The Kentucky (KY) Title V Program is committed to ensuring the health and well-being of KY’s maternal and child health (MCH) populations as defined in section 501(a)(1) of the Title V legislation. The KY Title V Program develops and supports the public health infrastructure and enabling services to meet these objectives. The Department for Public Health, as the MCH Title V Agency, contracts with the Office for Children with Special Health Care Needs (OCSHCN) to provide services for children with special health care needs. In addition to meeting the legislative intent of the funding, the Title V programmatic priorities are revised every 5 years based on a federally required comprehensive needs assessment.

The COVID-19 pandemic had a significant impact on MCH program activities and initiatives. However, there were opportunities in which the Title V Program thrived and met the challenge to continue surveillance and promotion of best practice for MCH populations. MCH leadership, nurses, and epidemiology staff had regular meetings to address program policies, transiting from face-to-face interactions to telehealth or teleservices and updating trainings to be functional in the virtual classroom. School health policies and the nursing process were rapidly developed to address measures to keep Kentucky schools open. Policies were reflective of state and CDC public health guidelines. The Child Safety Learning Collaborative continued their work addressing education and evaluation of child suicide. Data surveillance became critical for decision making to prevent infant deaths related to unsafe sleep practices.

KY data often reflects differences between eastern, western and central areas of the state. KY outcome measures are notably worse in the eastern part of the state where residents have many adverse social determinants such as problems accessing primary and specialty care, increased rates of substance use disorders, lack of transportation, lack of providers, large traveling distances for care, and cultural differences. The urban areas of Jefferson and Fayette Counties are the primary areas for higher levels of clinical service or specialty care.
**Women/Maternal Health Domain**

The 2020 needs assessment indicated the priority need for this domain is to reduce morbidity in pregnancy by focusing on improving the health of child-bearing women across the life course. In the past year, MCH focused 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.** A REDCap data surveillance system was designed to capture activities and information of the LHDs’ work within this plan. This 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 continues 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. The federal Maternal, Infant, and Early Childhood Home Visiting program has improved performance measures in screenings, well child visits, depression referrals, and other related benchmarks.

Substance abuse affects all MCH populations in KY. The consequences of this epidemic in women include pregnancy complications, increased risks of relapse, and overdose deaths. With an alarming rise in maternal deaths, half of which have substance use as a risk factor or cause, the KY Maternal Mortality Review Committee recommended for DPH to focus on prevention efforts for this population. In 2018, KY added **SPM: Reduce by 10% the number of maternal deaths of KY residents associated with substance use disorder.** In 2019, the inaugural KY Perinatal Quality Collaborative (KyPQC) meeting was held. The KyPQC is a statewide collaborative of leaders from birthing hospitals and other stakeholders to address the different maternal morbidities especially those associated with mortality.

Smoking during pregnancy in KY is gradually decreasing over time, from 24.1% in 2009 to 15.2% in 2019; however, this is 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 KY 2019 infant mortality rate is 5.1 per 1,000, matching the national rate. However, it is unknown if this trend will continue as all categories of the 2020 child fatality data that were noted to decrease in this reporting period. In the 2020 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 52.7% to 71.6% (2005-2019). Duration of breastfeeding rates for 6 months are much lower at 21.1%. This rate shows the need for a successful support to continue breastfeeding after the infant’s discharge home.

MCH developed an educational campaign on safe sleep, which included social media. Messaging included the ABCDs of safe sleep, (alone, back to sleep, crib use, danger – be aware, not impaired/distracted). In 2016, the Sudden Unexpected Infant Death (SUID) registry identified 103 SUID cases raising SUID to the second leading cause of death for KY’s infants with 95% having at least one unsafe sleep risk factor. In 2019, the number of SUID cases decreased to 58, with a rapid increase noted within the first month of the state COVID-19 pandemic. This led MCH to rapidly intervene with a reduction of match requirements for purchase of infant cribs by LHDs. LHDs quickly developed distribution plans, virtual education for crib set-up, and telephone support for parents who were provided cribs.

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 a priority need as identified in both 2015 and 2020 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 met with many partners to develop and promote 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.

KY continues to work on projects with the KY Safety Prevention and Alignment Network (KSPAN), The Kentucky Injury Prevention Research Center, Division of Pediatric Forensic Medicine at the University of Louisville (UL) and University of Kentucky, Prevent Child Abuse Kentucky, KY Chapter of the American Academy of Pediatrics (AAP), and local health departments (LHDs).
The Child Fatality Review and Prevention program (CFR) revitalization and restructuring continued with the number of review teams locally expanded from six teams in 2017 to 103 in 2021. Virtual reviews were reduced as coroners and other members were trained and developed comfort with use of the virtual platforms. These teams conduct comprehensive, quality reviews and develop interventions for prevention programs at the local level. Child Fatality and Near Fatality External 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.

Coordinated School Health utilizes the whole school, whole community, whole child (WSCC) model. Training, technical support, and policy evaluation for school districts remained a focus for the Healthy Schools team. This team is staffed by MCH school nurse and program leadership. Primary guidance is provided by the MCH health program administrator for development and implementation of model policies for schools around the coordinated school health tenets. Virtual trainings with nationally recognized speakers were provided. Travel restrictions and school closures were met with creative outreach to the schools. Training involved addressing COVID-19 public health recommendations and implementation within the school setting. Throughout the school year, most training opportunities with school leadership, teachers and staff were specific to COVID-19 public health recommendations and technical support for implementation in the school setting. Multiple virtual opportunities were developed and promoted by the KY Department of Education for other CSH WSCC model trainings, with primary focus on child and staff mental health best practices.

**Adolescent Health Domain**

The priority need chosen from the needs assessment for this domain is obesity/overweight. Per state obesity information, obesity among high school students has increased. 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*.

Addressing obesity requires a multi-level approach and necessitates implementation of education and modeling positive behaviors across the lifespan. MCH works intensively on obesity prevention in early education/childcare centers and school settings through the Coordinated School Health (CSH) Program.

Suicide and behavioral health support were a priority found from the 2020 Needs Assessment. The number of KY child/teen deaths from suicide continue 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 Child Safety Learning Collaborative (CSLC).
Tobacco efforts have also focused on adolescents. From the adolescent survey vaping/E-products was the number one tobacco issue facing youth. The adolescent health program is focused on reducing risky behaviors including use of tobacco products or other substances.

**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 2018-19 National Survey of Children’s Health, KY’s rate of CYSHCN is the sixth highest in the country at 22.8% compared to 20.4% in HRSA Region IV and 18.9% nationwide. 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 Needs Assessment, OCSHCN has created new Access to Care Plan and Data Action Plan scorecards. Copies of these scorecards are included in the materials provided by reference. OCSHCN continued to make progress in this last year of the former scorecards, which over the last five years addressed the need for proper measurements and evaluations. CYSHCN priorities, identified through the 2020 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 has leveraged 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 NSCH provides a wealth of information, OCSHCN conducts in-state data collection for the purposes of obtaining more KY specific data. The data is often collected through surveys 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 substance use disorder, tobacco use/exposure, oral health, and insurance adequacy affects multiple domains. These topics are addressed in multiple domain narratives.