base a reasonable estimate of how many prescriptions providers might write during that first year. Promotional efforts by both TDH, LHD health educators, and TDEC staff to raise awareness of the program as well as subsequent interest from providers far surpassed expectations. The data are even more surprising given the impact of the COVID pandemic, which most likely reduced the overall number of patient visits to primary care clinics. Yearly targets for 2022-2025 have been revised accordingly.

ESM 8.1.6: Percentage of TN counties with completed built environment projects

This is a new Year 2 ESM, which was not included among the Year 1 ESMs for the child overweight and obesity priority area.

ESM 8.1.7: Percent of eligible venues offering the Double Up Food Bucks Program

This is a new Year 2 ESM, which was not included among the Year 1 ESMs for the child overweight and obesity priority area.

SPM 6: Percent of schools with at least 50% physical education class time spent in moderate to vigorous physical activity

This is a new Year 2 ESM, which was not included among the Year 1 ESMs for the child overweight and obesity priority area.

SPM 7: Rate of Double Up Food Bucks purchases per SNAP recipient

This is a new Year 2 ESM, which was not included among the Year 1 ESMs for the child overweight and obesity priority area.

SOM 3: Percent of public school 6th graders who are overweight or obese

Tennessee public school sixth graders are at the upper end of the age range for the child domain. Therefore, obesity and overweight data within this group is a good measure of progress in meeting long-term goals and outcomes for this priority area. In 2021, the risk of overweight or obesity actually increased to 45.0% from the baseline of 43.64% in 2017-18, which is a statistically significant difference. It usually does take some time for programs and initiatives to make a positive impact on long-term objectives. However, it is likely that progress was further impeded by COVID's influence on remote learning and limited physical activity and healthy nutrition opportunities and programs. In addition, as the data are based on direct height and weight measurements, school closings during the height of the pandemic could have greatly skewed results.

SOM 4: Percent of WIC recipients aged 2-4 years who are overweight or obese

Although limited to a specific population, WIC data are the only ongoing source of overweight and obesity information among the preschool age group in Tennessee. Therefore, WIC BMI data represent another key source for a long-term outcome related to this priority area. In 2021, the risk of overweight or obesity in TN WIC recipients ages 2-4 increased slightly to 32.0% from 31.2 in 2020, but the rate was substantially higher compared to pre-COVID levels (i.e., 25.5% in 2019). However, during the pandemic, the WIC program waived the requirement for in-person height and weight measurements, which could have greatly biased the results. Other aspects of the pandemic that limited opportunities for physical activity outside the home could have been a factor as well.

NPM 8.1: Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Sufficient physical activity is a major factor in maintaining healthy weight. Therefore, the measure is a key short to medium term outcome for the child overweight or obesity priority. The combined 2019-2020 National Survey of Children's Health (NSCH) percentage of TN children ages 6-11 who are physically active at least 60 minutes every day was 30.6%. This rate represented a slight decline or higher risk since the 2017-2018 baseline (31.5%) and was short of the 2021 target by over a percentage point. However, the difference is not statistically significant, and there are too few years of data yet in this cycle to detect any trends. Although the NSCH is the source for MCH national performance and outcome measures, the state sample size is small even after combining years of data. Therefore, the confidence interval around percentages is fairly broad and the sensitivity for determining statistical significance is low for all but the most substantial differences in percentages.

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

This long-term outcome is the primary measure of overall health status. The combined 2019-2020 National Survey of Children's Health (NSCH) percentage of TN children ages 0-17 in excellent or very good health was 89.0%. This represented a slight increase or improvement since the 2017-2018 baseline (88.7%) and was just short of the Year 1 target. However, the difference is not statistically significant, and there are too few years of data yet in this cycle to detect any trends. Although the NSCH is the source for MCH national performance and outcome measures, the state sample size is small even after combining years of data.

Therefore, the confidence interval around percentages is fairly broad and the sensitivity for determining statistical significance is low for all but the most substantial differences in percentages.

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 20, which is specific to only adolescents ages 10 – 17, has not been a measure for this priority area for either Year 1 or Year 2 of the current MCH cycle. The overweight/obesity priority is in the child domain where the priority age range is approximately 0-11. However, there is a state outcome measure (SOM 2) related to obesity among WIC recipients ages 2-4. Information on this measure can be found under SOM 4 above.

Accomplishments and Challenges (based on FY2021 Action Plan):

Strategy 1: Support school-based efforts to promote physical activity and good nutrition

Activity 1a: Collaborate with the Tennessee Department of Environment and Conservation (TDEC) and the Department of Education Coordinated School Health to increase the number of statewide physical activity clubs (walking, running, etc.) in both school-based, community-based sites from 275 to 285 clubs.

Report 1a: During the reporting period there were 1,194 schools that reported implementing a run club. The challenge was determining the number of run clubs per school.

Activity 1b: Partner with the Department of Education Coordinated School Health staff to provide professional development on school physical education and physical activity to at least 10 local education agencies with an emphasis on areas with the highest youth obesity rates.

Report 1b: During the reporting period, 173 schools that offered professional development on before school physical activity programming, 103 offered professional development on CSPAP (Comprehensive School Physical Activity Programs), 1,017 schools offered professional development on physical activity best practices, 1,247 schools offered professional development on physical education best practices, and 1,063 schools offered professional development on using physical activity in the classroom. These opportunities were offered in 136 school districts statewide.

Activity 1c: Partner with the Department of Education Coordinated School Health (CSH) staff to provide professional development on promoting healthy lifestyle choices before, during, and after school to at least 50 PHEs and local education agency staff (Smart Snacks in Schools, Junior Chef, National After School Association's HEPA standards, etc.)

Report 1c: During the reporting period, 538 schools offered professional development on nutrition, 1,212 schools offered professional development relating to the importance of breakfast for students, and 7,793 staff received professional development and technical assistance on strategies to create a healthy school nutrition environment.

Strategy 2: Promote Gold Sneaker voluntary recognition program for licensed childcare centers

Activity 2a: Participate in 1-2 meetings with the TN Department of Human Services to promote the Gold

Sneaker 3 Star requirement and explore opportunities to add Gold Sneaker requirements to licensed childcare standards.

Report 2a: During the reporting period, the Director of Chronic Disease and Health Promotion, Health Promotion Director and Gold Sneaker Program Director participated in 3 meetings with TDHS to discuss the licensing standards and the requirements for Gold Sneaker to be included in the 3 Star Quality Childcare Program. The discussion focused on Gold Sneaker policies, program compliance, promotion to childcare centers and overall evaluation of the Gold Sneaker Program. Challenges included postponing and cancelling meetings and closures of childcare centers due to COVID restrictions and guidelines.

Activity 2b: Provide a minimum of 1-2 trainings on the Gold Sneaker policies for public health educators, TN Department of Human Services staff, and Child Care Resource & Referral Center staff, and other partners statewide.

Report 2b: During the reporting period there were no in-person trainings conducted due to Covid restrictions. There were 5,582 unique Gold Sneaker online trainings completed in English and 7 in Spanish on the Tennessee Child Care Online Training System (TCCOTS) platform. The online training included: Gold Sneaker guidelines and policies, strategies to adhere to policies and licensing standards, educational materials, and program resources.

Activity 2c: Identify and disseminate educational resources to Gold Sneaker certified daycares that support implementation of Gold Sneaker policies related to physical activity, nutrition, and tobacco exposure.

Report 2c: During the reporting period, the following resources were distributed: Gold Sneaker Childcare Provider and Parents and Families rack cards, toolkits and resource packets for certified providers, access to Ask Gold Sneaker for technical assistance, and educational and advocacy opportunities provided on the Gold Sneaker web page. Challenges included childcare centers closed due to COVID restrictions. Due to the closures, many locations did not have the ability to access or receive educational resources.

Activity 2d: Increase number of daycares that complete the voluntary Gold Sneaker certification from 535 to 600.

Report 2d: At the end of this reporting there were 643 certified Gold Sneaker childcare centers.

Strategy 3: Partner with healthcare providers to promote physical activity counseling during well-child visits

Activity 3a: Identify a minimum of 5 health provider champions including pediatricians and family practitioners, to increase the awareness and use of the Healthy Parks Healthy Person park prescription program for patients and their families to increase physical activity.

Report 3a: During the reporting period there were approximately 25 health provider champions, including MDs, APRNs, FNPs, and RNs that promoted the Healthy Parks Healthy Person program as well as provided prescriptions for outdoor recreation and physical activity. The provider champions covered 7 rural regions and 2 metros.

Activity 3b: Promote the use of the Healthy Parks Healthy Person park prescription program and app by PHNs, WIC staff, and other health providers in 10 local health departments.

Report 3b: During the reporting period HPHP was promoted by Health Promotion staff and Public Health Educators in county health department in all 95 counties. HPHP revised and released a new app that provided a user's physical activity history, park activities notifications, reward refunds and a provider portal. There was over 10,700+ app users and over 1,630 rewards earned by active participants. There were also 195 HPHP provider prescriptions given to patients ages 1 through 61. Providers included MDs, APRNs, RNs and LPNs in local and metro health department clinics. Challenges included a decrease clinic visits and clinic closures due to Covid restrictions.

Strategy 4: Promote policy, systems, and environmental change (PSE) strategies to increase physical activity and promote access to healthy food and beverages

Activity 4a: Support local communities who set a goal with Primary Prevention Plans from community needs assessment of reducing consumption of sugary drinks with an emphasis on distressed and at risk counties.

Report 4a: During the reporting period Public Health Educators from 10 distressed and burdened counties provided programs and activities focusing on reducing consumption of sugary drinks and increasing water intake. Twelve (12) events and programs were conducted reaching approximately 3,850 students, children and youth, and community members. The activities included: Re-Think Your Drink and Drink More Water campaigns and community festivals and health fairs promoting healthy nutrition including the importance of water consumption. Challenges included school and community organizations closed due to COVID restrictions. Several programs were delayed or cancelled reducing the number of programs implemented. In addition to reducing consumption of sugary drinks there were 236 built environment primary prevention projects completed addressing access to health programs and services.

Activity 4b: Identify a min of 5 partners to develop and implement strategies that increase access to healthier food and beverage options with an emphasis on distressed and at risk counties.

Report 4b: During the reporting period, the Project Diabetes program awarded funds to several community-based organizations and schools to develop and implement strategies that increase access to healthier food and beverage options. Six (6) organizations and schools conducting programs and activities included: 1) Maury County Schools - school gardens and cooking classes and rethink your drink campaigns; 2) MTSU- Hydration stations installed and a Drink Up Blue Raiders campaign; 3) Nourish Knoxville – Double Up Food Bucks at farmers markets and farm stores in East Tennessee; 4) University of Memphis – installed lactation rooms on the Memphis and Jackson campuses; 5) UT

Memphis Medical School - Culinary Medicine Program - Medical school education to teach evidence-based nutrition, core culinary skills, mindfulness, behavior modification using the principles of culinary medicine; and 6) Paris & Henry County Healthcare Foundation – installed hydration stations with a social marketing campaign to encourage reduction of sugary beverage intake. In addition, Public Health Educators implemented Soda Free Summer Programs in Lawrence, Robertson, Marshall counties. Challenges included school and community organizations closed due to COVID restrictions. Several programs were delayed or cancelled reducing the number of programs conducted.

Activity 4c: Promote joint use agreements that encourage after-hours use of school and community facilities for recreational activity.

Report 4c: There was little promotion of joint use agreements during this time period due mostly to COVID restrictions and challenges. Overall, 119 LEAs had protocols or policies for joint use agreements, which represented a reduction of 5 LEAs from the previous year.

Strategy 5: Promote the mental health benefits of physical activity

Activity 5a: Provide training, resources, and tools for 10 health departments promoting the mental health benefits of being physically active in nature.

Report 5a: During this reporting period, training and resources promoting the mental health benefits of being physically active in nature was provided to health promotion staff and public health educators in 7 regional health offices and 6 metro health departments (including local health departments in all 95 counties). Some of the resources included: *The Trailhead*, a free and open online community for children and nature champions, including practitioners, educators, parents, researchers, and anyone committed to connecting children, families and communities to the benefits of nature; *Healing in the Outdoors* webinar discussing connection to nature, nourishment and care for the land, and understanding how time in nature can enhance physical, mental and emotional health and well-being; *Cities Connecting Children to Nature* toolkits including Advancing Equity In Children's Connections To Nature, Tools to Bring Nature's Benefits to Children, and the Strategy Tool: Nature Connection in Early Childhood Sites. Challenges included postponing and cancelling trainings due to Covid restrictions.

Activity 5b: Partner with the Department of Education Coordinated School Health staff to provide professional development on the mental health benefits of physical activity to at least 8 local education agencies with an emphasis on areas with the highest youth obesity rates.

Report 5b: During the reporting period there was one LEA receiving professional development on the mental health benefits of physical activity. There were 80 participants. The challenge was providing professional development during the COVID pandemic.

Priority: Increase Prevention and Mitigation of Adverse Childhood Experiences (ACEs)

Interpretation of Performance Data on, NPMs, ESMs, SPMs, and SOMs:

ESM 8.1.8 Percent of staff with an increase in ACEs and TIC knowledge as evidenced by post training evaluation:

The program was unable to track progress on ESM 8.1.8 in Year 1 as the staff person that was involved with this project is no longer with the agency.

ESM 8.1.9: Percent of families with improved protective factors score.

During FY21 of the 790 participants for whom data had been completed 49.9% had an increase in PFS. Data are not available before this timepoint for comparison.

ESM 8.1.10: Percent of families enrolled in CHANT care coordination who partially or fully complete pathways identified

This is a new indicator for FY2021. The current status is higher than the expected outcome for FY2022. CHANT has been focusing on ensuring correct data entry and focusing on pathway progression for the families currently being served.

SPM 8: Percent of children with two or more ACEs.

During FY20, 20.6% of Tennessean children had two or more ACEs. The data for FY21 has not been released yet by the NSCH.

SPM 9: Percent of substantiated child maltreatment cases among families served by home visiting programs

During the FY20, 21.7% of the 92 children reported to DCS had substantiated cases while 9.8% of the 294 reported in FY21 had substantiated cases. Therefore, there was an 11.9% decrease in the percent of substantiated cases in FY21 compared to the cases substantiated in FY20.

SPM 10: Percent of caregivers who experience intimate partner violence and do not receive professional support services among families served by home visiting.

During FY2020 and FY2021, any caregiver participant in the TN EBHV program, who experienced intimate partner violence were referred to, and received professional support services. Thanks to the tireless efforts from the TN EBHV local implementing agencies' staff.

SOM 5: Percent of adults reporting chronic obstructive pulmonary disease (COPD)

The percent of adults reporting Chronic Obstructive Pulmonary Disease (COPD) did not change significantly between 2019 (9.7%) and 2020 (9.5%). This stagnation is likely a consequence of a relatively slow decline in Tennessee's adult smoking rate due to a myriad of factors including inadequate tobacco control policies, increases in stress during the COVID-19 pandemic, and aggressive marketing tactics by the tobacco industry.

Accomplishments and Challenges (based on FY2021 Action Plan):

Strategy 1: Increase knowledge and practice of ACE and Trauma Informed Care (TIC)

Activity 1a: Develop and implement online ACEs training for TDH staff, including those in the CHANT and EBHV programs. Increasing the awareness of the impact of ACEs on families will provide a better understanding of what has happened to families and how to offer services in a supportive manner.

Report 1a: ACEs trainings were provided to approximately 77 TDH Central Office staff in fall 2019. The Early Childhood Initiatives (ECI) Professional Development Director position has been vacant for 1-year. Further, TDH is in the process of redefining Departmental ACEs strategies to address increasing Protective Factors and resilience.

Activity 1b: Develop and implement online TIC training for TDH staff, including those in the CHANT and EBHV programs. Through this training TDH staff and CHANT and EBHV programs will be able to integrate trauma informed practices into their work with families, mitigating the impact of ACEs.

Report 1b: No activities to report for Year 1. The Early Childhood Initiatives (ECI) Professional Development Director position has been vacant for 1-year.

Activity 1c: Provide ACE and TIC refresher training for child fatality teams as part of their ongoing training. This training will provide information and insight to teams on the impact of ACEs and trauma and assist in understanding the impact on social determinants of health.

Report 1c: An annual child fatality review training was held virtually on May 12, 2021 in which representatives from all 34 local child fatality teams throughout the state were invited. During the training, a session was conducted, by the National Center for the Review and Prevention of Child Deaths, on discussing ACEs and life stressors that impact child fatality. New questions were included in the national database to better collect information about ACEs and life stressors when reviewing a child death.

Strategy 2: Ensure a strong start for children by promoting a healthy parent-child attachment through implementation of home visiting programs throughout the 95 counties of Tennessee.

Activity 2a: Teach positive parenting skills through home visitation in partnership with local EBHV implementing agencies. This will include encouraging social-emotional learning and parent-child relationship whose instability has been exacerbated by the COVID-19 global pandemic.

Report 2a: TDH continues to provide EBHV services in all 95 counties in Tennessee through 15 Local Implementing Agencies (LIAs). LIAs delivered home visits virtually during the COVID-19 pandemic to maintain continuity of services safely.

Activity 2b: Provide health education through EBHV home visiting programs in counties throughout Tennessee. Communicating the importance of children having a medical home to parents promotes high quality and culturally effective integrated care

Report 2b: TDH continues to provide EBHV services in all 95 counties in Tennessee through 15 Local Implementing Agencies (LIAs). EBHV home visitors discuss medical home with enrolled families.

Activity 2c: Provide supportive care and additional services to families and children through EBHV home visitation. By connecting families with concrete services and knowledge of parenting and child development improve protective factors which mitigate or prevent ACEs.

Report 2c: TDH continues to provide EBHV services in all 95 counties in Tennessee through 15 Local Implementing Agencies (LIAs). EBHV is a proven strategy to mitigate the impact of adverse childhood experiences (ACEs). Further, EBHV promotes protective factors with enrolled families. Home visitors also complete the Ages and Stages Questionnaire (ASQ) with enrolled families to ascertain possible developmental issues.

Strategy 3: Intervene to lessen immediate and long-term harms by linking families to health and social services.

Activity 3a: Screen and assess families for enrollment in CHANT to identify health and social needs that have long term impact on families and children. By identifying the needs of families immediate, priority services can be provided to families.

Report 3a: CHANT continues to offer Screening and Assessment to families through a telephonic intervention within 2 weeks of the birth of a child, using birth data available through the health department. Also, local health departments have both internal and external referrals and provide a screening and assessment within 3 days of receipt of these referrals. The CHANT website now has an electronic referral link that is received by local health departments the same day it is received. Challenges in telephonic referrals have resulted in families that we were not able to reach through our phone outreach are placed on a 6 month call back schedule to attempt to engage at that point of time. TDH is working to find a vendor that will provide the ability to directly text message families concerning their needs and offer a screening and assessment.

Activity 3b: Provide referrals to families for identified health care and social service needs. Identifying which of the sixteen pathways of care families have identified as needs increase the protective factors within a family by providing concrete services at the time identified.

Report 3b: Families are identifying their needs and the Pathways of Care are being utilized in the development of a plan with the family. A challenge has been to identify the most critical needs a family has within those 15 pathways. This year Priority Pathways have been identified to allow focus on the most critical needs and to add any emergent needs the families are experiencing. Screening and assessments conducted through telephonic outreach now have health/safety issues that are identified as “red flags”. Families identified with a “red flag” issue are prioritized and sent to the Team Lead for that county to be triaged appropriately.

Activity 3c: Assist families in navigating the healthcare and social services system through the CHANT care-coordination model. Aiding in navigating any of the sixteen pathways, including obtaining a medical home or an EPSDT, is solution focused as barriers and other obstacles are addressed. Through this family resiliency is increased as a strategy to eliminate and mitigate ACEs the family might have experienced.

Report 3c: CHANT staff have received training on accessing the social services system and how to assist families in obtaining an EPSDT, immunizations, and/or obtaining a primary care physician. Rural Health Departments no longer provide EPSDT services and encourage families to obtain a Primary Care Physician and set up a medical home.

CHANT staff now assist the local health departments with families that have barriers to obtaining a medical home. Families that also want to participate in CHANT complete a screening and assessment to identify other needs the families might be experiencing. Families that only want connections to a PCP or obtaining a medical home are assisted telephonically through the TDH Call Center even if they do not wish to have CHANT services.

Strategy 4: CHANT and EBHV will screen and link families to mental health services

Activity 4a: Screen primary caregivers and families for depression using the Edinburg depression screening tool in EBHV home visiting programs and at CHANT screening and assessment. Depression can impact someone's ability to care for themselves or a child. Early identification can result in earlier access to treatment.

Report 4a: All EBHV enrollees are to be screened with the Edinburgh Postpartum Depression Screening (EBHV). 2,641 families were enrolled in EBHV services from October 1, 2020 – September 30, 2021.

Activity 4b: Refer families and caregivers identified in EBHV home visiting programs and CHANT that have elevated depression screening scores to mental health providers. Risk for those experiencing depression include withdrawal, disconnecting from your baby/child, difficulty completing everyday tasks and fear of hurting yourself or others. Depression treatment includes medication and/or talk therapy and has an impact on preventing and mitigating ACEs.

Report 4b: In 2020, 86% of caregivers enrolled in EBHV who screened positive for depression received a referral to mental health services. In 2021, 92.90% of caregivers enrolled in EBHV who screened positive for depression received a referral to mental health services.

Child Health - Application Year

PRIORITY: Decrease Overweight and Obesity Among Children

Objective for NPM 8.1: Increase the percentage of children ages 6-11 years who are physically active at least 60 minutes per day from 31.5% in October 1, 2020 to 40.0% in September 30, 2022.

Objective for SPM 6: Increase the percentage of public schools with at least 50% physical education class time spent in moderate to vigorous physical activity.

Note: There is currently no baseline data for Objective 2. A question is being added to the annual Department of Education Quality Physical Education Survey in the fall of 2021 that will provide those data. Target values for subsequent years will be set at that time.

Objective for SPM 7: Increase the rate of Double Up Food Bucks purchases per SNAP recipient in the targeted counties.

Note: There is currently no baseline data for Objective 3. Data will be available in the fall of 2021 from the Double Up Food Bucks Program as well as from the Department of Human Services regarding SNAP recipients. Target values for subsequent years will be set at that time.

Description: Data sources are scarce that provide health behavior and health status information for our priority domain of children ages 0 to 11. There is no one source that captures overweight or obesity data for the entire age group, as the Youth Risk Behavior Survey does for high school students. Therefore, the MCH child obesity team relies on the National Survey of Children's Health for children aged 6-11 on meeting daily physical activity standards (NPM 8.1) and for overall health status (NOM 19); the TN Departments of Education and Health Weight Status (BMI) Annual Report for K-12 public school students (SOM 3); and the TN WIC dataset for overweight or obesity among program participants aged 2-4 (SOM 4). Each of these datasets has its own advantages as well as limitations.

Available data pertaining to disparities by age, race/ethnicity, gender, and place show a significant disparity among Black non-Hispanics compared to White non-Hispanics (78.2% vs 91.7%, respectively) for the proportion reporting an overall health status of very good or excellent. Among K-12 students, males are more likely to be overweight or obese than females in 4th grade (42.7% vs. 40.5%) or 6th grade (45.7% vs. 44.2%). In addition, rural students are more likely than metro students to be overweight or obese for all grades K-12 (40.5% vs. 38.0%) and for K-6 (38.8% vs. 36.9%), grade 4 (42.8% vs. 39.7%), and grade 6 (46.0% vs. 42.9%), respectively. Rural male students are also more likely to be overweight or obese than rural female students for K-12 (41.0% vs. 40.1%), K-6 (39.3% vs. 38.2%), grade 4 (44.1% vs. 41.5%), and grade 6 (47.2% vs. 44.8%), respectively.

Among TN WIC recipients during CY 2021, 3-year-olds appear to be more overweight or obese (34.6%) than either 2-year-olds (30.5%) or 4-year-olds (30.7%). Overall, pre-school males in WIC seem to be more likely to be overweight or obese than females (32.7% vs. 31.1%). The same is true for Whites (32.6%) as compared to Blacks (30.4%) and all other racial groups (28.1%), respectively. However, Hispanics do appear to be more overweight or obese than non-Hispanics (34.6% vs. 31.5%), especially for White Hispanics (34.8%) and Other Hispanics (32.6%). Finally, WIC recipients in non-metro (rural) areas seem more likely to be overweight or obese than metro areas (32.5% vs. 31.0%).

Disparity Elimination Focus: Based on the available data sources and the general analysis presented above, the Child Health Obesity Team has selected geographic disparities (e.g., urban/metro vs. rural) among the early

childhood population as the primary health equity focus. Data from the WIC program as well as the 2019-2020 TDH/TDE BMI Report indicate that these disparities not only exist in the priority population but persist as children enter public schools in kindergarten and beyond. In addition, unlike school-based and other programs that serve elementary, middle, and high school aged children, it is difficult to find broad, community-based health and fitness related programming for younger children besides WIC, which serves a specific and limited population.

The Gold Sneaker (GS) Initiative represents another reason to adopt early childhood as the priority strategy, as it is one of those few programs that engages this population directly. The TDH Family Health and Wellness Division, Chronic Disease and Health Promotion Section, developed GS over ten years ago and has worked ever since to promote and expand GS certification for childcare facilities. There were over 800 certified daycare centers statewide at the program's height. GS endorses policies related to physical activity, nutrition, and tobacco free spaces in these facilities.

The GS program director recently left TDH, and COVID has certainly impacted the operation of daycares overall. However, as we emerge from COVID restrictions, now is the perfect time for TDH to reconstruct and reinvent GS while incorporating health equity through Strategy 2 below.

The following strategies and activities are planned for *October 1, 2022 to September 30, 2023*:

Strategy 1: Support school-based efforts to promote physical activity and good nutrition

Supporting Evidence: Physical Activity: Enhanced School-Based Physical Education: Enhanced school-based physical education (PE) involves changing the curriculum and course work for K-12 students to increase the amount of time they spend engaged in moderate- or vigorous-intensity physical activity during PE classes.

<https://www.thecommunityguide.org/findings/physical-activity-enhanced-school-based-physical-education>

Activity 1a: Collaborate with DOE to develop and implement strategies to provide professional development to physical education teachers pertaining to engaging students in moderate-to-vigorous-physical activity 50% or more of physical education class time.

Activity 1b: Collaborate with DOE to provide professional learning opportunities that connect mental health and physical health for PHEs and Health Councils, and youth (ie trauma-informed care, Youth Mental Health 1st Aid training, Movement as Medicine).

Strategy 2: Promote Gold Sneaker voluntary recognition program for licensed childcare centers

Supporting Evidence: Center-based early childhood education programs (ECE) aim to improve educational outcomes that are associated with long-term health as well as social- and health-related outcomes. Economic evidence indicates there is a positive return on investment in early childhood education. The benefits from students' future earnings gains alone exceed program costs. If targeted to low-income or racial and ethnic minority communities, ECE programs are likely to reduce educational achievement gaps, improve the health of these student populations, and promote health equity. <https://www.thecommunityguide.org/findings/promoting-health-equity-through-education-programs-and-policies-center-based-early-childhood>

Activity 2a: Host 1-2 technical assistance training for health promotion staff statewide in using the TrainTN system for Gold Sneaker certification training for licensed daycares.

Activity 2b: Provide a minimum of 1-2 trainings that address implementation practices of Gold Sneaker policies for public health educators, daycare staff, TN Department of Human Services staff, and

Child Care Resource & Referral Center staff, and other partners statewide.

Activity 2c: Conduct needs assessment and data mapping to identify at least twenty (20) priority rural counties with high rates of childhood obesity and lower availability and/or access to childcare services overall, including licensed childcare as well as GS certified facilities.

Activity 2d: Reconvene the GS Task Force by engaging organizations that represent or provide services in all twenty (20) or more priority counties. These organizations should include, but not be limited to, DHS, TCCY, CHANT, TDOE, TDEC Health Parks Health Person, and Child Care Resource and Referral (CCR&R)

Activity 2e: Identify at least one (1) additional community-based organization or facility in each priority county, including those already GS certified, as champions to raise awareness of early childhood obesity, health disparities, and gaps in existing resources and to promote the adoption of the restructured GS Initiative and policies. Utilize the identified community-based organizations to (1) disseminate GS promotional materials through one-on-one contact or via hand off to other community-based agencies to at least thirty (30) early childcare facilities across the priority counties; and (2) enroll childcare educators and childcare professionals from at least fifteen (15) of the thirty (30) facilities into the approved GS training on the DHS TrainTN professional development clearinghouse site.

Strategy 3: Partner with healthcare providers to promote physical activity counseling during well-child visits

Supporting Evidence: Physical Activity: Family-Based Interventions. Family-based interventions combine activities to build family support with health education to increase physical activity among children.
<https://www.thecommunityguide.org/findings/physical-activity-family-based-interventions>

TDH will focus on increasing provider referrals from TDH clinics in the West region, as electronic health records show referrals from the West region are low as compared to other TDH regions, and app usage in the West is less when compared to other regions of the state. This approach will also address health equity, as the West region of the state has a higher percentage of African Americans, as compared to other regions (not including Metro Health Departments).

Activity 3a: Provide training for 5 health provider champions on how to incorporate the use of the Healthy Parks Healthy Person park prescription portal to increase family-based physical activity.

Activity 3b: Promote the use of the Healthy Parks Healthy Person park prescription program and app by PHNs, WIC staff, and other health providers in 10 additional local health departments with an emphasis in west Tennessee.

Strategy 4: Promote policy, systems, and environmental change (PSE) strategies to increase physical activity and promote access to healthy food and beverages

Supporting Evidence: Physical Activity: Creating or Improving Places for Physical Activity. In these types of interventions, worksites, coalitions, agencies, and communities work together to change local environments to create opportunities for physical activity. Changes can include creating or improving walking trails, building exercise

facilities, or providing access to existing facilities. <https://www.thecommunityguide.org/findings/physical-activity-creating-or-improving-places-physical-activity>

Activity 4a: Support and provide technical assistance to at least 5 local communities who set a goal to increase physical activity through the construction of walking and nature trails.

Activity 4b: Collaborate with non-profits in east Tennessee to increase access to fresh fruit and vegetables for SNAP recipients through the Double Up Food Bucks program.

Planned Partnerships: CHANT, Department of Human Services; Tennessee Council on Children and Youth, Tennessee Department of Education, Tennessee Department of Environmental Conservation, Healthy Parks Healthy Person, Child Care Resource and Referral, and Partners employing PSE strategies (funded through Project Diabetes, a state funded grant initiative)

Contextual Factors: 1) economic/fiscal outlook; 2) political and social influences; 3) legislation and policies (facilitators or barriers); 4) COVID variants; 5) product marketing supporting poor nutrition or sedentary lifestyles; 6) SES, racial/ethnic, geographic disparities; 7) overall trends toward sedentary behavior (e.g., screen time) and less healthy diets (e.g., fast food).

Assumptions: 1) Funding will be secured throughout the course of the project. Children who learn and practice good physical activity and nutrition habits will maintain these habits for life. 2) Professionals will be motivated to attend workshops (e.g., HPHP, GS, etc.) and implement lessons learned. 3) Evidenced-based program implementation as well as polices and regulations promoting nutrition/PA will lead to healthy behaviors and a reduction in obesity.

PRIORITY: Increase Prevention and Mitigation of Adverse Childhood Experiences (ACEs)

Objective for SPM 8: By September 30, 2025, the percent of children with two or more ACEs will decrease from 23.0% to 21.0%.

Objective for SPM 9: By September 30, 2025, decrease the percent of investigated child maltreatment cases among families served by home visiting programs from 3.3% to 3.0%.

Objective for SPM 10: By September 30, 2025, decrease the percent of caregivers who experience intimate partner violence and do not receive professional support services among families served by home visiting programs from 8.0% to 3.0%.

Description: Out of 1,500 births per week in Tennessee, approximately 100 will report Spanish as their primary language spoken at home; and approximately 10 will report Arabic as their primary language spoken at home. Among our current EBHV participants, 14% (280 households) speak a language other than English as their primary language at home.

Under the auspices of TDH are 15 evidence-based home visiting (EBHV) local implementing agencies (LIAs). The LIAs employ 197 home visitors to provide direct EBHV services to families, 24 (14%) of which are bilingual. The languages represented among the EBHV workforce are Spanish, Arabic, Turkish and Portuguese.

According to a survey of EBHV LIAs in Tennessee, it is difficult to find and retain bilingual home visitors due to the high demand for bilingual persons in healthcare and other sectors. LIAs reported that the Language Line is used when there is no bilingual home visitor, but it is costly and therefore financially unsustainable. Additional limitations include various dialects not spoken by either bilingual home visitors or Language Line staff. Some LIAs reported having referred families to other programs with bilingual capabilities; and some also reported having received referrals for non-English speaking families they could not serve. One program shared, “So far this year we have received 6 referrals on Spanish-speaking only families that we were unable to serve. We used our translation services to engage them, but the relationships did not progress to enrollment”.

Disparity Elimination Focus: Some areas of the state have a greater need for bilingual home visitors/interpreter services than is currently available. While most bilingual home visitors speak English and Spanish, the team recognizes there are many other non-English languages spoken in the state who may be unable to access EBHV services due to an existing language barrier. The ACEs team will focus on the language disparity through Strategy 4 below.

The following strategies and activities are planned for *October 1, 2022 to September 30, 2023*:

Strategy 1: Increase knowledge and practice of ACE and Trauma Informed Care (TIC).

Supporting Evidence for Strategy 1: The variety of sectors can make a difference in preventing ACEs by impacting the various contexts and underlying risks that contribute to violence and adversity and by supporting safe, stable, nurturing relationships and environments for all children while taking a trauma informed approach to prevent ACEs.

Centers for Disease Control and Prevention (2019). Preventing Adverse Childhood Experiences: Leveraging the Best Available Evidence. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. <https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf>

Activity 1a: Develop and implement online TIC training for TDH staff, including those in the CHANT and EBHV programs. Through this training TDH staff and CHANT and EBHV programs will be able to integrate trauma informed practices into their work with families, mitigating the impact of ACEs.

Activity 1b: Provide ACE and TIC refresher training for child fatality teams as part of their ongoing training. This training will provide information and insight to teams on the impact of ACEs and trauma and assist in understanding the impact on social determinants of health.

Strategy 2: Ensure a strong start for children by promoting a healthy parent-child attachment through implementation of home visiting programs throughout the 95 counties of Tennessee.

Supporting Evidence for Strategy 2: Effective home visiting models have demonstrated many benefits for children and parents. Early childhood home visitation can prevent ACEs by providing information, caregiver support, and training about child health, development, and care to families in their homes to build a safe, stable, nurturing and supportive home environment. Children participating in a home visiting program have better cognitive and language development, better academic achievement, fewer behavioral problems, lower rates of substance use, and fewer arrests, convictions, and parole violations by age 19. Home visiting is associated with better pregnancy outcomes, improved parenting practices, reductions in the use of welfare and other government assistance, greater employment, lower rates of substance use, and reduced exposure

to intimate partner violence.

Centers for Disease Control and Prevention (2019). Preventing Adverse Childhood Experiences: Leveraging the Best Available Evidence. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. <https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf>

Activity 2a: Teach positive parenting skills through home visitation in partnership with local EBHV implementing agencies. This will include encouraging social-emotional learning and parent-child relationship whose instability has been exacerbated by the COVID-19 global pandemic.

Activity 2b: Provide health education through EBHV home visiting programs in counties throughout Tennessee. Communicating the importance of children having a medical home to parents promotes high quality and culturally effective integrated care.

Activity 2c: Provide supportive care and additional services to families and children through EBHV home visitation. By connecting families with concrete services and knowledge of parenting and child development improve protective factors which mitigate or prevent ACEs.

Strategy 3: Intervene to lessen immediate and long-term harms by linking families to health and social services.

Supporting Evidence for Strategy 3: Traumatic events in childhood can be emotionally painful or distressing and can have effects that persist for years. Factors such as the nature, frequency and seriousness of the traumatic event, prior history of trauma, and available family and community supports can shape a child's response to trauma. Creating and sustaining safe, stable, nurturing relationships and environments for all children and families can prevent ACEs and help all children reach their full health and life potential. Centers for Disease Control and Prevention (2019). Preventing Adverse Childhood Experiences: Leveraging the Best Available Evidence. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. <https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf>

Activity 3a: Screen and assess families for enrollment in CHANT to identify health and social needs that have long term impact on families and children. By identifying the needs of families' immediate needs, priority services can be provided to families.

Activity 3b: Provide referrals to families for identified health care and social service needs. Identifying which of the sixteen pathways of care families have identified as needs increase the protective factors within a family by providing concrete services at the time identified.

Activity 3c: Assist families in navigating the healthcare and social services system through the CHANT care-coordination model. Aiding in navigating any of the sixteen pathways, including obtaining a medical home or an EPSDT, is solution focused as barriers and other obstacles are addressed. Through this, family resiliency is increased as a strategy to eliminate and mitigate ACEs the family might have experienced.

Strategy 4: Increase access of non-English speaking families to infant and early child health and development education and services.

Supporting Evidence for Strategy 4: While many non-English languages are spoken in the state, most bilingual home visitors speak English and Spanish. Home visitors who are not bilingual currently use the Language Line for interpreter services. EBHV LIAs report this is costly and not sustainable due to the costs. Also, curricula used is not available in the languages needed and the cost to translate is cost prohibitive. Additional limitations include various dialects not spoken by either bilingual home visitors or Language Line staff. According to a survey of EBHV LIAs in Tennessee, it is difficult to find and retain bilingual home visitors as these positions are competitive and more expensive. Some programs reported having referred families to other programs with bilingual capabilities. Further, some reported having received referrals for non-English speaking families that they could not serve.

Activity 4a: Analyze birth file data to determine the language needs across the state. Utilize existing EBHV service data from LIAs and meetings with community partners to determine where language disparities exist based on region.

Activity 4b: Utilize language disparity data to inform funding amounts for interpreter/language services for EBHV LIAs, and work towards establishing a contract with the TDH interpreter/language services vendor to increase availability of interpreter services in order to expand accessibility of EBHV services to more non-English speaking families.

Activity 4c: Obtain current estimates on the cost to have the Welcome Baby universal outreach booklet translated to Spanish and Arabic.

Planned Partnerships: TDH maintains and continues formal partnerships with the Tennessee Council on Children and Youth (TCCY)/Building Strong Brains (BSB) Committee; Home Visiting Leadership Alliance (HVLA); Young Child Wellness Council (YCW); and Regional and Metro Health Departments.

Contextual Factors:

TDH will demonstrate leadership in promoting ACE mitigation factors.

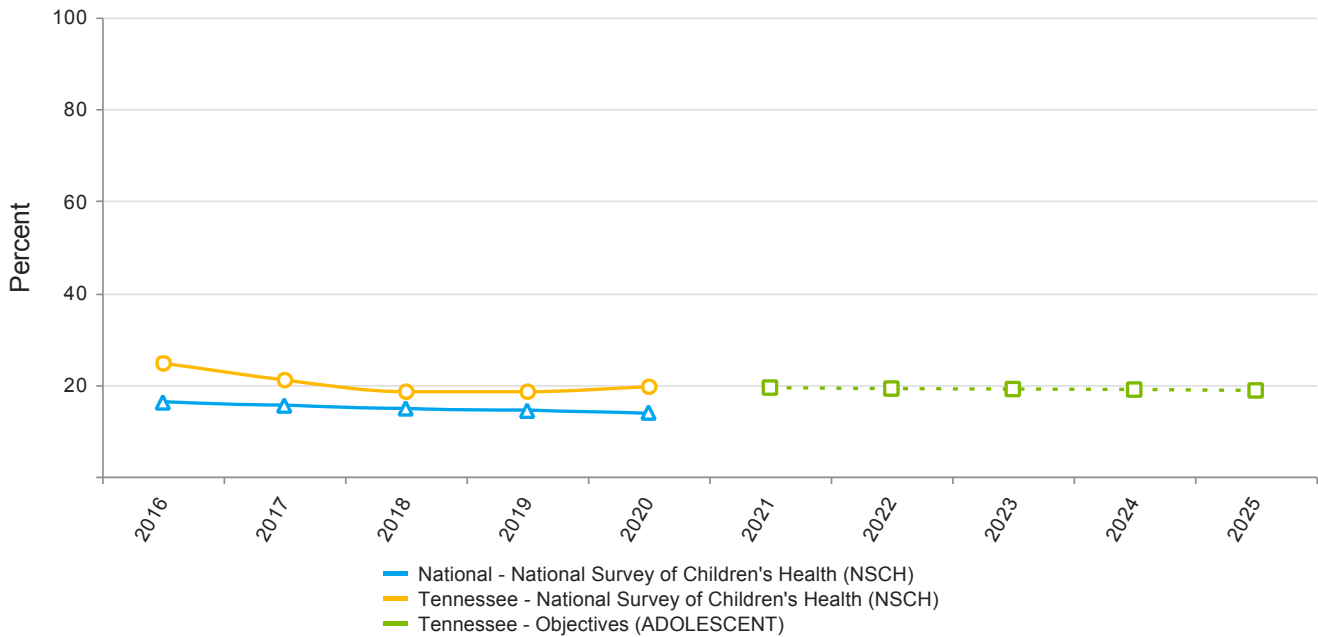
Assumptions:

Partners will be informed about ACES and implement trauma informed care practices in their work. Families will demonstrate positive interactions with their children.

Adolescent Health

National Performance Measures

NPM 14.2 - Percent of children, ages 0 through 17, who live in households where someone smokes Indicators and Annual Objectives



NPM 14.2 - Adolescent Health

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2017	2018	2019	2020	2021
Annual Objective		29	23.8		19.4
Annual Indicator	24.9	21.1	18.6	18.6	19.5
Numerator	362,200	311,958	276,334	271,871	286,194
Denominator	1,457,726	1,478,634	1,485,841	1,464,986	1,464,685
Data Source	NSCH	NSCH	NSCH	NSCH	NSCH
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	19.2	19.1	19.0	18.8

Evidence-Based or –Informed Strategy Measures

ESM 14.2.1 - Number of tobacco-free sports teams

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			79
Annual Indicator		77	88
Numerator			
Denominator			
Data Source		Tobacco-free Sports Teams Database	Tobacco-free Sports Teams Database
Data Source Year		CY 2020	CY 2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	81.0	83.0	85.0	88.0

ESM 14.2.2 - Number of social media posts promoting text-based cessation services

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			6
Annual Indicator		0	9
Numerator			
Denominator			
Data Source		TDH Office of Communications	TDH Office of Communications
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	12.0	12.0	24.0	24.0

ESM 14.2.3 - Number of anti-tobacco social media posts

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			6
Annual Indicator		8	27
Numerator			
Denominator			
Data Source		TDH Office of Communications	TDH Office of Communications
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	12.0	12.0	24.0	24.0

ESM 14.2.4 - Number of youth who attend the state anti-tobacco conference trainings

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			75
Annual Indicator		0	0
Numerator			
Denominator			
Data Source		TNSTRONG Registration	TNSTRONG Registration
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	300.0	300.0	350.0	400.0

ESM 14.2.5 - Number of ambassadors recruited

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			26
Annual Indicator		23	18
Numerator			
Denominator			
Data Source		TNSTRONG Ambassador Registration	TNSTRONG Ambassador Registration
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	26.0	26.0	26.0	26.0

State Performance Measures

SPM 11 - Percent of high school students currently using cigarettes

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			6.4
Annual Indicator		7.1	0
Numerator			
Denominator			
Data Source		2019	N/A
Data Source Year		YRBS	N/A
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	5.8	5.3	4.8	4.3

SPM 12 - Percent of high school students currently using e-cigarettes

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			18
Annual Indicator		22.1	0
Numerator			
Denominator			
Data Source		YRBS	N/A
Data Source Year		2019	N/A
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	17.9	17.8	17.8	17.7

SPM 13 - Number of adolescents enrolled in cessation program

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			0
Annual Indicator		7	22
Numerator			
Denominator			
Data Source		QuitLine and NOT Program (ALA)	QuitLine and NOT Program (ALA)
Data Source Year		CY 2020	CY 2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	20.0	50.0	100.0	125.0

State Outcome Measures

SOM 5 - Percent of adults reporting Chronic obstructive pulmonary disease (COPD)

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			9.3
Annual Indicator		9.7	9.5
Numerator			
Denominator			
Data Source		BRFSS	BRFSS
Data Source Year		2019	2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	9.2	9.1	9.0	8.9

SOM 6 - Percent of adults reporting cardiovascular disease

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			5.3
Annual Indicator		4.9	5.1
Numerator			
Denominator			
Data Source		BRFSS	BRFSS
Data Source Year		2019	2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	5.3	5.3	5.2	5.2

SOM 7 - Age-adjusted mortality rate from tobacco-attributable cancers among Tennesseans aged 35+

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			176.4
Annual Indicator		190.8	188
Numerator			
Denominator			
Data Source		CDC WONDER	CDC WONDER
Data Source Year		CY 2019	CY 2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	171.4	166.4	161.3	156.3

State Action Plan Table

State Action Plan Table (Tennessee) - Adolescent Health - Entry 1

Priority Need

Decrease tobacco and e-cigarette use among adolescents

NPM

NPM 14.2 - Percent of children, ages 0 through 17, who live in households where someone smokes

Objectives

Decrease the percent of children, ages 0 through 17, who live in households where someone smokes from 19.5% in 2019 to 18.8% in 2025.

Strategies

Promote anti-tobacco youth led initiatives

ESMs

Status

ESM 14.2.1 - Number of tobacco-free sports teams	Active
ESM 14.2.2 - Number of social media posts promoting text-based cessation services	Active
ESM 14.2.3 - Number of anti-tobacco social media posts	Active
ESM 14.2.4 - Number of youth who attend the state anti-tobacco conference trainings	Active
ESM 14.2.5 - Number of ambassadors recruited	Active

NOMs

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

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

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

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

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

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

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

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

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

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

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

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

State Action Plan Table (Tennessee) - Adolescent Health - Entry 2

Priority Need

Decrease tobacco and e-cigarette use among adolescents

SPM

SPM 11 - Percent of high school students currently using cigarettes

Objectives

Decrease the percentage of high school students currently using cigarettes, from 7.1% in 2019 to 4.3% in 2025.

Strategies

Promote anti-tobacco youth led initiatives

State Action Plan Table (Tennessee) - Adolescent Health - Entry 3

Priority Need

Decrease tobacco and e-cigarette use among adolescents

SPM

SPM 12 - Percent of high school students currently using e-cigarettes

Objectives

Decrease the percentage of high school students currently using e-cigarettes from 22.1% in 2019 to 17.7% in 2025.

Strategies

Build partnerships with coalitions across the state

State Action Plan Table (Tennessee) - Adolescent Health - Entry 4

Priority Need

Decrease tobacco and e-cigarette use among adolescents

SPM

SPM 13 - Number of adolescents enrolled in cessation program

Objectives

Increase the number of adolescents enrolled in cessation programs, from 0 in 2019 to 125 in 2025.

Strategies

Promote youth tobacco cessation services

State Action Plan Table (Tennessee) - Adolescent Health - Entry 5

Priority Need

Decrease tobacco and e-cigarette use among adolescents

SOM

SOM 5 - Percent of adults reporting Chronic obstructive pulmonary disease (COPD)

Objectives

Decrease percent of adults reporting Chronic Obstructive Pulmonary Disease (COPD) from 9.3% in 2019 to 8.8% in 2025.

Strategies

Promote anti-tobacco youth led initiatives

State Action Plan Table (Tennessee) - Adolescent Health - Entry 6

Priority Need

Decrease tobacco and e-cigarette use among adolescents

SOM

SOM 6 - Percent of adults reporting cardiovascular disease

Objectives

Decrease percent of adults reporting cardiovascular disease from 5.3% in 2019 to 5.2% in 2025.

Strategies

Promote youth tobacco cessation services

State Action Plan Table (Tennessee) - Adolescent Health - Entry 7

Priority Need

Decrease tobacco and e-cigarette use among adolescents

SOM

SOM 7 - Age-adjusted mortality rate from tobacco-attributable cancers among Tennesseans aged 35+

Objectives

Decrease the age-adjusted mortality rate from tobacco-attributable cancers among Tennesseans ages 35+ from 176.4 in 2019 to 141.3 in 2025.

Strategies

Build partnerships with coalitions across the state

PRIORITY: Decrease Tobacco and E-cigarette Use Among Adolescents

Interpretation of Performance Data on, NPMs, ESMs, SPMs, and SOMs:

ESM 14.2.1: Number of tobacco-free sports teams

The number of tobacco-free sports teams (ESM 14.2.1) increased from 77 to 88 between CY 2020 and CY 2021, surpassing our goal of 79 teams for 2021. While this is a cumulative count, it does represent a significant success in reaching and engaging youth during the COVID-19 pandemic and is due in large part to the work of our local Public Health Educators to promote the program.

ESM 14.2.2: Number of social media posts promoting text-based cessation services

The number of social media posts promoting text-based cessation services (ESM 14.2.2) increased from 0 to 9 between FFY 2020 and 2021. The Tobacco Control Program has significantly improved its social media presence and engagement by hiring a Communications Specialist to coordinate and execute its media and marketing activities.

ESM 14.2.3 Number of anti-tobacco social media posts

The number of anti-tobacco social media posts (ESM 14.2.3) increased from 8 to 27 between FFY 2020 and 2021. The Tobacco Control Program has significantly improved its social media presence and engagement by hiring a Communications Specialist to coordinate and execute its media and marketing activities.

ESM 14.2.4: Number of youth who attend the state anti-tobacco conference trainings

The number of youth who attend the state anti-tobacco conference trainings (ESM 14.2.4) was zero for FY 2020 and 2021. Due to the COVID-19 pandemic, travel and gathering restrictions prohibited the program from implementing a youth summit in either of the two years. However, a total of 17 trainings were hosted virtually across the two fiscal years to keep TNSTRONG Ambassadors engaged and educated on tobacco issues which represents a notable success.

ESM 14.2.5: Number of ambassadors recruited

The number of ambassadors recruited (ESM 14.2.5) fell slightly in FY 2021 from 23 (CY 2020) to 18 (CY 2021). The COVID-19 pandemic placed significant limitations on Public Health Educators' abilities to engage and recruit students with many school districts transitioning to virtual learning and suspending in-person activities and groups.

SPM 11: Percent of high school students currently using cigarettes

The percent of high school students currently using cigarettes (SPM 11) fell to 7.1% in 2019 and continues to improve with biennial declines since 2011. Changes to social norms and attitudes toward smoking have improved dramatically among youth over the past decade. These changes, combined with continued educational programming and youth engagement have driven the youth smoking rate to the lowest it has ever been.

SPM 12: Percent of high school students currently using e-cigarettes

The percent of high school students currently using e-cigarettes (SPM 12) rose to 22.1% in 2019, threatening to erase the significant progress made by Public Health agencies and organizations to reduce tobacco use among youth over the past thirty years. This dramatic increase is largely due to the tobacco industry's marketing efforts targeting youth through social media and promotion of flavored e-cigarettes and vapor

products.

SPM 13: Number of adolescents enrolled in cessation program

The number of adolescents enrolled in cessation program (SPM 13) rose from 7 to 22 between CY 2020 and 2021. It is difficult to determine whether this increase is significant but may be due to increasingly widespread promotion of cessation services through the tobacco program's marketing and educational efforts over the past two years.

NPM 14.2: Percent of children, ages 0 through 17, who live in households where someone smokes

The percent of children, ages 0 through 17, who live in households where someone smokes (NPM 14.2) did not change significantly between combined survey-years for 2018-19 (18.6%) and 2019-20 (19.5%). This plateau may be reflective of a relatively slow decline in Tennessee's adult smoking rate due to a myriad of factors including inadequate tobacco control policies, increases in stress during the COVID-19 pandemic, and aggressive marketing tactics by the tobacco industry.

SOM 5: Percent of adults reporting Chronic obstructive pulmonary disease (COPD)

The percent of adults reporting chronic obstructive pulmonary disease (COPD) (SOM 5) did not change significantly between 2019 (9.7%) and 2020 (9.5%). This stagnation is likely because of a relatively slow decline in Tennessee's adult smoking rate due to a myriad of factors including inadequate tobacco control policies, increases in stress during the COVID-19 pandemic, and aggressive marketing tactics by the tobacco industry.

SOM 6: Percent of adults reporting cardiovascular disease

The percent of adults reporting cardiovascular disease (SOM 6) did not change significantly between 2019 (4.9%) and 2020 (5.1%). This is likely a result of the relatively slow decline in Tennessee's adult smoking rate due to a myriad of factors including inadequate tobacco control policies, increases in stress during the COVID-19 pandemic, and aggressive marketing tactics by the tobacco industry.

SOM 7: Age-adjusted mortality rate from tobacco-attributable cancers among Tennesseans aged 35+

The age-adjusted mortality rate from tobacco-attributable cancers among Tennesseans aged 35+ (SOM 7) did not change significantly between 2019 (190.8) and 2020 (188.0). These results are a consequence of the relatively slow decline in Tennessee's adult smoking rate due to a myriad of factors including inadequate tobacco control policies, increases in stress during the COVID-19 pandemic, and aggressive marketing tactics by the tobacco industry.

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

The percent of low birthweight deliveries (<2,500 grams) (NOM 4) did not change significantly between CY 2019 (8.8%) and CY 2020 (8.6%).

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

The percent of preterm births (<37 weeks) (NOM 5) did not change significantly between CY 2019 (10.8%) and CY 2020 (10.6%).

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

The percent of early term births (37, 38 weeks) (NOM 6) did not change significantly between CY 2019 (28.6%) and CY 2020 (28.5%).

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

The perinatal mortality rate per 1,000 live births+ fetal deaths in CY2019 (6.0) remained the same in CY2020 (6.0).

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

In FY2021, 495 Tennessee children under 1 year died. The FY2021 infant mortality rate of 6.3 deaths per 1,000 live births represents a decrease, though not statistically significant, from the FY2020 rate of 7.0 deaths per 1,000 live births. The 10% decrease in IMR between FY2020 and FY2021 may be explained by a decline in perinatal mortality. From FY2020 to FY2021, there was a 19% decrease in early neonatal mortality (death within the first seven days of life) and 10% reduction in perinatal mortality (fetal death at 28 or more weeks of pregnancy to first seven days of life).

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

The neonatal mortality rate per 1,000 live births in CY2019 fell from 4.54 to 3.89 in CY2020.

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

In FY2021 and FY2020, there were 102 and 101 post-neonatal deaths (death between 28 days and 1 year of life) in Tennessee. Due to a minimal difference in deaths and a similar total of live births across both years, the FY2021 post-neonatal mortality rate of 1.3 deaths per 1,000 live births is no different than the FY2020 rate of 1.3 deaths per 1,000 live births.

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

The preterm-related mortality rate per 1,000 live births in CY2019 fell from 3.64 to 2.94 in CY2020.

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

There were 115 sleep-related infant deaths in FY2021. This is comparable to the 103 sleep-related infant deaths that occurred in FY2020. Despite a slight increase in sleep-related deaths from FY2020 to FY2021, the increase in sleep-related death rate in FY2021 (1.5 per 1,000 live births) was not statistically different to the FY2020 rate of 1.3 per 1,000 live births. This observed increase could be attributed to the difficulty in determining the exact cause of death for SUID.

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

The percent of children, ages 0 through 17, in excellent or very good health (NOM 19) did not change significantly between 2018-19 (87.9%) and 2019-20 (89.0%).

Accomplishments and Challenges (based on FY2021 Action Plan):

Strategy 1: Prevention and Engagement

Activity 1a: Promote tobacco-free baseball and softball, and increase the number of teams taking the pledge to be tobacco-free athletes

Report 1a: Tobacco Free sports including baseball and softball increased during CY 2020-2021 from 77 teams to 88 teams. Outreach to sports teams and schools was extremely limited during the reporting period due to Covid-19 restrictions.

Activity 1b: Increase promotion of TN Quit Week to bring awareness of vaping cessation services available for adolescents.

Report 1b: Promotion of youth cessation services during TN Quit Week increased during the CY 2020-2021 reporting period. Materials including posters, palm cards and social media posts were created and disseminated to promote the use of the QuitLine among adolescents. The number of adolescents utilizing the QuitLine increase from 7 users to 22 during the reporting period.

Activity 1c: Improve staff capacity through hosting trainings for field staff on engagement of students to build and maintaining youth councils.

Report 1c: During CY 2020 and 2021, Covid-19 restrictions in schools created barriers restricting health educators and other outside organizations from meeting with youth. These restrictions were detrimental to progress, and we saw a decline in the number of youth councils from 76 to 57 across the state.

Activity 1d: Support youth/TNSTRONG groups in creating and disseminating anti-tobacco/anti-vaping PSAs

Report 1d: Covid-19 restricted the number of in-person meetings with youth during CY 2020 and 2021. Therefore, there were no PSAs created during the reporting period.

Activity 1e: Host annual TNSTRONG Youth Summit to engage adolescent and adolescent leaders around tobacco prevention efforts across the state

Report 1e: Due to Covid-19 restrictions, there was no TNSTRONG Youth Summit held for CY 2020 or 2021.

Activity 1f: Provide education to adolescents on the dangers of using tobacco products, and offer trainings on policy and advocacy

Report 1f: During the reporting period, there were 17 trainings offered to adolescents including TNSTRONG Ambassadors. Topics included health equity and the importance of language, team building, workplan development, Legislative Processes - Anti-lobbying Restrictions, working with coalitions, PSA development, social media content development, letter writing campaigns, using curriculums in schools, and school tobacco policy.

Activity 1g: Promote anti-tobacco messaging via social media

Report 1g: The number of anti-tobacco social media posts increased from 8 in FFY 2020 to 27 in FFY 2021. Posts increased in large part due to the hiring of Program's Health Communications director. Posts were made on the Department's social media accounts and on the TNSTRONG youth Instagram account.

Strategy 2: Cessation

Activity 2a: Engage Department of Human Services regarding at risk adolescents to screen for tobacco use and refer to federally funded services when available

Report 2a: No meetings were held during the reporting period.

Activity 2b: Promote local health department resources available for adolescents, including mental health and cessation resources

Report 2b: Covid-19 severely limited staff capacity to promote resources available for adolescents, including mental health and cessation resources during the reporting period.

Activity 2c: Promote cessation text programs via social media

Report 2c: The number of social media posts promoting text-based cessation services increased from 0 in FFY 2020 to 9 in FFY 2021. The QuitLine service provider created a text program in FFY21 and program began promoting the service on the Department's social media accounts.

Activity 2d: Increase data collection, by working with Department of Mental Health and Substance Abuse services to add questions to TNTogether Survey

Report 2d: No meetings were held this reporting period. However, program was successful in collaborating with the Dept. Of Mental Health and Substance Abuse Services to add supplemental tobacco and vaping related questions to the TNTogether Survey.

Strategy 3: Support Partners

Activity 3a: Increase partnerships with anti-drug and tobacco coalitions statewide

Report 3a: Partnerships with prevention coalitions increased and continued to grow during the reporting period. Program was invited to present on quarterly and annual anti-drug coalition meetings. The Tobacco Free Tennessee met less frequently due to Covid-19 restrictions on in-person meetings. Additionally, the director of the coalition resigned during the reporting period leaving the coalition in a transitional period. During the reporting period, American Non-Smokers Rights Foundation developed a new coalition of stakeholders called Musicians for Smokefree TN. This coalition proposed legislation to prohibit smoking in age restricted venues to protect musicians and patrons from secondhand smoke in bars and restaurants.

Activity 3b: Expand partner media library to provide ready-made/approved material for use.

Report 3b: During CY2020 and 2021, there were 44 ready-made/approved pieces of tobacco media added to the partner library for access. Three items were added in 2020 and 41 items were added in 2021.

Strategy 4: Mental Health

Activity 4a Promote local health department resources available for adolescents, including mental health and cessation resources

Report 4a: During the reporting period, there was no expanded promotion of mental health and cessation resources for youth and adolescents.

Activity 4b: Expand partnerships w/ Department of Education-Coordinated School Health, school-based liaisons, school resource officers, mental health counselors

Report 4b: Covid-19 restrictions and limited staff capacity due to Covid-19 response hindered progress in expanding partnerships with the Dept. Of Education, Coordinated School Health, school-based liaisons, school resource officers, and other mental health counselors.

Activity 4c: Host Question, Persuade and Refer (QPR) trainings with partners for suicide prevention

Report 4c: No trainings were hosted during this reporting period.

Activity 4d: Screen and refer adolescents for mental health services

Report 4d: No progress was made during this reporting period.

Adolescent Health - Application Year

PRIORITY: Decrease Tobacco and E-cigarette Use Among Adolescents

Objective for NPM 14.2: Decrease the percentage of children, ages 0-17 who live in households where someone smokes from 19.5% in 2019 to 18.5% in 2025.

Objective for SPM 11: Decrease the percentage of high school students currently using cigarettes from 7.1% in 2019 to 4.3% in 2025.

Objective for SPM 12: Decrease the percentage of high school students currently using e-cigarettes from 22.1% in 2019 to 17.7% in 2025.

Objective for SPM 13: Increase the number of adolescents enrolled in cessation programs from 0 in 2019 to 125 in 2025.

Description: Adolescents in Tennessee experience disparities in tobacco and e-cigarette use across several priority areas including race, place, and sexual orientation status. While disparity data specific to Tennessee youth are not readily available for place and sexual orientation, general inferences from the broader adult population (i.e. BRFSS) support these hypotheses. Tennessee adults who are LGBTQ, reside in rural areas of the state, or are Non-Hispanic White or Hispanic report higher tobacco use overall. With regard to e-cigarette use specifically, Non-Hispanic Black youth are less likely to report e-cigarette use than their Non-Hispanic White or Hispanic counterparts.

Disparity Elimination Focus: The team will focus on tobacco and e-cigarette use disparities that exist for individuals in rural regions and individuals who are LGBTQ. For adolescents, these two groups may be more easily reached through existing initiatives and align closely with the Tobacco Use Prevention and Control Program's current work plan. These disparities will be addressed through Strategies 1, 2 and 3.

The following strategies and activities are planned for *October 1, 2022 to September 30, 2023*:

Strategy 1: Engage youth to increase tobacco prevention and anti-tobacco engagement strategies to shift social norms around tobacco use in communities.

Supporting Evidence for Strategy 1: The tobacco epidemic will not end without preventing initiation among young people; it is critical that programs engage youth in tobacco control efforts. Youth can be powerful allies to help communicate the impact of tobacco use on young people, implement effective tobacco control strategies, and shift social norms around tobacco use in their communities. (CDC Best Practice User Guide: Youth Engagement in Tobacco Prevention and Control, 2019)

Activity 1a: Promote tobacco-free sports and increase the number of teams taking the pledge to be tobacco-free athletes.

Activity 1b: Host annual TNSTRONG Youth Summit to engage and educate adolescents and adolescent leaders on the dangers of using tobacco products, and tobacco control interventions.

Activity 1c: Promote anti-tobacco messaging via social media.

Activity 1d: Select priority counties without comprehensive policies and the highest estimated adult smoking rates; and provide TA to K-12 school districts within these counties, including model policy templates, resources on cessation programming, and alternative disciplinary procedures.

Strategy 2: Engage partner organizations and utilize social media to increase the reach and impact of tobacco cessation programs among youth.

Supporting Evidence for Strategy 2: Close to 95 percent of smokers try their first cigarette before the age of 21. Nicotine is highly addictive and can harm brain development in youth. People who start using tobacco at an early age are more likely to develop an addiction than those who start at a later age, and kids who use vapor products are more likely to go on to smoke cigarettes. (American Lung Association. 2020. Helping Teens Quit: Teen Tobacco Cessation and Education Resources. <https://www.lung.org/quit-smoking/helping-teens-quit>)

Activity 2a: Engage partner organizations serving at risk adolescents to screen for tobacco use and refer to federally funded services when available.

Activity 2b: Promote youth cessation programs via social media.

Activity 2c: Partner with TN AAP, Cumberland Pediatric Foundation, and specific providers to educate adolescent health care providers on youth cessation, especially regarding prescribing NRT to adolescents.

Strategy 3: Engage community-based coalitions and LGBTQ-youth serving organizations to promote tobacco control policies and awareness of disparities and existing resources for at-risk youth.

Supporting Evidence for Strategy 3: Coalitions are a type of partnership that have successfully promoted policy change despite an often unfavorable cultural and legislative climate for their work. Partnerships and coalitions work to raise awareness of the importance of environments free of commercial tobacco, educate about the impact of tobacco prices, create health communications campaigns, and promote cessation. (CDC Best Practice User Guide: Partnerships in Tobacco Prevention and Control, 2021.)

Activity 3a: Increase partnerships with anti-drug and tobacco coalitions statewide.

Activity 3b: Explore which, if any, LGBTQ-youth serving organizations or LGBTQ youth groups exist in selected counties with which the team can partner to raise awareness of tobacco-use disparities and existing resources.

Planned Partnerships: The Tobacco Control Program will partner with K-12 school districts, anti-drug coalitions for community education and county health councils, tobacco-free policies, promotion of youth prevention and cessation programs, TDH Health Disparities Task Force, TNAAP, Cumberland Pediatric Foundation, Gender/Sexuality Alliance (GSA), Pride clubs, GLSEN, and implementation of youth cessation programs. Additionally, the program plans to partner with organizations that serve at-risk youth to refer to cessation services.

Contextual Factors: Adolescent tobacco and e-cigarette use is heavily influenced by contextual factors including

tobacco industry marketing and policy interference, partner organization participation, state legislation, political and social norms and influences, tobacco-use disparities, staff capacity, and program funding.

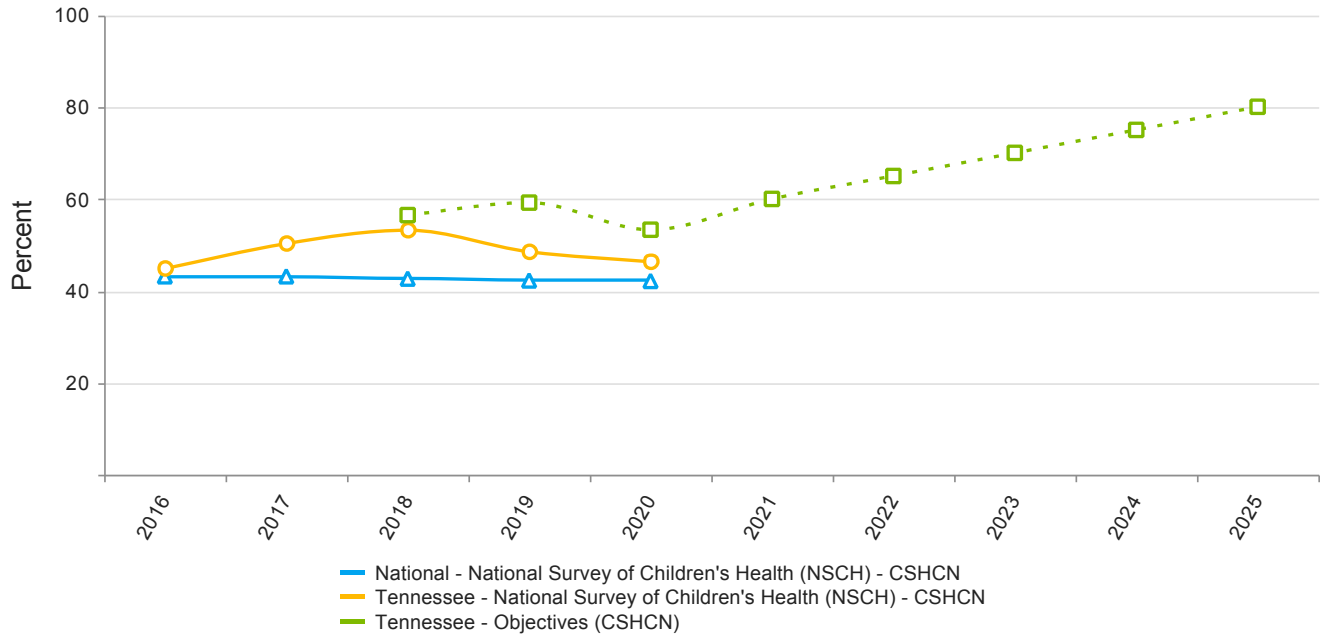
Assumptions: The success of the Tobacco Control Program's efforts rely on a number of key assumptions including: funding will be secure throughout the course of the project; youth trained in peer-to-peer intervention and tobacco control strategies will utilize these skills to effect change in their respective communities; partner organizations engaged and trained on tobacco control strategies will implement associated activities in their respective workplans; youth who are in environments or institutions with strong tobacco-free policies are less likely to experiment with and use tobacco products, including e-cigarettes; and cessation programs including text-to-quit services will be effective among youth who use tobacco products, including e-cigarettes.

Children with Special Health Care Needs

National Performance Measures

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

Indicators and Annual Objectives



NPM 11 - Children with Special Health Care Needs

Federally Available Data

Data Source: National Survey of Children's Health (NSCH) - CSHCN

	2017	2018	2019	2020	2021
Annual Objective		56.5	59.2	53.3	60
Annual Indicator	44.8	50.4	53.3	48.5	46.5
Numerator	125,986	143,840	164,583	157,666	155,739
Denominator	281,120	285,167	308,848	325,137	334,628
Data Source	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives

	2022	2023	2024	2025
Annual Objective	65.0	70.0	75.0	80.0

Evidence-Based or –Informed Strategy Measures

ESM 11.1 - Number of CYSHCN who receive CHANT/CSS care coordination

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			2,500	
Annual Indicator			4,885	
Numerator				
Denominator				
Data Source			2021	
Data Source Year			PTBMIS	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	3,000.0	3,500.0	4,000.0	4,500.0

ESM 11.2 - Percent of providers adopting medical home approach

Measure Status:		Active		
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	40.0	55.0	65.0	75.0

ESM 11.3 - Percent of providers reporting increased knowledge on systems of care

Measure Status:	Active
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	20.0	30.0	40.0	50.0

ESM 11.4 - Number of families provided education and resources on importance of medical home access and utilization

Measure Status:	Active
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State Provided Data			
	2019	2020	2021
Annual Objective			600
Annual Indicator		1,383	1,424
Numerator			
Denominator			
Data Source		CHANT	CHANT
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	700.0	800.0	900.0	1,000.0

ESM 11.5 - Number of families receiving referrals to their child's primary care provider

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			375
Annual Indicator		222	216
Numerator			
Denominator			
Data Source		CHANT	CHANT
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	400.0	425.0	450.0	475.0

ESM 11.6 - Percent of providers who report an increase in their knowledge of available resources

Measure Status:		Active	
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	25.0	50.0	75.0	100.0

ESM 11.7 - Percent of families who report an increase in access and utilization of resources

Measure Status:	Active
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	40.0	50.0	60.0

ESM 11.8 - Percent of CHANT families who schedule an annual visit with their child's primary care provider

Measure Status:	Active
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State Provided Data			
	2019	2020	2021
Annual Objective			25
Annual Indicator			3.2
Numerator			
Denominator			
Data Source			CHANT
Data Source Year			2021
Provisional or Final ?			Final

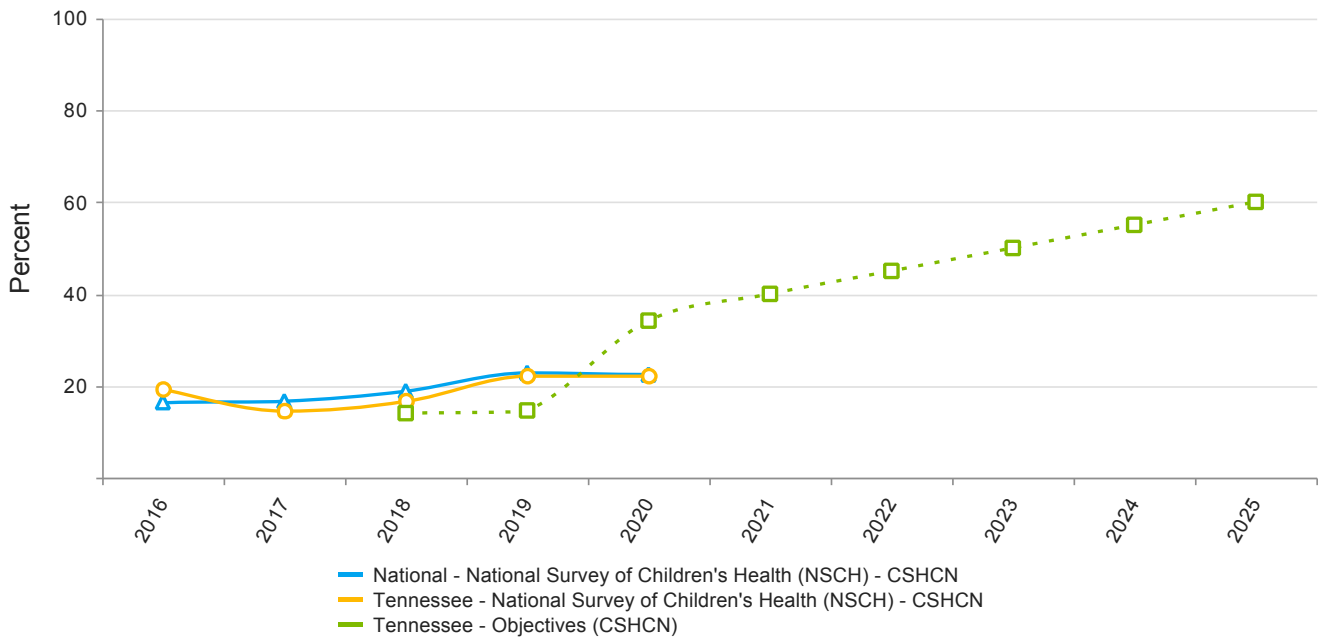
Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	45.0	55.0	65.0

ESM 11.9 - Percent of CYSHCN receiving CHANT care coordination who receive medical home education

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		5.4
Numerator		
Denominator		
Data Source		CHANT
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	75.0	85.0	95.0	100.0

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



NPM 12 - Children with Special Health Care Needs

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - CSHCN					
	2017	2018	2019	2020	2021
Annual Objective		14.1	14.7	34.2	40
Annual Indicator	19.2	14.4	16.6	22.2	22.1
Numerator	16,734	17,666	26,590	30,583	30,634
Denominator	87,214	122,975	159,749	137,839	138,824
Data Source	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	45.0	50.0	55.0	60.0

Evidence-Based or –Informed Strategy Measures

ESM 12.1 - Number of transition resource kits disseminated

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			150
Annual Indicator		0	366
Numerator			
Denominator			
Data Source		CYSHCN	CYSHCN
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	300.0	600.0	1,200.0	2,400.0

ESM 12.2 - Number of youth with special health care needs trained as mentors

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			25
Annual Indicator		0	5
Numerator			
Denominator			
Data Source		CYSHCN	CYSHCN
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	45.0	55.0	65.0

ESM 12.3 - Number of parents and youth with special health care needs who receive leadership and self-advocacy training

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			50
Annual Indicator		71	475
Numerator			
Denominator			
Data Source		CYSHCN	CYSHCN
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	75.0	100.0	125.0	150.0

State Performance Measures

SPM 14 - Number of CYSHCN receiving care in a medical home

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			800
Annual Indicator		2,194	2,196
Numerator			
Denominator			
Data Source		PTBMIS	PTBMIS
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	850.0	900.0	950.0	1,000.0

SPM 15 - Percent of providers with increased knowledge on medical home and care coordination

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			25
Annual Indicator			0
Numerator			
Denominator			
Data Source			N/A
Data Source Year			N/A
Provisional or Final ?			Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	50.0	65.0	75.0

SPM 16 - Percent of providers reporting improved system of care for CYSCHN

Measure Status:		Active	
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	50.0	65.0	75.0

SPM 17 - Percent of families who complete an annual visit with their primary care provider

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		7.5
Numerator		
Denominator		
Data Source		CHANT
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	10.0	12.5	15.0	17.5

SPM 18 - Percent of youth reporting with increased knowledge on transition resources and services

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		100
Numerator		
Denominator		
Data Source		CYSHCN
Data Source Year		2021
Provisional or Final ?		Final

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

SPM 19 - Percent of YSHCN served by CHANT who complete an annual transition plan

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		72
Numerator		
Denominator		
Data Source		PTBMIS
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	75.0	80.0	85.0	90.0

SPM 20 - Percent of youth leaders participating in advisory councils providing resources to other youth

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		26.3
Numerator		
Denominator		
Data Source		CYSHCN
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	30.0	30.0	30.0	30.0

State Action Plan Table

State Action Plan Table (Tennessee) - Children with Special Health Care Needs - Entry 1

Priority Need

Increase medical homes among children with special healthcare needs

NPM

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

Objectives

Increase the percent of children with special health care needs 0-17 who have a medical home from 53.3% on October 1, 2020 to 80% on September 30, 2025.

Strategies

Create a shared vision for integrating and improving CYSHCN system of care

ESMs

Status

ESM 11.1 - Number of CYSHCN who receive CHANT/CSS care coordination	Active
ESM 11.2 - Percent of providers adopting medical home approach	Active
ESM 11.3 - Percent of providers reporting increased knowledge on systems of care	Active
ESM 11.4 - Number of families provided education and resources on importance of medical home access and utilization	Active
ESM 11.5 - Number of families receiving referrals to their child's primary care provider	Active
ESM 11.6 - Percent of providers who report an increase in their knowledge of available resources	Active
ESM 11.7 - Percent of families who report an increase in access and utilization of resources	Active
ESM 11.8 - Percent of CHANT families who schedule an annual visit with their child's primary care provider	Active
ESM 11.9 - Percent of CYSHCN receiving CHANT care coordination who receive medical home education	Active

NOMs

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

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

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

NOM 25 - Percent of children, ages 0 through 17, who were unable to obtain needed health care in the past year

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

Priority Need

Improve transition from pediatric to adult care among 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 to prepare for the transition to adult health care

Objectives

Increase the percent of adolescents with special health care needs 12-17 who received services necessary to make transitions to adult health care from 34.2% on October 1, 2020 to 60% on September 30, 2025.

Strategies

Inform, educate and link YSHCN, families and providers to available transition resources and services, and how to access those services

ESMs

Status

ESM 12.1 - Number of transition resource kits disseminated Active

ESM 12.2 - Number of youth with special health care needs trained as mentors Active

ESM 12.3 - Number of parents and youth with special health care needs who receive leadership and self-advocacy training 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 (Tennessee) - Children with Special Health Care Needs - Entry 3

Priority Need

Increase medical homes among children with special healthcare needs

SPM

SPM 14 - Number of CYSHCN receiving care in a medical home

Objectives

Increase the number of CYSHCN receiving care in a medical home from 800 on October 1, 2020 to 1050 on September 30, 2025.

Strategies

Create a shared vision for integrating and improving CYSHCN system of care

State Action Plan Table (Tennessee) - Children with Special Health Care Needs - Entry 4

Priority Need

Increase medical homes among children with special healthcare needs

SPM

SPM 15 - Percent of providers with increased knowledge on medical home and care coordination

Objectives

Increase the percent of providers with increased knowledge on medical home and care coordination from 25% on October 1, 2020 to 85% on September 30, 2025.

Strategies

Inform and educate families and providers to promote systems change

State Action Plan Table (Tennessee) - Children with Special Health Care Needs - Entry 5

Priority Need

Increase medical homes among children with special healthcare needs

SPM

SPM 16 - Percent of providers reporting improved system of care for CYSCHN

Objectives

Increase the percent of providers reporting improved system of care for CYSCHN from 35% on October 1, 2020 to 85% on September 30, 2025.

Strategies

Identify and disseminate resources on medical home best practices in Tennessee to inform and educate families and providers on care-coordination benefits

State Action Plan Table (Tennessee) - Children with Special Health Care Needs - Entry 6

Priority Need

Increase medical homes among children with special healthcare needs

SPM

SPM 17 - Percent of families who complete an annual visit with their primary care provider

Objectives

Increase the percent of families who complete an annual visit with their primary care provider from 50% on October 1, 2020 to 100% on September 30, 2025.

Strategies

Inform and provide coordination for CHANT families on medical home and care coordination benefits

State Action Plan Table (Tennessee) - Children with Special Health Care Needs - Entry 7

Priority Need

Improve transition from pediatric to adult care among children with special health care needs

SPM

SPM 18 - Percent of youth reporting with increased knowledge on transition resources and services

Objectives

Decrease the percent of youth reporting with increased knowledge on transition resources and services from 55% on October 1, 2020 to 100% on September 30, 2025.

Strategies

Promote successful transition through educational opportunities and self-advocacy training

State Action Plan Table (Tennessee) - Children with Special Health Care Needs - Entry 8

Priority Need

Improve transition from pediatric to adult care among children with special health care needs

SPM

SPM 19 - Percent of YSHCN served by CHANT who complete an annual transition plan

Objectives

Decrease the percent of YSHCN served by CHANT and YAC who complete an annual transition plan from 75% on October 1, 2020 to 100% on September 30, 2025.

Strategies

Inform, educate and link YSHCN, families and providers to available transition resources and services, and how to access those services

State Action Plan Table (Tennessee) - Children with Special Health Care Needs - Entry 9

Priority Need

Improve transition from pediatric to adult care among children with special health care needs

SPM

SPM 20 - Percent of youth leaders participating in advisory councils providing resources to other youth

Objectives

Decrease the percent of youth leaders participating in advisory councils providing resources to other youth from 40% on October 1, 2020 to 80% on September 30, 2025.

Strategies

Promote successful transition through educational opportunities and self-advocacy training

PRIORITY: Increase Medical Homes Among Children with Special Healthcare Needs

Interpretation of Performance Data on, NPMs, ESMs, SPMs, and SOMs:

ESM 11.1: Number of CYSHCN who receive CHANT/CSS care coordination

4,885 CYSHCN received care coordination through CHANT/CSS during FY2021. These number surpass the objective of 2,500.

ESM 11.2: Percent of providers adopting medical home approach

No data at this time - training and survey are to be conducted, expected to happen in Year 3.

ESM 11.3: Percent of providers reporting increased knowledge on systems of care

No data at this time - training and survey are to be conducted, expected to happen in Year 3.

ESM 11.4: Number of families provided education and resources on importance of medical home access and utilization

1,424 families were provided education and resources on importance of medical home access and utilization during FY2021, which more than doubles the objective of 600.

ESM 11.5: Number of families receiving referrals to their child's primary care provider

216 children in the CSS program received referral to PCP in FY2021, which is below the objective of 375.

ESM 11.6: Percent of providers who report an increase in their knowledge of available resources

No data at this time - training and survey are to be conducted, expected to happen in Year 3.

ESM 11.7: Percent of families who report an increase in access and utilization of resources

No data at this time - training and survey are to be conducted, expected to happen in Year 3.

ESM 11.8: Percent of CHANT families who schedule an annual visit with their child's primary care provider

216 (3.2%) CHANT families scheduled an annual visit with the child's PCP during FY2021, which is far short of the Year 1 objective set at 35%.

ESM 11.9: Percent of CYSHCN receiving CHANT care coordination who receive medical home education

140 (5.4%) of CHANT families whose children received medical home education.

SPM 14: Number of CYSHCN receiving care in a medical home

2,196 CSS children received care in a medical home in FY2021, exceeding the objective of 800.

SPM 15: Percent of providers with increased knowledge on medical home and care coordination

No data at this time - training and survey are to be conducted, expected to happen in Year 3.

SPM 16: Percent of providers reporting improved system of care for CYSCHN

No data at this time - training and survey are to be conducted, expected to happen in Year 3.

SPM 17: Percent of families who complete an annual visit with their primary care provider

7.5% of CHANT families completed an annual exam visit with their PCP during FY2021.

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

51.5% of TN children under 18 years of age have a medical home according to the NSCH survey 2019-2020 combined data, the most recent available. This was higher than the national average of 46.8%, but the difference was not statically significant.

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

18.4% TN children under 18 received care in a well-functioning system in 2019-2020, which was higher than the national average of 14.4%, though the difference was not statically significant.

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

46.6% of TN children 3-17 years of age with a mental/behavioral condition received treatment or counselling in 2019-2020. This was slight lower than the national average of 52.3% but the difference was not statically significant.

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

89.0% of TN children under 18 were in excellent or very good health in 2019-2020. This was similar to the national average of 90.4%.

NOM 25: Percent of children, ages 0 through 17, who were unable to obtain needed health care in the past year

3.6% of TN children were unable to obtain needed healthcare in the past year according to 2019-2020 survey, which was similar to the national average of 3.5%.

Accomplishments and Challenges (based on FY2021 Action Plan):

Strategy 1: Mobilize Community Partners (policy makers, health care providers, families, and the public) to create a shared vision for integrating and improving CYSHCN System of Care.

Activity 1a: Sponsor learning collaborative to help improve service coordination and CYSHCN linkage for minority and other disparate populations to providers and community-based services.

Report 1a: The CYSHCN team has reached out to internal and external partners and started planning discussions on the learning collaborative. The team is planning to sponsor the collaborative in Year 2.

Activity 1b: Promote access to equitable and more efficient health care for disparate populations by partnering with TennCare, TNAAP, TPCA, TAFP, Office of Minority Health and Disparity Elimination and Family Voices to host a Statewide Medical Home Conference.

Report 1b: The CYSHCN team is planning the Statewide Medical Home Conference for Year 2.

Activity 1c: Identify and provide technical assistance including information on medical home disparities to non-Medicaid providers seeking to implement a medical home approach to care.

Report 1c: The CYSHCN team is making progress on this activity and has identified non-Medicaid providers through the Tennessee Birth Defects provider list. The program has also gathered some information from the Department of Health's Licensure and Regulatory System. As an initial step to providing technical assistance. Over 600 copies of the revised *Partnering with your Doctor: The Medical Home Approach* have been provided to health care providers and families. This includes over 300 booklets to the local health departments for family distribution and 252 booklets the TN Birth Defects Surveillance Program distributed to pediatric providers along with pertinent information from TDH child health programs, and a list of electronic medical home resources, geared towards medical practices. These resources are housed on webpages of the Tennessee Chapter of the American Academy of Pediatrics, TennCare, and the Tennessee Department of Health. The *Partnering with Your Doctor: The Medical Home Approach* can be located online at:
<https://www.tn.gov/content/dam/tn/health/documents/mch/Partnering-with-your-Doctor-booklet-English.pdf>

The program has also identified medical home disparities in the families served by CHANT, along with medically underserved areas of the state and will continue working with other state and local agencies to provide additional information to non-Medicaid providers on existing disparities and tools to implement the medical home approach.

Strategy 2: Inform and educate families and providers about medical home components to promote systems change.

Activity 2a: Target minority and disparate families and providers by geographic location and promote medical home implementation through education, training and resources.

Report 2a: The CYSHCN team has identified minority and disparate populations served by the CHANT team and has provided educational resources to promote medical home utilization. All CHANT families who indicate they do not have a primary care provider trigger the medical home pathway. This pathway provides resources and referrals and will assist families in identifying their assigned primary care provider if Medicaid eligible. Families accessing the medical home pathway are also receive assistance to schedule their annual appointment. Families are followed on this pathway until the appointments are scheduled and kept.

Activity 2b: Identify and provide resources and referrals to minority and disparate families and geographically targeted providers on dental home, behavioral/mental health care coordination, respite care and family engagement practices.

Report 2b: The CYSHCN team continues to identify and provide resources and referrals to minority and disparate families. Families that access the CHANT care coordination initiatives trigger pathways based on their need, i.e., dental, and behavioral/mental health. All CHANT participant families receive care coordination and resources and referrals are specific to the identified pathway. CHANT care coordinators have been trained on how

to identify resources and make those referrals. All local CHANT teams have collaborated with central office and local community agencies and partners to develop a county/region specific resource and referral tool that is available for use with families. The CSS program has identified and provided resources on respite care. Family engagement and involvement activities are priorities of the Integrated Systems of Services program and provides opportunities for training and peer-mentoring activities for families and youth.

Strategy 3: Identify and disseminate resources on medical home best practices in Tennessee to inform and educate families and providers.

Activity 3a: Create and disseminate medical home tool-kit to families and providers including information on health equity and disparities.

Report 3a: The CYSHCN team has identified and created medical home resources targeting health equity and disparities. The Children and Youth with Special Health Care Needs section also continues to maintain and regularly update a Medical Home Toolkit webpage, geared towards families and providers: <https://www.tn.gov/health/health-program-areas/mch/mch-mh.html>. This electronic toolkit provides background on what a medical home is, the importance of utilizing a medical home, and resources for families and providers.

Activity 3b: Create and disseminate care coordination tool-kit including information on diverse populations and geographic locations to health care providers and CHANT care coordinators.

Report 3b: The CYSHCN team has identified and created care coordination resources targeting diverse populations and geographic locations. The tool-kit has not been developed at this time and will be completed and disseminated in year 2 to all CHANT care coordinators and health care providers.

Activity 3c: Promote health equity in the medical home and provide care coordination and medical home referrals to families receiving services through the Children's Special Services Program.

Report 3c: The CYSHCN team continues to promote health equity in the medical home and provide care coordination and medical home referrals to families receiving services. There were a total of 2,196 Children's Special Services (CSS) program participants who reported receiving care in a medical home. There were 216 CSS participants who received referrals to medical home.

Program staff discovered that several of the local teams were actually making referrals, however encounter codes were not entered in the data system. This was a contributing factor to the low number of participants who received referrals to a medical home. Staff have been trained and corrections to data reporting is expected for year two.

Activity 3d: Provide education and resources to Children's Special Services authorized vendors.

Report 3d: The CSS Vendor Authorization Process and forms are on the CYSHCN website which

includes the program public information. The vendor process is now electronic and all vendors are provided access to electronic copies of the revised *Partnering with your Doctor: The Medical Home Approach* booklet that contains educational material and resources on medical homes and care coordination. Hard copies are mailed with the vendor approval packet.

Strategy 4: Collaborate with local health departments, CHANT and the Call Center to increase medical home access and utilization for families through education, resources, referral, care coordination, navigation and follow-up.

Activity 4a: Increase the number of families who receive education and resources on the importance of coordinated and comprehensive care in the medical home.

Report 4a: The CYSHCN team continues to make progress on this activity as the CHANT care coordination initiative provided education and resources on the importance of medical home access and utilization to over 1400 families. The team also partnered with Family Voices of Tennessee to provide education and training and over 400 families received education and training.

Activity 4b: Increase the number of families who receive referrals to their child's assigned primary care provider.

Report 4b: The data provided indicates that this activity was not met. Challenges for this activity can be attributed to changes in the number of families receiving services through the local health departments due to COVID related restructuring of clinic access, staff assigned to work from home, and families not having broadband access for virtual care coordination.

Activity 4c: Increase the number of families who schedule appointments with their child's assigned primary care provider.

Report 4c: The data provided indicates that this activity was not met. Challenges for this activity can be attributed to changes in the number of families receiving services through the local health departments due to COVID related restructuring of clinic access, staff assigned to work from home, and families not having broadband access for virtual care coordination or telehealth visits. While many of the health departments have resumed normal functions, families continue to struggle with accessing services.

Activity 4d: Increase the number of children who complete an annual visit with their assigned primary care provider.

Report 4d: Data provided indicates this activity was not met. COVID restrictions for in-person visits, lack of broadband for tele-health, fear of exposure, decreased numbers of referrals all contributed to the decline in the number of children who complete an annual visit.

PRIORITY: Improve Transition From Pediatric to Adult Care Among Children With Special Health Care

Needs

Interpretation of Performance Data on, NPMs, ESMs, SPMs, and SOMs:

ESM 12.1: Number of transition resource kits disseminated

366 kits were distributed through PEARS, Parent to Parent, Youth Advisory Council, and AMCHP.

ESM 12.2: Number of youth with special health care needs trained as mentors

Five new mentors were trained in FY2021.

ESM 12.3: Number of parents and youth with special health care needs who receive leadership and self-advocacy training

60 youth received leadership and self-advocacy training in FY2021. A total of 415 family members (parents/legal guardians) received leadership and self-advocacy training during FY2021.

SPM 18: Percent of youth reporting with increased knowledge on transition resources and services

All youth (100%) who attended the Youth Summit completed a transition plan and learned about the 8 domains of transition in FY2021.

SPM 19: Percent of YSHCN served by CHANT and YAC who complete an annual transition plan

72% of children served by the CSS program during FY2021 had an annual transition plan. It was similar to that of FY2020, 72.5%.

SPM 20: Percent of youth leaders participating in advisory councils providing resources to other youth

Among the 19 youth leaders on YAC, 5 (26.3%) provided resources to other youth.

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

24.1% of TN adolescents receive services to prepare for the transition to adult health care per 2019-2020 survey, which was slightly higher than but not statistically significantly different from the national average of 18.9%.

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

18.4% TN children under 18 received care in a well-functioning system in 2019-2020, which was higher than the national average of 14.4%, though the difference was not statically significant.

Accomplishments and Challenges (based on FY2021 Action Plan):

Strategy 1: Inform, educate and link YSHCN, families and providers to available transition resources and services, and how to access those services.

Activity 1a: Identify available resources by age and geographic location for YSHCN and families – inclusive, but not limited to, medical home, dental home, behavioral/mental health services and transition.

Report 1a: The CYSHCN section has identified transition resources by geographic location including medical and dental home, behavioral and mental health. The Integrated Systems of Services Program is responsible for many of the transition activities and partners with Family Voices of Tennessee and several other programs to provide transition resources to families and YSHCN. The program also funds the TN Disability Pathfinder to assist with identification and provision of transition resources. Through the Multi- Cultural Outreach Program, Pathfinders provides resources that aim to remove

barriers that many culturally diverse communities face when trying to access disability resources including transition resources. Systemic barriers continue to exist for our families in the form of policies and laws, i.e., families that have dual enrollment in public and private insurance are also required to be on Medicaid for 2 years prior to being eligible for Medicare. This often prevents youth from being able to transition from pediatric to adult providers regardless of the identified resources.

Activity 1b: Identify, develop and disseminate a state-wide resource kit (medical and dental home, etc.) including resources for disparate and minority populations.

Report 1b: CYSHCN has made considerable progress towards identification and development of a state-wide resource kit including resources for disparate and minority populations. The program developed an electronic Transition Tool Kit that provides youth with an opportunity to identify transition needs and the resources for those needs based on the 8 domains of transition as identified by the CYSHCN Section. The dissemination of the kit has been limited to those youth and their family members who attended the 2021 Youth Summit. The COVID-19 pandemic has added some barriers to the further dissemination of the tool kit in that the program has not been able to gather in person and it has been somewhat difficult to consistently conduct virtual transition planning sessions using the new tool kit.

In addition to the transition resource kit, the program has also developed an Emergency Preparedness tool-kit that includes EP resources, a form fillable medical information checklist and other state-wide resources for families and children and youth. Over 3,000 kits have been distributed to families and youth.

Activity 1c: Provide training for families, youth, partners and providers on all aspects of transition.

Report 1c: The CYSHCN Section has made progress on providing training for families, youth, partners and providers on all aspects of transition. In addition to the 60 youth that have been trained and the additional training opportunities provided to the Youth Advisory Committee, the program has partnered with Family Voices of TN to provide training. A total of 36 training sessions have been provided with 415 family members, and 335 professionals.

Strategy 2: Promote successful transition through educational opportunities and self-advocacy training.

Activity 2a: Recruit and retain YAC council members ensuring diverse representation including race, ethnicity, age and gender.

Report 2a: The Youth Advisory Council currently has 19 members, 5 serve as leader/mentor and 14 are youth in training. The contract with Family Voices of TN includes funding for a youth coordinator who is responsible for working with the State Director to recruit and retain members. Several of the youth graduated from high school this year and some of the mentor leaders will only serve in a part time or consultant role due to enrollment in college. The program has put together a new application and flyer and is currently conducting outreach. The recruitment efforts will continue to include diverse

representation. The program is also working with additional community and state partners to promote YAC.

Activity 2b: Identify and train YAC members from diverse populations to mentor other YSHCN in the community.

Report 2b: Members of the YAC recently partnered with the Oasis Center to train youth with special health care needs in the community on self-advocacy. A total of 11 youth trained representing many diverse populations during this collaboration. The program continues to seek opportunities to provide training opportunities that will assist with creating mentor activities for diverse population.

Activity 2c: Provide learning opportunities (leadership training – ex. Peer-to-Peer support program, talking to legislators, taking control of your healthcare) for youth.

Report 2c: The Youth Advisory Council continues to receive training and peer mentoring on self-advocacy, telling their stories, taking control of their health care and meeting with legislators and other policy and decision makers and have shared in the decision-making process for Title V and for other programs within Family Health and Wellness. Members also participated in several activities that were a pre-cursor to schools returning to in-person learning during the height of the Pandemic.

Children with Special Health Care Needs - Application Year

PRIORITY: Increase CYSHCN Medical Home Access and Utilization

NPM 11: Increase the percent of children with special health care needs, 0-17, who have a medical home from 53.3% on October 1, 2020, to 80.0% of September 30, 2025.

Objective for SPM 14: Increase the number of CYSHCN receiving care in a medical home from 800 on October 1, 2020, to 1050 on September 30, 2025.

Objective for SPM 15: Increase the percent of providers with increased knowledge on medical home and care coordination from 25% on October 1, 2020, to 85% on September 30, 2025.

Objective for SPM 16: Increase the percent of providers reporting improved system of care for CYSHCN from 35% on October 1, 2020, to 85% on September 30, 2025.

Objective for SPM 17: Increase the percent of families who complete an annual visit with their primary care provider from 50% on October 1, 2020, to 100% on September 30, 2025.

Disparity Description:

In the 2019 National Survey of Child Health, the presence of a medical home was measured by a composite measure based on five components constructed from a total of 16 survey items. These components are:

- Personal doctor or nurse
- Usual source for sick care
- Family-centered care
- Problems getting needed referrals
- Effective Care Coordination when needed

To qualify as having a Medical Home, children must meet the criteria for adequate care on the first three components: personal doctor or nurse, usual source for care, and family-centered care. Additionally, any children who needed referrals or care coordination must also meet criteria for those components in order to qualify as having a medical home.

The 2019-2020 combined NSCH data show that in Tennessee, 46.5% of children with special health care needs ages 0-17 reported receiving care that meets the medical home criteria. When broken down by age group, 51.0% of 0-5 years of age, 41.9% of 6-11 years of age, and 48.8% 12-17 years of age reported receiving care that meets the medical home criteria.

In Tennessee, place, race and age disparities exist among CSS participants for having a medical home. CSS data for children 13-20 years of age from June 2020 – July 2021 indicate that 67% of CSS participants in rural counties have a medical home, compared to 82% in metro counties. These data also show that non-Hispanic white CSS participants have a lower rate of medical home compared to non-Hispanic black CSS participants (71% and 84% respectively). Additionally, CSS participants who are 17-20 years of age have a lower rate of medical home (68%) than those who are 13-16 years of age (77%).

Disparity Elimination Priority Area: The team will focus on improving the overall number of CSHCN participants in rural and metro areas who report receiving care that meets the medical home criteria. Outreach will be prioritized among individuals residing in areas with poor population health outcomes (i.e., low EPSDT/WCC completion rates)

and CSHCN ages 6-17.

While improving the overall medical home rate for CSHCN families is important, the team also recognizes the need to devote efforts to impact the placed-based disparity that exists amongst CSS participants, ages 13-20, who reside in rural areas. To that end, the team hopes to garner valuable information through piloting a telehealth project in Southeast TN.

The team will improve medical home enrollment through Strategies 1, 2 and 4 below.

The following strategies and activities are planned for *October 1, 2022 to September 30, 2023*:

Strategy 1: Create a shared vision for integrating and improving CYSHCN system of care.

Supporting Evidence for Strategy 1: “Creating an effective system of care for children and youth with special health care needs (CYSHCN) is one of the most challenging and pressing roles for state health leaders. In the United States, 9.4 million children, or almost 13 percent, have special health care needs. A major challenge for families of CYSHCN is accessing an often-fragmented system of care.” [Models-of-Care-for-CYSHCN.pdf \(amchp.org\)](#) The National Child Health Survey reports in the 2018-2019 combined survey only 48.5% Tennessee children with special health care needs report receiving care that meets the medical home criteria of coordinated, ongoing, comprehensive care within a medical home.

- Activity 1a:** Sponsor a learning collaborative to help improve service coordination and CYSHCN linkage for minority and other disparate populations to providers and community-based services.
- Activity 1b:** Promote access to equitable and more efficient health care for disparate populations by partnering with TennCare, TNAAP, TPCA, TAFP, Office of Minority Health and Disparity Elimination and Family Voices to host a Statewide Medical Home Conference.
- Activity 1c:** Identify and provide technical assistance including information on medical home disparities to non-Medicaid providers seeking to implement a medical home approach to care.
- Activity 1d:** Conduct key informant interviews with CHANT Coordinators to identify key barriers and potential facilitators to completing medical home enrollment particularly for CSS participants, ages 13-20, who reside in rural areas with low EPSDT/WCC completion rates.
- Activity 1e:** CYSHCN, in conjunction with Family Voices, will implement telehealth pilot project in Southeast Region.

Strategy 2: Inform and educate families and providers to promote systems change.

Supporting Evidence for Strategy 2: All children should receive comprehensive coordinated care in a medical home environment that is a collaboration between the family and the provider and provides medical care and support, care coordination and resources. This strategy will increase knowledge of families and

providers and promote systems change. The National Child Health Survey reports in the 2018-2019 combined survey only 48.5% Tennessee children with special health care needs report receiving care that meets the medical home criteria of coordinated, ongoing, comprehensive care within a medical home.

- Activity 2a:** Target minority and disparate families and providers by geographic location and promote medical home implementation through education, training and resources.
- Activity 2b:** Identify and provide resources and referrals to minority and disparate families and geographically targeted providers on dental home, behavioral/mental health care coordination, respite care and family engagement practices.
- Activity 2c:** Provide coordinated care to CHANT-enrolled CYSHCN families that results in identifying a medical home and assistance with scheduling appointments for annual EPSDT/WCC visits.
- Activity 2d:** Partner with local Managed Care Organizations (MCOs) to provide education/outreach to CHANT-enrolled CYSHCN families residing in rural and metro areas with the lowest EPSDT/WCC completion rates on the importance of having a medical home and the resources available within their communities.

Strategy 3: Identify and disseminate resources on medical home best practices in Tennessee to inform and educate families and providers on care-coordination benefits.

Supporting Evidence for Strategy 3: Care coordination can be critical for linking families and CYSHCN to needed medical, developmental, behavioral, educational, and social services, and for providing community-based resources and emotional support. works. The National Care Coordination Standards for CYSHCN indicates “Care coordination for CYSHCN is based on the premise of health equity, that all children and families should have an equal opportunity to attain their full health potential, and no barriers should exist to prevent children and their families from achieving this potential and that care coordination should address the full range of social, behavioral, environmental, and health care needs of CYSHCN.” (<https://www.nashp.org/national-care-coordination-standards-for-children-and-youth-with-special-health-care-needs/#toggle-id-2>) The National Child Health Survey reported in the 2018-2019 combined survey results that 23.6% of CYSHCN in Tennessee did not receive needed care coordination.

- Activity 3a:** Create and disseminate medical home tool-kit to families and providers including information on health equity and disparities.
- Activity 3b:** Create and disseminate care coordination tool-kit including information on diverse populations and geographic locations to health care providers and CHANT care coordinators.
- Activity 3c:** Promote health equity in the medical home and provide care coordination and medical home referrals to families receiving services through the Children’s Special Services Program.
- Activity 3d:** Provide education and resources to Children’s Special Services authorized vendors.

Strategy 4: Inform and provide coordination for CHANT families on medical home and care coordination benefits.

Supporting Evidence for Strategy 4: Access to a pediatric medical home is associated with increased quality of care, improved health outcomes, and decreased unmet medical needs for children and youth, including children and youth with special health care needs. Research shows that access to and utilization of a pediatric medical home is associated with the following:

Increased provision of preventive services for children, including - Increased likelihood of having anticipatory guidance provided; Increased likelihood of being seen by a primary care clinician within the last year; Increased rates of childhood immunizations; Increased rates of well-child visits; Increased likelihood to have had height, weight, and blood pressure checked; Decreased amount of outpatient sick visits; Decreased rate of inappropriate use of antibiotics; and Improved health outcomes and health status

(<https://medicalhomeinfo.aap.org/overview/Pages/Evidence.aspx>) The National Child Health Survey reports in the 2018-2019 combined survey only 48.5% Tennessee children with special health care needs report receiving care that meets the medical home criteria of coordinated, ongoing, comprehensive care within a medical home.

Activity 4a: Provide education and resources on importance of care in the medical home.

Activity 4b: Increase family referrals to primary care providers by promoting the use of the CHANT electronic referral form to families, MCOs and providers that will allow families, particularly families in locations with poor health outcomes, to gain access to coordinated care services resulting in an identified medical home.

Activity 4c: Encourage families to schedule appointments with their primary care provider.

Activity 4d: Promote annual health care visit in the medical home

Planned Partnerships: The CYSHCN Team currently partners and plans to continue partnering with TNAAP, TN Chapter of Family Physicians, Federally Qualified Health Care Centers, local health departments, Family Voices, the State of TN child serving agencies, i.e., Department of Intellectual and Developmental Disabilities, TN Council on Developmental Disability, Tennessee Commission on Children and Youth, Tennessee Council on Mental Health, the Department of Mental Health and Substance Abuse Services, and the local hospital family advisory groups.

Contextual Factors: During the past several years, Tennessee has experienced a drastic decline in the number of rural hospitals. With the closing of the hospitals, this also caused many providers to relocate their practices, which created barriers to access and care for families and especially families with special health care needs as many areas lack pediatric providers. Rural transportation is also a major issue (to urban areas). Some families do not have access to insurance and are not eligible for Medicaid. Other barriers include adult providers not accepting Medicaid; non-expansion of Medicaid, internet and broadband access; COVID-19 restrictions and.

Assumptions: The status of health care will improve for CYSHCN; Increase capacity of youth to achieve their maximum quality-of-life potential; increase the number of CYSHCN who receive coordinated services in a Medical Home; Increase family and youth knowledge regarding resources in their community and access to said resources; Increase provider and community knowledge on medical home, transition, and resources; Create new resources in an electronic version with regular updates scheduled.

PRIORITY: Improve Transition From Pediatric to Adult Care Among Children With Special Health Care Needs

NPM 12: Increase the percent of adolescents with special health care needs, ages 12-17, who received services necessary to make transition to adult health care from 34.2% on October 1, 2020 to 60.0% on September 30, 2025.

Objective for SPM 18: Increase the percent of youth reporting with increased knowledge on transition resources and services from 55% on October 1, 2020, to 100% on September 30, 2025.

Objective for SPM 19: Increase the percent of YSHCN served by CHANT and YAC who complete an annual transition plan from 75% on October 1, 2020, to 100% on September 30, 2025.

Objective for SPM 20: Increase the percent of youth leaders participating in advisory councils providing resources to other youth from 40% on October 1, 2020, to 80% on September 30, 2025.

Description: Place, race and age disparities exist amongst CSS participants transitioning from pediatric to adult care. Data analyzed on transition plans completed from June 2020 – July 2021 indicate that CSS participants residing in urban areas in Tennessee have a transition plan completion rate of 40%, compared to 52% for CSS participants residing in rural areas. Among all CSS participants in Tennessee, fewer non-Hispanic blacks have completed a transition plan than non-Hispanic whites (30% vs. 51%). Fifty percent of CSS participants aged 17-18 years have completed a transition plan compared to 42% participants aged 19-20 years. A racial disparity is observed amongst transition plan completion rates for CSS participants aged 17-20 years who reside in the two most populous (urban) counties in Tennessee – Davidson and Shelby. In Davidson (77% vs. 50%) and Shelby (51% vs. 30%) counties, non-Hispanic whites are more likely to have completed a transition plan than non-Hispanic blacks.

Disparity Elimination Focus: The program will focus on the overall transition plan completion disparities that exist among CSS participants residing in urban (Shelby and Davidson counties) areas, and for non-Hispanic black CSS participants residing in Shelby and Davidson counties. Efforts to improve place and race-based disparities in Davidson and Shelby counties have the potential to make a significant impact because they are the most populous counties in the state and the only two counties with a large enough population pool. Place and race-based disparities will be addressed through Strategy 1 below.

The following strategies and activities are planned for *October 1, 2022 to September 30, 2023*:

Strategy 1: Inform, educate and link YSHCN, families and providers to available transition resources and services, and how to access those services.

Supporting Evidence for Strategy: All youth with special health care needs should receive services necessary to make transitions to adult health care work and independence. As youth age, transition from parent supervised patient controlled care to independent patient-centered care is vital for growth and development. The National Child Health 2018-2019 combined survey indicates that 77.8% children and youth with special health care needs aged 12-17 in Tennessee did not receive the services necessary for transition to adult health care. <https://www.childhealthdata.org/browse/survey/results?q=7777&r=44&g=807>

Activity 1a: Provide available resources by age and appropriate geographic location for YSHCN and families – inclusive, but not limited to, medical home, dental home, behavioral/mental health services and transition.

- Activity 1b:** Develop and disseminate a state-wide YSHCNs transition resource kit including resources for disparate and minority populations.
- Activity 1c:** Develop culturally and geographically appropriate training for family and youth on all aspects of medical transition.
- Activity 1d:** Develop training on all aspects of medical transition for partners and providers across Tennessee. Training will address cultural related considerations.
- Activity 1e:** Schedule key informant interviews with CSS families and CSS care coordinators located in rural and urban settings to identify barriers and facilitation to transition planning.
- Activity 1f:** Review the CSS charts of non-Hispanic black participants residing in urban and rural locations who have complete and incomplete transition plans to identify indications of barriers or facilitators.

Strategy 2: Promote successful transition through educational opportunities and self-advocacy training.

Supporting Evidence for Strategy: Youth and parents who receive leadership training are able to provide mentoring and peer to peer support to other parents and youth with special health care needs. Trained parents and YSHCN are better equipped to become **self**-advocates and participate in the decision-making process and policy development. The National Child Health 2018-2019 combined survey indicates that 77.8% children and youth with special health care needs aged 12-17 in Tennessee did not receive the services necessary for transition to adult health care. <https://www.childhealthdata.org/browse/survey/results?q=7777&r=44&g=807>

- Activity 2a:** Recruit and retain YAC council members ensuring diverse representation including race, ethnicity, age and gender.
- Activity 2b:** Train YAC members from diverse populations to mentor other YSHCN in the community.
- Activity 2c:** Provide learning opportunities (leadership training – ex. Peer-to-Peer support program, talking to legislators, taking control of your healthcare) for youth.

Planned Partnerships: CYSHCN will continue our collaborative efforts and partnering with Family Voices, Tennessee American Academy of Pediatrics, Tennessee Primary Care Association, Tennessee Academy of Family Physicians, State Transition Work Group, Vocational Rehabilitation, Transition TN, the Youth Advisory Committee

Contextual Factors: Issues that may interfere with efficient transition to adult health care include the perspectives of stakeholders, age limits on pediatric service, complexity of health conditions, a lack of experienced healthcare professionals in the adult arena, and health care financing for chronic and complex conditions. Adult providers do not accept Medicaid. As youth age, they may lose their Medicaid coverage and are not able to afford private insurance.

Assumptions: The status of health care will improve for YSHCN; Increase capacity of youth to achieve their maximum quality-of-life potential; Increase the number of YSHCN who receive coordinated services in a Medical Home; Increase family and youth knowledge regarding resources in their community and access to said resources;

Increase provider and community knowledge on medical home, transition, and resources; Increase YSHCN leadership opportunities and continuity of care throughout adulthood.

Cross-Cutting/Systems Building

State Performance Measures

SPM 21 - Percent of women who reported 14+ days of poor mental health in the past month

Measure Status:	Active
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	18.2	17.8	17.4	17.0

SPM 22 - Percent of children who had difficulties obtaining mental health care among those who received or needed care during the past 12 months, age 3-17 years

Measure Status:	Active
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	25.0	24.0	23.0	22.0

State Outcome Measures

SOM 8 - Percent of pregnancy-associated deaths in which mental health conditions was a contributing factor

Measure Status:	Active
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Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	25.0	24.0	23.0	22.0

State Action Plan Table

State Action Plan Table (Tennessee) - Cross-Cutting/Systems Building - Entry 1

Priority Need

Improve mental health

SPM

SPM 21 - Percent of women who reported 14+ days of poor mental health in the past month

Objectives

Decrease the percent of women who reported 14+ days of poor mental health in the past month from 18.6% on October 1, 2020 to 15% on September 30, 2025.

Strategies

Screen and refer women to mental health treatment and resources

State Action Plan Table (Tennessee) - Cross-Cutting/Systems Building - Entry 2

Priority Need

Improve mental health

SPM

SPM 22 - Percent of children who had difficulties obtaining mental health care among those who received or needed care during the past 12 months, age 3-17 years

Objectives

Decrease the percent of those who experienced difficulties obtaining mental health care among those who received or needed care during the past 12 months, age 3-17 years from 25% on October 1, 2020 to 22% on September 30, 2025.

Strategies

Provide training and resources to support positive mental health

State Action Plan Table (Tennessee) - Cross-Cutting/Systems Building - Entry 3

Priority Need

Improve mental health

SOM

SOM 8 - Percent of pregnancy-associated deaths in which mental health conditions was a contributing factor

Objectives

Decrease the percent of pregnancy-associated deaths in which mental health conditions was a contributing factor from 20% on October 1, 2020 to 14% on September 30, 2025.

Strategies

Provide training and resources to support positive mental health

Cross-Cutting/Systems Building - 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

PRIORITY: Improve Mental Health

Objective for SPM 21: Decrease the percent of women who reported 14+ days of poor mental health in the past month from 18.6% in October 1, 2020 to 15% in September 30, 2025.

Objective for SPM 22: Decrease the percent of those who experience difficulty obtaining mental health care among those who received or needed care during the past 12 months, age 3-17 years from 25% on October 1, 2020, to 22% on September 30, 2025.

Description: Tennessee is facing a pediatric mental health crisis. According to data from the TN Youth Risk Behavior Survey^[1] (YRBS), the percentage of students who reported feeling sad and hopeless increased from 31.1% in 2017 to 37.5% in 2019. Gender disparities exist; among those who reported feeling sad or hopeless, 47.1% were female and 27.9% were male. The percentage of high school students who seriously considered attempting suicide also increased from 16.5% in 2017 to 19.2% in 2019 and was more commonly reported among females. The percentage of high school students who made a plan about how they would attempt suicide also increased during this time, from 13% in 2017 to 15.5% in 2019. Finally, there was an increase in the percentage of high school students who attempted suicide and in the percentage of high school students who had a suicide attempt that resulted in an injury, poisoning or overdose that had to be treated by a doctor or nurse (from 8.3% to 10.6% and 2.9% to 3.9%, respectively). Gender disparities continue to be observed among those who attempted suicide. Racial/ethnic disparities are also present. Among those who made a plan about how they would attempt suicide, 18.9% were Hispanic, 15.6% were non-Hispanic White and 13% were non-Hispanic Black. Among those who attempted suicide, 15.8% were Hispanic, 14% were non-Hispanic Black and 9.1% were non-Hispanic White. In addition, among those who had a suicide attempt that resulted in an injury, poisoning or overdose that had to be treated by a doctor or nurse, 7.5% were non-Hispanic Black, 6.4% were Hispanic and 2.7% were non-Hispanic White.

Suicide continues to be a growing public health problem in Tennessee. Over the past five years, Tennessee's suicide death rate has remained higher than the average national rate^[2]. In 2018, Tennessee's suicide rate (17.1 deaths per 100,000 person population) was 16% higher than the national average rate (14.8 deaths per 100,000 person population). Suicide has increased among individuals 10 -24-year-olds over the last five years (from 8.9 deaths per 100,000 to 10.7 deaths per 100,000). Furthermore, youths between the ages of 15 and 24 experienced the highest rates for both nonfatal intentional self-harm injury and suicidal ideation (397 per 100,000 and 852.3 per 100,000, respectively) out of all the age groups, according to 2016-2018 hospital discharge data^[3].

TDH conducts weekly surveillance of suicide-related emergency department visits in children aged 18 and under^[4]. The visits are monitored using the Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE) software, a data feed that includes emergency department visits for a suicide attempt, intentional self-harm, or thoughts of suicide. When the number of emergency room visits for suicide-related behaviors goes above a certain threshold for a particular region, an alert is generated, which allows for a rapid response at the local level. Interventions include increasing awareness and offering suicide prevention resources, services, and programs within a county seeing increases in near real time. In 2020, there were 6,156 youth suicide-related ED visits and 305 alerts across Tennessee. From January 1, 2021 to June 14, 2021, there were 4,722 suicide-related ED visits and 172 alerts, a significant increase. Of note, 150 of these visits were among children between the ages of 6-9. Gender disparities continue to persist; more than two times the number of suicide-related ED visits were among females. Primary diagnoses and other risk factors noted during these ED visits included: Major Depressive Disorder, hallucinations, poor physical condition/neglect, psychiatric issues, bullying, loss of family or friend, lack of

family support, identification with LGBTQ+, distress associated with relocation, and COVID-19 isolation. The specific suicidal behavior noted during these ED visits included: overdose with non-prescription drugs (e.g., pain relievers and sleeping medication), overdose with prescription drugs (e.g., opioid pain medication such as oxycodone), arm/neck lacerations, jumping into traffic, hanging/suffocation, cutting/mutilation, and self-isolation.

[1] Centers for Disease Control and Prevention. Tennessee Youth Risk Behavior Surveillance System. Available at <https://nccd.cdc.gov/Youthonline/App/>

[2] Tennessee Department of Health, Office of Vital Records and Statistics, Death Statistical File, 2014-2018.

[3] Tennessee Department of Health, Division of Population Health Assessment, Hospital Discharge Data System.

[4] TN Department of Health, Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE).

Disparity Elimination Focus: The team will focus on the place-based disparity, specifically disparities in Shelby County, Tennessee. According to the 2021 Robert Wood Johnson County Health Rankings, 26% of children in Shelby County live in poverty, which is higher than the Tennessee average (19%)^[1]. In Shelby County, 58% of the under 18 population is Black and 35% is White. According to data from the 2019 American Community Survey, among individuals 18 years old and younger, 43% had public insurance or a combination of public and non-public insurance^[2]. As in many counties in Tennessee, there is a shortage of mental health providers. The ratio of population to mental health providers is 670:1 (range in Tennessee is 16,830:1 to 270:1). Shelby County's High School YRBS results also highlight an increase in feelings of sadness or hopelessness (from 29.7% in 2017 to 36.2% in 2019). Similarly, the percentage of high school students who seriously considered attempting suicide increased and was slightly higher than the statewide percentage (18.6% in 2017 to 20.7% in 2019). The percentage of high school students who made a plan about how they would attempt suicide also increased during this time period and was higher than the statewide percentage (14.8% in 2017 to 16.6% in 2019). Children in Shelby County, in particular children of color, face barriers in access to behavioral health care due to racial/ethnic inequities. There is an insufficient number of behavioral health clinicians to meet the needs of children in Shelby County, and a behavioral health tele-consultation service is not currently offered in this underserved area. The place-based disparity will be addressed through Strategy 3 below.

[1] Robert Wood Johnson County Health Rankings 2021. Available at

<https://www.countyhealthrankings.org/app/tennessee/2021/rankings/shelby/county/outcomes/overall/snapshot>.

[2] U.S. Census Bureau, 2019 American Community Survey 1-Year Estimates.

The following strategies and activities are planned for *October 1, 2022 to September 30, 2023*:

Strategy 1: Use evidence-based screening tools to screen pregnant and postpartum women for perinatal mood and anxiety disorders and refer to mental health resources, if indicated.

Supporting Evidence for Strategy: The US Preventive Services Task Force (USPSTF), American College of Obstetricians and Gynecologists (ACOG), and other women's health organizations recommend that pregnant and postpartum women be assessed for risk of depression so that they can receive intervention before symptoms arise.

Activity 1a: Conduct mental health screenings among women enrolled in Community Health Access and Navigation in TN (CHANT) and Evidence Based Home Visiting (EBHV).

Activity 1b: Connect women with mental health needs identified through screening to resources

Strategy 2: Implement school-based gatekeeper training

Supporting Evidence for Strategy: Evidence suggests that school-based gatekeeper training is effective in improving participants' knowledge, skills, self-efficacy and likelihood to intervene. Question, Persuade, Refer (QPR) Gatekeeper Training is designed to teach participants how to recognize the warning signs of someone who may be contemplating suicide and question them about whether or not they are suicidal; how to offer hope to an individual experiencing a suicidal crisis and persuade them to get help; and how to refer an individual having a suicidal crisis for help in order to save their life.

Activity 2a: Support Question, Persuade, Refer (QPR) Gatekeeper Training for teachers and other school personnel

Strategy 3: Launch the Pediatric Mental Health Care Access Program in West TN

Activity 3a: Establish a regional pediatric mental health team, to include onboarding of new staff, establishing an Advisory Committee with diverse representation, and supporting youth and family engagement through on-going feedback.

Activity 3b: Pilot a phone-based consultation service with PCPs in Shelby County. As part of the pilot, the team plans to focus efforts on the most socio-demographically vulnerable populations.

Activity 3c: Offer training on the early identification and management of children with behavioral health conditions to PCPs in West TN. The training is evidence-based and will cover the principals of providing trauma-informed care that is culturally and linguistically appropriate and family-centered in an effort to address behavioral health inequities.

Planned Partnerships: TN Department of Mental Health and Substance Abuse Services (TNDMHSAS); TDH Health Disparities Task Force, Tennessee Commission on Children and Youth (TCCY); Young Child Wellness Council (YCWC); Regional and Metro Health Departments; TN Chapter of the American Academy of Pediatrics (TNAAP); Pediatric Providers, Mental Health Providers, and Hospitals; Families and Youth Self-Advocates; Schools

Contextual Factors:

- Patient/client barriers in access to programs, primary care, and behavioral healthcare
- Readiness of collaborative partners
- Financial resources

Assumptions:

- Women and families will enroll in EBHV and CHANT
- Healthcare providers, teachers, and counselors will participate
- Stakeholders will be engaged
- Families and youth will be open to support

III.F. Public Input

Public Comment – During Report/Application Development

Tennessee's MCH/Title V Program offers three main mechanisms for the public to provide feedback on the annual application/report. The first is through participating in partner meetings that are held twice each year. These meetings are open to the public, with special effort being made to reach out to those serving the MCH population as well as parents (including parents of CYSHCN, foster parents, and grandparents). During the meetings, participants evaluate the progress made on action plan measures. At the fall meeting, that evaluation is utilized to identify partnership opportunities between the Tennessee MCH/Title V Program and the other stakeholders/organizations that will help to achieve measurable progress. At the spring meeting the information is used to develop the action plan for the coming year. Both meetings have an average of 100 stakeholders in attendance.

The second opportunity to provide feedback is through membership or public participation in advisory committees. The division convenes multiple advisory committees commissioned by Tennessee statute including: Genetics Advisory Committee (focused on newborn screening), Perinatal Advisory Committee (focused on perinatal health and the regionalization system), Children's Special Services Advisory Committee and Birth Defects Registry Advisory Committee (focused on the MCH/Title V CYSHCN program). Committee members are appointed by the Department of Health Commissioner or the Governor and provide topic-specific expertise to the respective committees. Furthermore, these meetings are subject to the State's Open Meetings Law and are open for attendance by members of the general public. The MCH/Title V director and program staff are in regular communication with committee members, members of the public, and members of the General Assembly on topic areas of interest to those committees. In addition to these long-standing committees, the MCH/Title V CYSHCN program established a youth advisory committee in 2017, and sections of the Division operate advisory committees for grants such as the Preventive Health and Health Services Block Grant.

Lastly ongoing feedback is gathered through FHW program staff. Program staff seek input throughout the year from representatives of local and regional health departments, and by extension, their clients and communities. Regional MCH Directors are convened via conference call every other month. On each call, all central office program representatives and regional MCH Directors are offered the opportunity to present updates for their program/region. These highlights focus on information that increases understanding and collaborative efforts between programs, as well as updates that affect all MCH programs. Additionally, Central Office program staff regularly visit each of the Department's 13 regions to individually meet with front-line program staff. The visits are separate from required monitoring visits and are aimed to provide opportunities for Central Office staff to see firsthand the unique needs of Tennessee communities and to understand how state-level staff can best support front-line staff.

This past spring, the MCH/Title V Program hosted an internal partner meeting for the first time – convening representation from various areas within TDH, including the Deputy Commissioner for Population Health, Office of Strategic Initiatives, Office of Primary Prevention, Division of Health Disparities Elimination, Office of Faith-Based Initiatives, Division of Population Health Assessment, and Communicable and Environmental Disease and Emergency Preparedness. During the meeting, action plan activities for the coming year were presented and internal staff were invited to provide feedback and/or identify partnership opportunities. Both meetings were well received and had an average of 50 TDH staff in attendance. Moving forward, the MCH/Title V Program will host internal partner meetings in the fall and spring.

Public Comment Process – After Report/Application Submission

Each year the application/report is uploaded to the state website where it is accessible to all. Contact information for the MCH/Title V Director is also included. The public is directed to contact the director with any input, making commenting available at all times.

III.G. Technical Assistance

Tennessee requests technical assistance from MCHB on a refresher course in MCH epidemiology and statistics as well as health equity data visualization.

In surveys to MCH epidemiologists and regular check-in meetings, many epidemiologists feel a refresher in basic epidemiology and statistics could be useful in their work. Over the past few years, the FHW has sent epidemiologists to the MCH Epidemiology training course, where it has received very positive feedback; however, not all epidemiologists who apply are accepted. While the trainings may be recorded, our epidemiologists feel the most helpful sessions are those provided synchronously. In reviewing the agenda, it could be useful to have Dr. Michael Kramer provide virtual webinars on the same topics he does during the trainings to our entire MCH epidemiology workforce.

Another area of need is training in health equity data visualization. As health equity is a MCH/Title V Program priority, epidemiologists feel additional insight is needed to better communicate disparities and inequities in MCH outcome metrics. Tennessee has identified an expert in the field, Dr. Jonathan Schwabish, a data visualization expert from Urban Institute and PolicyViz. Tennessee seeks both a didactic session as well as individual sessions on specific projects.

IV. Title V-Medicaid IAA/MOU

The Title V-Medicaid IAA/MOU is uploaded as a PDF file to this section - [IAA MOU Letter and All Contracts.pdf](#)

V. Supporting Documents

The following supporting documents have been provided to supplement the narrative discussion.

Supporting Document #01 - [V. A. Health Resource Shortage Areas in Tennessee.pdf](#)

Supporting Document #02 - [V. B. MCH Related Legislative Mandates.pdf](#)

Supporting Document #03 - [V. C. Population Estimates by County.pdf](#)

VI. Organizational Chart

The Organizational Chart is uploaded as a PDF file to this section - [Tennessee Organizational Charts.pdf](#)

VII. Appendix

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Form 2
MCH Budget/Expenditure Details

State: Tennessee

	FY 23 Application Budgeted	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	\$ 11,800,000	
A. Preventive and Primary Care for Children	\$ 4,838,000	(41%)
B. Children with Special Health Care Needs	\$ 4,248,000	(36%)
C. Title V Administrative Costs	\$ 826,000	(7%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	\$ 9,912,000	
3. STATE MCH FUNDS (Item 18c of SF-424)	\$ 11,500,000	
4. LOCAL MCH FUNDS (Item 18d of SF-424)	\$ 0	
5. OTHER FUNDS (Item 18e of SF-424)	\$ 0	
6. PROGRAM INCOME (Item 18f of SF-424)	\$ 1,800,000	
7. TOTAL STATE MATCH (Lines 3 through 6)	\$ 13,300,000	
A. Your State's FY 1989 Maintenance of Effort Amount \$ 13,125,024		
8. FEDERAL-STATE TITLE V BLOCK GRANT PARTNERSHIP SUBTOTAL (Total lines 1 and 7)	\$ 25,100,000	
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)	\$ 171,947,087	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	\$ 197,047,087	

OTHER FEDERAL FUNDS	FY 23 Application Budgeted
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > Sexual Risk Avoidance Education (SRAE)	\$ 1,572,834
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Early Hearing Detection and Intervention (EHDI) State Programs	\$ 160,000
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Early Hearing Detection and Intervention (EHDI) State Programs	\$ 268,758
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Formula Grants	\$ 10,069,999
Department of Health and Human Services (DHHS) > Office of Population Affairs (OPA) > Title X Family Planning	\$ 8,766,063
US Department of Agriculture (USDA) > Food and Nutrition Services > Commodity Supplemental Food Program (CSFP)	\$ 815,561
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Birth Defects and Developmental Disabilities	\$ 349,214
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Injury Prevention and Control	\$ 250,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > National Breast and Cervical Cancer Early Detection Program (NBCCEDP)	\$ 2,488,129
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > National Comprehensive Cancer Control Program (NCCCP)	\$ 312,629
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Preventing Maternal Deaths: Supporting Maternal Mortality Review Committees	\$ 450,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Preventive Health and Health Services Block Grant	\$ 2,492,873
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Rape Prevention and Education (RPE) Program	\$ 770,919
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)	\$ 350,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Sudden Death in the Young (SDY) Registry	\$ 225,390

OTHER FEDERAL FUNDS	FY 23 Application Budgeted
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Tobacco Control Programs	\$ 1,664,198
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Innovation Grants	\$ 2,000,000
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Pediatric Mental Health Care Access Program	\$ 445,000
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) > Traumatic Brain Injury	\$ 200,179
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)	\$ 129,422,893
US Department of Agriculture (USDA) > Food and Nutrition Services > The Loving Support Peer Counseling Program (Breastfeeding)	\$ 1,623,063
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) American Rescue Plan (ARP)	\$ 3,436,393
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Diabetes, Heart Disease & Stroke Prevention & Management Program (1815)	\$ 2,273,138
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Comprehensive Suicide Prevention	\$ 750,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Partnership Programs to Reduce Maternal Deaths due to Violence	\$ 300,000
Department of Health and Human Services (DHHS) > Other > TBI Workforce Development	\$ 86,400
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > BOLD Public Health Programs to Address Alzheimer's Disease and Related Dementias	\$ 303,454

	FY 21 Annual Report Budgeted		FY 21 Annual Report Expended	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	\$ 11,800,000 (FY 21 Federal Award: \$ 11,869,957)		\$ 9,820,712	
A. Preventive and Primary Care for Children	\$ 4,200,000	(35.6%)	\$ 4,045,404	(41.1%)
B. Children with Special Health Care Needs	\$ 4,700,000	(39.8%)	\$ 3,575,196	(36.4%)
C. Title V Administrative Costs	\$ 826,000	(7%)	\$ 588,232	(6%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	\$ 9,726,000		\$ 8,208,832	
3. STATE MCH FUNDS (Item 18c of SF-424)	\$ 14,000,000		\$ 11,460,032	
4. LOCAL MCH FUNDS (Item 18d of SF-424)	\$ 0		\$ 0	
5. OTHER FUNDS (Item 18e of SF-424)	\$ 0		\$ 0	
6. PROGRAM INCOME (Item 18f of SF-424)	\$ 1,900,000		\$ 1,704,676	
7. TOTAL STATE MATCH (Lines 3 through 6)	\$ 15,900,000		\$ 13,164,708	
A. Your State's FY 1989 Maintenance of Effort Amount \$ 13,125,024				
8. FEDERAL-STATE TITLE V BLOCK GRANT PARTNERSHIP SUBTOTAL (Total lines 1 and 7)	\$ 27,700,000		\$ 22,985,420	
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)	\$ 139,734,625		\$ 113,033,455	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	\$ 167,434,625		\$ 136,018,875	

OTHER FEDERAL FUNDS	FY 21 Annual Report Budgeted	FY 21 Annual Report Expended
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > State Systems Development Initiative (SSDI)	\$ 100,000	\$ 50,561
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > Sexual Risk Avoidance Education (SRAE)	\$ 1,436,756	\$ 1,309,113
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)	\$ 108,971,756	\$ 81,302,207
US Department of Agriculture (USDA) > Food and Nutrition Services > Commodity Supplemental Food Program (CSFP)	\$ 913,231	\$ 795,865
US Department of Agriculture (USDA) > Food and Nutrition Services > The Loving Support Peer Counseling Program (Breastfeeding)	\$ 1,200,818	\$ 1,493,654
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Injury Prevention and Control	\$ 250,000	\$ 194,042
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Tobacco Control Programs	\$ 1,163,365	\$ 827,975
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Preventive Health and Health Services Block Grant	\$ 2,726,668	\$ 2,561,850
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > National Breast and Cervical Cancer Early Detection Program (NBCCEDP)	\$ 2,125,887	\$ 2,482,515
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Rape Prevention and Education (RPE) Program	\$ 726,122	\$ 651,084
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Formula Grants	\$ 9,855,815	\$ 8,691,855
Department of Health and Human Services (DHHS) > Office of Population Affairs (OPA) > Title X Family Planning	\$ 8,125,000	\$ 8,766,063
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Universal Newborn Hearing Screening and Intervention	\$ 250,000	\$ 221,241

OTHER FEDERAL FUNDS	FY 21 Annual Report Budgeted	FY 21 Annual Report Expended
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Zika Surveillance Systems Grant Program	\$ 600,000	\$ 0
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Traumatic Brain Injury	\$ 300,000	\$ 320,022
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)	\$ 451,852	\$ 455,901
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > National Comprehensive Cancer Control Program (NCCCP)	\$ 325,655	\$ 305,443
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Sudden Death in the Young (SDY) Registry	\$ 211,700	\$ 186,392
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Early Hearing Detection and Intervention (EHDI) State Programs		\$ 160,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Preventing Maternal Deaths: Supporting Maternal Mortality Review Committees		\$ 509,794
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Comprehensive Suicide Prevention		\$ 365,896
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Tennessee Diabetes, Heart Disease and Stroke Prevention and Management Program (1815)		\$ 1,381,982

Form Notes for Form 2:

None

Field Level Notes for Form 2:

1.	Field Name:	1.FEDERAL ALLOCATION
	Fiscal Year:	2021
	Column Name:	Annual Report Expended
	Field Note:	The federal allocation is unknown when the budget is originally submitted with the application. Therefore, the budget is created based on an estimate. In FY2021 the estimate was higher than the actual allocation. Due to this many budget categories had to be adjusted, including this line item.
2.	Field Name:	Federal Allocation, B. Children with Special Health Care Needs:
	Fiscal Year:	2021
	Column Name:	Annual Report Expended
	Field Note:	The federal allocation is unknown when the budget is originally submitted with the application. Therefore, the budget is created based on an estimate. In FY2021 the estimate was higher than the actual allocation. Due to this many budget categories had to be adjusted, including this line item.
3.	Field Name:	Federal Allocation, C. Title V Administrative Costs:
	Fiscal Year:	2021
	Column Name:	Annual Report Expended
	Field Note:	The federal allocation is unknown when the budget is originally submitted with the application. Therefore, the budget is created based on an estimate. In FY2021 the estimate was higher than the actual allocation. Due to this many budget categories had to be adjusted, including this line item.
4.	Field Name:	3. STATE MCH FUNDS
	Fiscal Year:	2021
	Column Name:	Annual Report Expended
	Field Note:	The federal allocation is unknown when the budget is originally submitted with the application. Therefore, the budget is created based on an estimate. In FY2021 the estimate was higher than the actual allocation. Due to this many budget categories had to be adjusted, including this line item.
5.	Field Name:	6. PROGRAM INCOME
	Fiscal Year:	2021
	Column Name:	Annual Report Expended
	Field Note:	The federal allocation is unknown when the budget is originally submitted with the application. Therefore, the budget is created based on an estimate. In FY2021 the estimate was higher than the actual allocation. Due to this many budget categories had to be adjusted, including this line item.

Data Alerts: None

Form 3a
Budget and Expenditure Details by Types of Individuals Served
State: Tennessee

I. TYPES OF INDIVIDUALS SERVED

IA. Federal MCH Block Grant	FY 23 Application Budgeted	FY 21 Annual Report Expended
1. Pregnant Women	\$ 47,200	\$ 39,729
2. Infants < 1 year	\$ 777,600	\$ 647,022
3. Children 1 through 21 Years	\$ 4,249,200	\$ 3,536,357
4. CSHCN	\$ 3,276,900	\$ 2,727,213
5. All Others	\$ 2,623,100	\$ 2,282,159
Federal Total of Individuals Served	\$ 10,974,000	\$ 9,232,480

IB. Non-Federal MCH Block Grant	FY 23 Application Budgeted	FY 21 Annual Report Expended
1. Pregnant Women	\$ 271,400	\$ 270,579
2. Infants < 1 year	\$ 1,313,300	\$ 1,308,969
3. Children 1 through 21 Years	\$ 4,363,100	\$ 4,348,028
4. CSHCN	\$ 2,308,100	\$ 2,299,767
5. All Others	\$ 3,244,100	\$ 3,232,689
Non-Federal Total of Individuals Served	\$ 11,500,000	\$ 11,460,032
Federal State MCH Block Grant Partnership Total	\$ 22,474,000	\$ 20,692,512

Form Notes for Form 3a:

None

Field Level Notes for Form 3a:

1.	Field Name:	IA. Federal MCH Block Grant, 3. Children 1 through 21 years
	Fiscal Year:	2023
	Column Name:	Application Budgeted
	Field Note:	The discrepancy between the amount budgeted for Children 1-21 Years on Form 3a and the amount budgeted for Preventive and Primary care for Children (Form 2, Line 1A) is due to classification of particular programs that span multiple populations. For example, family planning funds are used, in part, to serve children age 1-22 but also serve other populations (and therefore are not counted in the "Preventive and Primary Care for Children" category on Form 2).
2.	Field Name:	IA. Federal MCH Block Grant, 4. CSHCN
	Fiscal Year:	2023
	Column Name:	Application Budgeted
	Field Note:	The discrepancy between the amount budgeted for CSHCN on Form 3a and the amount budgeted for CSHCN (Form 2, Line 1B) is due to classification of particular programs that span multiple populations. For example, child health funds are used, in part, to serve CSHCN but also serve infant and child populations (and therefore are not counted in the "CSHCN" category on Form 2).
3.	Field Name:	IA. Federal MCH Block Grant, 3. Children 1 through 21 years
	Fiscal Year:	2021
	Column Name:	Annual Report Expended
	Field Note:	Line 3, The discrepancy between the amount expended for Children 1-21 Years on Form 3a and the amount expended for Preventive and Primary care for Children (Form 2, Line 1A) is due to classification of particular programs that span multiple populations. For example, family planning funds are used, in part, to serve children age 1-22 but also serve other populations (and therefore are not counted in the "Preventive and Primary Care for Children" category on Form 2).
4.	Field Name:	IA. Federal MCH Block Grant, 4. CSHCN
	Fiscal Year:	2021
	Column Name:	Annual Report Expended
	Field Note:	The discrepancy between the amount expended for CSHCN on Form 3a and the amount expended for CSHCN (Form 2, Line 1B) is due to classification of particular programs that span multiple populations. For example, child health funds are used, in part, to serve CSHCN but also serve infant and child populations (and therefore are not counted in the "CSHCN" category on Form 2).

Data Alerts:

- Children 1 through 21 Years, Application Budgeted does not equal Form 2, Line 1A, Preventive and Primary Care for Children Application Budgeted. A field-level note indicating the reason for the discrepancy was provided.
- CSHCN, Application Budgeted does not equal Form 2, Line 1B, Children with Special Health Care Needs, Application Budgeted. A field-level note indicating the reason for the discrepancy was provided.
- Children 1 through 21 Years, Annual Report Expended does not equal Form 2, Line 1A, Preventive and Primary Care for Children, Annual Report Expended. A field - level note indicating the reason for the discrepancy was provided.
- CSHCN, Annual Report Expended does not equal Form 2, Line 1B, Children with Special Health Care Needs, Annual Report Expended. A field-level note indicating the reason for the discrepancy was provided.

Form 3b
Budget and Expenditure Details by Types of Services

State: Tennessee

II. TYPES OF SERVICES

IIA. Federal MCH Block Grant	FY 23 Application Budgeted	FY 21 Annual Report Expended
1. Direct Services	\$ 944,000	\$ 799,246
A. Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants up to Age One	\$ 302,100	\$ 254,524
B. Preventive and Primary Care Services for Children	\$ 37,700	\$ 29,749
C. Services for CSHCN	\$ 604,200	\$ 514,973
2. Enabling Services	\$ 8,024,000	\$ 6,669,894
3. Public Health Services and Systems	\$ 2,832,000	\$ 2,351,572
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		\$ 120,330
Physician/Office Services		\$ 215,565
Hospital Charges (Includes Inpatient and Outpatient Services)		\$ 240,975
Dental Care (Does Not Include Orthodontic Services)		\$ 14,021
Durable Medical Equipment and Supplies		\$ 76,325
Laboratory Services		\$ 40,814
Other		
CSS Food		\$ 91,216
Direct Services Line 4 Expended Total		\$ 799,246
Federal Total	\$ 11,800,000	\$ 9,820,712

IIB. Non-Federal MCH Block Grant	FY 23 Application Budgeted	FY 21 Annual Report Expended
1. Direct Services	\$ 460,000	\$ 501,380
A. Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants up to Age One	\$ 0	\$ 0
B. Preventive and Primary Care Services for Children	\$ 18,400	\$ 18,053
C. Services for CSHCN	\$ 441,600	\$ 483,327
2. Enabling Services	\$ 8,050,000	\$ 8,000,211
3. Public Health Services and Systems	\$ 2,990,000	\$ 2,958,441
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		\$ 52,497
Physician/Office Services		\$ 47,738
Hospital Charges (Includes Inpatient and Outpatient Services)		\$ 106,958
Dental Care (Does Not Include Orthodontic Services)		\$ 0
Durable Medical Equipment and Supplies		\$ 18,558
Laboratory Services		\$ 3,383
Other		
CSS Food, Deductibles		\$ 272,246
Direct Services Line 4 Expended Total		\$ 501,380
Non-Federal Total	\$ 11,500,000	\$ 11,460,032

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: Tennessee

Total Births by Occurrence: 87,669

Data Source Year: 2021

1. Core RUSP Conditions

Program Name	(A) Aggregate Total Number Receiving at Least One Valid Screen	(B) Aggregate Total Number of Out-of-Range Results	(C) Aggregate Total Number Confirmed Cases	(D) Aggregate Total Number Referred for Treatment
Core RUSP Conditions	87,337 (99.6%)	4,078	416	416 (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, βeta-Thalassemia	S,C Disease	S,S Disease (Sickle Cell Anemia)	Severe Combined Immunodeficiencies	Spinal Muscular Atrophy Due To Homozygous Deletion Of Exon 7 In SMN1
β-Ketothiolase Deficiency	Trifunctional Protein Deficiency	Tyrosinemia, Type I	Very Long-Chain Acyl-Coa Dehydrogenase Deficiency	X-Linked Adrenoleukodystrophy

2. Other Newborn Screening Tests

Program Name	(A) Total Number Receiving at Least One Screen	(B) Total Number Presumptive Positive Screens	(C) Total Number Confirmed Cases	(D) Total Number Referred for Treatment
2-Methyl-3-hydroxybutyric aciduria	87,337 (99.6%)	20	0	0 (0%)
2-Methylbutyrylglycinuria	87,337 (99.6%)	8	0	0 (0%)
3-Methylglutaconic aciduria	87,337 (99.6%)	20	0	0 (0%)
Argininemia	87,337 (99.6%)	2	0	0 (0%)
Biopterin defect in cofactor biosynthesis	87,337 (99.6%)	9	5	5 (100.0%)
Biopterin defect in cofactor regeneration	87,337 (99.6%)	9	5	5 (100.0%)
Carnitine acylcarnitine translocase deficiency	87,337 (99.6%)	88	0	0 (0%)
Methylmalonic acidemia with homocystinuria	87,337 (99.6%)	6	1	1 (100.0%)
Citrullinemia, type II	87,337 (99.6%)	2	0	0 (0%)
Carnitine palmitoyltransferase type I deficiency	87,337 (99.6%)	2	0	0 (0%)
Carnitine palmitoyltransferase type II deficiency	87,337 (99.6%)	88	0	0 (0%)
2,4 Dienoyl-CoA reductase deficiency	87,337 (99.6%)	3	0	0 (0%)
Glutaric acidemia type II	87,337 (99.6%)	38	2	2 (100.0%)
Galactosepimerase deficiency	87,337 (99.6%)	60	0	0 (0%)
Galactokinase deficiency	87,337 (99.6%)	60	0	0 (0%)
Benign hyperphenylalaninemia	87,337 (99.6%)	9	0	0 (0%)

Program Name	(A) Total Number Receiving at Least One Screen	(B) Total Number Presumptive Positive Screens	(C) Total Number Confirmed Cases	(D) Total Number Referred for Treatment
Isobutyrylglycinuria	87,337 (99.6%)	38	0	0 (0%)
Medium/short-chain L-3-hydroxyacyl-CoA dehydrogenase deficiency	87,337 (99.6%)	25	0	0 (0%)
Malonic acidemia	87,337 (99.6%)	25	0	0 (0%)
Hypermethioninemia	87,337 (99.6%)	3	0	0 (0%)
Short-chain acyl-CoA dehydrogenase deficiency	87,337 (99.6%)	34	0	0 (0%)
Tyrosinemia, type II	87,337 (99.6%)	31	0	0 (0%)
Tyrosinemia, type III	87,337 (99.6%)	31	0	0 (0%)
Various other hemoglobinopathies	87,337 (99.6%)	7	7	7 (100.0%)
T-Cell related lymphocyte deficiencies	87,337 (99.6%)	51	3	3 (100.0%)
Hyperornithinemiahyperammonemiahomocitrullinemia	87,337 (99.6%)	0	0	0 (0%)
Non-ketotic hyperglycinemia	87,337 (99.6%)	30	1	1 (100.0%)
Carbamoyl phosphate synthetase I deficiency	87,337 (99.6%)	0	0	0 (0%)
Ornithine transcarbamylase deficiency	87,337 (99.6%)	0	0	0 (0%)

3. Screening Programs for Older Children & Women

None

4. Long-Term Follow-Up

Tennessee's Newborn Screening Follow-Up has a case management section which provides short-term follow up to monitor all cases with abnormal tests through to confirmatory testing and treatment initiation. The State contracts with tertiary specialty centers to assure follow-up and confirmatory testing for all infants with abnormal screens. The centers are required, by contract, to report the results (whether disease was confirmed) back to the State, and for cases in which disease was confirmed, the center reports the date on which treatment was started. Currently, the State does not monitor confirmed diagnosed infants beyond notification of diagnosis and treatment initiation by the contracted tertiary specialty center. However, the State provides infrastructure funding at each center to support longterm treatment, genetic testing for vulnerable individuals, and education/outreach.

Form Notes for Form 4:

None

Field Level Notes for Form 4:

None

Data Alerts: None

Form 5
Count of Individuals Served by Title V & Total Percentage of Populations Served by Title V

State: Tennessee

Annual Report Year 2021

Form 5a – Count of Individuals Served by Title V
(Direct & Enabling Services Only)

Types Of Individuals Served	(A) Title V Total Served	Primary Source of Coverage				
		(B) Title XIX %	(C) Title XXI %	(D) Private / Other %	(E) None %	(F) Unknown %
1. Pregnant Women	8,866	48.3	0.1	10.0	37.4	4.2
2. Infants < 1 Year of Age	17,613	11.9	0.0	1.0	76.8	10.3
3. Children 1 through 21 Years of Age	107,831	24.8	0.0	10.1	47.3	17.8
3a. Children with Special Health Care Needs 0 through 21 years of age^	4,773	0.0	0.0	0.0	100.0	0.0
4. Others	103,212	9.2	0.6	10.9	68.1	11.2
Total	237,522					

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	78,689	Yes	78,689	100.0	78,689	8,866
2. Infants < 1 Year of Age	84,393	No	87,669	99.6	87,318	17,613
3. Children 1 through 21 Years of Age	1,772,185	Yes	1,772,185	62.7	1,111,160	107,831
3a. Children with Special Health Care Needs 0 through 21 years of age^	411,161	Yes	411,161	1.8	7,401	4,773
4. Others	5,034,758	Yes	5,034,758	4.1	206,425	103,212

^Represents a subset of all infants and children.

Form Notes for Form 5:

None

Field Level Notes for Form 5a:

1.	Field Name:	Pregnant Women Total Served
	Fiscal Year:	2021
	Field Note:	The majority of the count for this category comes from women's health services in local health departments, including family planning and reproductive health services.
2.	Field Name:	Infants Less Than One Year Total Served
	Fiscal Year:	2021
	Field Note:	The majority of the count for this category includes well child visits in local health departments (mostly for TennCare/Medicaid enrollees) and TennCare outreach, as well as immunizations, CHANT, and EPSDT.
3.	Field Name:	Children 1 through 21 Years of Age
	Fiscal Year:	2021
	Field Note:	The majority of the count for this category includes well child visits in local health departments (mostly for TennCare/Medicaid enrollees), as well as, reproductive health, TennCare outreach efforts, family planning, EPSDT, immunizations, as well as CHANT.
4.	Field Name:	Children with Special Health Care Needs 0 through 21 Years of Age
	Fiscal Year:	2021
	Field Note:	The count for this category comes from Children's Special Services, Tennessee's MCH/Title V Children with Special Health Care Needs Program, within local health departments.
5.	Field Name:	Others
	Fiscal Year:	2021
	Field Note:	The majority of the count for this category comes from women's health services in local health departments, including reproductive health, family planning, reproductive health services, breast and cervical cancer presumptive eligibility, as well as CHANT, TennCare (Medicaid) outreach efforts, tobacco cessation (including Baby & Me Tobacco Free), and immunizations.

Field Level Notes for Form 5b:

1.	Field Name:	Pregnant Women Total % Served
	Fiscal Year:	2021

Field Note:

The percentage reported here is 100% because the Title V program and our partners address all pregnancies and deliveries through the state's perinatal regionalization program guidelines. In addition to the programs and service numbers included in Form 5a and listed in the notes on that form, other related efforts include diabetes administration (4276) and the Maternal Mortality Review Committee (46).

2. **Field Name:** **Infants Less Than One Year Total % Served**

Fiscal Year: **2021**

Field Note:

Ninety-nine percent of newborns received a newborn screening prior to hospital discharge (excluding those who died prior to discharge and refusals). In addition to the programs and service numbers included in Form 5a and listed in the notes to that form, other related efforts for this age group include: infant mortality prevention (78,685), perinatal regionalization (4,882), child fatality review and prevention (495), fetal infant mortality review (131), sudden death in the young registry (126), TBI registry (109), birth defects (83), and CHANT (83).

3. **Field Name:** **Infants Less Than One Year Denominator**

Fiscal Year: **2021**

Field Note:

Total occurrence/in-state births in CY 2021.

4. **Field Name:** **Children 1 through 21 Years of Age Total % Served**

Fiscal Year: **2021**

Field Note:

In addition to the multiple programs and service numbers included in Form 5a and listed in the notes to that form, other related public health services and systems for this age group include: suicide prevention (1,029,075), childhood lead (79,768), injury surveillance, health promotion control, diabetes prevention, heart disease and stroke prevention, the TBI registry (1,213), child fatality review and prevention (364), the sudden death in the young registry (53), the comprehensive cancer (22), and birth defects (6).

The suicide prevention count included in the percentage represents unduplicated children ages 10-21 only. In an effort to account for estimated duplication, programs listed above without a count in parentheses are not included in the calculation used to come up with the Total % Served for this population due to the assumption that they could be counted in the other programs. However, the percentage may still be an overestimation.

The reader will notice a significant shift from what was reported last year, compared to this year. The estimate for this population includes ESSENCE data utilized by the suicide prevention program.

5. **Field Name:** **Children with Special Health Care Needs 0 through 21 Years of Age Total % Served**

Fiscal Year: **2021**

Field Note:

In addition to the programs and service numbers included in Form 5a and listed in the notes to that form, other related efforts for this age group include: newborn hearing follow-up (2,521), newborn screening, and childhood lead*.

At this time de-duplication between programs is not possible; however, in an effort to account for estimated duplication, programs listed without a count in parentheses are not included in the calculation used to come up with the Total % Served for this population. The percentage many still be an overestimation.

6. **Field Name:** **Others Total % Served**

Fiscal Year: **2021**

Field Note:

In addition to the multiple programs and services included in Form 5a and listed in the notes to that form, other related efforts for this category include: heart disease prevention (40,615), preventing maternal deaths (19,304), comprehensive cancer (10,606), the B.R.A.I.N. grant (9,493), TBI registry, (5,593), diabetes administration an management (6,175), chid fatality review team (4,067), injury surveillance (3,899), rape prevention (1,080), and Maternal Mortality Review (52).

At this time de-duplication between programs is not possible therefore the percentage may be an overestimation.

Data Alerts: None

Form 6
Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX

State: Tennessee

Annual Report Year 2021

I. Unduplicated Count by Race/Ethnicity

	(A) Total	(B) Non- Hispanic White	(C) Non- Hispanic Black or African American	(D) Hispanic	(E) Non- Hispanic American Indian or Native Alaskan	(F) Non- Hispanic Asian	(G) Non- Hispanic Native Hawaiian or Other Pacific Islander	(H) Non- Hispanic Multiple Race	(I) Other & Unknown
1. Total Deliveries in State	86,958	49,838	14,185	9,726	74	1,670	79	0	11,386
Title V Served	85,501	48,988	13,888	9,618	73	1,660	77	0	11,197
Eligible for Title XIX	38,969	17,999	8,955	6,647	37	425	39	0	4,867
2. Total Infants in State	79,128	48,597	15,146	9,819	0	0	0	5,566	0
Title V Served	86,671	49,688	14,142	9,713	74	1,666	78	0	11,310
Eligible for Title XIX	38,386	17,734	8,770	6,582	37	423	37	0	4,803

Form Notes for Form 6:

CY 2021 provisional data from vital records was used to complete Form 6.

Field Level Notes for Form 6:

None

Form 7
State MCH Toll-Free Telephone Line and Other Appropriate Methods Data

State: Tennessee

A. State MCH Toll-Free Telephone Lines	2023 Application Year	2021 Annual Report Year
1. State MCH Toll-Free "Hotline" Telephone Number	(615) 741-7353	(615) 741-7353
2. State MCH Toll-Free "Hotline" Name	Family Health and Wellness	Family Health and Wellness
3. Name of Contact Person for State MCH "Hotline"	Tobi Amosun	Tobi Amosun
4. Contact Person's Telephone Number	(615) 253-4131	(615) 253-4131
5. Number of Calls Received on the State MCH "Hotline"		10,046

B. Other Appropriate Methods	2023 Application Year	2021 Annual Report Year
1. Other Toll-Free "Hotline" Names	Tennessee Breastfeeding Hotline	Tennessee Breastfeeding Hotline
2. Number of Calls on Other Toll-Free "Hotlines"		4,287
3. State Title V Program Website Address	www.KidCentralTN.com	www.KidCentralTn.com
4. Number of Hits to the State Title V Program Website		162,142
5. State Title V Social Media Websites	www.facebook.com/TNDeptof Health	www.facebook.com/TNDeptof Health
6. Number of Hits to the State Title V Program Social Media Websites		4,273,350

Form Notes for Form 7:

None

Form 8
State MCH and CSHCN Directors Contact Information

State: Tennessee

1. Title V Maternal and Child Health (MCH) Director

Name	Tobi Adeyeye Amosun, MD, FAAP
Title	Director, Division of Family Health and Wellness
Address 1	710 James Robertson Parkway
Address 2	
City/State/Zip	Nashville / TN / 37243
Telephone	(615) 253-4131
Extension	
Email	Tobi.Amosun@tn.gov

2. Title V Children with Special Health Care Needs (CSHCN) Director

Name	Jacqueline Johnson, MPA
Title	Section Chief, Children and Youth with Special Health Care Needs
Address 1	710 James Robertson Parkway
Address 2	
City/State/Zip	Nashville / TN / 37243
Telephone	(615) 741-0361
Extension	
Email	jacqueline.johnson@tn.gov

3. State Family or Youth Leader (Optional)

Name	Mary Kate Brown
Title	Family Leader
Address 1	1807 Pecan Ridge Drive
Address 2	
City/State/Zip	Murfreesboro / TN / 37128
Telephone	(615) 513-3609
Extension	
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Form Notes for Form 8:

None

Form 9
List of MCH Priority Needs

State: Tennessee

Application Year 2023

No.	Priority Need
1.	Increase family planning
2.	Decrease pregnancy-associated mortality
3.	Increase breastfeeding
4.	Decrease infant mortality
5.	Decrease overweight and obesity among children
6.	Increase prevention and mitigation of Adverse Childhood Experiences (ACEs)
7.	Decrease tobacco and e-cigarette use among adolescents
8.	Increase medical homes among children with special healthcare needs
9.	Improve transition from pediatric to adult care among children with special health care needs
10.	Improve mental health

Form Notes for Form 9:

None

Field Level Notes for Form 9:

None

Form 9 State Priorities – Needs Assessment Year – Application Year 2021

No.	Priority Need	Priority Need Type (New, Revised or Continued Priority Need for this five-year reporting period)
1.	Increase family planning	New
2.	Decrease pregnancy-associated mortality	New
3.	Increase breastfeeding	New
4.	Decrease infant mortality	Continued
5.	Decrease overweight and obesity among children	Continued
6.	Increase prevention and mitigation of Adverse Childhood Experiences (ACEs)	Continued
7.	Decrease tobacco and e-cigarette use among adolescents	Revised
8.	Increase medical homes among children with special healthcare needs	Revised
9.	Improve transition from pediatric to adult care among children with special health care needs	Continued

Form 10
National Outcome Measures (NOMs)

State: Tennessee

Form Notes for Form 10 NPMs, NOMs, SPMs, SOMs, and ESMs.

NOM 1 - Percent of pregnant women who receive prenatal care beginning in the first trimester

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	73.7 %	0.2 %	57,080	77,404
2019	74.6 %	0.2 %	58,240	78,098
2018	75.6 %	0.2 %	56,759	75,035
2017	74.8 %	0.2 %	56,693	75,746
2016	74.2 % ⚡	0.2 % ⚡	51,493 ⚡	69,385 ⚡
2015	74.2 %	0.2 %	55,756	75,125
2014	74.2 %	0.2 %	56,654	76,364
2013	71.6 %	0.2 %	54,489	76,103
2012	70.4 %	0.2 %	53,419	75,885
2011	69.9 %	0.2 %	51,605	73,832
2010	70.6 %	0.2 %	52,663	74,579
2009	69.5 %	0.2 %	54,058	77,795

Legends:

🚫 Indicator has a numerator <10 and is not reportable

⚡ Indicator has a numerator <20, a confidence interval width >20% points or >1.2 times the estimate, or >10% missing data and should be interpreted with caution

NOM 1 - Notes:

None

Data Alerts: None



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

Data Source: HCUP - State Inpatient Databases (SID)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	73.1	3.2	536	73,285
2018	79.4	3.4	562	70,742
2017	79.7	3.4	558	70,014
2016	73.8	3.4	480	65,006
2015	90.8	4.4	439	48,340
2014	90.9	3.8	587	64,567
2013	106.2	4.0	709	66,787
2012	96.1	3.8	635	66,091
2011	89.5	3.6	627	70,040
2010	82.2	3.5	572	69,591
2009	76.6	3.3	556	72,589
2008	76.1	3.2	570	74,884

Legends:

-  Indicator has a numerator ≤10 and is not reportable
-  Indicator has a numerator <20 and should be interpreted with caution

NOM 2 - Notes:

None

Data Alerts: None

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


Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2016_2020	31.6	2.8	127	401,713
2015_2019	26.4	2.6	107	404,709
2014_2018	24.9	2.5	101	405,861

Legends:

 Indicator has a numerator <10 and is not reportable

 Indicator has a numerator <20 and should be interpreted with caution

NOM 3 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	8.9 %	0.1 %	7,002	78,653
2019	9.2 %	0.1 %	7,356	80,283
2018	9.3 %	0.1 %	7,471	80,473
2017	9.2 %	0.1 %	7,409	80,813
2016	9.3 %	0.1 %	7,431	80,084
2015	9.2 %	0.1 %	7,460	81,384
2014	9.0 %	0.1 %	7,297	81,441
2013	9.1 %	0.1 %	7,307	79,962
2012	9.2 %	0.1 %	7,377	80,318
2011	9.0 %	0.1 %	7,176	79,554
2010	9.0 %	0.1 %	7,179	79,451
2009	9.2 %	0.1 %	7,539	82,172

Legends:

🚫 Indicator has a numerator <10 and is not reportable

⚡ Indicator has a numerator <20, a confidence interval width >20% points or >1.2 times the estimate, or >10% missing data and should be interpreted with caution

NOM 4 - Notes:

None

Data Alerts: None

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


Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	10.9 %	0.1 %	8,594	78,642
2019	11.2 %	0.1 %	8,993	80,340
2018	11.1 %	0.1 %	8,911	80,541
2017	11.1 %	0.1 %	8,962	80,847
2016	11.3 %	0.1 %	9,085	80,340
2015	11.0 %	0.1 %	8,959	81,538
2014	10.8 %	0.1 %	8,780	81,497
2013	11.1 %	0.1 %	8,826	79,691
2012	11.2 %	0.1 %	8,961	79,807
2011	11.1 %	0.1 %	8,729	78,903
2010	11.4 %	0.1 %	8,988	78,936
2009	11.3 %	0.1 %	9,231	81,518

Legends:

 Indicator has a numerator <10 and is not reportable

 Indicator has a numerator <20, a confidence interval width >20% points or >1.2 times the estimate, or >10% missing data and should be interpreted with caution

NOM 5 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	28.4 %	0.2 %	22,363	78,642
2019	28.6 %	0.2 %	22,962	80,340
2018	27.9 %	0.2 %	22,468	80,541
2017	27.6 %	0.2 %	22,338	80,847
2016	27.2 %	0.2 %	21,868	80,340
2015	26.6 %	0.2 %	21,662	81,538
2014	26.1 %	0.2 %	21,293	81,497
2013	26.2 %	0.2 %	20,856	79,691
2012	27.8 %	0.2 %	22,149	79,807
2011	28.9 %	0.2 %	22,784	78,903
2010	30.1 %	0.2 %	23,721	78,936
2009	31.5 %	0.2 %	25,645	81,518

Legends:

🚫 Indicator has a numerator <10 and is not reportable

⚡ Indicator has a numerator <20, a confidence interval width >20% points or >1.2 times the estimate, or >10% missing data and should be interpreted with caution

NOM 6 - Notes:

None

Data Alerts: None

NOM 7 - Percent of non-medically indicated early elective deliveries

Data Source: CMS Hospital Compare

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020/Q3-2021/Q2	2.0 %			
2019/Q4-2020/Q3	2.0 %			
2019/Q1-2019/Q4	2.0 %			
2018/Q4-2019/Q3	2.0 %			
2018/Q3-2019/Q2	2.0 %			
2018/Q2-2019/Q1	2.0 %			
2018/Q1-2018/Q4	2.0 %			
2017/Q4-2018/Q3	2.0 %			
2017/Q3-2018/Q2	2.0 %			
2017/Q2-2018/Q1	2.0 %			
2017/Q1-2017/Q4	2.0 %			
2016/Q4-2017/Q3	2.0 %			
2016/Q3-2017/Q2	2.0 %			
2016/Q2-2017/Q1	2.0 %			
2016/Q1-2016/Q4	2.0 %			
2015/Q4-2016/Q3	2.0 %			
2015/Q3-2016/Q2	1.0 %			
2015/Q2-2016/Q1	2.0 %			
2015/Q1-2015/Q4	2.0 %			
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	4.0 %			

Legends:

NOM 7 - Notes:

None

Data Alerts: None



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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	6.7	0.3	537	80,689
2018	6.8	0.3	555	81,028
2017	6.8	0.3	549	81,276
2016	6.8	0.3	555	81,107
2015	6.4	0.3	521	81,958
2014	6.8	0.3	554	81,875
2013	7.0	0.3	558	80,281
2012	7.2	0.3	582	80,674
2011	7.4	0.3	595	79,909
2010	6.6	0.3	524	79,743
2009	6.8	0.3	561	82,469

Legends:

-  Indicator has a numerator <10 and is not reportable
-  Indicator has a numerator <20 and should be interpreted with caution

NOM 8 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	7.0	0.3	560	80,450
2018	6.9	0.3	556	80,751
2017	7.3	0.3	591	81,016
2016	7.4	0.3	594	80,807
2015	7.0	0.3	568	81,685
2014	6.9	0.3	561	81,602
2013	6.8	0.3	544	79,992
2012	7.2	0.3	582	80,371
2011	7.4	0.3	592	79,588
2010	7.9	0.3	626	79,495
2009	8.0	0.3	657	82,211

Legends:

- Indicator has a numerator <10 and is not reportable
- Indicator has a numerator <20 and should be interpreted with caution

NOM 9.1 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	4.5	0.2	364	80,450
2018	4.5	0.2	361	80,751
2017	4.6	0.2	372	81,016
2016	4.2	0.2	343	80,807
2015	4.1	0.2	335	81,685
2014	4.3	0.2	349	81,602
2013	4.2	0.2	333	79,992
2012	4.3	0.2	349	80,371
2011	4.6	0.2	365	79,588
2010	4.6	0.2	368	79,495
2009	4.8	0.2	396	82,211

Legends:

- Indicator has a numerator <10 and is not reportable
- Indicator has a numerator <20 and should be interpreted with caution

NOM 9.2 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	2.4	0.2	196	80,450
2018	2.4	0.2	195	80,751
2017	2.7	0.2	219	81,016
2016	3.1	0.2	251	80,807
2015	2.9	0.2	233	81,685
2014	2.6	0.2	212	81,602
2013	2.6	0.2	211	79,992
2012	2.9	0.2	233	80,371
2011	2.9	0.2	227	79,588
2010	3.2	0.2	258	79,495
2009	3.2	0.2	261	82,211

Legends:

- Indicator has a numerator <10 and is not reportable
- Indicator has a numerator <20 and should be interpreted with caution

NOM 9.3 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	264.8	18.2	213	80,450
2018	216.7	16.4	175	80,751
2017	201.2	15.8	163	81,016
2016	211.6	16.2	171	80,807
2015	189.8	15.3	155	81,685
2014	230.4	16.8	188	81,602
2013	193.8	15.6	155	79,992
2012	209.0	16.1	168	80,371
2011	214.9	16.5	171	79,588
2010	245.3	17.6	195	79,495
2009	255.4	17.7	210	82,211

Legends:

- Indicator has a numerator <10 and is not reportable
- Indicator has a numerator <20 and should be interpreted with caution

NOM 9.4 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	125.5	12.5	101	80,450
2018	153.6	13.8	124	80,751
2017	149.4	13.6	121	81,016
2016	153.5	13.8	124	80,807
2015	153.0	13.7	125	81,685
2014	111.5	11.7	91	81,602
2013	123.8	12.5	99	79,992
2012	164.2	14.3	132	80,371
2011	154.5	14.0	123	79,588
2010	171.1	14.7	136	79,495
2009	153.3	13.7	126	82,211

Legends:

- Indicator has a numerator <10 and is not reportable
- Indicator has a numerator <20 and should be interpreted with caution

NOM 9.5 - Notes:

None

Data Alerts: None

NOM 10 - Percent of women who drink alcohol in the last 3 months of pregnancy


Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	6.8 %	1.4 %	5,094	75,045
2019	4.8 %	1.1 %	3,631	76,202
2015	5.5 %	1.0 %	4,299	78,404
2014	5.8 %	1.1 %	4,524	77,863
2013	4.8 %	1.0 %	3,677	77,144
2012	6.7 %	1.1 %	5,139	77,036
2009	5.6 %	1.1 %	4,474	79,825
2008	3.4 %	0.8 %	2,774	81,407

Legends:

 Indicator has an unweighted denominator <30 and is not reportable

 Indicator has an unweighted denominator between 30 and 59 or confidence interval width >20% points or >1.2 times the estimate and should be interpreted with caution

NOM 10 - Notes:

None

Data Alerts: None



NOM 11 - Rate of neonatal abstinence syndrome per 1,000 birth hospitalizations

Data Source: HCUP - State Inpatient Databases (SID)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	10.9	0.4	779	71,219
2018	14.6	0.5	995	68,376
2017	16.2	0.5	1,099	67,827
2016	18.0	0.5	1,134	63,143
2015	16.9	0.6	793	46,904
2014	15.3	0.5	959	62,637
2013	12.5	0.4	815	65,309
2012	8.9	0.4	584	65,480
2011	6.0	0.3	414	69,570
2010	5.4	0.3	375	69,409
2009	4.3	0.2	311	72,741
2008	3.0	0.2	225	75,307

Legends:

-  Indicator has a numerator ≤10 and is not reportable
-  Indicator has a numerator <20 and should be interpreted with caution

NOM 11 - Notes:

None

Data Alerts: None

NOM 12 - Percent of eligible newborns screened for heritable disorders with on time physician notification for out of range screens who are followed up in a timely manner. (DEVELOPMENTAL)

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

NOM 12 - Notes:

None

Data Alerts: None

NOM 13 - Percent of children meeting the criteria developed for school readiness (DEVELOPMENTAL)

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

NOM 13 - Notes:

None

Data Alerts: None

NOM 14 - Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	11.4 %	1.3 %	160,975	1,414,671
2018_2019	13.1 %	1.4 %	183,494	1,400,701
2017_2018	13.7 %	1.6 %	189,299	1,379,241
2016_2017	10.7 %	1.5 %	149,356	1,391,773
2016	8.9 %	1.6 %	124,646	1,402,272

Legends:

🚫 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 14 - Notes:

None

Data Alerts: None



NOM 15 - Child Mortality rate, ages 1 through 9, per 100,000

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	19.5	1.6	145	743,703
2019	20.7	1.7	154	742,209
2018	22.3	1.7	165	739,940
2017	23.3	1.8	173	741,775
2016	23.2	1.8	172	741,404
2015	18.3	1.6	135	739,432
2014	20.6	1.7	152	738,611
2013	21.1	1.7	156	738,334
2012	22.4	1.7	166	739,838
2011	20.0	1.7	147	736,697
2010	22.0	1.7	163	740,978
2009	20.0	1.7	148	738,731

Legends:

-  Indicator has a numerator <10 and is not reportable
-  Indicator has a numerator <20 and should be interpreted with caution

NOM 15 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	48.0	2.4	410	854,258
2019	42.0	2.2	359	855,582
2018	44.9	2.3	384	855,439
2017	43.5	2.3	370	850,432
2016	39.9	2.2	336	842,341
2015	39.8	2.2	335	840,920
2014	36.7	2.1	309	841,738
2013	35.5	2.1	299	841,885
2012	40.3	2.2	340	844,247
2011	37.1	2.1	315	848,300
2010	38.2	2.1	327	856,127
2009	42.4	2.2	363	855,924

Legends:

🚫 Indicator has a numerator <10 and is not reportable

⚡ Indicator has a numerator <20 and should be interpreted with caution

NOM 16.1 - Notes:

None

Data Alerts: None



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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2018_2020	18.1	1.2	230	1,272,469
2017_2019	15.9	1.1	203	1,274,577
2016_2018	15.3	1.1	195	1,272,255
2015_2017	15.5	1.1	197	1,267,849
2014_2016	15.1	1.1	191	1,262,485
2013_2015	14.1	1.1	177	1,259,614
2012_2014	15.5	1.1	195	1,260,128
2011_2013	16.9	1.2	214	1,267,375
2010_2012	18.9	1.2	243	1,285,474
2009_2011	19.2	1.2	250	1,302,264
2008_2010	21.7	1.3	285	1,312,853
2007_2009	28.1	1.5	368	1,307,973

Legends:

-  Indicator has a numerator <10 and is not reportable
-  Indicator has a numerator <20 and should be interpreted with caution

NOM 16.2 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2018_2020	10.5	0.9	134	1,272,469
2017_2019	12.0	1.0	153	1,274,577
2016_2018	13.2	1.0	168	1,272,255
2015_2017	12.4	1.0	157	1,267,849
2014_2016	11.2	0.9	142	1,262,485
2013_2015	10.1	0.9	127	1,259,614
2012_2014	9.8	0.9	123	1,260,128
2011_2013	8.7	0.8	110	1,267,375
2010_2012	7.8	0.8	100	1,285,474
2009_2011	7.8	0.8	102	1,302,264
2008_2010	7.2	0.7	94	1,312,853
2007_2009	7.1	0.7	93	1,307,973

Legends:

🚫 Indicator has a numerator <10 and is not reportable

⚡ Indicator has a numerator <20 and should be interpreted with caution

NOM 16.3 - Notes:

None

Data Alerts: None

NOM 17.1 - Percent of children with special health care needs (CSHCN), ages 0 through 17

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	22.2 %	1.4 %	334,628	1,505,845
2018_2019	21.6 %	1.5 %	325,137	1,505,049
2017_2018	20.6 %	1.6 %	308,848	1,502,862
2016_2017	19.1 %	1.5 %	285,900	1,494,648
2016	19.0 %	1.9 %	282,585	1,488,549

Legends:

🚩 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 17.1 - Notes:

None

Data Alerts: None

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

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	18.4 %	2.7 %	61,686	334,628
2018_2019	17.2 %	2.7 %	55,932	325,137
2017_2018	13.3 %	2.5 %	41,061	308,848
2016_2017	17.2 %	3.0 %	49,083	285,167
2016	20.7 %	4.5 %	58,242	281,120

Legends:

🚫 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 17.2 - Notes:

None

Data Alerts: None

NOM 17.3 - Percent of children, ages 3 through 17, diagnosed with an autism spectrum disorder

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	2.4 %	0.7 %	30,446	1,246,244
2018_2019	3.3 %	0.7 %	41,516	1,243,702
2017_2018	3.0 %	0.6 %	37,557	1,253,631
2016_2017	2.0 %	0.6 %	24,820	1,232,350
2016	1.8 % ⚡	0.8 % ⚡	21,252 ⚡	1,212,557 ⚡

Legends:

🚩 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 17.3 - Notes:

None

Data Alerts: None

NOM 17.4 - Percent of children, ages 3 through 17, diagnosed with Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD)

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	10.9 %	1.3 %	134,680	1,236,248
2018_2019	10.5 %	1.2 %	128,774	1,222,343
2017_2018	10.6 %	1.3 %	131,344	1,234,743
2016_2017	10.2 %	1.3 %	124,036	1,217,529
2016	10.1 %	1.6 %	121,186	1,201,276

Legends:

🚫 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 17.4 - Notes:

None

Data Alerts: None

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

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	46.6 % ⚡	5.6 % ⚡	75,421 ⚡	161,813 ⚡
2018_2019	42.7 % ⚡	5.3 % ⚡	82,660 ⚡	193,489 ⚡
2017_2018	40.6 % ⚡	5.6 % ⚡	84,514 ⚡	207,992 ⚡
2016_2017	41.7 % ⚡	6.2 % ⚡	69,811 ⚡	167,435 ⚡
2016	48.7 % ⚡	7.9 % ⚡	71,834 ⚡	147,604 ⚡

Legends:

🚫 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 18 - Notes:

None

Data Alerts: None

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

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	89.0 %	1.2 %	1,338,089	1,502,828
2018_2019	87.9 %	1.3 %	1,319,049	1,500,238
2017_2018	88.7 %	1.4 %	1,326,928	1,495,696
2016_2017	89.7 %	1.3 %	1,336,207	1,488,972
2016	89.2 %	1.6 %	1,326,511	1,486,938

Legends:

🚩 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 19 - Notes:

None

Data Alerts: None

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

Data Source: WIC

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2018	15.2 %	0.2 %	6,693	44,025
2016	14.6 %	0.2 %	7,457	51,157
2014	14.9 %	0.2 %	8,083	54,429
2012	15.3 %	0.2 %	8,130	53,033
2010	16.0 %	0.2 %	9,126	57,153
2008	14.7 %	0.2 %	7,596	51,616

Legends:

🚫 Indicator has a denominator <50 and is not reportable

⚡ Indicator has a confidence interval width >20% points or >1.2 times the estimate and should be interpreted with caution

Data Source: Youth Risk Behavior Surveillance System (YRBSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	20.9 %	1.4 %	57,059	273,316
2017	20.5 %	1.2 %	56,429	275,401
2015	18.6 %	1.0 %	49,124	263,806
2013	16.9 %	0.9 %	41,957	248,583
2011	15.2 %	0.8 %	40,424	266,111
2009	15.7 %	1.0 %	42,186	267,892
2007	16.8 %	0.9 %	45,330	269,544
2005	14.4 %	1.3 %	37,410	259,109

Legends:

🚫 Indicator has an unweighted denominator <100 and is not reportable

⚡ Indicator has a confidence interval width >20% points or >1.2 times the estimate and should be interpreted with caution

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	20.8 %	2.3 %	136,346	655,528
2018_2019	20.4 %	2.4 %	130,946	642,532
2017_2018	16.7 %	2.5 %	111,281	666,245
2016_2017	15.6 %	2.3 %	98,467	631,225
2016	19.2 %	2.8 %	111,864	583,745

Legends:

🚩 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 20 - Notes:

None

Data Alerts: None

NOM 21 - Percent of children, ages 0 through 17, without health insurance

Data Source: American Community Survey (ACS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	4.9 %	0.3 %	74,160	1,510,670
2018	4.7 %	0.3 %	70,287	1,509,769
2017	4.2 %	0.3 %	62,707	1,505,959
2016	3.5 %	0.3 %	52,909	1,502,677
2015	4.3 %	0.3 %	63,432	1,493,057
2014	5.2 %	0.3 %	77,115	1,493,436
2013	5.7 %	0.4 %	84,902	1,492,149
2012	5.6 %	0.4 %	83,030	1,492,012
2011	5.8 %	0.4 %	86,513	1,489,552
2010	5.3 %	0.3 %	79,838	1,499,117
2009	5.8 %	0.3 %	85,685	1,489,741

Legends:

🚫 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 21 - Notes:

None

Data Alerts: None

NOM 22.1 - Percent of children who have completed the combined 7-vaccine series (4:3:1:3*:3:1:4) by age 24 months

Data Source: National Immunization Survey (NIS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2017	63.0 %	4.1 %	52,000	83,000
2016	69.0 %	4.4 %	56,000	81,000
2015	73.9 %	3.6 %	62,000	84,000
2014	63.8 %	4.2 %	54,000	84,000
2013	71.2 %	4.0 %	59,000	83,000
2012	66.4 %	4.5 %	55,000	83,000
2011	70.1 %	3.7 %	58,000	82,000

Legends:

- 🚫 Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval width/estimate >1.2
- ⚡ Estimates with 95% confidence interval widths >20 or that are inestimable might not be reliable

NOM 22.1 - Notes:

None

Data Alerts: None

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

Data Source: National Immunization Survey (NIS) – Flu

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020_2021	55.9 %	1.8 %	792,443	1,417,608
2019_2020	63.7 %	1.7 %	904,896	1,420,559
2018_2019	62.1 %	1.8 %	883,469	1,423,801
2017_2018	61.5 %	2.1 %	867,500	1,411,591
2016_2017	57.4 %	2.0 %	799,927	1,393,844
2015_2016	61.8 %	1.9 %	865,797	1,400,513
2014_2015	61.8 %	2.0 %	871,825	1,409,807
2013_2014	60.2 %	2.0 %	836,358	1,390,019
2012_2013	56.4 %	2.3 %	789,668	1,400,851
2011_2012	50.4 %	2.7 %	695,541	1,379,253
2010_2011	56.6 %	3.8 %	777,299	1,373,320
2009_2010	48.9 %	3.9 %	617,746	1,263,285

Legends:

🚫 Estimate not reported because unweighted sample size for the denominator < 30 or because the relative standard error is >0.3.

⚡ Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM 22.2 - Notes:

None

Data Alerts: None

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

Data Source: National Immunization Survey (NIS) - Teen

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	71.7 %	2.9 %	309,759	432,079
2019	61.9 %	3.7 %	263,805	425,944
2018	62.3 %	3.5 %	265,046	425,286
2017	56.1 %	3.4 %	238,814	425,789
2016	55.3 %	3.4 %	235,979	426,750
2015	48.7 %	3.3 %	207,308	425,570

Legends:

🚫 Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval width/estimate > 1.2

⚡ Estimates with 95% confidence interval widths > 20 or that are inestimable might not be reliable

NOM 22.3 - Notes:

None

Data Alerts: None



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

Data Source: National Immunization Survey (NIS) - Teen

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	88.8 %	2.1 %	383,596	432,079
2019	89.1 %	2.4 %	379,649	425,944
2018	90.7 %	1.9 %	385,687	425,286
2017	89.4 %	2.0 %	380,743	425,789
2016	89.3 %	2.2 %	381,010	426,750
2015	79.7 %	2.7 %	339,136	425,570
2014	86.0 %	2.3 %	363,547	422,685
2013	80.0 %	2.7 %	338,276	422,624
2012	77.4 %	3.2 %	325,269	420,423
2011	67.6 %	3.2 %	283,974	420,127
2010	58.7 %	3.2 %	243,261	414,201
2009	48.0 %	3.1 %	199,390	415,570

Legends:

-  Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval width/estimate > 1.2
-  Estimates with 95% confidence interval widths > 20 or that are inestimable might not be reliable

NOM 22.4 - Notes:

None

Data Alerts: None


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

Data Source: National Immunization Survey (NIS) - Teen

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	83.2 %	2.5 %	359,298	432,079
2019	79.3 %	3.0 %	337,888	425,944
2018	85.2 %	2.5 %	362,229	425,286
2017	75.0 %	3.1 %	319,476	425,789
2016	76.3 %	3.0 %	325,708	426,750
2015	76.7 %	2.9 %	326,284	425,570
2014	74.0 %	3.0 %	312,756	422,685
2013	67.8 %	3.1 %	286,448	422,624
2012	69.4 %	3.4 %	291,733	420,423
2011	63.3 %	3.3 %	265,999	420,127
2010	50.6 %	3.2 %	209,556	414,201
2009	52.1 %	3.1 %	216,515	415,570

Legends:

 Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval width/estimate >1.2

 Estimates with 95% confidence interval widths > 20 or that are inestimable might not be reliable

NOM 22.5 - Notes:

None

Data Alerts: None



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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	23.3	0.3	4,826	207,490
2019	23.7	0.3	4,918	207,809
2018	25.3	0.4	5,258	207,756
2017	26.6	0.4	5,516	207,240
2016	28.0	0.4	5,766	206,065
2015	30.6	0.4	6,267	204,782
2014	33.2	0.4	6,756	203,551
2013	34.8	0.4	7,105	204,285
2012	38.4	0.4	7,910	205,905
2011	40.8	0.4	8,497	208,285
2010	43.5	0.5	9,254	212,929
2009	48.4	0.5	10,378	214,436

Legends:

-  Indicator has a numerator <10 and is not reportable
-  Indicator has a numerator <20 and should be interpreted with caution

NOM 23 - Notes:

None

Data Alerts: None

NOM 24 - Percent of women who experience postpartum depressive symptoms following a recent live birth

Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2020	15.3 %	2.0 %	11,403	74,330
2019	15.5 %	2.1 %	11,792	75,888
2015	15.4 %	1.6 %	12,063	78,110
2014	13.6 %	1.6 %	10,620	78,096
2013	18.1 %	1.8 %	13,695	75,835
2012	17.2 %	1.6 %	13,157	76,677

Legends:

🚫 Indicator has an unweighted denominator <30 and is not reportable

⚡ Indicator has an unweighted denominator between 30 and 59 or a confidence interval width >20% points or >1.2 times the estimate and should be interpreted with caution

NOM 24 - Notes:

None

Data Alerts: None

NOM 25 - Percent of children, ages 0 through 17, who were unable to obtain needed health care in the past year

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019_2020	3.6 %	0.8 %	53,268	1,492,738
2018_2019	3.2 %	0.9 %	47,687	1,490,019
2017_2018	2.4 %	0.7 %	35,789	1,499,644
2016_2017	1.8 %	0.5 %	26,301	1,484,581
2016	2.1 % ⚡	0.8 % ⚡	30,908 ⚡	1,471,004 ⚡

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: Tennessee

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)					
	2017	2018	2019	2020	2021
Annual Objective				75	76
Annual Indicator			74.6	76.0	68.3
Numerator			875,792	897,415	808,894
Denominator			1,174,631	1,180,193	1,185,003
Data Source			BRFSS	BRFSS	BRFSS
Data Source Year			2018	2019	2020

i Previous NPM-1 BRFSS data for survey years 2016 and 2017 that was pre-populated under the 2017 and 2018 Annual Report Years is no longer displayed since it is not comparable with 2018 survey data.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	77.0	78.0	79.0	80.0

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			
	2019	2020	2021
Annual Objective			85
Annual Indicator	84.5	84.5	80
Numerator			
Denominator			
Data Source	Birth Statistical System	Birth Statistical System	Birth Statistical System
Data Source Year	CY 2018	CY 2019	CY 2020
Provisional or Final ?	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	85.5	86.0	86.5	87.0

Field Level Notes for Form 10 NPMs:

None

NPM 4A - Percent of infants who are ever breastfed

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2019	2020	2021
Annual Objective			83
Annual Indicator	82.2	75.8	79.1
Numerator	63,360	53,802	60,163
Denominator	77,089	70,947	76,011
Data Source	NIS	NIS	NIS
Data Source Year	2016	2017	2018

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	84.0	85.0	86.0	87.0

Field Level Notes for Form 10 NPMs:

None

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

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2019	2020	2021
Annual Objective			26
Annual Indicator	24.5	27.2	22.4
Numerator	18,257	19,012	16,600
Denominator	74,506	69,987	73,999
Data Source	NIS	NIS	NIS
Data Source Year	2016	2017	2018

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	28.0	30.0	32.0	34.0

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	2019	2020	2021
Annual Objective	81	82	83	82	83
Annual Indicator	83.0	83.0	83.0	79.4	78.4
Numerator	63,387	63,387	63,387	59,805	58,480
Denominator	76,381	76,381	76,381	75,369	74,548
Data Source	PRAMS	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2015	2015	2015	2019	2020

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	84.0	85.0	86.0	87.0

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)		
	2020	2021
Annual Objective	31	32
Annual Indicator	37.9	40.1
Numerator	27,572	29,031
Denominator	72,769	72,337
Data Source	PRAMS	PRAMS
Data Source Year	2019	2020

State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective			0	31	32
Annual Indicator	0	0	0		
Numerator					
Denominator					
Data Source	No data source	No data source	No data source		
Data Source Year	No data	No data	No data		
Provisional or Final ?	Final	Final	Final		

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	33.0	34.0	35.0	36.0

Field Level Notes for Form 10 NPMs:

1. **Field Name:** **2017**

Column Name: **State Provided Data**

Field Note:

Data will be available from PRAMS next year.

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)		
	2020	2021
Annual Objective	46	48
Annual Indicator	44.8	50.2
Numerator	32,496	36,072
Denominator	72,533	71,863
Data Source	PRAMS	PRAMS
Data Source Year	2019	2020

State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective			0	46	48
Annual Indicator	0	0	0		
Numerator					
Denominator					
Data Source	No data source	No data source	No data source		
Data Source Year	No data	No data	No data		
Provisional or Final ?	Final	Final	Final		

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	50.0	52.0	54.0	56.0

Field Level Notes for Form 10 NPMs:

1. **Field Name:** **2017**

Column Name: **State Provided Data**

Field Note:

Data will be available from PRAMS next year.

NPM 8.1 - Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - CHILD					
	2017	2018	2019	2020	2021
Annual Objective		30.4	31.2	31.5	31.9
Annual Indicator	29.6	27.3	31.5	35.2	30.6
Numerator	152,452	140,812	163,612	176,434	148,444
Denominator	514,521	516,001	519,562	500,965	485,754
Data Source	NSCH-CHILD	NSCH-CHILD	NSCH-CHILD	NSCH-CHILD	NSCH-CHILD
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	32.2	36.0	37.0	38.0

Field Level Notes for Form 10 NPMs:

None

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

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - CSHCN					
	2017	2018	2019	2020	2021
Annual Objective		56.5	59.2	53.3	60
Annual Indicator	44.8	50.4	53.3	48.5	46.5
Numerator	125,986	143,840	164,583	157,666	155,739
Denominator	281,120	285,167	308,848	325,137	334,628
Data Source	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	65.0	70.0	75.0	80.0

Field Level Notes for Form 10 NPMs:

None

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

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - CSHCN					
	2017	2018	2019	2020	2021
Annual Objective		14.1	14.7	34.2	40
Annual Indicator	19.2	14.4	16.6	22.2	22.1
Numerator	16,734	17,666	26,590	30,583	30,634
Denominator	87,214	122,975	159,749	137,839	138,824
Data Source	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	45.0	50.0	55.0	60.0

Field Level Notes for Form 10 NPMs:

None

NPM 14.2 - Percent of children, ages 0 through 17, who live in households where someone smokes - Adolescent Health

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2017	2018	2019	2020	2021
Annual Objective		29	23.8		19.4
Annual Indicator	24.9	21.1	18.6	18.6	19.5
Numerator	362,200	311,958	276,334	271,871	286,194
Denominator	1,457,726	1,478,634	1,485,841	1,464,986	1,464,685
Data Source	NSCH	NSCH	NSCH	NSCH	NSCH
Data Source Year	2016	2016_2017	2017_2018	2018_2019	2019_2020

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	19.2	19.1	19.0	18.8

Field Level Notes for Form 10 NPMs:

None

**Form 10
State Performance Measures (SPMs)**

State: Tennessee

SPM 1 - Percent of new mothers whose pregnancy was intended

Measure Status:				Active	
State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	51.6	49.9	49.9	62	62
Annual Indicator	54.1	50.6	51.5	62	59
Numerator					
Denominator					
Data Source	PRAMS	PRAMS	PRAMS	PRAMS	PRAMS
Data Source Year	2014	2015	2017	2016-2018	2020
Provisional or Final ?	Final	Provisional	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	63.0	63.0	64.0	64.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	baseline = 3-year average

SPM 2 - Percent of facilities implementing patient safety recommendations

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			12.5
Annual Indicator		54	25
Numerator			
Denominator			
Data Source		MMR Annual Performance Review Report	MMR Annual Performance Review Report
Data Source Year		2019	2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	63.0	66.0	69.0	72.0

Field Level Notes for Form 10 SPMs:

None

SPM 3 - Percent of community level recommendations implemented

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			10	
Annual Indicator			15	
Numerator				
Denominator				
Data Source			MMRIA and ERASE MM APR document	
Data Source Year			2020	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	12.5	20.0	20.0	25.0

Field Level Notes for Form 10 SPMs:

None

SPM 4 - Percent of newborns who initiated breastfeeding

Measure Status:				Active	
State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	80	82	84	80.7	81.2
Annual Indicator	79.8	80.9	80.8	80.6	81.2
Numerator					
Denominator					
Data Source	TDH PPA - Birth Statistical System	TDH PHA - Birth Statistical System	TDH PHA - Birth Statistical System	TDH PHA - Birth Statistical System	TDH PHA - Birth Statistical System
Data Source Year	CY2016	CY2017	CY2018	CY2019	CY2020
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	81.7	82.2	82.7	83.2

Field Level Notes for Form 10 SPMs:

None

SPM 5 - Percent of safe sleep diaper bag recipients who reported making a behavioral change in their infant sleep practices because of the items included in the bag

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		45
Numerator		
Denominator		
Data Source		TDH
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	47.0	50.0	52.0	55.0

Field Level Notes for Form 10 SPMs:

- Field Name:** 2020

Column Name: State Provided Data

Field Note:
Data is unavailable for 2020.
- Field Name:** 2021

Column Name: State Provided Data

Field Note:
For SPM 5, the annual objective in 2021 should have been 45%.

SPM 6 - Percent of schools with at least 50% physical education class time spent in moderate to vigorous physical activity

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			10	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			N/A	
Data Source Year			N/A	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	20.0	30.0	40.0	50.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:
The state did not track progress on SPM 6 until Year 2; annual indicator will be provided in next year's applicaiton.

SPM 7 - Rate of Double Up Food Bucks purchases per SNAP recipient

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	0.0	0.0	0.0	0.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:
The state did not track progress on SPM 7 until Year 2; annual indicator will be provided in next year's applicaiton.

SPM 8 - Percent of children with two or more ACEs

Measure Status:				Active	
State Provided Data					
	2017	2018	2019	2020	2021
Annual Objective	27.5	27.5	24	23	22.5
Annual Indicator	27.5	24.6	24.1	20.1	0
Numerator					
Denominator					
Data Source	NSCH	NSCH	NSCH	NSCH	N/A
Data Source Year	2011_2012	2016	2017	2018	N/A
Provisional or Final ?	Final	Final	Final	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	22.0	21.6	21.2	21.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

There was a decreases by 3.2% in FY 2020 from baseline (23.3%). Data for FY 2021 have not been released yet by NSCH.

SPM 9 - Percent of substantiated child maltreatment cases among families served by home visiting programs

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			0.3	
Annual Indicator		4.2	1.5	
Numerator				
Denominator				
Data Source		EBHV	EBHV	
Data Source Year		2019	2020	
Provisional or Final ?		Final	Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	3.3	3.2	3.2	3.1

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline
2.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	For SPM 9, the annual objective for 2021 should have been 3.3%.

SPM 10 - Percent of caregivers who experience intimate partner violence and do not receive professional support services among families served by home visiting

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			7	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			EBHV	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	5.0	4.0	3.5	3.0

Field Level Notes for Form 10 SPMs:

None

SPM 11 - Percent of high school students currently using cigarettes

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			6.4
Annual Indicator		7.1	0
Numerator			
Denominator			
Data Source		2019	N/A
Data Source Year		YRBS	N/A
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	5.8	5.3	4.8	4.3

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline
2.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	For SPM 11, the state is unable to provide an annual indicator for 2021 as YRBS is only released in odd number years.

SPM 12 - Percent of high school students currently using e-cigarettes

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			18
Annual Indicator		22.1	0
Numerator			
Denominator			
Data Source		YRBS	N/A
Data Source Year		2019	N/A
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	17.9	17.8	17.8	17.7

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline
2.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	For SPM 12, the state is unable to provide an annual indicator for 2021 as YRBS is only released in odd number years.

SPM 13 - Number of adolescents enrolled in cessation program

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			0
Annual Indicator		7	22
Numerator			
Denominator			
Data Source		QuitLine and NOT Program (ALA)	QuitLine and NOT Program (ALA)
Data Source Year		CY 2020	CY 2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	20.0	50.0	100.0	125.0

Field Level Notes for Form 10 SPMs:

None

SPM 14 - Number of CYSHCN receiving care in a medical home

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			800
Annual Indicator		2,194	2,196
Numerator			
Denominator			
Data Source		PTBMIS	PTBMIS
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	850.0	900.0	950.0	1,000.0

Field Level Notes for Form 10 SPMs:

None

SPM 15 - Percent of providers with increased knowledge on medical home and care coordination

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			25	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			N/A	
Data Source Year			N/A	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	50.0	65.0	75.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

No data to report at this time. Provider training and survey are planned for Year 3.

SPM 16 - Percent of providers reporting improved system of care for CYSCHN

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	50.0	65.0	75.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

No data to report at this time. Provider training and survey are planned for Year 3.

SPM 17 - Percent of families who complete an annual visit with their primary care provider

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		7.5
Numerator		
Denominator		
Data Source		CHANT
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	10.0	12.5	15.0	17.5

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	Baseline

SPM 18 - Percent of youth reporting with increased knowledge on transition resources and services

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		100
Numerator		
Denominator		
Data Source		CYSHCN
Data Source Year		2021
Provisional or Final ?		Final

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

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	Baseline

SPM 19 - Percent of YSHCN served by CHANT who complete an annual transition plan

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		72
Numerator		
Denominator		
Data Source		PTBMIS
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	75.0	80.0	85.0	90.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	Baseline

SPM 20 - Percent of youth leaders participating in advisory councils providing resources to other youth

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		26.3
Numerator		
Denominator		
Data Source		CYSHCN
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	30.0	30.0	30.0	30.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	Baseline

SPM 21 - Percent of women who reported 14+ days of poor mental health in the past month

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	18.2	17.8	17.4	17.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

The state did not track progress on SPM 21 until Year 2; annual indicator will be provided in next year's applicaiton.

SPM 22 - Percent of children who had difficulties obtaining mental health care among those who received or needed care during the past 12 months, age 3-17 years

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	25.0	24.0	23.0	22.0

Field Level Notes for Form 10 SPMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

The state did not track progress on SPM 22 until Year 2; annual indicator will be provided in next year's applicaiton.

**Form 10
State Outcome Measures (SOMs)**

State: Tennessee

SOM 1 - Rate of pregnancy-associated mortality to live birth

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			95.6
Annual Indicator		78.3	124.5
Numerator			
Denominator			
Data Source		MMRIA and birth records	MMRIA and birth records
Data Source Year		CY 2019	CY 2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	93.2	90.9	89.5	88.2

Field Level Notes for Form 10 SOMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline

SOM 2 - Rate of pregnancy-related mortality to live births

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			25.6
Annual Indicator		28.6	58.5
Numerator			
Denominator			
Data Source		MMRIA and birth records	MMRIA and birth records
Data Source Year		CY 2019	CY 2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	23.5	22.0	21.8	20.5

Field Level Notes for Form 10 SOMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline
2.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	For SOM 2, the annual objective for 2021 should have been 24.2.

SOM 3 - Percent of public school 6th graders who are overweight or obese

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			43.3
Annual Indicator		43.6	45
Numerator			
Denominator			
Data Source		CSH BMI Report	CSH BMI Report
Data Source Year		2017-2018	2019-2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	44.8	44.4	43.9	43.2

Field Level Notes for Form 10 SOMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline

SOM 4 - Percent of WIC recipients aged 2-4 years who are overweight or obese

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator	31.2	32
Numerator		
Denominator		
Data Source	WIC	WIC
Data Source Year	CY 2020	CY 2021
Provisional or Final ?	Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	31.0	30.0	28.0	26.0

Field Level Notes for Form 10 SOMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline
2.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	For SOM 4, the annual objective should have been 30.2%

SOM 5 - Percent of adults reporting Chronic obstructive pulmonary disease (COPD)

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			9.3
Annual Indicator		9.7	9.5
Numerator			
Denominator			
Data Source		BRFSS	BRFSS
Data Source Year		2019	2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	9.2	9.1	9.0	8.9

Field Level Notes for Form 10 SOMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline

SOM 6 - Percent of adults reporting cardiovascular disease

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			5.3
Annual Indicator		4.9	5.1
Numerator			
Denominator			
Data Source		BRFSS	BRFSS
Data Source Year		2019	2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	5.3	5.3	5.2	5.2

Field Level Notes for Form 10 SOMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline

SOM 7 - Age-adjusted mortality rate from tobacco-attributable cancers among Tennesseans aged 35+

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			176.4
Annual Indicator		190.8	188
Numerator			
Denominator			
Data Source		CDC WONDER	CDC WONDER
Data Source Year		CY 2019	CY 2020
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	171.4	166.4	161.3	156.3

Field Level Notes for Form 10 SOMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline

SOM 8 - Percent of pregnancy-associated deaths in which mental health conditions was a contributing factor

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	25.0	24.0	23.0	22.0

Field Level Notes for Form 10 SOMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

The state did not track progress on SOM 8 until Year 2; annual indicator will be provided in next year's applicaiton.

**Form 10
Evidence-Based or –Informed Strategy Measures (ESMs)**

State: Tennessee

ESM 1.2 - Create pre/posttests to assesses provider knowledge of and confidence using PATH (Parenthood/Pregnancy Attitude, Timing, and How important is pregnancy prevention).

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		No
Numerator		
Denominator		
Data Source		TDH
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	Yes	Yes	Yes	Yes

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

Pre/post tests have not yet been created.

ESM 1.3 - Percent of family planning encounters that occur via telehealth

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		0.3
Numerator		
Denominator		
Data Source		PTBMIS
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	0.4	0.8	1.6	3.2

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

For ESM 1.2, the annual objective for 2021 should have been 0.2%.

ESM 1.6 - Number of women receiving patient navigation for women’s health services

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		0
Numerator		
Denominator		
Data Source		REDCap
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	250.0	250.0	250.0	250.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

Year 1 was used to establish funding for women’s health navigators, so the objective for number of women navigated was zero. Services are expected to begin in July 2022.

ESM 1.8 - Percent of births covered by hospitals implementing data-driven, clinical recommendations

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		55
Numerator		
Denominator		
Data Source		NVSS
Data Source Year		2020
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	65.0	75.0	85.0	90.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	Baseline

ESM 1.9 - Percent of birthing hospital providers trained reporting a change in knowledge

Measure Status:	Inactive - ESM 1.9 is being retired because organizations offering training do not track change in knowledge.	
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		0
Numerator		
Denominator		
Data Source		MMR Program
Data Source Year		2021
Provisional or Final ?		Final

Field Level Notes for Form 10 ESMs:

None

ESM 1.10 - Percent of non-clinical members participating in the action group

Measure Status:	Inactive - The information captured by this measure is not helpful to moving work forward. Some of the non-clinical members serve in a clinical-like capacity.		
State Provided Data			
	2019	2020	2021
Annual Objective			45
Annual Indicator			70
Numerator			
Denominator			
Data Source			Maternal Health Task Force files
Data Source Year			2021
Provisional or Final ?			Final

Field Level Notes for Form 10 ESMs:

None

ESM 1.11 - Percent of postpartum women with positive screenings for depression (using a validated screening tool) who will receive resources/education or referrals for professional services

Measure Status:	Inactive - This measure was not tracked in 2021 and should have been retired after the review with technical advisors from MCHB.	
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		0
Numerator		
Denominator		
Data Source		TDH
Data Source Year		2021
Provisional or Final ?		Final

Field Level Notes for Form 10 ESMs:

None

ESM 1.12 - Percent of recommendations with who/what/when components

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			75	
Annual Indicator			68	
Numerator				
Denominator				
Data Source			MMR Program	
Data Source Year			CY 2020	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	79.0	84.0	89.0	94.0

Field Level Notes for Form 10 ESMs:

None

ESM 3.1 - Percent of Tennessee birthing hospitals participating in perinatal quality collaborative projects

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			33
Annual Indicator		41	43.3
Numerator			
Denominator			
Data Source		TIPQC	TIPQC
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	33.0	33.0	33.0	33.0

Field Level Notes for Form 10 ESMs:

None

ESM 4.1 - Number of credentialed lactation professionals within WIC

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			166
Annual Indicator		156	148
Numerator			
Denominator			
Data Source		WIC Monitoring Reports	WIC Monitoring Reports
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	176.0	186.0	196.0	206.0

Field Level Notes for Form 10 ESMs:

None

ESM 4.2 - Percent of Breastfeeding Welcomed Here (BFWH)-designated businesses with ideal workplace lactation policies

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			0
Annual Indicator			0
Numerator			
Denominator			
Data Source			BFWH Tracking Spreadsheet
Data Source Year			2021
Provisional or Final ?			Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	0.0	0.0	0.0	0.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	Survey will be implemented in Year 3.

ESM 4.3 - Recognition process implemented for Breastfeeding Welcomed Here (BFWH)-designated businesses

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			Yes	
Annual Indicator			No	
Numerator				
Denominator				
Data Source			BFWH Tracking Spreadsheet	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	Yes	Yes	Yes	Yes

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	Survey will be implemented in Year 3.

ESM 5.1 - Percent of hospitals receiving national recognition or implementing approved safe sleep policy

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			100	
Annual Indicator			100	
Numerator				
Denominator				
Data Source			TDH	
Data Source Year			2021	
Provisional or Final ?			Final	

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

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

50% of birthing hospitals have received national recognition; 100% have implemented an approved safe sleep policy.

ESM 5.2 - Number of diaper bags with safe sleep educational materials distributed

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			663
Annual Indicator		1,628	1,928
Numerator			
Denominator			
Data Source		TDH	TDH
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	676.0	690.0	704.0	718.0

Field Level Notes for Form 10 ESMs:

None

ESM 8.1.1 - Percent of physical education teachers receiving professional development related to 50% of PE class time spent in moderate to vigorous physical activity

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			5	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			N/A	
Data Source Year			N/A	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	15.0	25.0	35.0	45.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

The state did not track progress on ESM 8.1.1 until Year 2; annual indicator will be provided in next year's applicaiton.

ESM 8.1.2 - Percentage of TN counties in which trainings related to mental health and physical health have occurred

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	10.0	20.0	30.0	40.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

The state did not track progress on ESM 8.1.2 until Year 2; annual indicator will be provided in next year's applicaiton.

ESM 8.1.3 - Number of Gold Sneaker certified childcare facilities

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			700
Annual Indicator		549	643
Numerator			
Denominator			
Data Source		Gold Sneaker Database	Gold Sneaker Database
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	800.0	900.0	950.0	1,000.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Baseline

ESM 8.1.4 - Percent of LHD primary care clinics writing HPHP prescriptions annually

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	25.0	40.0	55.0	65.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

The state did not track progress on ESM 8.1.4 until Year 2; annual indicator will be provided in next year's applicaiton.

ESM 8.1.5 - Number of Healthy Parks Healthy Person prescriptions written

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			125
Annual Indicator		0	195
Numerator			
Denominator			
Data Source		TDEC HPHP Rx portal	TDEC HPHP Rx portal
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	400.0	550.0	700.0	850.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	Objectives are cumulative.

ESM 8.1.6 - Percentage of TN counties with completed built environment projects

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			20	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			OPP and Project Diabetes tracking databases	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	30.0	40.0	50.0	60.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

The state did not track progress on ESM 8.1.6 until Year 2; annual indicator will be provided in next year's applicaiton.

ESM 8.1.7 - Percent of eligible venues offering the Double Up Food Bucks Program

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			35	
Annual Indicator			0	
Numerator				
Denominator				
Data Source			Nourish Knoxville tracking database	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	45.0	55.0	65.0	75.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

The state did not track progress on ESM 8.1.7 until Year 2; annual indicator will be provided in next year's applicaiton.

ESM 8.1.8 - Percent of staff with an increase in ACEs and TIC knowledge as evidenced by post training evaluation

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	80.0	80.0	80.0	80.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

The program was unable to track progress on ESM 8.1.8 in Year 1 as the staff person that was involved with this project is no longer with the agency.

ESM 8.1.9 - Percent of families with improved protective factors score

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			50	
Annual Indicator			49.9	
Numerator				
Denominator				
Data Source			EBHV	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	52.0	54.0	56.0	58.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Data unavailable for 2020.

ESM 8.1.10 - Percent of families enrolled in CHANT care coordination who partially or fully complete pathways identified

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			41	
Annual Indicator			42.6	
Numerator				
Denominator				
Data Source			CHANT	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	42.0	43.0	44.0	45.0

Field Level Notes for Form 10 ESMs:

None

ESM 11.1 - Number of CYSHCN who receive CHANT/CSS care coordination

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			2,500	
Annual Indicator			4,885	
Numerator				
Denominator				
Data Source			2021	
Data Source Year			PTBMIS	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	3,000.0	3,500.0	4,000.0	4,500.0

Field Level Notes for Form 10 ESMs:

None

ESM 11.2 - Percent of providers adopting medical home approach

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	40.0	55.0	65.0	75.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

No data to report at this time. Training and survey are expected to occur in Year 3.

ESM 11.3 - Percent of providers reporting increased knowledge on systems of care

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	20.0	30.0	40.0	50.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

No data to report at this time. Training and survey are expected to occur in Year 3.

ESM 11.4 - Number of families provided education and resources on importance of medical home access and utilization

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			600
Annual Indicator		1,383	1,424
Numerator			
Denominator			
Data Source		CHANT	CHANT
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	700.0	800.0	900.0	1,000.0

Field Level Notes for Form 10 ESMs:

None

ESM 11.5 - Number of families receiving referrals to their child's primary care provider

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			375
Annual Indicator		222	216
Numerator			
Denominator			
Data Source		CHANT	CHANT
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	400.0	425.0	450.0	475.0

Field Level Notes for Form 10 ESMs:

None

ESM 11.6 - Percent of providers who report an increase in their knowledge of available resources

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	25.0	50.0	75.0	100.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

No data to report at this time. Training and survey are expected to occur in Year 3.

ESM 11.7 - Percent of families who report an increase in access and utilization of resources

Measure Status:	Active
------------------------	---------------

Baseline data was not available/provided.

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	40.0	50.0	60.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

No data to report at this time. Training and survey are expected to occur in Year 3.

ESM 11.8 - Percent of CHANT families who schedule an annual visit with their child's primary care provider

Measure Status:		Active		
State Provided Data				
	2019	2020	2021	
Annual Objective			25	
Annual Indicator			3.2	
Numerator				
Denominator				
Data Source			CHANT	
Data Source Year			2021	
Provisional or Final ?			Final	

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	45.0	55.0	65.0

Field Level Notes for Form 10 ESMs:

None

ESM 11.9 - Percent of CYSHCN receiving CHANT care coordination who receive medical home education

Measure Status:		Active
State Provided Data		
	2020	2021
Annual Objective		
Annual Indicator		5.4
Numerator		
Denominator		
Data Source		CHANT
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	75.0	85.0	95.0	100.0

Field Level Notes for Form 10 ESMs:

None

ESM 12.1 - Number of transition resource kits disseminated

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			150
Annual Indicator		0	366
Numerator			
Denominator			
Data Source		CYSHCN	CYSHCN
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	300.0	600.0	1,200.0	2,400.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2020
	Column Name:	State Provided Data

Field Note:
No kits disseminated due to COVID.

ESM 12.2 - Number of youth with special health care needs trained as mentors

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			25
Annual Indicator		0	5
Numerator			
Denominator			
Data Source		CYSHCN	CYSHCN
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	35.0	45.0	55.0	65.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	No mentors trained due to COVID.

ESM 12.3 - Number of parents and youth with special health care needs who receive leadership and self-advocacy training

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			50
Annual Indicator		71	475
Numerator			
Denominator			
Data Source		CYSHCN	CYSHCN
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	75.0	100.0	125.0	150.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2021
	Column Name:	State Provided Data

Field Note:

60 youth and 415 parents received leadership and self-advocacy training in Year 1.

ESM 14.2.1 - Number of tobacco-free sports teams

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			79
Annual Indicator		77	88
Numerator			
Denominator			
Data Source		Tobacco-free Sports Teams Database	Tobacco-free Sports Teams Database
Data Source Year		CY 2020	CY 2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	81.0	83.0	85.0	88.0

Field Level Notes for Form 10 ESMs:

1.	Field Name:	2020
	Column Name:	State Provided Data
	Field Note:	Objective is cumulative
2.	Field Name:	2021
	Column Name:	State Provided Data
	Field Note:	Objective is cumulative

ESM 14.2.2 - Number of social media posts promoting text-based cessation services

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			6
Annual Indicator		0	9
Numerator			
Denominator			
Data Source		TDH Office of Communications	TDH Office of Communications
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	12.0	12.0	24.0	24.0

Field Level Notes for Form 10 ESMs:

None

ESM 14.2.3 - Number of anti-tobacco social media posts

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			6
Annual Indicator		8	27
Numerator			
Denominator			
Data Source		TDH Office of Communications	TDH Office of Communications
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	12.0	12.0	24.0	24.0

Field Level Notes for Form 10 ESMs:

None

ESM 14.2.4 - Number of youth who attend the state anti-tobacco conference trainings

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			75
Annual Indicator		0	0
Numerator			
Denominator			
Data Source		TNSTRONG Registration	TNSTRONG Registration
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	300.0	300.0	350.0	400.0

Field Level Notes for Form 10 ESMs:

- Field Name:** 2020

Column Name: State Provided Data

Field Note:
No conference held due to COVID.
- Field Name:** 2021

Column Name: State Provided Data

Field Note:
No conference held in Year 1 due to COVID.

ESM 14.2.5 - Number of ambassadors recruited

Measure Status:		Active	
State Provided Data			
	2019	2020	2021
Annual Objective			26
Annual Indicator		23	18
Numerator			
Denominator			
Data Source		TNSTRONG Ambassador Registration	TNSTRONG Ambassador Registration
Data Source Year		2020	2021
Provisional or Final ?		Final	Final

Annual Objectives				
	2022	2023	2024	2025
Annual Objective	26.0	26.0	26.0	26.0

Field Level Notes for Form 10 ESMs:

None

Form 10
State Performance Measure (SPM) Detail Sheets

State: Tennessee

SPM 1 - Percent of new mothers whose pregnancy was intended
Population Domain(s) – Women/Maternal Health

Measure Status:	Active									
Goal:	To increase the percentage of new mothers whose pregnancy was intended									
Definition:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of mothers reporting that their pregnancy was intended</td> </tr> <tr> <td>Denominator:</td> <td>Number of mothers that responded to the survey</td> </tr> </table>		Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of mothers reporting that their pregnancy was intended	Denominator:	Number of mothers that responded to the survey
Unit Type:	Percentage									
Unit Number:	100									
Numerator:	Number of mothers reporting that their pregnancy was intended									
Denominator:	Number of mothers that responded to the survey									
Data Sources and Data Issues:	Pregnancy Risk Assessment Monitoring System (PRAMS)									
Significance:	<p>Unintended pregnancy is associated with increased risks for mothers and infants. If a woman is not planning to get pregnant, she may have unhealthy behaviors or delay getting health care during pregnancy, which can in turn affect her health and that of her infant. Most unintended pregnancies result from not using contraception or from not using it consistently or correctly. Family planning and contraceptive services provide social, economic, and health benefits and by allowing men and women to time and space the number of children they want, contraception prevents unintended, often high-risk pregnancies—too close together, too often, too early or too late in life—that can lead to maternal and child death and injury.</p>									

SPM 2 - Percent of facilities implementing patient safety recommendations
Population Domain(s) – Women/Maternal Health

Measure Status:	Active								
Goal:	To reduce severe maternal morbidity and mortality through improved quality of care.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of birthing facilities implementing patient safety recommendations</td> </tr> <tr> <td>Denominator:</td> <td>Number of birthing facilities in Tennessee</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of birthing facilities implementing patient safety recommendations	Denominator:	Number of birthing facilities in Tennessee
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of birthing facilities implementing patient safety recommendations								
Denominator:	Number of birthing facilities in Tennessee								
Data Sources and Data Issues:	Maternal Mortality Review Information Application (MMRIA) and Vital Records Birth Statistical System								
Significance:	Healthcare and other community-based agencies are strategically poised to identify at-risk populations for severe maternal morbidity and maternal mortality. Therefore, supporting these agencies is important in the secondary prevention of severe maternal morbidity and maternal deaths. This measure will be calculated as number of agencies funded with details on the populations they reach/serve.								

SPM 3 - Percent of community level recommendations implemented
Population Domain(s) – Women/Maternal Health

Measure Status:	Active								
Goal:	To reduce severe maternal morbidity and mortality through community-level interventions.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of recommendations addressed at the community level</td> </tr> <tr> <td>Denominator:</td> <td>Total number of community-level recommendations</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of recommendations addressed at the community level	Denominator:	Total number of community-level recommendations
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of recommendations addressed at the community level								
Denominator:	Total number of community-level recommendations								
Data Sources and Data Issues:	Maternal Mortality Review Information Application (MMRIA)								
Significance:	Healthcare and other community-based agencies are strategically poised to identify at-risk populations for severe maternal morbidity and maternal mortality. Therefore, supporting these agencies is important in the secondary prevention of severe maternal morbidity and maternal deaths. This measure will be calculated as number of agencies funded with details on the populations they reach/serve.								

SPM 4 - Percent of newborns who initiated breastfeeding
Population Domain(s) – Perinatal/Infant Health

Measure Status:	Active								
Goal:	To increase the percent of Tennessee newborns who initiated breastfeeding								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of Tennessee newborns who initiated breastfeeding</td> </tr> <tr> <td>Denominator:</td> <td>Number of Tennessee newborns</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of Tennessee newborns who initiated breastfeeding	Denominator:	Number of Tennessee newborns
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of Tennessee newborns who initiated breastfeeding								
Denominator:	Number of Tennessee newborns								
Data Sources and Data Issues:	Tennessee Birth Statistical System								
Significance:	Breastfeeding has a multitude of health benefits for both mother and infant. Initiation of breastfeeding has been associated with a reduction in infant mortality, so breastfeeding promotion and support warrants inclusion as a strategy of infant mortality reduction efforts.								

SPM 5 - Percent of safe sleep diaper bag recipients who reported making a behavioral change in their infant sleep practices because of the items included in the bag
Population Domain(s) – Perinatal/Infant Health

Measure Status:	Active								
Goal:	To increase the percentage of safe sleep diaper bag recipients who report making a behavioral change in their infant safe sleep practices because of the items included in the bag.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of safe sleep diaper bag recipients who report making a behavioral change in their infant safe sleep practices because of the items included in the bag</td> </tr> <tr> <td>Denominator:</td> <td>Number of evidence-based home visiting (EBHV) and Community Health Access and Navigation in Tennessee (CHANT) who reported receiving a safe sleep diaper bag from their home visitor</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of safe sleep diaper bag recipients who report making a behavioral change in their infant safe sleep practices because of the items included in the bag	Denominator:	Number of evidence-based home visiting (EBHV) and Community Health Access and Navigation in Tennessee (CHANT) who reported receiving a safe sleep diaper bag from their home visitor
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of safe sleep diaper bag recipients who report making a behavioral change in their infant safe sleep practices because of the items included in the bag								
Denominator:	Number of evidence-based home visiting (EBHV) and Community Health Access and Navigation in Tennessee (CHANT) who reported receiving a safe sleep diaper bag from their home visitor								
Healthy People 2030 Objective:	<p>Increase the proportion of infants who are put to sleep on their backs (MICH-14). Baseline: 78.7 percent of infants born in 2016 were put to sleep on their backs. Target: 88.9 percent. Data source: Pregnancy Risk Assessment Monitoring System (PRAMS), CDC/NCCDPHP.</p> <p>Increase the proportion of infants who are put to sleep in a safe sleep environment (MICH-D03). No baseline data available.</p>								
Data Sources and Data Issues:	REDCap CHANT and EBHV data collection tools								
Significance:	The Safe Sleep Diaper Bag Project was created in 2018 to provide EBHV participants with 1) standardized safe sleep education from their home visitor and 2) a diaper bag containing materials with safe sleep messaging. In 2019, the project was expanded to also include participants of the CHANT program. Diaper bags include several useful materials to aid in safe sleep including a onesie, sleep sack, safe sleep door hanger, Sleep Baby Safe and Snug book, Calm Baby Gently book, and nightlight. As of July 2021, over 1600 safe sleep diaper bags have been distributed to EBHV and CHANT caregivers. When asked by their home visitor whether the items in the diaper bag had caused them to change how they put their infant to sleep, 35 percent of EBHV recipients and 53 percent of CHANT recipients reported making a change. Tennessee aims to continue increasing these percentages by using data collected so far to make adjustments shown to be associated with higher percentages of reported behavioral change, such as reaching parents in the prenatal period (rather than after the baby’s birth). Increasing the prevalence of the recommended safe sleep behaviors is critical to reducing the rate of sleep-related infant death in Tennessee, and partnering with EBHV and CHANT provides the opportunity to reach vulnerable, underserved parents.								

SPM 6 - Percent of schools with at least 50% physical education class time spent in moderate to vigorous physical activity

Population Domain(s) – Child Health

Measure Status:	Active								
Goal:	Increase the percentage of state public elementary and middle schools that provide or require moderate to vigorous physical education								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of schools completing the survey and providing a positive response for the “50% moderate/vigorous physical education” question</td> </tr> <tr> <td>Denominator:</td> <td>Number of schools completing the survey and providing a valid response for the “50% moderate/vigorous physical education” question</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of schools completing the survey and providing a positive response for the “50% moderate/vigorous physical education” question	Denominator:	Number of schools completing the survey and providing a valid response for the “50% moderate/vigorous physical education” question
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of schools completing the survey and providing a positive response for the “50% moderate/vigorous physical education” question								
Denominator:	Number of schools completing the survey and providing a valid response for the “50% moderate/vigorous physical education” question								
Healthy People 2030 Objective:	Reduce the proportion of children and adolescents with obesity — NWS04 Increase the proportion of children who do enough aerobic physical activity — PA09								
Data Sources and Data Issues:	The Coordinated School Health (CSH) annual Quality Physical Education Survey, which is completed by the lead physical education teacher at each LEA school. There is currently no baseline data for this state performance measure. A question is being added to the annual TDE Quality Physical Education Survey in the fall of 2021 that will provide those data. Target values for subsequent years will be set at that time.								
Significance:	Given the huge proportion of the week that most children spend in school, regular physical education can go a long way toward satisfying the daily standard for physical activity within the elementary and middle school age groups. The values will include a simple count of all public elementary and middle schools statewide and a count of those schools indicating on the QPE Survey that they provide physical education for their students that includes moderate or vigorous physical activity at least half of the PE class period.								

SPM 7 - Rate of Double Up Food Bucks purchases per SNAP recipient
Population Domain(s) – Child Health

Measure Status:	Active								
Goal:	To increase the rate of Double Up Food Buck purchases transacted at eligible venues (e.g., farmers' markets and farmers' stores) in counties targeted by Nourish Knoxville per each SNAP recipient residing in those counties.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Ratio</td> </tr> <tr> <td>Unit Number:</td> <td>1</td> </tr> <tr> <td>Numerator:</td> <td>Number of Double Up Food Bucks purchases transacted in the targeted counties</td> </tr> <tr> <td>Denominator:</td> <td>Total number of SNAP recipients in the targeted counties</td> </tr> </table>	Unit Type:	Ratio	Unit Number:	1	Numerator:	Number of Double Up Food Bucks purchases transacted in the targeted counties	Denominator:	Total number of SNAP recipients in the targeted counties
Unit Type:	Ratio								
Unit Number:	1								
Numerator:	Number of Double Up Food Bucks purchases transacted in the targeted counties								
Denominator:	Total number of SNAP recipients in the targeted counties								
Healthy People 2030 Objective:	NWS-04: Reduce the proportion of children and adolescents with obesity; NWS-06: Increase fruit consumption by people by aged 2 years and older; NWS-07: Increase vegetable consumption by people aged 2 years and older; NWS-08: Increase consumption of dark green vegetables, red and orange vegetables, and beans and peas by people aged 2 years and over; NWS-02: Eliminate very low food security in children								
Data Sources and Data Issues:	Nourish Knoxville tracking database and program reports related to Double Up Food Bucks purchases and the Department of Human Services (DHS) database and website of aggregate SNAP recipients in the targeted counties (currently six); no known data issues.								
Significance:	The consumption of healthier foods, especially fruits and vegetables, and healthier beverages is critical to maintaining or achieving healthy weight. Studies have shown that affordability of healthy food choices is often a barrier that influences access to foods that support healthy eating patterns. Concerted community planning and action among a diversified network of partners is critical to addressing low food security and increasing availability, access, affordability, and consumption related to healthier food and beverage options. Farmers' markets and farmers' stores, the TN Department of Health, the TN Department of Human Services (SNAP), and organizations such as Nourish Knoxville are key stakeholders in this effort. Partnerships can leverage shared resources in an effective and efficient manner. Values for this measure will be the number of Double Up Bucks purchases reimbursed by Nourish Nashville and well as the number of DHS SNAP recipients in the target geographic area.								

SPM 8 - Percent of children with two or more ACEs
Population Domain(s) – Child Health

Measure Status:	Active								
Goal:	To decrease the percent of children who experience 2 or more ACEs								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of children with 2 or more adverse childhood experiences</td> </tr> <tr> <td>Denominator:</td> <td>Number of children aged 0 -17 years</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of children with 2 or more adverse childhood experiences	Denominator:	Number of children aged 0 -17 years
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of children with 2 or more adverse childhood experiences								
Denominator:	Number of children aged 0 -17 years								
Data Sources and Data Issues:	NSCH- Limitation(s): 1) Data available upon release from the NSCH.								
Significance:	Adverse childhood experiences (ACEs) are traumatic events occurring before age 18. ACEs include all types of abuse and neglect as well as parental mental illness, substance use, divorce, incarceration, and domestic violence. A landmark study in the 1990s found a significant relationship between the number of ACEs a person experienced and a variety of negative outcomes in adulthood, including poor physical and mental health, substance abuse, and risky behaviors. The more ACEs experienced, the greater the risk for these outcomes. The NSCH conducts a survey annually, which included tools to estimate the percent of children who experience one or more ACEs of the nine ACEs including child maltreatment, mental depression, IPV etc.								

SPM 9 - Percent of substantiated child maltreatment cases among families served by home visiting programs
Population Domain(s) – Child Health

Measure Status:	Active								
Goal:	To decrease percentage of children enrolled in home visiting that experience child maltreatment (i.e., substantiated claims to DCS)								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of children enrolled in a home visiting program who experience maltreatment (substantiated case)</td> </tr> <tr> <td>Denominator:</td> <td>Number of children enrolled in a home visiting program</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of children enrolled in a home visiting program who experience maltreatment (substantiated case)	Denominator:	Number of children enrolled in a home visiting program
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of children enrolled in a home visiting program who experience maltreatment (substantiated case)								
Denominator:	Number of children enrolled in a home visiting program								
Data Sources and Data Issues:	<p>The number of substantiated child maltreatment cases among children enrolled in home visiting (i.e., the numerator) comes from a merged DCS file; EBHV REDCap Data Collection System.</p> <p>Data Issues: Because this measure is collaborative, it can only move forward as the merge is completed by DCS.</p>								
Significance:	<p>The Injury and Violence Prevention goal of Healthy People 2020 is “prevent unintentional injuries and violence, and reduce their consequences.” Childhood abuse- physical, emotional, or sexual- is one of the ten categories of adverse childhood experiences. Prevention strategies of this ACE include increasing parenting skills and the promotion of strong, caring adult relationships by means of such programming as home visiting. We have chosen to focus on this measure as home visiting is potentially a prevention strategy of ACEs that will impact the aforementioned HP strategy.</p> <p>Centers for Disease Control and Prevention, Kaiser Permanente. The ACE Study Survey Data [Unpublished Data]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016.</p> <p>Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion [cited 06/18/20].</p>								

SPM 10 - Percent of caregivers who experience intimate partner violence and do not receive professional support services among families served by home visiting
Population Domain(s) – Child Health

Measure Status:	Active								
Goal:	To increase the percentage of enrolled home visiting caregivers who experience intimate partner violence and receive professional services.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of primary caregivers who screen positive for IPV but are not referred to professional support services</td> </tr> <tr> <td>Denominator:</td> <td>Number of primary caregivers who screen positive for IPV</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of primary caregivers who screen positive for IPV but are not referred to professional support services	Denominator:	Number of primary caregivers who screen positive for IPV
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of primary caregivers who screen positive for IPV but are not referred to professional support services								
Denominator:	Number of primary caregivers who screen positive for IPV								
Data Sources and Data Issues:	EBHV REDCAP Data Collection System, HITS Screen								
Significance:	<p>The Injury and Violence Prevention goal of Healthy People 2020 is “prevent unintentional injuries and violence, and reduce their consequences.” Injury and violence occurrences have been associated to premature death, an increase in years of potential life lost, depreciating mental health, and higher medical costs. This priority measure looks at how those that are and have previously experienced intimate partner violence are receiving professional services, which could possibly reduce the number of occurrences of the listed, negatively- associated health outcomes. The adverse child experience of witnessing domestic violence in the home could be mitigated by rehabilitative services received by a caregiver and thereby positively impact long-term health outcomes.</p> <p>Centers for Disease Control and Prevention, Kaiser Permanente. The ACE Study Survey Data [Unpublished Data]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016.</p> <p>Child and Adolescent Health Measurement Initiative. 2017-2018 National Survey of Children’s Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB).Retrieved [06/18/20] from [www.childhealthdata.org].</p> <p>Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion [cited 06/18/20].</p>								

SPM 11 - Percent of high school students currently using cigarettes
Population Domain(s) – Adolescent Health

Measure Status:	Active								
Goal:	To decrease the number of adolescents who smoke cigarettes								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number (weighted) of TN public high school students reporting current (past 30 day) use of cigarette(s)</td> </tr> <tr> <td>Denominator:</td> <td>Number (weighted) of TN public high school students responding to current cigarette use question</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number (weighted) of TN public high school students reporting current (past 30 day) use of cigarette(s)	Denominator:	Number (weighted) of TN public high school students responding to current cigarette use question
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number (weighted) of TN public high school students reporting current (past 30 day) use of cigarette(s)								
Denominator:	Number (weighted) of TN public high school students responding to current cigarette use question								
Healthy People 2030 Objective:	TU-04 Reduce current tobacco use in adolescents TU-10 Eliminate cigarette smoking initiation in adolescents and young adults								
Data Sources and Data Issues:	Youth Risk Behavior Surveillance System (YRBS), biennial survey								
Significance:	This metric is one of the most important intermediate goals for tobacco control, denoting the current burden of combustible cigarette use among TN public high school students. Changes in this trend and its demographic distributions inform the Tobacco Control Program’s goals, activities, and resource allocation. Achieving low prevalence of combustible cigarette use among adolescents is paramount to reducing the overall health burden tobacco places on Tennessee’s broader population in the future.								

SPM 12 - Percent of high school students currently using e-cigarettes
Population Domain(s) – Adolescent Health

Measure Status:	Active								
Goal:	To reduce the number of adolescents currently using e-cigarettes								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number (weighted) of public high school students reporting current (past 30 day) use of e-cigarette(s)</td> </tr> <tr> <td>Denominator:</td> <td>Number (weighted) of public high school students responding to current e-cigarette use question</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number (weighted) of public high school students reporting current (past 30 day) use of e-cigarette(s)	Denominator:	Number (weighted) of public high school students responding to current e-cigarette use question
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number (weighted) of public high school students reporting current (past 30 day) use of e-cigarette(s)								
Denominator:	Number (weighted) of public high school students responding to current e-cigarette use question								
Healthy People 2030 Objective:	TU-04 Reduce current tobacco use in adolescents TU-10 Eliminate cigarette smoking initiation in adolescents and young adults								
Data Sources and Data Issues:	Youth Risk Behavior Surveillance System (YRBS), biennial survey								
Significance:	Similar to combustible cigarette use, this metric is one of the most important intermediate goals for tobacco control, denoting the current burden of emerging tobacco product (including e-cigarette) use among TN public high school students. Changes in this trend and its demographic distributions inform the Tobacco Control Program’s goals, activities, and resource allocation. Achieving low prevalence of e-cigarette use among adolescents is paramount to reducing the overall health burden tobacco use places on Tennessee’s broader population in the future.								

SPM 13 - Number of adolescents enrolled in cessation program
Population Domain(s) – Adolescent Health

Measure Status:	Active								
Goal:	To increase the number of youth who enroll in tobacco cessation programs								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>150</td> </tr> <tr> <td>Numerator:</td> <td>Number of adolescent-aged unique enrollees to cessation program</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	150	Numerator:	Number of adolescent-aged unique enrollees to cessation program	Denominator:	
Unit Type:	Count								
Unit Number:	150								
Numerator:	Number of adolescent-aged unique enrollees to cessation program								
Denominator:									
Healthy People 2030 Objective:	TU-04 Reduce current tobacco use in adolescents								
Data Sources and Data Issues:	Tennessee Tobacco Quitline & American Lung Association N-O-T: Not On Tobacco Program								
Significance:	Adolescent utilization of cessation programs in Tennessee has historically been low, despite a growing proportion of youth using or experimenting with e-cigarettes and other emerging products. Additionally, standardized guidelines and recommendations for health care professionals to promote and support cessation attempts among adolescents is absent. Given the emerging public health issue of youth e-cigarette and emerging product use, TUPCP seeks to fill a key gap in assisting adolescents to quit using tobacco products and e-cigarettes in Tennessee.								

SPM 14 - Number of CYSHCN receiving care in a medical home
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active								
Goal:	To increase the number of CYSHCN receiving care in medical home								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>2,200</td> </tr> <tr> <td>Numerator:</td> <td>Number of CYSHCN receiving care in medical home</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	2,200	Numerator:	Number of CYSHCN receiving care in medical home	Denominator:	
Unit Type:	Count								
Unit Number:	2,200								
Numerator:	Number of CYSHCN receiving care in medical home								
Denominator:									
Data Sources and Data Issues:	<p>Data source: PTBMIS</p> <p>Limitation: The question asked is “have you had annual exam at your primary care provider’s office in the past 12 months”. Having annual exam at PCP is not equivalent to medical home.</p>								
Significance:	It is important to ensure the children with special healthcare needs served by the Tennessee Children’s Special Services program receive preventive services in medical home setting.								

SPM 15 - Percent of providers with increased knowledge on medical home and care coordination
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active								
Goal:	To increase the percent of providers with increased knowledge of medical home and care coordination								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of providers with increased knowledge of medical home and care coordination</td> </tr> <tr> <td>Denominator:</td> <td>Number of providers receiving education and resources</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of providers with increased knowledge of medical home and care coordination	Denominator:	Number of providers receiving education and resources
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of providers with increased knowledge of medical home and care coordination								
Denominator:	Number of providers receiving education and resources								
Healthy People 2030 Objective:	<p>MICH-30.1 Increase the proportion of children who have access to a medical home – 63.3%</p> <p>MICH-30.2 Increase the proportion of children with special health care needs who have access to a medical home – 51.8%</p> <p>MICH-31.1 Increase the proportion of children aged 0 to 11 years with special health care needs who receive their care in family-centered, comprehensive, and coordinated systems – 22.4%</p> <p>MICH-31.2 Increase the proportion of children aged 12 to 17 years with special health care needs who receive their care in family-centered, comprehensive, coordinated systems – 15.1%</p>								
Data Sources and Data Issues:	<p>Data source: The program plans to provide training, education and resources and conduct a survey among those providers receiving the information.</p> <p>Limitation: Not all providers surveyed will return the survey with complete answers.</p>								
Significance:	Increased knowledge among providers on medical home best practices is expected to result in increased adoption in their practices, resulting in increased access and utilization of the medical home.								

SPM 16 - Percent of providers reporting improved system of care for CYSCHN
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active								
Goal:	To increase the percent of providers reporting an improved system of care for CYSCHN.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of providers surveyed who provided answers to the question reporting improved system of care in their practice</td> </tr> <tr> <td>Denominator:</td> <td>Number of providers provided information on systems of care</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of providers surveyed who provided answers to the question reporting improved system of care in their practice	Denominator:	Number of providers provided information on systems of care
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of providers surveyed who provided answers to the question reporting improved system of care in their practice								
Denominator:	Number of providers provided information on systems of care								
Healthy People 2030 Objective:	<p>MICH-30.1 Increase the proportion of children who have access to a medical home – 63.3%</p> <p>MICH-30.2 Increase the proportion of children with special health care needs who have access to a medical home – 51.8%</p> <p>MICH-31.1 Increase the proportion of children aged 0 to 11 years with special health care needs who receive their care in family-centered, comprehensive, and coordinated systems – 22.4%</p> <p>MICH-31.2 Increase the proportion of children aged 12 to 17 years with special health care needs who receive their care in family-centered, comprehensive, coordinated systems – 15.1%</p>								
Data Sources and Data Issues:	<p>Program plans to conduct a survey among providers.</p> <p>Limitation: Not all providers surveyed will respond.</p>								
Significance:	Providers with better knowledge of systems of care are more likely to practice medical home approach services to children under their care.								

SPM 17 - Percent of families who complete an annual visit with their primary care provider
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active								
Goal:	To increase the percentage of children who complete an annual visit with their primary care provider.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of children who complete an annual primary care visit in the medical home</td> </tr> <tr> <td>Denominator:</td> <td>Number of children/youth referred for an annual primary care visit in the medical home</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of children who complete an annual primary care visit in the medical home	Denominator:	Number of children/youth referred for an annual primary care visit in the medical home
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of children who complete an annual primary care visit in the medical home								
Denominator:	Number of children/youth referred for an annual primary care visit in the medical home								
Healthy People 2030 Objective:	<p>MICH-30.1 Increase the proportion of children who have access to a medical home – 63.3%</p> <p>MICH-30.2 Increase the proportion of children with special health care needs who have access to a medical home – 51.8%</p> <p>MICH-31.1 Increase the proportion of children aged 0 to 11 years with special health care needs who receive their care in family-centered, comprehensive, and coordinated systems – 22.4%</p> <p>MICH-31.2 Increase the proportion of children aged 12 to 17 years with special health care needs who receive their care in family-centered, comprehensive, coordinated systems – 15.1%</p>								
Data Sources and Data Issues:	<p>Data source: CHANT REDCap data, Call Center data system</p> <p>Limitation: matching data from different data systems</p>								
Significance:	It is important to ensure that children and families receive annual medical exams and preventive care in an assigned medical home setting especially for continuity of care and detecting potential problems early.								

SPM 18 - Percent of youth reporting with increased knowledge on transition resources and services
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active								
Goal:	To increase the percent of youth surveyed with increased knowledge on transition resources and services.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of youth reporting increased knowledge on transition resources and services</td> </tr> <tr> <td>Denominator:</td> <td>Number of youth provided education and resources on transition resources and services</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of youth reporting increased knowledge on transition resources and services	Denominator:	Number of youth provided education and resources on transition resources and services
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of youth reporting increased knowledge on transition resources and services								
Denominator:	Number of youth provided education and resources on transition resources and services								
Healthy People 2030 Objective:	<p>MICH-30.1 Increase the proportion of children who have access to a medical home – 63.3%</p> <p>MICH-30.2 Increase the proportion of children with special health care needs who have access to a medical home – 51.8%</p> <p>MICH-31.1 Increase the proportion of children aged 0 to 11 years with special health care needs who receive their care in family-centered, comprehensive, and coordinated systems – 22.4%</p> <p>MICH-31.2 Increase the proportion of children aged 12 to 17 years with special health care needs who receive their care in family-centered, comprehensive, coordinated systems – 15.1%</p>								
Data Sources and Data Issues:	<p>Data source: The program plans to provide training, education and resources and conduct a survey among youth that participate in the youth advisory conference.</p> <p>Limitation: Not all youth attending the conference will complete and return the survey with complete answers.</p>								
Significance:	Increased knowledge among youth on transition resources and services is expected to result in increased development and completion of an annual transition plan.								

SPM 19 - Percent of YSHCN served by CHANT who complete an annual transition plan
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active								
Goal:	To increase each year by 3 persons the number of youth participating in advisory councils and state policy development.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of youth served by CHANT who complete an annual transition plan</td> </tr> <tr> <td>Denominator:</td> <td>Number of YSHCN who are served by CHANT</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of youth served by CHANT who complete an annual transition plan	Denominator:	Number of YSHCN who are served by CHANT
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of youth served by CHANT who complete an annual transition plan								
Denominator:	Number of YSHCN who are served by CHANT								
Healthy People 2030 Objective:	<p>MICH-30.1 Increase the proportion of children who have access to a medical home – 63.3%</p> <p>MICH-30.2 Increase the proportion of children with special health care needs who have access to a medical home – 51.8%</p> <p>MICH-31.1 Increase the proportion of children aged 0 to 11 years with special health care needs who receive their care in family-centered, comprehensive, and coordinated systems – 22.4%</p> <p>MICH-31.2 Increase the proportion of children aged 12 to 17 years with special health care needs who receive their care in family-centered, comprehensive, coordinated systems – 15.1%</p> <p>DH-5 Increase the proportion of youth with special health care needs whose health care provider has discussed transition planning from pediatric to adult health care – 41.2%</p>								
Data Sources and Data Issues:	<p>Data source: PTBMIS</p> <p>Limitation: Not all YSHCN will receive services through CHANT</p>								
Significance:	The program is to encourage active participation and involvement of the youth in developing and completing an annual transition plan.								

**SPM 20 - Percent of youth leaders participating in advisory councils providing resources to other youth
Population Domain(s) – Children with Special Health Care Needs**

Measure Status:	Active								
Goal:	To increase each year by 3 persons the number of youth participating in advisory councils and state policy development.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of youth participating in advisory councils providing resources to other youth</td> </tr> <tr> <td>Denominator:</td> <td>Number of youth participating in advisory councils</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of youth participating in advisory councils providing resources to other youth	Denominator:	Number of youth participating in advisory councils
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of youth participating in advisory councils providing resources to other youth								
Denominator:	Number of youth participating in advisory councils								
Healthy People 2030 Objective:	<p>MICH-30.1 Increase the proportion of children who have access to a medical home – 63.3%</p> <p>MICH-30.2 Increase the proportion of children with special health care needs who have access to a medical home – 51.8%</p> <p>MICH-31.1 Increase the proportion of children aged 0 to 11 years with special health care needs who receive their care in family-centered, comprehensive, and coordinated systems – 22.4%</p> <p>MICH-31.2 Increase the proportion of children aged 12 to 17 years with special health care needs who receive their care in family-centered, comprehensive, coordinated systems – 15.1%</p> <p>DH-5 Increase the proportion of youth with special health care needs whose health care provider has discussed transition planning from pediatric to adult health care – 41.2%</p>								
Data Sources and Data Issues:	Data source: Program records.								
Significance:	The program is to encourage active participation and involvement of the youth and develop mentor-mentee relationships that will assist youth in completing a successful transition to adult care.								

SPM 21 - Percent of women who reported 14+ days of poor mental health in the past month
Population Domain(s) – Cross-Cutting/Systems Building

Measure Status:	Active								
Goal:	To decrease the percent of women who reported 14+ days of poor mental health in the past month								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of women who reported 14+ days when mental health was not good</td> </tr> <tr> <td>Denominator:</td> <td>Total number of female respondents</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of women who reported 14+ days when mental health was not good	Denominator:	Total number of female respondents
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of women who reported 14+ days when mental health was not good								
Denominator:	Total number of female respondents								
Healthy People 2030 Objective:	Related to Mental Health and Mental Disorders (MHMD) Objective 01: Reduce the suicide rate. (Baseline: 14.2 suicides per 100,000 population occurred in 2018 (age adjusted to the year 2000 standard population), Target: 12.8 suicides per 100,000 population)								
Data Sources and Data Issues:	Tennessee Behavioral Risk Factor Surveillance System (https://www.tn.gov/content/dam/tn/health/documents/brfss/TN19CALC.pdf)								
Significance:	<p>Mental health conditions are among the most common health conditions in the United States. According to the World Health Organization, more than 50% of people will be diagnosed with a mental illness or disorder at some point in their lifetime.¹ Mental health is an important component of overall health and wellbeing and impacts chronic health conditions, such as heart disease.</p> <p>This measure will be obtained from the Tennessee Behavioral Risk Factor Surveillance System.</p> <p>¹ Kessler RC, Angermeyer M, Anthony JC, et al. Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. <i>World Psychiatry</i>. 2007;6(3):168-176.</p>								

SPM 22 - Percent of children who had difficulties obtaining mental health care among those who received or needed care during the past 12 months, age 3-17 years
Population Domain(s) – Cross-Cutting/Systems Building

Measure Status:	Active								
Goal:	To decrease the percent of children who had difficulties obtaining mental health care among those who received or needed care during the past 12 months								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Received or needed mental health care but it was somewhat difficult to get it; Received or needed mental health care but it was very difficult to get it; It was not possible to obtain care</td> </tr> <tr> <td>Denominator:</td> <td>Children age 3-17 years who received or needed any mental health treatment or counseling</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Received or needed mental health care but it was somewhat difficult to get it; Received or needed mental health care but it was very difficult to get it; It was not possible to obtain care	Denominator:	Children age 3-17 years who received or needed any mental health treatment or counseling
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Received or needed mental health care but it was somewhat difficult to get it; Received or needed mental health care but it was very difficult to get it; It was not possible to obtain care								
Denominator:	Children age 3-17 years who received or needed any mental health treatment or counseling								
Healthy People 2030 Objective:	Related to Mental Health and Mental Disorders (MHMD) Objective 03: Increase the proportion of children with mental health problems who get treatment. (Baseline: 73.3% of children aged 4 to 17 years with mental health problems received treatment in 2018, Target: 82.4%)								
Data Sources and Data Issues:	National Survey of Children's Health (NSCH) (https://www.childhealthdata.org/browse/survey)								
Significance:	<p>Mental/behavioral health conditions among US children and adolescents are increasing in prevalence¹. However, gaps in access to treatment remain, and a significant number of children with mental health conditions experience difficulties obtaining mental health care.</p> <p>This measure will be obtained from the National Survey of Children's Health.</p> <p>¹Ghandour RM, Sherman LJ, Vladutiu CJ, et al. Prevalence and Treatment of Depression, Anxiety, and Conduct Problems in US Children. J Pediatr. 2019;206:256-267.e3. doi:10.1016/j.jpeds.2018.09.021</p>								

Form 10
State Outcome Measure (SOM) Detail Sheets

State: Tennessee

SOM 1 - Rate of pregnancy-associated mortality to live birth
Population Domain(s) – Women/Maternal Health

Measure Status:	Active									
Goal:	To decrease the pregnancy-associated mortality									
Definition:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Unit Type:</td> <td>Rate</td> </tr> <tr> <td>Unit Number:</td> <td>100,000</td> </tr> <tr> <td>Numerator:</td> <td>Number of pregnancy-associated deaths</td> </tr> <tr> <td>Denominator:</td> <td>Live births</td> </tr> </table>		Unit Type:	Rate	Unit Number:	100,000	Numerator:	Number of pregnancy-associated deaths	Denominator:	Live births
Unit Type:	Rate									
Unit Number:	100,000									
Numerator:	Number of pregnancy-associated deaths									
Denominator:	Live births									
Data Sources and Data Issues:	Maternal Mortality Review Information Application (MMRIA) and Vital Records Birth Statistical System									
Significance:	Maternal mortality is a sentinel event and an indicator of a nation's health. Rate of pregnancy-associated mortality rate is calculated as a ratio of maternal deaths within 365 days after the end of a pregnancy per 100,000 live births. In calculating maternal mortality rate, we can identify populations that are disproportionately affected by maternal deaths and monitor Tennessee's progress in decreasing maternal mortality and severe maternal morbidity.									

SOM 2 - Rate of pregnancy-related mortality to live births
Population Domain(s) – Women/Maternal Health

Measure Status:	Active								
Goal:	To reduce the rate of pregnancy-related mortality								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Rate</td> </tr> <tr> <td>Unit Number:</td> <td>100,000</td> </tr> <tr> <td>Numerator:</td> <td>Pregnancy-related deaths</td> </tr> <tr> <td>Denominator:</td> <td>Live births</td> </tr> </table>	Unit Type:	Rate	Unit Number:	100,000	Numerator:	Pregnancy-related deaths	Denominator:	Live births
Unit Type:	Rate								
Unit Number:	100,000								
Numerator:	Pregnancy-related deaths								
Denominator:	Live births								
Data Sources and Data Issues:	Maternal Mortality Review Information Application (MMRIA) and Vital Records Birth Statistical System								
Significance:	Maternal mortality is a sentinel event and an indicator of a nation's health. Maternal mortality rate is calculated as a ratio of maternal deaths within 365 days after the end of a pregnancy per 100,000 live births. In calculating maternal mortality rate, we can identify populations that are disproportionately affected by maternal deaths and monitor Tennessee's progress in decreasing maternal mortality and severe maternal morbidity.								

SOM 3 - Percent of public school 6th graders who are overweight or obese
Population Domain(s) – Child Health

Measure Status:	Active								
Goal:	Decrease the percentage of public school 6th graders who are overweight or obese								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of public school 6th graders who are overweight or obese</td> </tr> <tr> <td>Denominator:</td> <td>Number of TN public school 6th graders</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of public school 6th graders who are overweight or obese	Denominator:	Number of TN public school 6th graders
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of public school 6th graders who are overweight or obese								
Denominator:	Number of TN public school 6th graders								
Healthy People 2030 Objective:	Reduce the proportion of children and adolescents with obesity — NWS04								
Data Sources and Data Issues:	Weight Status Database (TN Coordinated School Health). These annual data are based on direct height and weight measurements for participating students only in grades K, 2, 4, 6, 8, and any one year of high school who have permission from their parent to be measured. Therefore, there could be significant self-selection bias.								
Significance:	This statistic is a direct, core measure of the child obesity priority for school-aged children. Sixth graders were selected as a cross-section of the target group, as these students represent both late elementary and early middle school populations. Both overweight and obesity are included in order to present a broader view of the health concern. Values for the measure will derive from the official CSH annual report entitled, “Tennessee Public Schools: A Summary of Weight Status Data.” The report includes statistics on students who have been identified with a BMI in the overweight or obese range.								

SOM 4 - Percent of WIC recipients aged 2-4 years who are overweight or obese
Population Domain(s) – Child Health

Measure Status:	Active								
Goal:	Decrease the percentage of WIC recipients aged 2-4 years who are overweight or obese								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of WIC recipients aged 2-4 years who are overweight or obese</td> </tr> <tr> <td>Denominator:</td> <td>Total number of WIC recipients aged 2-4 years</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of WIC recipients aged 2-4 years who are overweight or obese	Denominator:	Total number of WIC recipients aged 2-4 years
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of WIC recipients aged 2-4 years who are overweight or obese								
Denominator:	Total number of WIC recipients aged 2-4 years								
Healthy People 2030 Objective:	Reduce the proportion of children and adolescents with obesity — NWS04								
Data Sources and Data Issues:	WIC program recipients database; no known data issues								
Significance:	This statistic is a direct, core measure of the child obesity priority for pre-school aged children. The importance of starting children off right early in life when it comes to maintaining healthy weight through good nutrition and physical activity helps prevent further health problems related to obesity later in life. Values for the measure will derive from direct measurements taken by WIC clinical staff statewide.								

SOM 5 - Percent of adults reporting Chronic obstructive pulmonary disease (COPD)
Population Domain(s) – Adolescent Health

Measure Status:	Active								
Goal:	To decrease the rate of adults with COPD								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of hospital discharges with a principal diagnosis of COPD (ICD-9-CM codes 490-492, 496) among adults aged 45 years and over</td> </tr> <tr> <td>Denominator:</td> <td>Number of persons aged 45 years and over</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of hospital discharges with a principal diagnosis of COPD (ICD-9-CM codes 490-492, 496) among adults aged 45 years and over	Denominator:	Number of persons aged 45 years and over
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of hospital discharges with a principal diagnosis of COPD (ICD-9-CM codes 490-492, 496) among adults aged 45 years and over								
Denominator:	Number of persons aged 45 years and over								
Healthy People 2030 Objective:	RD-05 Reduce deaths from chronic obstructive pulmonary disease (COPD) in adults								
Data Sources and Data Issues:	National Hospital Discharge Survey (NHDS), CDC/NCHS; Population Estimates, Census								
Significance:	<p>Asthma and chronic obstructive pulmonary disease (COPD) are significant public health burdens. Specific methods of detection, intervention, and treatment exist that may reduce this burden and promote health. Approximately 14.8 million adults have been diagnosed with COPD, and approximately 12 million people have not yet been diagnosed¹. The burden of respiratory diseases affects individuals and their families, schools, workplaces, neighborhoods, cities, and states.</p> <p>¹ National Institutes of Health, National Heart, Lung, and Blood Institute (NHLBI). Morbidity and mortality: 2012 chart book on cardiovascular, lung and blood diseases. Bethesda, MD: NHLBI; 2012 Feb [cited 2016 Aug 15]. Available from: https://www.nhlbi.nih.gov/files/docs/research/2012_ChartBook_508.pdf</p>								

SOM 6 - Percent of adults reporting cardiovascular disease
Population Domain(s) – Adolescent Health

Measure Status:	Active								
Goal:	To decrease the number of adult Tennesseans with cardiovascular disease								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number (weighted) of adults reporting they have ever been told they have angina or coronary heart disease</td> </tr> <tr> <td>Denominator:</td> <td>Number (weighted) of adults responding to coronary heart disease question</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number (weighted) of adults reporting they have ever been told they have angina or coronary heart disease	Denominator:	Number (weighted) of adults responding to coronary heart disease question
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number (weighted) of adults reporting they have ever been told they have angina or coronary heart disease								
Denominator:	Number (weighted) of adults responding to coronary heart disease question								
Healthy People 2030 Objective:	HDS-2 Reduce coronary heart disease deaths								
Data Sources and Data Issues:	Behavioral Risk Factor Surveillance System (BRFSS), annual survey								
Significance:	Cardiovascular disease continues to be a leading cause of death among adult Tennesseans. By addressing tobacco and e-cigarette use among adolescents, future prevalence of cardiovascular disease will be reduced, which in turn will reduce the mortality rate from cardiovascular disease in the state.								

SOM 7 - Age-adjusted mortality rate from tobacco-attributable cancers among Tennesseans aged 35+
Population Domain(s) – Adolescent Health

Measure Status:	Active								
Goal:	To decrease the number of deaths in Tennessee from tobacco-attributable cancers								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Rate</td> </tr> <tr> <td>Unit Number:</td> <td>100,000</td> </tr> <tr> <td>Numerator:</td> <td>Number of deaths from tobacco-attributable cancers</td> </tr> <tr> <td>Denominator:</td> <td>Number of deaths</td> </tr> </table>	Unit Type:	Rate	Unit Number:	100,000	Numerator:	Number of deaths from tobacco-attributable cancers	Denominator:	Number of deaths
Unit Type:	Rate								
Unit Number:	100,000								
Numerator:	Number of deaths from tobacco-attributable cancers								
Denominator:	Number of deaths								
Healthy People 2030 Objective:	C-01 Reduce the overall cancer death rate								
Data Sources and Data Issues:	Tobacco-attributable cancer (or potentially all cancer) mortality rates will be derived from CDC Wonder								
Significance:	Tobacco is the leading preventable cause of cancer death in Tennessee. By implementing the listed activities and effectively engaging partners, TUPCP aims to reduce Tennessee's mortality from tobacco-attributable cancers in the future.								

SOM 8 - Percent of pregnancy-associated deaths in which mental health conditions was a contributing factor
Population Domain(s) – Cross-Cutting/Systems Building

Measure Status:	Active								
Goal:	To decrease the percent of pregnancy-associated deaths in which mental health conditions was a contributing factor								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of pregnancy-associated deaths in which a mental health condition was a contributing factor</td> </tr> <tr> <td>Denominator:</td> <td>Number of pregnancy-associated deaths</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of pregnancy-associated deaths in which a mental health condition was a contributing factor	Denominator:	Number of pregnancy-associated deaths
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of pregnancy-associated deaths in which a mental health condition was a contributing factor								
Denominator:	Number of pregnancy-associated deaths								
Healthy People 2030 Objective:	Related to Mental Health and Mental Disorders (MHMD) Objective 01: Reduce the suicide rate. (Baseline: 14.2 suicides per 100,000 population occurred in 2018 (age adjusted to the year 2000 standard population), Target: 12.8 suicides per 100,000 population)								
Data Sources and Data Issues:	Tennessee Maternal Mortality Review Annual Report (https://www.tn.gov/content/dam/tn/health/program-areas/maternal-mortality/MMR_Annual_Report_2021.pdf)								
Significance:	<p>Mental health conditions contributed to substantial percentages of pregnancy-associated deaths in Tennessee from 2017 to 2019. The TN Maternal Mortality Review Committee determined that a mental health condition was a contributing factor in 21% of all pregnancy-associated deaths.</p> <p>This measure will be obtained from the TN Maternal Mortality Review Annual Report.</p> <p>12021 Tennessee Maternal Mortality Annual Report. Available at https://www.tn.gov/content/dam/tn/health/program-areas/maternal-mortality/MMR_Annual_Report_2021.pdf</p>								

Form 10
Evidence-Based or –Informed Strategy Measures (ESM) Detail Sheets

State: Tennessee

ESM 1.2 - Create pre/posttests to assesses provider knowledge of and confidence using PATH (Parenthood/Pregnancy Attitude, Timing, and How important is pregnancy prevention).

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

Measure Status:	Active								
Goal:	Creation of pre/posttests to assesses provider knowledge of and confidence using PATH (Parenthood/Pregnancy Attitude, Timing, and How important is pregnancy prevention).								
Definition:	<table border="1" style="width: 100%;"> <tr> <td style="width: 25%;">Unit Type:</td> <td>Text</td> </tr> <tr> <td>Unit Number:</td> <td>Yes/No</td> </tr> <tr> <td>Numerator:</td> <td>Pre/post test</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Text	Unit Number:	Yes/No	Numerator:	Pre/post test	Denominator:	
Unit Type:	Text								
Unit Number:	Yes/No								
Numerator:	Pre/post test								
Denominator:									
Data Sources and Data Issues:	FP-01 (reduce the proportion of unintended pregnancies); FP-03 (reduce pregnancies in adolescents)								
Evidence-based/informed strategy:	Increase knowledge, awareness, and usage of reproductive life plans through PATH across the state of Tennessee								
Significance:	PATH is a patient-centered framework with a shared-decision making model that can be used with patients of any demographic without judgement to clarify the patient’s reproductive goals and help them develop a reproductive life plan (RLP). Family planning providers play a key role in helping both women and men to reflect on their reproductive intentions, to complete a RLP and to access appropriate services to meet their RLP goals. PATH training is critical to ensuring a skilled family planning workforce that can provide client-centered, non-coercive, and culturally competent services.								

ESM 1.3 - Percent of family planning encounters that occur via telehealth

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

Measure Status:	Active								
Goal:	To increase the percentage of family planning encounters that occur via telehealth.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of family planning encounters occurring via telehealth</td> </tr> <tr> <td>Denominator:</td> <td>Total number of family planning encounters</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of family planning encounters occurring via telehealth	Denominator:	Total number of family planning encounters
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of family planning encounters occurring via telehealth								
Denominator:	Total number of family planning encounters								
Data Sources and Data Issues:	Tennessee Department of Health’s Patient Tracking Billing Management Information System (PTBMIS).								
Evidence-based/informed strategy:	Increase rural access to family planning services through telehealth.								
Significance:	There are many barriers to accessing health care services, especially among poor and rural populations. These include lack of transportation, long travel distances, lack of childcare, and lack of sick leave. Providing family planning services via telehealth is one way to address these barriers and help clients access needed services.								

ESM 1.6 - Number of women receiving patient navigation for women’s health services
NPM 1 – Percent of women, ages 18 through 44, with a preventive medical visit in the past year

Measure Status:	Active								
Goal:	To increase the number of women receiving patient navigation for women’s health services								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>250</td> </tr> <tr> <td>Numerator:</td> <td>Number of women receiving patient navigation services</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	250	Numerator:	Number of women receiving patient navigation services	Denominator:	
Unit Type:	Count								
Unit Number:	250								
Numerator:	Number of women receiving patient navigation services								
Denominator:									
Data Sources and Data Issues:	To be determined (possibly electronic health record data or data collected via REDCap)								
Evidence-based/informed strategy:	Increase access to women’s health services by addressing and eliminating barriers to care through client navigation.								
Significance:	Patient navigators are individuals whose primary responsibility is to provide personalized guidance to patients as they move through the health care system. Navigators can help remove barriers to care, foster patient autonomy and provide patients with information that enhances their ability to make appropriate health care choices and/or receive medical care with an enhanced sense of confidence about risks, benefits and responsibilities. Potential benefits of patient navigation include improved health outcomes, increased patient satisfaction, decreased no-show rates and reduced disparities in care.								

ESM 1.8 - Percent of births covered by hospitals implementing data-driven, clinical recommendations
NPM 1 – Percent of women, ages 18 through 44, with a preventive medical visit in the past year

Measure Status:	Active								
Goal:	To implement trainings at the facility level on patient safety recommendations to prevent maternal death.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of hospital births state-wide covered by facilities implementing data-driven, clinical recommendations from MMRIA data</td> </tr> <tr> <td>Denominator:</td> <td>Number of hospital state-wide births</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of hospital births state-wide covered by facilities implementing data-driven, clinical recommendations from MMRIA data	Denominator:	Number of hospital state-wide births
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of hospital births state-wide covered by facilities implementing data-driven, clinical recommendations from MMRIA data								
Denominator:	Number of hospital state-wide births								
Data Sources and Data Issues:	MMR Program Notes								
Evidence-based/informed strategy:	Hospital Education: Provide training to hospitals on top causes of maternal death as identified by MMRC								
Significance:	Documents (including infographics) on disparities in maternal health shows the gap in interventions and areas of need. These documents will also inform the public and stakeholders in maternal health on populations and health conditions that need target interventions, thus fostering health equity.								

ESM 1.9 - Percent of birthing hospital providers trained reporting a change in knowledge
NPM 1 – Percent of women, ages 18 through 44, with a preventive medical visit in the past year

Measure Status:	Inactive - ESM 1.9 is being retired because organizations offering training do not track change in knowledge.								
Goal:	To train healthcare providers on various recommendations to prevent maternal death.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of providers in Tennessee birthing hospitals reporting a change in knowledge of patient safety recommendations</td> </tr> <tr> <td>Denominator:</td> <td>Number of providers in Tennessee birthing hospitals trained on patient safety recommendations</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of providers in Tennessee birthing hospitals reporting a change in knowledge of patient safety recommendations	Denominator:	Number of providers in Tennessee birthing hospitals trained on patient safety recommendations
	Unit Type:	Percentage							
	Unit Number:	100							
	Numerator:	Number of providers in Tennessee birthing hospitals reporting a change in knowledge of patient safety recommendations							
Denominator:	Number of providers in Tennessee birthing hospitals trained on patient safety recommendations								
Data Sources and Data Issues:	MMR Program Notes								
Evidence-based/informed strategy:	Hospital Education: Provide training to hospitals on top causes of maternal death as identified by MMRC								
Significance:	Documents (including infographics) on disparities in maternal health shows the gap in interventions and areas of need. These documents will also inform the public and stakeholders in maternal health on populations and health conditions that need target interventions, thus fostering health equity.								

ESM 1.10 - Percent of non-clinical members participating in the action group
NPM 1 – Percent of women, ages 18 through 44, with a preventive medical visit in the past year

Measure Status:	Inactive - The information captured by this measure is not helpful to moving work forward. Some of the non-clinical members serve in a clinical-like capacity.								
Goal:	To engage members of Maternal Health Task Force in implementing recommendations from the Maternal Mortality Review Committee								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of non-clinical Maternal Health Task Force members</td> </tr> <tr> <td>Denominator:</td> <td>Number of Maternal Health Task Force members</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of non-clinical Maternal Health Task Force members	Denominator:	Number of Maternal Health Task Force members
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of non-clinical Maternal Health Task Force members								
Denominator:	Number of Maternal Health Task Force members								
Data Sources and Data Issues:	Maternal Health Task Force Program Files								
Significance:	The goal of the MHTF is to implement recommendations from the Maternal Mortality Review Committee. The number of committee members and composition of the MHTF will inform the type implementations of MMRC recommendations.								

ESM 1.11 - Percent of postpartum women with positive screenings for depression (using a validated screening tool) who will receive resources/education or referrals for professional services

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

Measure Status:	Inactive - This measure was not tracked in 2021 and should have been retired after the review with technical advisors from MCHB.								
Goal:	To identify women with signs and symptoms of postpartum depression and connect affected women to resources.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of postpartum women with positive screening for depression who receive resources/education or referrals for professional services</td> </tr> <tr> <td>Denominator:</td> <td>Number of postpartum women with positive screening for depression</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of postpartum women with positive screening for depression who receive resources/education or referrals for professional services	Denominator:	Number of postpartum women with positive screening for depression
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of postpartum women with positive screening for depression who receive resources/education or referrals for professional services								
Denominator:	Number of postpartum women with positive screening for depression								
Data Sources and Data Issues:	Community Health Access and Navigation in TN (CHANT) and Evidence Based Home Visiting (EBHV) REDCap projects								
Evidence-based/informed strategy:	Screen and refer women to mental health treatment and resources								
Significance:	<p>The US Preventive Services Task Force (USPSTF), American College of Obstetricians and Gynecologists (ACOG), and other women’s health organizations recommend that pregnant and postpartum women be assessed for risk of depression so that they can receive intervention before symptoms arise.</p> <p>This data will be obtained from REDCap. Postpartum women will be identified from the data field “Have you had a baby in the past two months?” Postpartum women who were screened for depression will be identified from the Edinburgh postnatal depression scale (EPDS) field. Women with positive screenings will be identified from the EPDS score data field.</p>								

ESM 1.12 - Percent of recommendations with who/what/when components

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

Measure Status:	Active								
Goal:	To provide recommendation for preventing maternal deaths								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Recommendations with who/what/when components</td> </tr> <tr> <td>Denominator:</td> <td>Number of recommendations</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Recommendations with who/what/when components	Denominator:	Number of recommendations
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Recommendations with who/what/when components								
Denominator:	Number of recommendations								
Data Sources and Data Issues:	Maternal Mortality Review Information Application (MMRIA)								
Significance:	Recommendations from the MMRC provide actionable plans in preventing future maternal deaths. This measure is important to determine the domain of recommendation for prevention of maternal death.								

ESM 3.1 - Percent of Tennessee birthing hospitals participating in perinatal quality collaborative projects
NPM 3 – Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)

Measure Status:	Active								
Goal:	To increase percent of Tennessee birthing hospitals participating in perinatal quality collaborative projects								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of Tennessee birthing hospitals participating in perinatal quality collaborative projects</td> </tr> <tr> <td>Denominator:</td> <td>Number of Tennessee birthing hospitals</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of Tennessee birthing hospitals participating in perinatal quality collaborative projects	Denominator:	Number of Tennessee birthing hospitals
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of Tennessee birthing hospitals participating in perinatal quality collaborative projects								
Denominator:	Number of Tennessee birthing hospitals								
Data Sources and Data Issues:	Family Health and Wellness tracking tool								
Significance:	The Tennessee Initiative for Perinatal Quality Care seeks to improve health outcomes for mothers and infants by implementing data-driven provider- and community-based performance improvement initiatives. Current projects being implemented include initiatives targeted to neonatal abstinence syndrome, opioid use disorder, sleep-related infant death, and several maternal hypertension. More Tennessee birthing hospitals participating in these projects will ensure that the best evidence-based clinical practices are being allied to pressing public health facing mothers and infants. Ultimately, a higher percentage of birthing hospitals with these initiatives in place will lead to improved infant health outcomes and reduced disparities in access and treatment.								

ESM 4.1 - Number of credentialed lactation professionals within WIC

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

Measure Status:	Active								
Goal:	To increase the number of credentialed lactation professionals within WIC (e.g., IBCLC, CLC, and CLS)								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>250</td> </tr> <tr> <td>Numerator:</td> <td>Number of credentialed lactation professionals within WIC</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	250	Numerator:	Number of credentialed lactation professionals within WIC	Denominator:	
Unit Type:	Count								
Unit Number:	250								
Numerator:	Number of credentialed lactation professionals within WIC								
Denominator:									
Data Sources and Data Issues:	WIC monitoring reports								
Significance:	One barrier to breastfeeding is the lack of access to lactation professionals. Breastfeeding promotion and support is an integral part of the WIC Program. Increasing the number of trained lactation personnel will assist WIC mothers to make the best decision regarding infant feeding.								

ESM 4.2 - Percent of Breastfeeding Welcomed Here (BFWH)-designated businesses with ideal workplace lactation policies

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

Measure Status:	Active								
Goal:	To increase the percent of BFWH-designated businesses with ideal workplace lactation policies								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of Breastfeeding Welcomed Here (BFWH)-designated businesses with ideal workplace lactation policies</td> </tr> <tr> <td>Denominator:</td> <td>Number of Breastfeeding Welcomed Here (BFWH)-designated businesses</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of Breastfeeding Welcomed Here (BFWH)-designated businesses with ideal workplace lactation policies	Denominator:	Number of Breastfeeding Welcomed Here (BFWH)-designated businesses
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of Breastfeeding Welcomed Here (BFWH)-designated businesses with ideal workplace lactation policies								
Denominator:	Number of Breastfeeding Welcomed Here (BFWH)-designated businesses								
Data Sources and Data Issues:	BFWH Tracking Spreadsheet								
Evidence-based/informed strategy:	Re-enforce lactation policies that positively influence breastfeeding practices in the workplace.								
Significance:	Lack of lactation support in the workplace continues to be a significant barrier for mothers returning to work. Breastfeeding initiation and duration rates tend to be higher in workplaces that have developed lactation policies, offer breastfeeding support programs, and designated spaces for mothers to breastfeed or express milk.								

ESM 4.3 - Recognition process implemented for Breastfeeding Welcomed Here (BFWH)-designated businesses
NPM 4 – A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months

Measure Status:	Active								
Goal:	To implement a recognition process for BFWH-designated businesses with lactation workplace policies for employees.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Text</td> </tr> <tr> <td>Unit Number:</td> <td>Yes/No</td> </tr> <tr> <td>Numerator:</td> <td>Implement recognition process for Breastfeeding Welcomed Here (BFWH)-designated businesses with lactation workplace policies for employees</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Text	Unit Number:	Yes/No	Numerator:	Implement recognition process for Breastfeeding Welcomed Here (BFWH)-designated businesses with lactation workplace policies for employees	Denominator:	
Unit Type:	Text								
Unit Number:	Yes/No								
Numerator:	Implement recognition process for Breastfeeding Welcomed Here (BFWH)-designated businesses with lactation workplace policies for employees								
Denominator:									
Data Sources and Data Issues:	FHW Program data								
Significance:	Lack of lactation support in the workplace continues to be a significant barrier for mothers returning to work. BFWH businesses that have ideal workplace lactation policies will be recognized to celebrate businesses with policies and practices that seek support working mothers.								

ESM 5.1 - Percent of hospitals receiving national recognition or implementing approved safe sleep policy
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:	Increase the number of hospitals teaching parents to place infants in a safe sleep environment.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of birthing hospitals (1) recognized as a National Cribs for Kids certified hospital or with an approved safe sleep policy, and (2) submitting crib audit reports with $\leq 10\%$ of infants being found in an unsafe sleep environment</td> </tr> <tr> <td>Denominator:</td> <td>Number of birthing hospitals in Tennessee</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of birthing hospitals (1) recognized as a National Cribs for Kids certified hospital or with an approved safe sleep policy, and (2) submitting crib audit reports with $\leq 10\%$ of infants being found in an unsafe sleep environment	Denominator:	Number of birthing hospitals in Tennessee
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of birthing hospitals (1) recognized as a National Cribs for Kids certified hospital or with an approved safe sleep policy, and (2) submitting crib audit reports with $\leq 10\%$ of infants being found in an unsafe sleep environment								
Denominator:	Number of birthing hospitals in Tennessee								
Data Sources and Data Issues:	Family Health and Wellness tracking tool								
Significance:	The infant sleep behaviors modeled by hospital staff after birth have been shown to be important in determining the practices new parents adopt when returning home. Because of this highly influential role, it is key to ensure that all birthing hospitals in Tennessee are exemplifying proper safe sleep behaviors and demonstrating to parents that babies should sleep alone, on their back, and in a crib, bassinet, or pack n' play. By increasing the number of hospitals that meet this standard, we can increase the number of Tennessee parents who benefit from a positive example of safe sleep and, by extension, the number who continue to put their infant to sleep safely at home.								

ESM 5.2 - Number of diaper bags with safe sleep educational materials distributed

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:	Increase the number of diaper bags with safe sleep educational materials that have been distributed								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>2,000</td> </tr> <tr> <td>Numerator:</td> <td>Number of safe sleep diaper bags that have been distributed</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	2,000	Numerator:	Number of safe sleep diaper bags that have been distributed	Denominator:	
Unit Type:	Count								
Unit Number:	2,000								
Numerator:	Number of safe sleep diaper bags that have been distributed								
Denominator:									
Data Sources and Data Issues:	REDCap CHANT and EBHV data collection tools								
Significance:	<p>The Safe Sleep Diaper Bag Project was created in 2018 to provide EBHV participants with 1) standardized safe sleep education from their home visitor and 2) a diaper bag containing materials with safe sleep messaging. In 2019, the project was expanded to also include participants of the CHANT program. Diaper bags include several useful materials to aid in safe sleep including a onesie, sleep sack, safe sleep door hanger, Sleep Baby Safe and Snug book, Calm Baby Gently book, and nightlight. As of July 2021, over 1600 safe sleep diaper bags have been distributed to EBHV and CHANT caregivers. When asked by their home visitor whether the items in the diaper bag had caused them to change how they put their infant to sleep, 35 percent of EBHV recipients and 53 percent of CHANT recipients reported making a change. Going forward, Tennessee aims to continue to increase the total number of EBHV and CHANT clients who receive the safe sleep diaper bag, particularly in areas with historically high rates of sleep-related infant death. Evaluation data collected so far demonstrate that substantial percentages of caregivers report that the bag was useful in causing them to adopt the recommended safe sleep practices for their infant, validating Tennessee’s effort to increase the project’s reach as much as possible throughout the state.</p>								

ESM 8.1.1 - Percent of physical education teachers receiving professional development related to 50% of PE class time spent in moderate to vigorous physical activity

NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	Increase the percentage of PE teachers receiving professional development on physical education and physical activity related to 50% of PE class time spent in moderate to vigorous physical activity.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of PE teachers receiving PD related to 50% of PE class time spent in moderate to vigorous PA</td> </tr> <tr> <td>Denominator:</td> <td>Number of total PE teachers Statewide</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of PE teachers receiving PD related to 50% of PE class time spent in moderate to vigorous PA	Denominator:	Number of total PE teachers Statewide
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of PE teachers receiving PD related to 50% of PE class time spent in moderate to vigorous PA								
Denominator:	Number of total PE teachers Statewide								
Data Sources and Data Issues:	The Coordinated School Health (CSH) tracking survey. Quality Physical Education Survey question is being added for the Fall administration. No known data issues.								
Significance:	Direct professional development and technical assistance among school and LEA staff is essential to producing opportunities to increase both physical education and physical activity within the school setting. Values will be simple counts of PE teachers receiving professional development divided by the total number of PE teachers statewide.								

ESM 8.1.2 - Percentage of TN counties in which trainings related to mental health and physical health have occurred

NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	Collaborate with DOE to increase the number of counties receiving professional learning opportunities that connect mental health and physical health for PHEs and Health Councils, and youth (i.e., trauma-informed care, Youth Mental Health 1st Aid trainings)								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of counties receiving training, resources, and tools to promote the connection between mental health and physical health</td> </tr> <tr> <td>Denominator:</td> <td>Total number of TN counties (n=95)</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of counties receiving training, resources, and tools to promote the connection between mental health and physical health	Denominator:	Total number of TN counties (n=95)
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of counties receiving training, resources, and tools to promote the connection between mental health and physical health								
Denominator:	Total number of TN counties (n=95)								
Data Sources and Data Issues:	<p>Reduce the proportion of children and adolescents with obesity — NWS04</p> <p>Increase interprofessional prevention education in health professions training programs — ECBPD08</p> <p>Increase the proportion of children and adolescents who get preventive mental health care in school — EMCD06</p>								
Evidence-based/informed strategy:	Support school-based efforts to promote physical activity and good nutrition								
Significance:	There is a synergistic relationship between good mental health and physical health. For example, physical activity promotes healthy weight as well as good mental health. Trusted county professionals and organizations, such as PHEs, health councils, local schools, and youth groups, are a key channel for raising awareness of the connection between mental health and physical health. TDH can support these professionals and groups with evidence-based training, technical assistance, and other resources. Values for this measure will be simple counts derived from program reports and tracking databases that are being developed.								

ESM 8.1.3 - Number of Gold Sneaker certified childcare facilities

NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	Increase the number of TN Gold Sneaker certified childcare facilities								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>1,200</td> </tr> <tr> <td>Numerator:</td> <td>Number of TN Gold Sneaker certified childcare facilities</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	1,200	Numerator:	Number of TN Gold Sneaker certified childcare facilities	Denominator:	
Unit Type:	Count								
Unit Number:	1,200								
Numerator:	Number of TN Gold Sneaker certified childcare facilities								
Denominator:									
Data Sources and Data Issues:	Gold Sneaker Initiative tracking system, which is continuous and up to date; no known issues								
Significance:	The Gold Sneaker Initiative provides a framework, guidance, and policies pertaining to healthy nutrition, physical activity, tobacco prevention, and other health issues for childcare providers. In addition, Gold Sneaker is now a requirement for one component of the DHS 3-Star Quality rating, which gives childcare facilities an additional incentive to be certified and to follow policies. Values will be a simple count of the number of current, active Gold Sneaker certified childcare centers.								

ESM 8.1.4 - Percent of LHD primary care clinics writing HPHP prescriptions annually

NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	To increase the percentage of LHD primary care clinics writing HPHP prescriptions annually.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of LHD primary care clinics writing HPHP prescriptions</td> </tr> <tr> <td>Denominator:</td> <td>Total number of LHD primary care clinics</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of LHD primary care clinics writing HPHP prescriptions	Denominator:	Total number of LHD primary care clinics
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of LHD primary care clinics writing HPHP prescriptions								
Denominator:	Total number of LHD primary care clinics								
Data Sources and Data Issues:	NWS-04: Reduce the proportion of children and adolescents with obesity; PA-09: Increase the proportion of children who do enough aerobic physical activity								
Evidence-based/informed strategy:	Community Health Services (CHS) - list or map of LHD primary care clinics; TDH electronic health records (Provider Rx); No known data issues								
Significance:	Regular physical activity among children is a critical component to maintaining healthy weight or losing excess weight. The HPHP provides an easy and fun way for people to use state parks to remain active, and the program provides incentives for participation as well. Electronic health records show provider referrals from the West region are low as compared to other TDH regions. Increasing provider referrals from TDH clinics in the West region will promote physical activity and address health equity. Values will derive from the number of LHD primary clinics writing HPHP prescriptions.								

ESM 8.1.5 - Number of Healthy Parks Healthy Person prescriptions written

NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	Increase the number of TN Healthy Parks Health Person (HPHP) prescriptions written								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>850</td> </tr> <tr> <td>Numerator:</td> <td>Number of TN Healthy Parks Health Person (HPHP) prescriptions written</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	850	Numerator:	Number of TN Healthy Parks Health Person (HPHP) prescriptions written	Denominator:	
Unit Type:	Count								
Unit Number:	850								
Numerator:	Number of TN Healthy Parks Health Person (HPHP) prescriptions written								
Denominator:									
Data Sources and Data Issues:	TDH EHR tracking of HPHP prescription check off box. This check off box has not yet been incorporated into the TDH EHR template.								
Significance:	Studies have shown that when a doctor or other health care provider writes a prescription or recommends a certain course of action or behavior to a patient, the patient’s likelihood of adopting that behavior increases tremendously. In that regard, there has been good success thus far with the HPHP prescription program encouraging patients to download and use the HPHP app. Values will derive from the number of times the TDH EHR system shows that the HPHP prescription program was used with a patient, provided that a check off box is developed for the system.								

ESM 8.1.6 - Percentage of TN counties with completed built environment projects

NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	Increase the number of school and community based physical activity clubs or completed built environment projects								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>812</td> </tr> <tr> <td>Numerator:</td> <td>Number of physical activity clubs or completed built environment projects</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	812	Numerator:	Number of physical activity clubs or completed built environment projects	Denominator:	
Unit Type:	Count								
Unit Number:	812								
Numerator:	Number of physical activity clubs or completed built environment projects								
Denominator:									
Data Sources and Data Issues:	The CDHP/OPP tracking database of physical activity clubs and the OPP and Project Diabetes tracking databases of completed built environment projects. Historically, it has been difficult to determine what PA clubs are current and/or still active.								
Significance:	Physical activity clubs and community built environment projects increase both access to and availability of physical activity opportunities in the community. Clubs have the additional benefit and reinforcement of being a fun, group activity. Values will be simple counts of the number of such clubs and projects as reported to TDH through LHDs and other sources.								

ESM 8.1.7 - Percent of eligible venues offering the Double Up Food Bucks Program

NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	To increase the percentage of eligible venues (e.g., farmers' markets and farmers' stores) in counties targeted by Nourish Knoxville that offer the Double Up Food Bucks Program.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of eligible venues in targeted counties that offer the Double Up Food Bucks Program</td> </tr> <tr> <td>Denominator:</td> <td>Total number of eligible venues in targeted counties</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of eligible venues in targeted counties that offer the Double Up Food Bucks Program	Denominator:	Total number of eligible venues in targeted counties
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of eligible venues in targeted counties that offer the Double Up Food Bucks Program								
Denominator:	Total number of eligible venues in targeted counties								
Data Sources and Data Issues:	Nourish Knoxville tracking database and program reports related to eligible venues and the reach of the Double Up Food Bucks Program in targeted counties (currently six); no known data issues								
Significance:	The consumption of healthier foods, especially fruits and vegetables, and healthier beverages is critical to maintaining or achieving healthy weight. Studies have shown that accessibility of healthy food choices influences healthy eating patterns. Concerted community planning and action among a diversified network of partners is critical to addressing low food security and increasing availability, access, affordability, and consumption related to healthier food and beverage options. Farmers' markets and farmers' stores, the TN Department of Health, the TN Department of Human Services (SNAP), and organizations such as Nourish Knoxville are key stakeholders in this effort. Partnerships can leverage shared resources in an effective and efficient manner. Values for this measure will be a simple list and number of eligible venues and the number of those venues offering the Double Up Food Bucks Program.								

ESM 8.1.8 - Percent of staff with an increase in ACEs and TIC knowledge as evidenced by post training evaluation
NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	To increase provider ACE and TIC knowledge								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Staff who increased knowledge as a result of training</td> </tr> <tr> <td>Denominator:</td> <td>Total number of staff who participated in staff training</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Staff who increased knowledge as a result of training	Denominator:	Total number of staff who participated in staff training
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Staff who increased knowledge as a result of training								
Denominator:	Total number of staff who participated in staff training								
Data Sources and Data Issues:	REDCap survey tool- Limitation(s): data collection tool is still under development								
Evidence-based/informed strategy:	Increase knowledge and practice of ACE and Trauma Informed Care (TIC).								
Significance:	Training on the science of ACEs is necessary to transform the organization and community partners into service delivery systems that are trauma informed and leaders who plan with prevention in mind. Over the course of the year, TDH will provide refresher training to its Child Fatality Review team members in the Building Strong Brains curriculum and will implement evidence based strategies for ACEs prevention and mitigation. This will increase awareness of ACEs.								

ESM 8.1.9 - Percent of families with improved protective factors score

NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	To increase the percentage of families who have an improved protective factors score								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of families enrolled in home visiting with an improved protective factors score at the time of reporting</td> </tr> <tr> <td>Denominator:</td> <td>Number of families enrolled in home visiting during the reporting year who have at least one protective factors score</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of families enrolled in home visiting with an improved protective factors score at the time of reporting	Denominator:	Number of families enrolled in home visiting during the reporting year who have at least one protective factors score
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of families enrolled in home visiting with an improved protective factors score at the time of reporting								
Denominator:	Number of families enrolled in home visiting during the reporting year who have at least one protective factors score								
Data Sources and Data Issues:	EBHV REDCAP Data Collection System, Annual Protective Factors Survey								
Significance:	<p>Protective factors are characteristics of strong parenting skills that reduce the effects of toxic stress and build resiliency in children. Protective factors have been shown to be essential in preventing ACES. Examples of protective factors include a parenting relationship that promotes literacy through healthy conversation and dedicated time to reading with an adult. A core activity of home visiting curriculum seeks to support parents in building resiliency for their families. This measure will demonstrate the capacity of home visiting to increase protective factors in families.</p> <p>Centers for Disease Control and Prevention, Kaiser Permanente. The ACE Study Survey Data [Unpublished Data]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016.</p> <p>Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion [cited 06/18/20].</p> <p>Kidcentral TN. “Adverse Childhood Experience: Protective Factors”. https://www.kidcentraltn.com/support/crisis-services-for-children/adverse-childhood-experience--protective-factors.html [accessed 06/19/20].</p>								

ESM 8.1.10 - Percent of families enrolled in CHANT care coordination who partially or fully complete pathways identified

NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active								
Goal:	To increase the number of families enrolled into CHANT care coordination who partially or fully complete pathways identified								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of enrolled families + families that exit and fully or partially complete pathways</td> </tr> <tr> <td>Denominator:</td> <td>Total number of referrals received</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of enrolled families + families that exit and fully or partially complete pathways	Denominator:	Total number of referrals received
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of enrolled families + families that exit and fully or partially complete pathways								
Denominator:	Total number of referrals received								
Data Sources and Data Issues:	CHANT REDCap Database Limitation(s): 1) includes only participants of CHANT in the state, 2) in any given reporting period, the numerator and denominator may not include the same sample since the receipt of services can take place in a different reporting period than the referral.								
Significance:	Health status and related health behaviors are determined by influences at multiple levels: personal, organizational/institutional, environmental, and policy. Because significant and dynamic interrelationships exist among these different levels of health determinants, educational and community-based programs are most likely to succeed in improving health and wellness when they address influences at all levels and in a variety of environments/settings.								

ESM 11.1 - Number of CYSHCN who receive CHANT/CSS care coordination

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

Measure Status:	Active								
Goal:	To increase the number of children and youth with special health care needs receiving CHANT/CSS care coordination.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>5,000</td> </tr> <tr> <td>Numerator:</td> <td>Number of CYSHCN receiving CHANT/CSS care coordination</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	5,000	Numerator:	Number of CYSHCN receiving CHANT/CSS care coordination	Denominator:	
Unit Type:	Count								
Unit Number:	5,000								
Numerator:	Number of CYSHCN receiving CHANT/CSS care coordination								
Denominator:									
Data Sources and Data Issues:	CYSHCN MCH/Title V Program data and PTBMIS								
Significance:	It is important to ensure the children with special healthcare needs served by the Tennessee Children’s Special Services program receive care coordination services to assist in system navigation.								

ESM 11.2 - Percent of providers adopting medical home approach

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

Measure Status:	Active								
Goal:	To increase the percentage of providers adopting medical home approach in their practice								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of providers reporting adoption of the medical home approach</td> </tr> <tr> <td>Denominator:</td> <td>Number of providers participating in the medical home collaborative</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of providers reporting adoption of the medical home approach	Denominator:	Number of providers participating in the medical home collaborative
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of providers reporting adoption of the medical home approach								
Denominator:	Number of providers participating in the medical home collaborative								
Data Sources and Data Issues:	Program will host learning collaborative for providers, families and community members. Pre and Post assessments will be administered to determine providers who report adopting medical home approach.								
Evidence-based/informed strategy:	Create a shared vision for integrating and improving CYSHCN system of care.								
Significance:	By increasing the number of providers who adopt a medical home approach in their practices, this will also increase the number of children who receive care in a medical home.								

ESM 11.3 - Percent of providers reporting increased knowledge on systems of care

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

Measure Status:	Active								
Goal:	To increase the percentage of providers reporting an increase in knowledge on systems of care.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of providers reporting increased knowledge on systems of care</td> </tr> <tr> <td>Denominator:</td> <td>Number of providers participating in the medical home collaborative</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of providers reporting increased knowledge on systems of care	Denominator:	Number of providers participating in the medical home collaborative
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of providers reporting increased knowledge on systems of care								
Denominator:	Number of providers participating in the medical home collaborative								
Data Sources and Data Issues:	Create a shared vision for integrating and improving CYSHCN system of care.								
Evidence-based/informed strategy:	Program will host learning collaborative for providers, families and community members. Pre and Post assessments will be administered to determine providers who report increased knowledge.								
Significance:	By increasing providers' knowledge on systems of care will increase the number of children who receive coordinated, comprehensive care in a medical home.								

ESM 11.4 - Number of families provided education and resources on importance of medical home access and utilization

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

Measure Status:	Active								
Goal:	To increase the number of families who receive education and resources on the importance of coordinated and comprehensive care in the medical home.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>1,700</td> </tr> <tr> <td>Numerator:</td> <td>Number of families provided education and resources</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	1,700	Numerator:	Number of families provided education and resources	Denominator:	
Unit Type:	Count								
Unit Number:	1,700								
Numerator:	Number of families provided education and resources								
Denominator:									
Data Sources and Data Issues:	Data Sources: CHANT program data and Call Center data; Limitations: Retrieving data from separate data systems								
Significance:	It is important to ensure that children and families receive annual medical exams and preventive care in an assigned medical home setting. Providing education and knowledge on the importance of care in the medical home will be significant in increasing actual utilization of the medical home.								

ESM 11.5 - Number of families receiving referrals to their child's primary care provider

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

Measure Status:	Active								
Goal:	To increase the number of families referred to their child's primary care provider.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>500</td> </tr> <tr> <td>Numerator:</td> <td>Number of referrals to the primary care providers</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	500	Numerator:	Number of referrals to the primary care providers	Denominator:	
Unit Type:	Count								
Unit Number:	500								
Numerator:	Number of referrals to the primary care providers								
Denominator:									
Data Sources and Data Issues:	CHANT program data and Call Center data								
Significance:	It is important to ensure that children and families receive annual medical exams and preventive care in an assigned medical home setting. Identifying and providing referrals to the primary care provider will be significant in increasing actual utilization of the medical home.								

ESM 11.6 - Percent of providers who report an increase in their knowledge of available resources
NPM 11 – Percent of children with and without special health care needs, ages 0 through 17, who have a medical home

Measure Status:	Active								
Goal:	To increase the percentage of providers reporting increased resource referrals for CYSHCN.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of providers who report an increase in the number of referrals provided</td> </tr> <tr> <td>Denominator:</td> <td>Number of providers receiving educational material on available resources for children and youth with special health care needs</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of providers who report an increase in the number of referrals provided	Denominator:	Number of providers receiving educational material on available resources for children and youth with special health care needs
	Unit Type:	Percentage							
	Unit Number:	100							
	Numerator:	Number of providers who report an increase in the number of referrals provided							
Denominator:	Number of providers receiving educational material on available resources for children and youth with special health care needs								
Data Sources and Data Issues:	Program will distribute resource information to providers. A pre-post questionnaire will be used to determine if increase in referrals occur based on resources provided.								
Evidence-based/informed strategy:	Inform and educate families and providers to promote systems change.								
Significance:	It is important that providers receive information on available resources and make referrals for CYSHCN by doing so, access and utilization of the medical home will increase and additional opportunities for systems change with the potential of increasing knowledge of providers and families of CYSHCN								

ESM 11.7 - Percent of families who report an increase in access and utilization of resources
NPM 11 – Percent of children with and without special health care needs, ages 0 through 17, who have a medical home

Measure Status:	Active								
Goal:	To increase the percentage of families who reporting increased access and utilization of CYSHCN.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of families who report an increase in access and utilization of resources</td> </tr> <tr> <td>Denominator:</td> <td>Number of families receiving list of available resources</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of families who report an increase in access and utilization of resources	Denominator:	Number of families receiving list of available resources
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of families who report an increase in access and utilization of resources								
Denominator:	Number of families receiving list of available resources								
Data Sources and Data Issues:	Program will distribute resource information to families. A pre-post questionnaire will be used to determine if increase in access and utilizations occur based on resources provided.								
Evidence-based/informed strategy:	Inform and educate families and providers to promote systems change.v								
Significance:	It is important that families receive information on available resources. Care for CYSHCN involves multiple stakeholders, including primary and specialty care providers as well as non-medical service providers. For CYSHCN to thrive, partnership between care providers and families is critical that resources are made available for as many needs as possible including health and community based. By doing so medical home access and utilization will increase.								

ESM 11.8 - Percent of CHANT families who schedule an annual visit with their child's primary care provider
NPM 11 – Percent of children with and without special health care needs, ages 0 through 17, who have a medical home

Measure Status:	Active								
Goal:	To increase the percent families who schedule their child's primary care appointment.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of CHANT families who schedule appointments</td> </tr> <tr> <td>Denominator:</td> <td>Number of CHANT families referred to primary care provider</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of CHANT families who schedule appointments	Denominator:	Number of CHANT families referred to primary care provider
	Unit Type:	Percentage							
	Unit Number:	100							
	Numerator:	Number of CHANT families who schedule appointments							
Denominator:	Number of CHANT families referred to primary care provider								
Data Sources and Data Issues:	CHANT program data and Call Center data								
Significance:	It is important to ensure that children and families receive annual medical exams and preventive care in an assigned medical home setting. Assisting families to schedule appointments will be significant in increasing actual utilization of the medical home.								

ESM 11.9 - Percent of CYSHCN receiving CHANT care coordination who receive medical home education
NPM 11 – Percent of children with and without special health care needs, ages 0 through 17, who have a medical home

Measure Status:	Active								
Goal:	To increase the percent of children and youth with special health care needs receiving CHANT care coordination who receive medical home education.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Percentage</td> </tr> <tr> <td>Unit Number:</td> <td>100</td> </tr> <tr> <td>Numerator:</td> <td>Number of CYSHCN receiving CHANT care coordination who receive medical home education</td> </tr> <tr> <td>Denominator:</td> <td>Number of CYSHCN receiving CHANT care coordination</td> </tr> </table>	Unit Type:	Percentage	Unit Number:	100	Numerator:	Number of CYSHCN receiving CHANT care coordination who receive medical home education	Denominator:	Number of CYSHCN receiving CHANT care coordination
Unit Type:	Percentage								
Unit Number:	100								
Numerator:	Number of CYSHCN receiving CHANT care coordination who receive medical home education								
Denominator:	Number of CYSHCN receiving CHANT care coordination								
Data Sources and Data Issues:	Data source: PTBMIS and REDCap Limitations: Families may reject CSS services because they do not want to go through the CHANT screening and assessment								
Evidence-based/informed strategy:	Increase the number of CYSHCN who have access to patient and family-centered care coordination.								
Significance:	It is important to ensure the children with special healthcare needs served by the Tennessee Children's Special Services program receive medical home education to increase access and utilization and ensure positive health outcomes.								

ESM 12.1 - Number of transition resource kits disseminated

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

Measure Status:	Active								
Goal:	To increase the number of youth with special health care needs that receive resources necessary for successful transition.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>2,600</td> </tr> <tr> <td>Numerator:</td> <td>Number of kits disseminated</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	2,600	Numerator:	Number of kits disseminated	Denominator:	
Unit Type:	Count								
Unit Number:	2,600								
Numerator:	Number of kits disseminated								
Denominator:									
Data Sources and Data Issues:	CYSHCN MCH/Title V Program data								
Significance:	Youth who receive education and knowledge on transition planning are expected to be successful transitioning to adult independence.								

ESM 12.2 - Number of youth with special health care needs trained as mentors

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

Measure Status:	Active								
Goal:	To increase the number of youth with special health care needs that receive mentor other youth with special health care needs to serve as leaders on the Youth Advisory Council.								
Definition:	<table border="1"><tr><td>Unit Type:</td><td>Count</td></tr><tr><td>Unit Number:</td><td>75</td></tr><tr><td>Numerator:</td><td>Number of youth with special health care needs trained as mentors</td></tr><tr><td>Denominator:</td><td></td></tr></table>	Unit Type:	Count	Unit Number:	75	Numerator:	Number of youth with special health care needs trained as mentors	Denominator:	
Unit Type:	Count								
Unit Number:	75								
Numerator:	Number of youth with special health care needs trained as mentors								
Denominator:									
Data Sources and Data Issues:	CYSHCN MCH/Title V Program data								
Significance:	The program is to encourage active participation and involvement of the youth and families in policy development.								

ESM 12.3 - Number of parents and youth with special health care needs who receive leadership and self-advocacy training

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

Measure Status:	Active									
Goal:	To increase the number of parents and youth with special health care needs that receive leadership and self-advocacy training.									
Definition:	<table border="1"> <tr> <td style="background-color: #2e75b6; color: white;">Unit Type:</td> <td>Count</td> </tr> <tr> <td style="background-color: #2e75b6; color: white;">Unit Number:</td> <td>500</td> </tr> <tr> <td style="background-color: #2e75b6; color: white;">Numerator:</td> <td>Number of parents and youth with special health care needs who receive leadership and self-advocacy training</td> </tr> <tr> <td style="background-color: #2e75b6; color: white;">Denominator:</td> <td></td> </tr> </table>		Unit Type:	Count	Unit Number:	500	Numerator:	Number of parents and youth with special health care needs who receive leadership and self-advocacy training	Denominator:	
Unit Type:	Count									
Unit Number:	500									
Numerator:	Number of parents and youth with special health care needs who receive leadership and self-advocacy training									
Denominator:										
Data Sources and Data Issues:	CYSHCN MCH/Title V Program data									
Significance:	Youth and parents are provided leadership training and are able to provide mentoring and peer to peer support to other parents and youth with special health care needs. Trained parents and YSHCN are better equipped to become self-advocates and participate in the decision making process and policy development.									

ESM 14.2.1 - Number of tobacco-free sports teams

NPM 14.2 – Percent of children, ages 0 through 17, who live in households where someone smokes

Measure Status:	Active								
Goal:	To support smoke free environments as the social norm								
Definition:	<table border="1"><tr><td>Unit Type:</td><td>Count</td></tr><tr><td>Unit Number:</td><td>100</td></tr><tr><td>Numerator:</td><td>Sports teams making initial tobacco-free pledge</td></tr><tr><td>Denominator:</td><td></td></tr></table>	Unit Type:	Count	Unit Number:	100	Numerator:	Sports teams making initial tobacco-free pledge	Denominator:	
Unit Type:	Count								
Unit Number:	100								
Numerator:	Sports teams making initial tobacco-free pledge								
Denominator:									
Data Sources and Data Issues:	Tennessee Tobacco Control Program data								
Significance:	The measure is significant in that it underlies the social norm change affected by youth leaders publicly pledging to their school, peers, and community to be tobacco free. The number of sports teams taking the tobacco-free pledge will consist of sports teams which are making their initial pledge (excluding re-pledges in subsequent years).								

ESM 14.2.2 - Number of social media posts promoting text-based cessation services

NPM 14.2 – Percent of children, ages 0 through 17, who live in households where someone smokes

Measure Status:	Active								
Goal:	To increase youth tobacco cessation.								
Definition:	<table border="1"><tr><td>Unit Type:</td><td>Count</td></tr><tr><td>Unit Number:</td><td>24</td></tr><tr><td>Numerator:</td><td>Number of social media posts promoting text-based cessation services</td></tr><tr><td>Denominator:</td><td></td></tr></table>	Unit Type:	Count	Unit Number:	24	Numerator:	Number of social media posts promoting text-based cessation services	Denominator:	
Unit Type:	Count								
Unit Number:	24								
Numerator:	Number of social media posts promoting text-based cessation services								
Denominator:									
Data Sources and Data Issues:	Tobacco Control Program data								
Significance:	Cessation-supporting text services have been shown to be effective for youth and young adults who are experimenting with or currently using tobacco products. TDH and partner promotions of these services through social media aims to increase text service utilization.								

ESM 14.2.3 - Number of anti-tobacco social media posts

NPM 14.2 – Percent of children, ages 0 through 17, who live in households where someone smokes

Measure Status:	Active								
Goal:	To decrease youth tobacco use.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>30</td> </tr> <tr> <td>Numerator:</td> <td>Number of social media posts to TDH and TNSTRONG social media accounts</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	30	Numerator:	Number of social media posts to TDH and TNSTRONG social media accounts	Denominator:	
Unit Type:	Count								
Unit Number:	30								
Numerator:	Number of social media posts to TDH and TNSTRONG social media accounts								
Denominator:									
Data Sources and Data Issues:	TDH Communications Office will track the number of anti-tobacco focused social media posts via Facebook, Twitter, and Instagram using designated hashtags.								
Significance:	Anti-tobacco messaging is another cornerstone of tobacco control efforts and impacts the rate at which youth experiment with and initiate smoking and tobacco use. Social media’s influence and pervasiveness among adolescents enables TUPCP and youth advocates to reach the target population more effectively.								

ESM 14.2.4 - Number of youth who attend the state anti-tobacco conference trainings

NPM 14.2 – Percent of children, ages 0 through 17, who live in households where someone smokes

Measure Status:	Active								
Goal:	Decrease tobacco use among youth through peer-to-peer intervention and youth advocates for anti-tobacco policy.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>450</td> </tr> <tr> <td>Numerator:</td> <td>Youth attendees at annual TNSTRONG conference/trainings</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	450	Numerator:	Youth attendees at annual TNSTRONG conference/trainings	Denominator:	
Unit Type:	Count								
Unit Number:	450								
Numerator:	Youth attendees at annual TNSTRONG conference/trainings								
Denominator:									
Data Sources and Data Issues:	Tobacco Control Program - TNSTRONG Attendee Registration system								
Significance:	TNSTRONG attendees, similar to ambassadors, are trained on peer-to-peer interventions and policy change, and are an essential component to reaching and influencing youth throughout Tennessee. TNSTRONG youth attendees are defined as school-aged individuals who attend the TNSTRONG event in their capacity as students (as opposed to presenters or chaperones).								

ESM 14.2.5 - Number of ambassadors recruited

NPM 14.2 – Percent of children, ages 0 through 17, who live in households where someone smokes

Measure Status:	Active								
Goal:	Decrease tobacco use among youth through peer-to-peer intervention and youth advocates for anti-tobacco policy.								
Definition:	<table border="1"> <tr> <td>Unit Type:</td> <td>Count</td> </tr> <tr> <td>Unit Number:</td> <td>26</td> </tr> <tr> <td>Numerator:</td> <td>Number of ambassadors recruited</td> </tr> <tr> <td>Denominator:</td> <td></td> </tr> </table>	Unit Type:	Count	Unit Number:	26	Numerator:	Number of ambassadors recruited	Denominator:	
Unit Type:	Count								
Unit Number:	26								
Numerator:	Number of ambassadors recruited								
Denominator:									
Data Sources and Data Issues:	Tobacco Control Program data								
Significance:	Youth who are recruited to serve as TNSTRONG ambassadors represent an important component of the TCP's efforts to reach and influence local youth. Ambassadors are often leaders within their schools and communities and are trained on peer-to-peer intervention and policy change. The number of ambassadors recruited will be tracked annually and will consist of the total number of ambassadors inclusive of those in their second year (of a two year cycle).								

Form 11
Other State Data
State: Tennessee

The Form 11 data are available for review via the link below.

[Form 11 Data](#)

**Form 12
MCH Data Access and Linkages**

State: Tennessee

Annual Report Year 2021

Data Sources	Access				Linkages	
	(A) State Title V Program has Consistent Annual Access to Data Source	(B) State Title V Program has Access to an Electronic Data Source	(C) Describe Periodicity	(D) Indicate Lag Length for Most Timely Data Available in Number of Months	(E) Data Source is Linked to Vital Records Birth	(F) Data Source is Linked to Another Data Source
1) Vital Records Birth	Yes	Yes	More often than monthly	0		
2) Vital Records Death	Yes	Yes	More often than monthly	0	Yes	
3) Medicaid	No	No	Never	NA	No	
4) WIC	Yes	Yes	Daily	0	Yes	
5) Newborn Bloodspot Screening	Yes	Yes	Daily	0	Yes	
6) Newborn Hearing Screening	Yes	Yes	Daily	0	Yes	
7) Hospital Discharge	Yes	Yes	Quarterly	6	Yes	
8) PRAMS or PRAMS-like	Yes	Yes	More often than monthly	6	Yes	

Form Notes for Form 12:

None

Field Level Notes for Form 12:

Data Source Name: 7) Hospital Discharge

Field Note:

The new process has shortened the lag time from 9 months to an approximate 5.5 months delay.