The Kentucky (KY) Department for Public Health, as the Maternal and Child Health (MCH) Title V Agency, along with the Office for Children with Special Health Care Needs (OCSHCN) are committed to ensuring the health and well-being of KY’s MCH populations. The KY Title V Program develops and supports the public health infrastructure and enabling services to meet these objectives. In addition to meeting the legislative intent of the funding, the Title V programmatic priorities are revised every five years based on a federally required comprehensive needs assessment. The annual report and application sections to follow reflect the third year of our current 5-year needs assessment cycle; 2020-2025.

The following graphic representation gives a snapshot of the MCH conditions in KY this programmatic year.

The COVID-19 pandemic continued to significantly impact MCH program activities and initiatives in 2021. The Delta and Omicron surges resulted in the return to some emergency protective orders. MCH again saw challenges similar to the previous year. There were, however, opportunities where the Title V Program met those challenges and thrived. For example, MCH continued surveillance and promotion of best practices for MCH populations. MCH staff continued to have regular meetings to address program policies, transitioning from face-to-face interactions to telehealth or teleservices, and updating trainings to be functional in a virtual setting. The School Health Branch was created within MCH specifically devoted to school health, with the addition of fifteen regional school health coordinator positions, and several new staff were onboarded to support and advise school nurses at the local level. Policies concerning school health, as well as other aspects of MCH around COVID-19, continued to be reflective of state and CDC public health guidelines throughout 2021. The Child Safety Learning Collaborative (CSLC) continued their work addressing education and evaluation of child suicide. KY fully implemented the 988 mental health crisis line in July 2022. Work continued around health equity with greater clarity and
focus in 2021, expanding the Office of Health Equity’s workforce and building out teams into local communities to address disparities. In addition, our Program Support (Epidemiology) Branch and data surveillance continued to be a critical source for decision-making in order to prevent infant deaths related to unsafe sleep practices. Early Childhood Development Branch and Nutritional Services continued to adhere to all safety protocols during the 2021 COVID-19 surges in order to protect clients, caregivers, and staff while returning to ‘in-person’ service delivery in many programs.

**Women/Maternal Health Domain**

The 2020-2025 needs assessment indicated this domain’s priority need is to reduce morbidity in pregnancy by focusing on improving the health of women across the life course. In 2021, MCH continued to focus on building a best practice package (evidence-informed strategies) for use by Local Health Departments (LHDs) for the newly chosen NPM #1: Percent of women, ages 18 through 44, with a preventive medical visit in the past year. The Well Woman package promotes preventive screenings, review of morbidities in pregnancy, data dissemination to raise awareness, and utilization of media platforms to promote the well woman visit.

MCH continued the work of the Health Access Nurturing Development Services (HANDS) home visitation program to improve maternal and child outcomes through screenings and referrals to meet the needs of pregnant women or new parents, guidance on growth and development needs of the new baby, and addressing the safety of the home environment for the child and mother.

With an alarming rise in maternal deaths, half of which have substance use as a risk factor, the KY Maternal Mortality Review Committee (MMRC) recommended for DPH to focus on prevention efforts for this population. In the prior needs assessment, KY added SPM: Reduce by 10% the number of maternal deaths of KY residents associated with substance use disorder. Much work has been done through the KY Perinatal Quality Collaborative (KyPQC) to reduce the number of number of women who are addicted or who have substance abuse disorder. The KyPQC, a statewide collaborative of leaders from birthing hospitals and other stakeholders, works to address the different maternal morbidities in an effort to reduce the state’s maternal mortality rate. A KyPQC subcommittee on maternal mortality will meet in 2022 to review the MMRC recommendations and provide an action plan to initiate needed changes.

Smoking during pregnancy in KY is gradually decreasing over time, from 19.5% in 2015 to 14.7% in 2020; and the rate further decreased in 2021 to 12.7%. However, smoking among pregnant women in KY remains almost double the national rate of 7.2%. MCH promotes activities aimed at smoking cessation among pregnant women and smoke-free policies. The MCH packages focusing on prenatal care and well woman visits have specific criteria for resource and referral to assist women with tobacco cessation programs.

**Perinatal/Infant Health Domain**
Infant mortality is considered the single leading indicator of the overall health and well-being of a population. The 2021 infant mortality rate was 5.1 per 1,000 live births, slightly lower than the national rate of 5.4 per 1,000 live births according to the CDC. In the 2020-2025 needs assessment, stakeholders identified neonatal abstinence syndrome, prematurity, and unsafe sleep practices as the priority issues. Therefore, the chosen state priority need continues to be infant mortality. Evidence-based strategies recommended nationally for addressing infant mortality are regionalized perinatal care, safe sleep initiatives, and breastfeeding. KY targets two NPMs for this domain, NPM #4: A) Percent of infants who are ever breastfed, B) Percent of infants breastfed exclusively through 6 months, and NPM #5: A) Percent of infants placed to sleep on their backs.

Breastfeeding outcomes affecting perinatal/infant health have improved. Mothers who initiated breastfeeding prior to hospital discharge increased from 68.9% to 71.2% (2015-2020). Duration of breastfeeding rate for the first 6 months after birth is much lower at 21.1%. Additionally, breastfeeding initiation among African American mothers continues to lag in comparison to white mothers. These rates show the continuing need for a successful support to continue breastfeeding after the infant’s discharge home and among African American mothers.

In this reporting period, the Sudden Unexpected Infant Death (SUID) registry identified 92 SUID cases. SUID is the second leading cause of death for KY’s infants, with 95% having at least one unsafe sleep risk factor. The number of SUID cases have been trending downward in KY since 2016. However, in the past two years we have seen an increase in SUID cases. As a result, since 2019, MCH has developed an educational campaign on safe sleep, which included social media and other outreach.

Substance use during pregnancy has additional consequences of neonatal abstinence syndrome (NAS), infant death from impaired bed sharing, and deaths from abusive head trauma. KY focused on SPM #1: Reduce by 5% the rate of NAS among KY resident live births. Rates of NAS have increased more than 20-fold in the last decade in KY. NAS surveillance continues, and MCH has completed four NAS annual reports. The KyPQC neonatal workgroup is also focusing on hospital outreach to determine efforts for NAS identification, diagnosis, reporting, and plan of safe care.

Child Health Domain

Injury is the leading cause of death among KY children over the age of one year and is a priority need as identified in the 2020-2025 needs assessment. Child passenger and teen driving safety were raised as high priorities by participants. For this domain, NPM #7.1: Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9 and adolescents ages 10-19, MCH developed web-based trainings on child maltreatment/referral and injury prevention. MCH assumed the leadership role with the KY Safe Kids Chapter and began monthly injury prevention promotions aligned with a variety of seasonal injuries. This work continued throughout 2021.
The Child Fatality Review and Injury Prevention program (CFR) now has 103 review teams. In 2021, the Child Fatality and Near Fatality External Review Panel collaboration increased with subcommittee evaluation to address prevention recommendations based on findings by the panel. Their work also included mapping of child protective services cases, policy review, and potential legislative recommendations for toxicology screening. The CFR team is currently closing out the 2019 death reviews and began work on the 2020 reviews in 2021.

As schools reopened in 2021, the work of the Coordinated School Health program related to ongoing pandemic response and support for schools on ways to promote nutrition and activity while mitigating exposure. The team promoted virtual professional development trainings related to mental health for staff and students.

The goals of the newly established School Health Branch, within MCH, include the support of quality school health programs and school nursing practice, by providing consultation and technical assistance to KY school nurses and other school staff to ensure that student wellness and health needs are supported for optimal educational access.

**Adolescent Health Domain**

KY has one of the highest prevalence for pediatric and adolescent obesity in the United States. Approximately 38% of KY children ages 10-17 years of age are considered overweight or obese according to BMI-for-age standards. Half of KY’s children in poor families are overweight or obese. For this domain, KY chose *NPM #8.1: Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day* and *NPM #8.2: Percent of adolescents, ages 12 through 17, who are physically active at least 60 minutes per day*.

Suicide and behavioral health support were a priority of the 2020-2025 needs assessment. The number of KY child/teen deaths from suicide continues to rise with some dying as young as age 10. Concerted effort to address child suicide is ongoing and is the primary focus for the KY CSLC.

Additionally, in 2021, MCH continued the scope of work as it relates to the Pediatric Mental Health Care Access Grant (PMHCA). Utilizing existing and well-established infrastructure of childhood mental health within MCH, the community mental health centers in the Department of Behavioral Health, Developmental and Intellectual Disabilities, as well as programs currently being administered by OCSHCN, this effort will expand access to mental health services for children statewide. Administration of this grant is possible through a collaborative effort and partnership with the KY Chapter of the American Academy of Pediatrics, the universities, and a private sector evaluation team.

The PMHCA objectives include the promotion of behavioral health integration in pediatric primary care by supporting the development of new or improvement of existing
statewide or regional pediatric mental health care telehealth access programs, by providing training and education to primary care providers, and making available clinic or telehealth consultations from regional centers.

The Adolescent Health program is focused on reducing risky behaviors including use of tobacco products or other substances. Much work has been done by the Chronic Disease Prevention Branch of DPH to educate and inform adolescent populations about the dangers of tobacco and vaping products.

**Children and Youth with Special Health Care Needs (CYSHCN) Domain**

KY’s CYSHCN agency, OCSHCN, is addressing the challenges associated with reaching a larger percentage of its CYSHCN population. According to the 2019-20 National Survey of Children’s Health (NSCH), KY’s rate of CYSHCN is the sixteenth highest in the country at 21.9% compared to 19.9% nationwide, and KY is one percent point higher than the average in HRSA Region IV of 20.9%. OCSHCN believes in working with partners, including families, on initiatives to develop and promote a more robust system of care. These collaborations will ensure that more of KY’s CYSHCN will have access to the care that they need. Further developing the expertise to properly collect, measure, and evaluate data will ensure that meaningful progress is made.

As part of the 2020-2025 needs assessment, OCSHCN created a new Access to Care Plan and Data Action Plan scorecards. CYSHCN priorities, identified through the 2020-2025 needs assessment process, were used to create the new scorecards which are linked to State Performance Measures (access to care, improved data capacity, and adequate insurance coverage). OCSHCN continues to leverage available technical assistance and collaborated with other agencies to plan, strengthen, and better integrate the overall system of care. Nationally available data is examined with internal data to determine the needs in KY’s CYSHCN population. While the National Survey of Children’s Health (NSCH) provides a wealth of information, OCSHCN conducts in-state data collection for the purposes of obtaining more KY specific data. In addition to national data sources such as NSCH, US Census, and others, OCSHCN collects information on its patients and their families via Qualtrics survey software. The KY specific data assists in tailoring program evaluation, needs assessment, and program planning and development toward KY’s CYSHCN population.

**Cross-Cutting/Systems Building Domain**

Multiple needs for KY span across multiple domains. KY recognizes that substance use disorder, tobacco use/exposure, oral health, and insurance adequacy affects multiple domains. These topics are addressed in multiple domain narratives.