Maternal and Child Health Services Title V Block Grant

Kentucky

FY 2022 Application/ FY 2020 Annual Report

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I. General Requirements

I.A. Letter of Transmittal

CABINET FOR HEALTH AND FAMILY SERVICES
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Maternal and Child Health Bureau
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US Department of Health and Human Services
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Rockville, Maryland 20857

Re: Kentucky 2022 Maternal and Child Health Block Grant Application, DUNS # 927049767

Dear Dr. Warren,

The Kentucky Department for Public Health Maternal and Child Health (MCH) Division is pleased to submit the 2022 Maternal and Child Health Title V Block Grant application/2020 Annual Report.

MCH is happy to have the opportunity to present the various projects, plans and goals for Kentucky mothers and children. This funding supports Kentucky's state and community-based work to improve health outcomes for mothers, infants, and children, *and* children with special health care needs. With a constantly shifting health care environment because of the COVID-19 pandemic, the MCH Division was flexible, successfully made significant process and system change to continue to meet population health needs/demands for this target population. MCH epidemiologists and nurses were on the front-line for planning and implementation of plans to ensure best practices and prevention work for this population.

If you have any questions regarding this application, please direct them to Dr. Henrietta Bada, Title V Director, at 502-564-4830 or Henrietta.Bada@KY.Gov.

Sincerely,

Connie Gayle White md

Connie Gayle White, MD, MS, FACOG
Deputy Commissioner for Clinical Affairs

I.B. Face Sheet

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

I.C. Assurances and Certifications

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

I.D. Table of Contents

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

II. Logic Model

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

III. Components of the Application/Annual Report

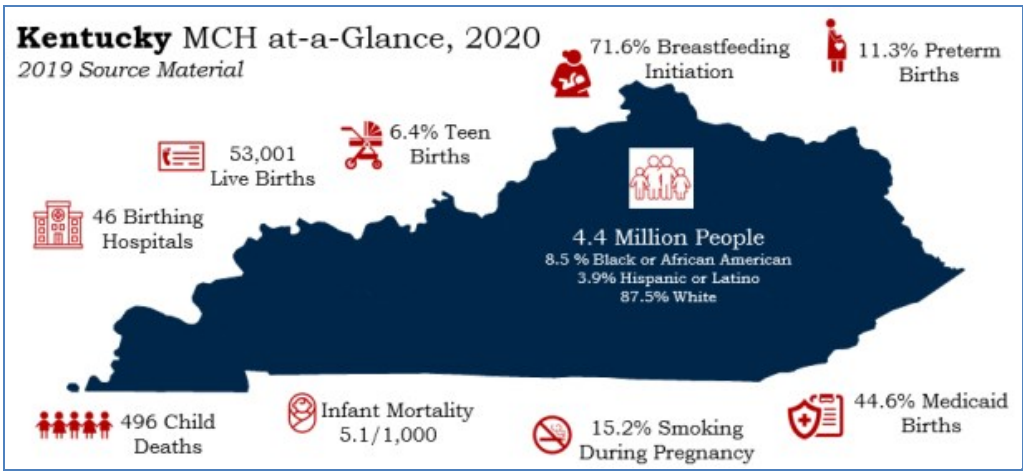
III.A. Executive Summary

III.A.1. Program Overview

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.

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

Title V funds are divided with 65.1% used to address all MCH population and 34.9% for children with special health care needs priorities. MCH allocates the bulk of funding allowing for discretionary use by the LHD for provision of enabling, population health services and system building activities. MCH evidence informed strategies or “MCH packages” are designed to address specific priorities identified in the 2020 Needs Assessment.

All OCSHCN funding goes toward providing, facilitating, and supporting KY’s children and youth with special health care needs.

The 2020-2025 priorities continue to be:

- Maternal Morbidity and Mortality
- Infant Mortality
- Injury (Child Abuse and Neglect)
- Overweight and Obesity Among Teens
- Oral Health
- Substance Abuse
- Adequate Health Insurance Coverage
- Transitioning Services
- Access to Care
- Data Capacity/Surveillance
- Mental Health Support (ACEs and Suicide Reduction)
- Supporting care and transition for children with special health care needs

LHDs collaborate with community stakeholders for matching funds for projects related to the MCH population and for outreach and support to the community.

III.A.3. MCH Success Story

COVID-19 had significant impact over the past year (2020) on the work and outreach of MCH. Due to the pandemic, caregivers, hospitals, providers, and DPH programs had KY emergency orders or legislative changes to allow use of telemedicine to increase their capacity and effectiveness of care or reach. Efforts to promote education/outreach, program innovation, and needs assessment/surveillance continued the use of data for informing program measures. MCH/OCSHCN have continued defining and building strong community support through collaboration across departments, agencies, and community.

Collaborative work continues to be a successful model for comprehensive, statewide intervention and population health. Local communities were able to understand the individual needs of their community to inform decisions, policy, or systems level change.

MCH/OCSCHN efforts:

- CFR teams slowly expanded to utilize virtual platforms allowing for a broader reach of professionals to join the local team.
- OCSHCH successfully diverted in-person clinics to full-time telehealth clinics early in the pandemic. They had been utilizing telehealth prior to the pandemic. They continue to utilize this opportunity for ongoing care coordination for children with special health care needs. And they accessed specialty providers close to home, through telehealth, for children with special health care needs.
- Collaboration continued with the University of Missouri's ECHO Autism Project alongside plans to implement the program in KY.
- Complex medical care teams were utilized through clinics for children with medical complexity.
- Work initiated by the SDoH COIIN continued to focus on diversity and equity. DPH guidance documents now include language to increase awareness related to SDoH and equity.
- MCH joined the national CSLC to strategically convene and organize stakeholders in developing a training curriculum to address child suicide.
- KY was able to achieve AIM status due to the strength of an established MMRC and ongoing work of the KPQC.

Application sections will show various successes in which MCH/OCSHCN was able to empower and guide communities to improve outcomes affecting mothers and children.

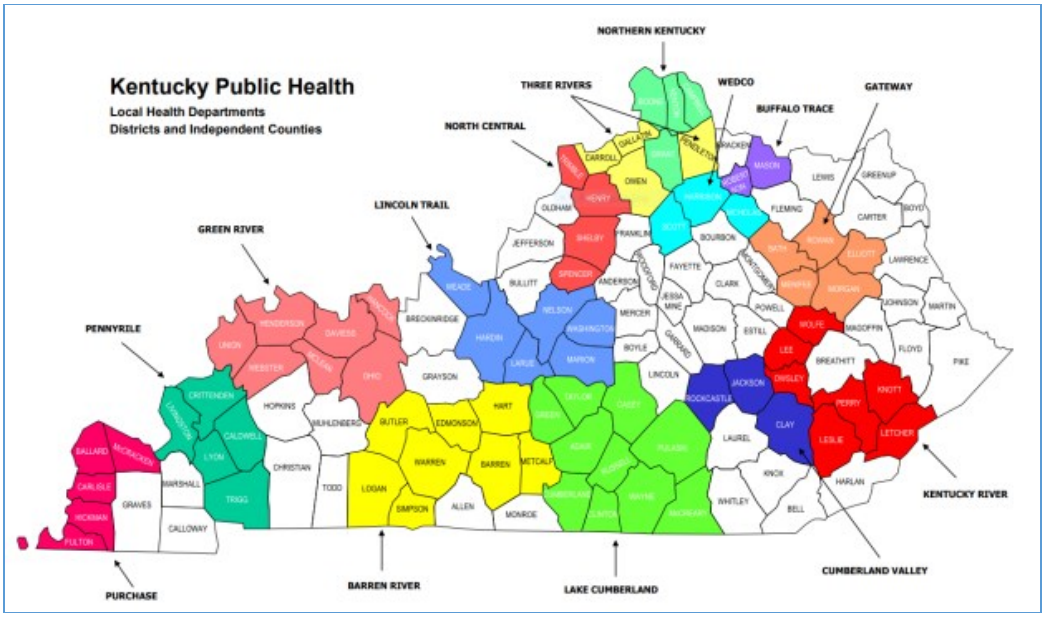
III.B. Overview of the State

Kentucky's Health Care Delivery Environment and the Role of Title V

The Cabinet for Health and Family Services (CHFS) is one of seven cabinets of Kentucky (KY) State Government, which is in Frankfort, the capital city of the Commonwealth of Kentucky. CHFS houses the KY Department for Public Health (KDPH), and the Division of Maternal and Child Health (MCH) administers the Title V Block Grant program(s). MCH is one of seven divisions of the KDPH.

KY operates a decentralized public health system, with independent and district local health departments (LHDs) serving all 120 counties that are accountable to their local board of health. Most boards of health are taxing districts in KY, which utilize local funds to supplement/leverage federal and state dollars to operate programs to meet the needs of citizens. There are 61 LHDs:

- 14 regional health departments, incorporating 73 counties in the Commonwealth.
- 47 counties operate individual county health departments.



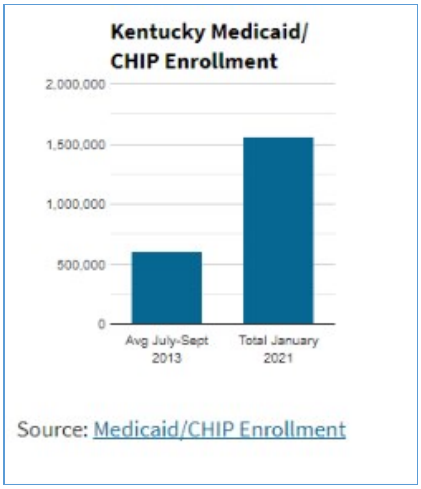
KDPH operates the financial systems for LHDs and supports their role in state and federally funded programs via allocations, standards of practice, training, and technical assistance. It should be noted that KDPH-MCH does *not* count LDH funds toward the match of Title V Block Grant funds, rather matching funds are derived by either State General Fund dollars *or* program derived revenues. The Office for Children with Special Health Care Needs (OCSHCN), an agency within CHFS, administers the state's Children and Youth with Special Health Care Needs (CYSHCN) program. OCSHCN's central office is in the state's largest city, Louisville, with 11 regional sites throughout the state (serving all 120 counties) and six other satellite clinic locations. All KY citizens are within, at most, 95 miles of an OCSHCN clinic.

The health care landscape for KY includes:

- 2011: Implementation of Managed Care Organizations (MCOs) for Medicaid beneficiaries
- 2013: Kentucky Medicaid expansion
- 2014: Implementation of provisions for coverage for mental health and substance abuse services, as required by the Affordable Care Act (ACA) in the Medicaid State Plan, utilizing a state-based health exchange (KYNECT)
- 2016: Transition to the federal insurance exchange (Healthcare.gov) secondary to cost of maintaining the state-based exchange
- 2020: Due in large part to COVID-19, KY experienced a 26.7% increase in enrollment
- 2020: Relaunch of KYNECT for enrollment in Medicaid, KCHIP, and TANF benefits

The Medicaid program in KY has historically focused on providing healthcare to subgroups of the lowest income individuals including the elderly, disabled, children, and pregnant women. In 2013, KY chose to expand Medicaid eligibility by extending coverage to individuals with incomes up to 138% of the federal poverty level (FPL) to achieve its three goals:

- reduce the number of low-income residents who lacked health care
- improve the health status of Kentuckians – especially low-income residents without prior access to healthcare coverage
- boost KY's economy



Through the ACA, KY has been successful in reducing uninsured rates by expanding Medicaid and using the HealthCare.gov enrollment platform.

As of February 2020, prior to COVID-19 increase in Medicaid enrollment, KY had enrolled 1,316,089 individuals in Medicaid/CHIP. As of June 2021, the number of Medicaid/CHIP enrollments had increased to 1,668,649.

In January 2014, KY implemented provisions of the ACA to provide coverage for mental health and substance abuse services. Since implementing the ACA requirements, KY has successfully improved provider enrollment increasing behavioral health providers and substance abuse disorder providers. In collaboration with many partners, KY launched the Findhelpnowky.org website in 2018 to provide a link for KY providers, court officials, families, or individuals to locate substance use disorder (SUD) treatment programs. This site has informational resources, developed for professionals or individuals, such as definition of common terms, contact information, and more (findhelpnowky.org, 2020).

Since 1997, KY has provided free or low-cost health insurance for children younger than 19 without health insurance through the KY Children's Health Insurance Program (KCHIP). Children in families with incomes less than 213 percent of the federal poverty level are eligible.

Kentucky transitioned from KYNECT to the Healthcare.gov platform in November 2016. Under the newly elected Andy Beshear administration in 2018, plans were developed to return to the state run KYNECT platform by November 2021. However, with the pandemic shutdown and increasing numbers of KY families in need, this work was fast tracked and completed in October 2020. KYNECT now affords the opportunity to enroll in Medicaid/KCHIP, SNAP, KTAP, Child Care Assistance, and KI-HIPP (Premium assistance).

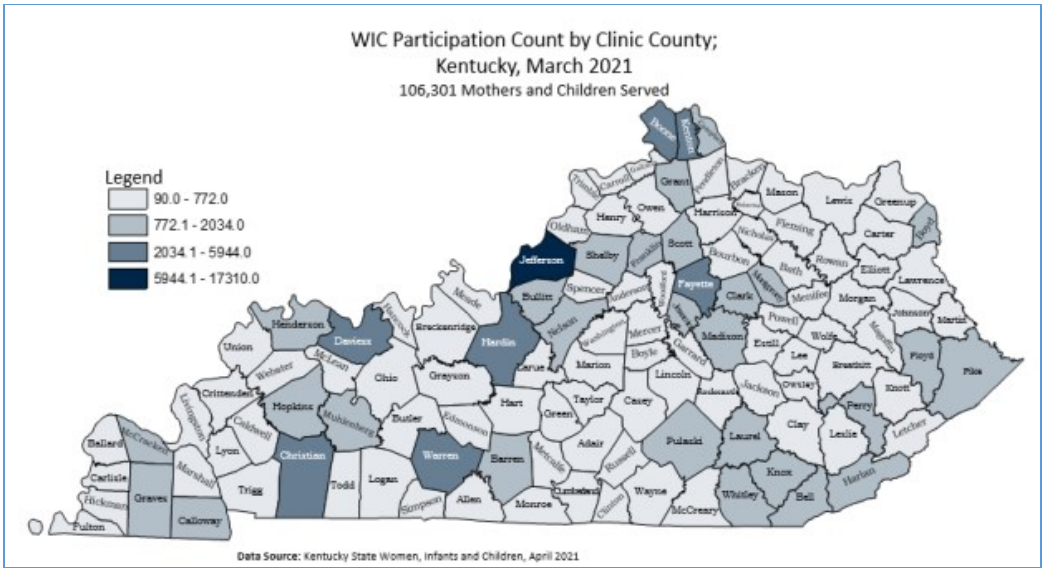
In state fiscal year 2020, KY Department for Medicaid Services (DMS) contracted with five Managed Care Organizations (MCOs) to provide healthcare services for Kentuckians eligible for Medicaid. These included Aetna, Anthem, Humana, Passport, and Wellcare. As of June 1, 2020, there were 1,451,854 Kentuckians enrolled with one of these MCOs (KY Dept. for Medicaid Services, 2020). For 2020, KY's exchange offered additional offerings for individual plans from two insurers, Anthem and CareSource, with 56/120 counties where residents can select from both Anthem and CareSource. During the 2019 enrollment period, 83,139 people enrolled in the private individual market plans for 2020 (Healthinsurance.org, 2020). Medicaid expansion has been successful. KY has reduced the uninsured rate from 2013 to 2017 by 62% (Healthinsurance.org, 2020).

The 2015 Needs Assessment showed that OCSHCN respondents are less likely than other MCH populations to experience problems obtaining insurance via the exchange. Subsequent OCSHCN surveys have indicated that

OCSHCN enrollees are more satisfied with the adequacy of their child's coverage than CYSHCN families sampled through the National Survey of Children's Health (2018). OCSHCN contracts with a trusted nonprofit, Patient Services, Inc., to provide insurance case management and premium assistance solutions for those with eligible conditions, specifically bleeding disorders and cystic fibrosis. Insurance coverage is an issue among MCH populations. OCSHCN is working toward greater (appropriate) coverage by guiding and advocating for CYSHCN on an individual basis and on a state level, through participation in ongoing dialogue with Medicaid and the MCOs to minimize barriers such as pre-authorization requirements for medical procedures, specifically those from which previously, CYSHCN may have been exempted. OCSHCN continues to participate in learning collaborative opportunities alongside Medicaid partners, state partners, and national experts.

Temporary Assistance for Needy Families (TANF)

The Temporary Assistance for Needy Families program provides grant funds to states and territories to provide families with financial assistance and related services. Kentucky Transitional Assistance Program (KTAP) is the monetary assistance program established using federal funds from TANF. KTAP provides financial and medical assistance to needy and dependent children and their parents or relatives with whom the children live. Over the past year, Title V has revitalized its relationship with the TANF program in the state to identify critical need and client base. MCH is now directly working with TANF program administrators to identify individuals in need of TANF assistance.



State Health Agency Priorities

Sworn into office in December 2019, Governor Andy Beshear began his term advocating and working to improve healthcare access noting it is not a partisan issue. Since assuming the governorship, his efforts have been largely focused on best practice measures of keeping all Kentuckians safe during the world-wide pandemic of COVID-19. He has held daily media outreach efforts promoting safety measures and emergency regulations impacting access to care, telehealth, and restrictions for safety measures.

In 2017, KDPH evaluated target areas of concern for the state to develop the state health plan. Stakeholders identified the focus needs to improve the health of Kentuckians, which include substance use disorder, tobacco use, obesity, adverse childhood experiences, and integration to health access. All of these have significant impact on mothers and children. With the rising opioid epidemic, a focus remains on decreasing the rates of Neonatal

Abstinence Syndrome (NAS), and Sudden Unexpected Infant Death (SUID), and on the increasing identification and treatment of pregnant woman with substance use disorder.

In 2018, KDPH began meeting with every local health department and stakeholders to address Public Health Transformation based on Public Health 3.0 principles. This transformation is working to address fiscal instability within local health departments, many of which face insolvency in one to two years. Public Health Transformation has set a goal to improve public health leadership, prevent duplication of services, and support data driven decisions to promote positive community health outcomes.

The KY General Assembly made LHDs and other quasi-governmental organizations its central focus in 2020. In an effort to address rising retirement costs, the resulting legislation allowed local health departments to either remain in the state retirement system, or to "opt-out" of the state pension system if their local boards of health desired. This has appeared to help with local health department fiscal instability, at least for the time being.

At the state level, MCH collaborates with DMS on multiple projects to improve outcomes for women and children. The KY DMS medical director, Dr. Judy Theriot, was previously the OCSHCN medical director and is deeply familiar with the work and programs in MCH/OCSHCN to improve outcomes. She represents DMS on committee work to understand maternal morbidities and mortalities to drive prevention efforts and is on the KPQC steering committee and MCH SDoH CoIIN projects. In the past year, she has chaired a DMS/MCH/DPH Medicaid Innovation Accelerator Program, and she provided continuing education in support of well child assessments for LHD nurses. Dr. Theriot supports and advocates for DMS changes to ensure improving access to care for the MCH population. This relationship with a sister agency in CHFS has allowed MCH Title V to be influential in advising and guiding Medicaid policy changes.

Outreach and Enrollment

Since the initial rollout of health reform, Title V has primarily supported outreach and enrollment to services or has served to link LHD resources to fill gaps of services for mothers and children. LHDs support by assisting women and children with presumptive eligibility and providing ongoing education for access to Medicaid. As a way to ensure that all families and CYSHCN have adequate sources of insurance, OCSHCN parent consultants and social workers connect families with state Medicaid services and work closely with other waiver programs that could benefit children with special needs. In the past three needs assessment cycles, statewide needs assessment survey data showed that OCSHCN respondents are less likely to experience problems with obtaining insurance than other groups.

MCH and OCSHCN will continue to provide information to families on changes in the Medicaid program and assistance to assure continuity of coverage.

LHDs used Title V funds to provide education to assure they know how to enroll in coverage. While there is not a MCH package specifically to fund these activities, LHDs continue to assist clients.

OCSHCN care coordinators and social workers work with direct-service enrollees to determine insurance adequacy on an individual and family level. The agency continues to contract with a trusted nonprofit, Patient Services, Inc., to provide insurance case management and premium assistance solutions for those with eligible conditions – specifically bleeding disorders and cystic fibrosis. Policies assure objective criteria for assistance, directing assistance to those persons in the most need.

Title V Gap Filling Services

While many LHDs provide direct gap filling services as funded by local and state tax dollars, Title V funds transitioned away from direct services to limited enabling services or primarily with population health measures with the use of best practice and innovative programming or “MCH Packages.” These packages allow flexibility in use of funds to address education, outreach, and health promotion on child injury prevention, obesity, safe sleep, community partnership activities, abusive head trauma, and more. With limited direct services in many rural KY areas, LHDs are collaborating with their local FQHCs for direct services to provide assurance that key services are available in their communities for the MCH population.

OCSHCN recognizes the effect of managed care in the way care is financed. Through discussions and an initial orientation period with the recently established MCOs, OCSHCN was elucidate of the services the agency provides, resulting in partnerships and integration of practices. For example, nursing assessments were developed to align documentation required by the existing MCOs, and nursing care plans to demonstrate an individualized plan of care is developed in partnership with the patient and family to accomplish goals. Documentation of case management provided by OCSHCN nurses is shared with the MCOs to avoid duplication of service. The entrance of multiple MCOs has affected CYSHCN enrolled in multi-disciplinary clinics (such as craniofacial anomalies and cleft lip and palate), as not every provider is enrolled in every MCO network. This has the potential to fracture the team approach when providers are substituted on teams. One example of cooperation is OCSHCN’s work with the dental administrator for three MCOs to create policy specifically for CYSHCN with craniofacial anomalies, such as cleft lip and palate, to go beyond the once-in-a-lifetime orthodontia benefit and permit phased treatment.

Another success was negotiating with two MCOs to assure pre-authorization for therapy services would not be required. For other MCOs that require pre-authorization, therapists are educated on consistently documenting medical necessity when requesting pre-authorization. Variability exists among the MCOs in terms of the authorizations required for durable medical equipment such as ear molds and hearing aids. When facing such barriers to securing prescribed interventions, OCSHCN staff and parent peer consultants continue their diligent effort to work with families to resolve issues on an individual basis, such as obtaining Medicaid waivers where appropriate.

Challenges for Delivery of Services

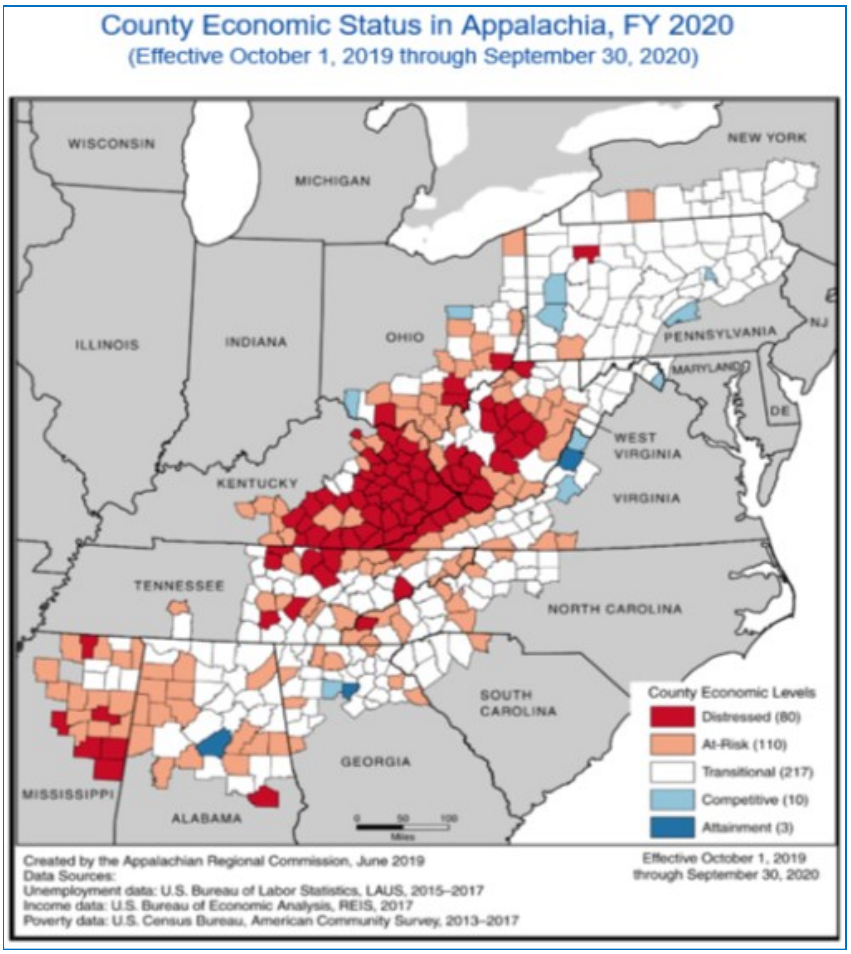
Healthy People 2020 notes, “Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities.” In KY, disparity affects all MCH indicators in areas of racial, ethnic, economic or geographic location, and access to care.

The US Census Bureau 2019 Population Estimates for KY is 4,467,673. KY’s population is 87.5% Caucasian, 8.5% African American, and 3.9% Hispanic. The poverty rate is 16.3%, and 41% of Kentuckians live in a rural area (United States Census Quick Facts, 2020).

Appalachian communities are unique and deserve special attention given the rural, resource-limited, socio-economic impoverished nature of families in this part of KY. This affects access to employment, health care, higher education, and other services. Limited access to local providers (especially for specialized care) and transportation are barriers imposed by a rural community. The rurality of the population created a need for communities to rely on LHDs for primary care and prevention services. With Public Health Transformation, LHDs are moving from direct preventive exams and primary care services to population health preventive measures. Identified distressed counties correspond with higher indicators of poor health.

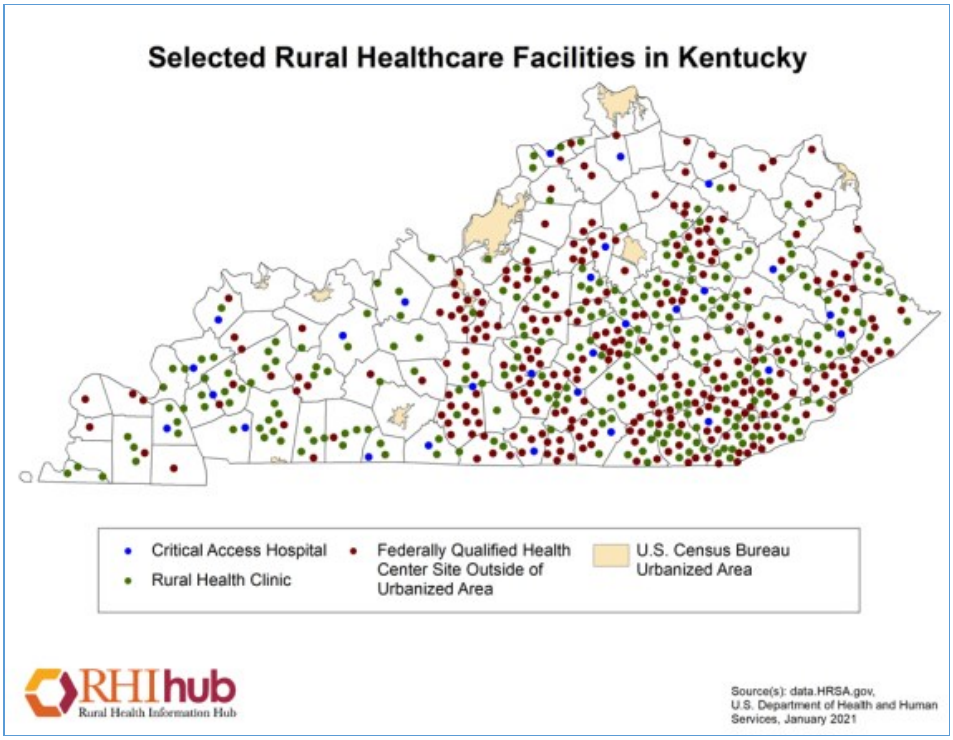
Social determinants of health (SDoH) for rural KY have large impacts on health outcomes as many counties are part of the highest poverty and at-risk areas of KY. The Appalachian Regional Commission (ARC) monitors the economic status of Appalachian counties in all 13 Appalachian states. A designation of a “distressed county means” this area has a median family income no greater than 67% of the United States average and a poverty rate 150% of the US average or greater.

Per the ARC, there are 80 distressed counties in 13 states, with KY having the highest number of 38 distressed counties; all located in eastern KY. Next to KY is West Virginia, with only 16 distressed counties. (Appalachian Regional Commission, 2020).



Health disparities are addressed by place based initiatives such as the Federal Healthy Start program in Louisville, Federally Qualified Health Centers (FQHCs) such as Bluegrass Community Health Center in Lexington that provides a medical home for migrant workers in Central KY, or other FQHCs in the eastern part of KY serving underserved populations with comprehensive services.

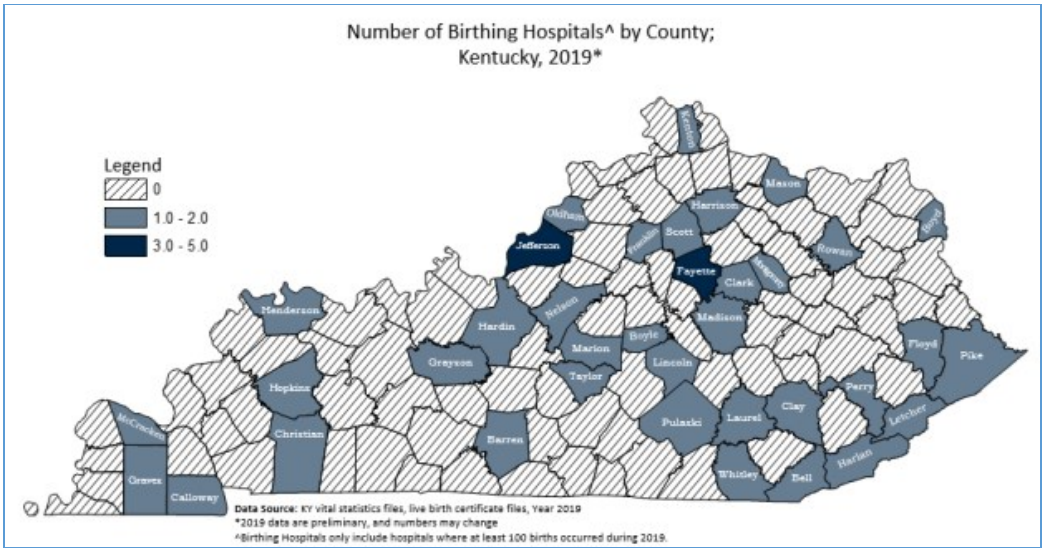
Illustrated in the Rural Healthcare Facilities map below, (Rural Health Information Hub, 2020), as of January 2021, KY has 28 Critical Access Hospitals, 252 Rural Health Clinics, 264 FQHCs outside of urbanized areas, 45 short term hospitals outside of urbanized areas(data.HRSA.gov, 2020). Through the KY Office of Rural Health, efforts are made for rural hospital improvement grants, and stabilization of the smallest and most vulnerable rural hospitals.



KY has three primarily urban areas: Louisville, Lexington, and Northern KY. Both Louisville and Lexington have a children's hospital providing comprehensive pediatric care. KY has one specialty hospital, Shriners Hospital for Children, serving children (regardless of ability to pay) with orthopedic conditions. As of January 2021, there are 294 RHCs with a Medicare ID in the Commonwealth of KY. The number of providers in KY's health program shortage areas (HPSA) are listed below:

	2018	2019	2020	2021
Primary Care HPSA	75	94	96	99
Dental HPSA	41	46	63	68
Counties with Mental Health HPSA	100	103	101	117
FQHC Sites	139	282	341	28
Primary Care Centers	113	178		102
Certified Rural Health Clinics	210	145	250	294
Children's Hospitals	3	3	3	3

Source: https://members.kpca.net/map
Accessed on: 6/23/21
Kentucky Primary Care Office



State Statutes and Other Regulations Relevant to Title V Program Authority

KY Revised Statutes (KRS) and KY Administrative Regulations (KAR) of relevance to KY's Title V program authority are described in this section to provide the basis for MCH programs and their required activities. These can be located at: KY Revised Statutes and Administrative Regulations.

- KRS 211.180 gives the CHFS the responsibility and authority to formulate, promote, establish, and execute policies, plans, and programs relating to all matters of public health. This KRS supports MCH population efforts. It states that the CHFS is responsible for "the protection and improvement of the health of expectant mothers, infants, preschool, and school-aged children" and "the protection and improvement of the health of the people through better nutrition."
- KRS 211.180 authorizes MCH to protect and improve the health of expectant mothers. Decades ago, the legislature provided funding to MCH with the intent that no pregnant woman in KY will go without prenatal care due to lack of ability to pay.
- 902 KAR 4:100 established the public health prenatal program to administer these funds and set the financial eligibility for those in need of prenatal care at 185% and below of the FPL who are not covered by Medicaid or any other funding source. The public health prenatal program serves as a core public health service and is the primary strategy for reducing maternal morbidity and mortality, and infant morbidity and mortality.
- KRS 211.755 stipulates that a mother may breastfeed her baby or express breast milk in any location, public or private, where the mother is otherwise authorized to be, this is in addition to the nutrition provisions in KRS 211.180.
- KRS 344.030-.10 prohibits employment discrimination in relation to an employee's pregnancy, childbirth, and related medical conditions. It required reasonable accommodations for the employee and is the first lactation accommodation requirement in KY. This law became effective June 27, 2019.
- KRS 214.160 requires Hepatitis C screening for all pregnant women and to be documented in the infant's medical record to assure the child receives serologic testing at the 24-month well-child exam.
- KRS 214.160 permits the provider to administer toxicology screening to the pregnant woman or infant after delivery if the provider has reason to believe there was prenatal exposure of newborn or that the mother used any substance for a nonmedical purpose. Positive toxicology findings shall be evaluated by the provider to determine if abuse or neglect of infant occurred and referred to DCBS as per KRS 600.020(1).
- KRS 344.030-.110 establishes the Pregnant Workers Act which prohibits discrimination to an employee for

pregnancy, childbirth, or other related medical conditions and is the first lactation accommodation requirement in KY.

- KRS 214.155 requires Newborn Screening (NBS) and authorizes the NBS program to collect data for inborn errors of metabolism and other hereditary disorders and allows the state to add any conditions to the panel that are recommended by the American College of Medical Genetics. KY currently screens for 58 disorders.
- KRS 304.17 establishes the Metabolic Foods and Formula program to provide needed supplements and special foods to children with metabolic disorders as a payor of last resort. Medicaid and insurance companies are required to provide these for their enrolled patient population up to a cap of $25,000.
- KRS 211.645, 211.647, and 216.2970 established the Early Hearing Detection and Intervention Program (overseen by OCSHCN) which screens newborns for hearing loss prior to discharge from KY birthing hospitals.
- KRS 211.651 authorizes the KY Birth Surveillance Registry to obtain data on all children up to the age of five years with congenital anomalies or disabling conditions. Reporting sources include acute care hospitals, outpatient records, and laboratories.
- KRS 211.192 directs KDPH to make available up-to-date information on spina bifida.
- KRS 211.676 requires birthing hospitals to report all diagnosed NAS cases to KDPH.
- KRS 211.690 established HANDS as a voluntary home visitation for first-time, at-risk parents as a primary service delivery strategy in 2000.
- 902 KAR 4:120 sets the definitions, eligibility criteria, and provider qualifications for the HANDS program.
- 907 KAR 3:140 established HANDS funding from the Master Tobacco Settlement and in accordance with Medicaid. Since 2011, the HANDS program has had federal support from the MIECHV grant.
- KRS 200.654 allows MCH, as part of the CHFS, to administer state and federal funds to the First Steps Program (Part C of the Individuals with Disabilities Education Act) to provide early intervention services for infants and toddlers with disabilities and their families.
- 902 KAR 30:150 defines First Step (Kentucky Early Intervention Services) provider qualifications.
- 911 KAR 1:010 establishes application forms used for clinical programs, procedures for application and reapplication, eligibility criteria, assignment of pay category, and processes used to determine initial and continuing eligibility for services, as well as a process for reconsideration of an adverse decision.
- 911 KAR 1:020 establishes minimum monthly payments for cost of treatment and care, commensurate with ability to pay, procedures for the preparation and transmittal of patient statement of accounts, receipt of payments, clinic participation fees, services provided by contracted providers, authorizations of payment, procedures for failure to provide payments, provisions for discharge, criteria for reapplication, as well as a process for reconsideration of an adverse decision.
- 911 KAR 1:060 establishes requirements relating to the Office for Children with Special Health Care Needs Medical Staff.
- 911 KAR 1:085 establishes standards, eligibility criteria, application processes, reporting requirements, and appeal rights for entities seeking designation as approved infant audiological assessment and diagnostic centers and identifies approved methods for auditory screening for newborn infants in hospitals and alternative birthing centers.
- KRS 211.901 addresses the statewide Childhood Lead and Poisoning Prevention Program (CLPPP) for the prevention, screening, diagnosis, and treatment of lead poisoning.
    - KRS 211.900 defines at-risk populations for lead poisoning.
    - KRS 211.903 specifies the intervals of screening of at-risk children.
    - KRS 211.904 states that the CHFS shall establish an educational program to inform of the multiple dangers, frequency, and sources of lead poisoning and the methods of preventing such poisoning.
- KRS 211.686 established the Public Health Local Child Fatality Review (CFR) Program in 1996. This statute allows local teams to assist the coroner in determining an accurate manner and cause of death.

- KRS 213.161 initiated grief counseling through LHDs for families who have lost an infant to Sudden Infant Death Syndrome (SIDS).
- KRS 211.686 was amended in 2018 to add Maternal Mortality Review to the child fatality review allowing for review of cases of maternal death to establish prevention activities and align with best practice guidelines as defined by the CDC. The legislation for child and maternal mortality protects against discoverability of review information.
- KRS 199.8945 establishes technical assistance for childcare providers through the Healthy Start in Child Care program. This statute mandates training and education of childcare providers in child health and safety to increase awareness and education for parents of children who attend childcare.
- KRS 211.190 (11) requires CHFS to provide public health services that include water fluoridation programs for the protection of dental health.
    - 902 KAR 115:010 sets forth the requirements for the water fluoridation program. KY has the highest percentage of fluoridated water systems in the country, at 98%.
- KRS 313.040 created a special licensure category for Public Health Registered Dental Hygienists (RDH) that expands the scope of preventative dental work that the public health RDH can do without requiring the presence of a dentist on site.
- KRS 156.160 requires that all children entering public school have a dental assessment; while this is the responsibility of the KDE, the MCH State Dental Director provides training and technical assistance.
- KRS 156.501 establishes a full-time position in the KDE for a school nurse consultant, to develop protocols for health procedures, quality improvement, and health data collection in schools. MCH funds half of this position and collaborates to develop guidance for health management in schools.
- KRS 200.460-200.499 established program authority for CYSHCN services. The authorizing statute reads in part: that OCSHCN “shall provide through contractual agreement, or otherwise, such services as may be necessary to locate, diagnose, treat, habilitate, or rehabilitate children with disabilities, and may include any necessary auxiliary services.” Remaining statutes address conditions of acceptance for children, payment for care, confidentiality of records, and reporting.
- KRS 438.345 added language to prohibit use of tobacco products by students, school personnel, and visitors in schools, school vehicles, properties, and activities; require policies to be in place by the 2020-2021 school year; require that smoke-free policies and signage be adopted; and provide that existing bans are not impacted.
- KRS 200.460-200.499 established program authority for CYSHCN services. The authorizing statute reads in part: that OCSHCN “shall provide through contractual agreement, or otherwise, such services as may be necessary to locate, diagnose, treat, habilitate, or rehabilitate children with disabilities, and may include any necessary auxiliary services.” Remaining statutes address conditions of acceptance for children, payment for care, confidentiality of records, and reporting.

III.C. Needs Assessment
FY 2022 Application/FY 2020 Annual Report Update

Summary

The goal of Kentucky's Title V Block Grant Needs Assessment is to improve the maternal and child health outcomes by better understanding strengths and weaknesses in current operational structures, gaps in service, and the needs of target populations. Continuous review enables the state to strengthen partnerships for more effective implementation of strategies to identify and develop strategies to improve outcomes for the MCH population throughout Kentucky.

The MCH and OCSHCN conducted the 2020 KY Title V Needs Assessment with support from Eastern KY University (EKU) Facilitation Center. The goal of this needs assessment was to identify priorities for the Title V Program over the next five years in a manner that takes into account maternal and child health data, local and state stakeholder perspectives, and patient perspectives.

Many stakeholders were involved throughout the process including local health department staff and patients, OCSHCN staff and patients, and a diverse group of MCH stakeholders. To measure progress on current priorities and build evidence to identify new priorities, quantitative and qualitative analysis techniques were utilized.

KY identified the state priority needs during the 2020 Needs Assessment to be:

1. Infant mortality with specific concerns related to prematurity, substance use exposure (NAS), SUID, abuse and neglect, nutrition, and growth and development
2. Improving women's health with specific concerns around access to care, resource and referral, substance use disorder, maternal mortality, maternal morbidities, and obesity
3. Child injury prevention and mortality with focus on preventable causes of death and improved well child assessment/immunizations
4. Child growth and development with specific focus on behavioral health and ACEs and parental engagement/support, improved physical activity, reduced obesity rates, and substance use exposure
5. Adolescent mental health and suicide prevention
6. Adolescent behavior risk with focus on healthy lifestyle to reduce obesity, prevent substance use including tobacco products, reduce teen pregnancy, and build social and emotional resilience
7. Children with special health care needs' ability to transition to adult care and education services, ongoing community access to care, addressing health literacy, and parental supports

Needs Assessment Plan

Despite the state of emergency that existed for much of 2020 with Covid-19, KY MCH Title V continued to participate in program reviews, data analysis, and evaluations as part of an ongoing annual needs assessment. These analyses included data review, surveys such as the Behavioral Risk Factor Surveillance System (BRFSS) and PRAMS, advisory board reviews, and regional (virtual) meetings throughout 2020. At program level, ongoing review of logic models, program plans and processes are evaluated as per program standards. Program information is used to inform ongoing modifications to annual strategic planning. Analysis of quantitative data is reviewed monthly for many MCH programs.

With impact of COVID-19 pandemic, MCH has evaluated and re-evaluated program plans and scope of work processes to adapt to barriers arising during the pandemic restrictions. Key guiding principles have been targeted to focus on the MCH population, health equity and implicit bias, community input/engagement, data driven decisions, evidence-informed practices, collaborative effort with agencies, stakeholders and systems, and accountability.

Ongoing Needs Assessment Activities

The Title V Needs Assessment is an on-going, data-driven, collaborative process that includes state officials, families, service providers, community organizations, LHD staff, policymakers, and supplemental funding agencies, as well as support personnel and other stakeholders. Key guiding principles target the MCH population, health equity and implicit bias, community input/engagement, data driven decisions, evidence-informed practices, collaborative effort with agencies, stakeholders and systems, and accountability.

MCH identifies primary inputs inclusive of statewide workforce, collaborative agencies, stakeholders, data sources, and consumers as informants of KY MCH needs. MCH goals are for the data to address population-based indicator data, survey data, structured group data, and program-based data. Quantitative and qualitative input is necessary to understand and inform current and ongoing program activities reflective of the community level for targeted intervention. With multiple quantitative and qualitative data sets, MCH uses multiple methodologies to prioritize data for identification for each population domain and for those that were crosscutting for all domains.

MCH seeks ongoing input from consumers and families through a variety of surveys, meetings, and outreach activities at the program level of work. Annually, MCH data are derived and analyzed from multiple data sources and evaluated annually and quarterly, over a 5—year period.

MCH has included the parent/consumer voice in survey assessment and educational material review primarily within the home visitation and early intervention programs. Additionally, consumer input from providers of services is sought during advisory meetings and ongoing program consultation or technical support. The Division of Epidemiology continues the evaluation and dissemination of data as a function of providing timely and up-to-date reporting for programmatic compliance and effectiveness.

Quantitative and qualitative data reports are provided to a variety of stakeholders, legislators, and public health leaders across the state. This information is often utilized in data presentations to improve awareness of the state of health outcomes impacting mothers and babies. Annually, this data is presented at a variety of conferences and the annual MCH Conference. In 2020, MCH was not able to host a live MCH conference. MCH did make available 5 webinars on the KY TRAIN system related to maternal and child health topics. Ongoing pediatric and perinatal webinars are added periodically for stakeholders and providers.

Changes in Health Status and Emerging Needs

Throughout 2020, COVID-19 has impacted the state priority needs in many ways. The pandemic has created a shift in priorities and in the response to those needs. This shift included structural and operational services as well as evaluation of those services. Other shifts included:

1. Increased focus on emotional and mental health to all populations
2. Increased utilization of telehealth or other means of telecommunication
3. Workforce development moved from conference or classroom settings to remote learning
4. Improved capacity for enrollment and linkage to other services utilizing electronic platforms

The ongoing effect of the pandemic emphasized ever-greater attention to our needs. The prioritized needs remain; however, the ability to assess and react was limited to the capacity to connect virtually with stakeholders and clients.

MCH and OCSHCN both saw successes with virtual program outreach and services and a limited ability for data surveillance.

The 2020 needs that were identified continue to be priority with some measures worse than the national average. Patterns for infant mortality, NAS, unsafe sleep, and child injury are higher in eastern KY where opioid rates are higher. Child suicide and maternal mortality rates continue to rise. Solvency of LHDs and Public Health Transformation became an emerging issue for KDPH. To reduce burden on the LHD, MCH began strategically reviewing program structures and processes to identify ways to streamline, reduce, or discontinue redundant or unnecessary activities for the LHD staff.

COVID-19 Pandemic Response:

Beginning in early 2020, KY MCH responded to State-of-Emergency orders and mandates issued by federal and state officials through our well-established emergency operations plans, policies, and procedures. Beginning in March, staff from across the department were advised to work remotely to stem the tide of rising Covid-19 cases among the general population. Some staff members were temporarily reassigned to other tasks and roles to assist in the response efforts. It is anticipated that with the peaks and valleys of the pandemic, the impact on our workforce will continue through the end of 2021 and beyond. Given the anticipated effect of the pandemic on both state and local budgets, MCH anticipates budget reductions may occur. The impact of the pandemic will likely be felt for years to come, impacting the well-being of our workforce and local communities, especially LHDs. As the pandemic has continued, several issues have emerged that will clearly impact MCH's work as we move into the future:

- The pandemic has exacerbated the disparities that exist in KY. Population health measures are greater than ever for African Americans and communities of color, as those in larger cities such as the Louisville Metro Area
- Health outcomes for those with COVID-19 have been poorest for those communities most impacted by housing instability, food insecurity, and health care access such as rural Eastern KY and other rural areas throughout KY as well less affluent areas in larger cities
- For several months, individuals who would otherwise see their primary care physician for routine acute respiratory illness went to an emergency room for care and urgent care center capacity was quickly overwhelmed with caring for COVID-19 patients
- Well-child and well-women visit and immunization rates have declined as families delayed routine health care out of fear of contracting COVID-19 if they visited their health care provider
- OCSHCN could be at increased risk for complications from COVID-19. In addition, school and other closings affect the availability of important therapies and supports for children with special health care needs

Health Equity:
MCH partners with the Office of Health Equity (OHE) to promote activities raising awareness of health inequities. The OHE provides training on aspects of cultural competence for communities and programs. The OHE is a strong partner of MCH in providing training focused on:

- Public health equity approaches
- How to incorporate equity approaches into state plans for smoke-free environments in public housing
- Ways to address infant mortality disparities seen in communities of color, in particular African American communities

OHE prepares the biennial Minority Health Status Report to inform key decision makers about health disparities and inequities affecting Kentuckians. With the guidance of OHE, KDPH has adopted a department wide health equity policy to guide equity efforts. MCH continues to review program plans and initiatives with a lens to reduce health disparities/inequities and to guide LHDs to include these efforts in annual planning for work within the MCH best practice packages.

Workforce Capacity & Emergency Response:

MCH saw a substantial increase in virtual stakeholder meetings and information sharing. As a response to pandemic restrictions, MCH became a convener, attender, or leader of multiple organized stakeholder meetings. This led to:

1. Increase of cross-collaboration for population outreach, service provision and virtual educational opportunities
2. Improved communications and linkage of many stakeholders with shared purpose or mission
3. Increased workforce regardless of the employing agency to meet capacity of state needs

Emergency response plans were updated to include lessons learned throughout the pandemic response. Local hospitals were deeply impacted with staffing shortages related to the pandemic. This led to different emergency regulation changes for nurses and other providers.

Priority Updates

The priority list is relatively unchanged. However, as discussed, the impact of COVID-19 on many of our programs,

staff, and client outreach cannot be overstated. Many of the needs that were identified last year are still present and there are, in some cases, a greater need now than before. KY MCH continues to adapt in order to meet the needs of women and children throughout the state through innovative practices, use of technology, and up-to-date reporting.

Women/Maternal Health:

The focus remains to improve the percent of women receiving annual preventive health visits and focusing on improving women's health across the life course. By doing so, KY hopes to improve pregnancy outcomes and reduce maternal mortality. MCH was successful in development of a well-woman best practice package launched in the state for FY22. Just in time media outreach efforts by LHDs promoting COVID-19 vaccination for pregnant women were rapidly developed and released beginning February 2021.

Perinatal/Infant Health:

The NPMs focused on breastfeeding remained a constant. Throughout 2020, outreach and technical assistance were limited in scope and volume. As a result of the pandemic nutrition services however saw an increase in WIC enrollment because of the economic decline. Job loss and the additional stress placed on families heightened the need for mothers and families to seek government services. Critical health assessments that had historically been performed during in-person WIC appointments were limited, thereby decreasing the ability to identify risk factors and provide nutrition information for clients. These assessments, which were now being held virtually or over the phone are more critical than ever to determine positive outcomes for clients.

For the safe sleep NPM, there was increase in SUID deaths from the prior reporting period. MCH responded by temporarily lifting the match requirement for the Cribs for Kids program to quickly meet the direct need of cribs, developed additional social media messaging, and LHDs created curbside or porch delivery guidance for distribution. A parent YouTube video was developed to demonstrate appropriate setup and safe sleep practices for parents.

Child Health:

As of April 2020, most school districts had to immediately switch to non-traditional, distance or on-line learning which created an access issue with most, if not all of our programs. There was a great deal of work performed around the obesity and nutrition NPM to promote activity and nutrition as well as alternatives to screen time with short virtual promotions to be active when virtual learning days were completed. The Healthy Schools team used many interactive methods to build in stretch and movement times for use by teachers with virtual learning classrooms. Work continued regarding the child injury SPM, there was collaborative work performed by many agencies around safe kids, healthy and safe homes. Social media platforms became the most efficient source for distribution of short safety videos or materials.

Adolescent Health:

Mental health and risk behavior concerns persisted with limited peer to peer engagement and the usual adolescent activities limited due to pandemic restrictions. Prior to COVID-19, KY rejoined the Child Safety Learning Collaborative to develop a targeted approach to reduce child/adolescent injury. This led to a three-prong approach of:

1. Data review
2. Program review
3. "Zero suicide" curriculum - 4-part approach implemented

OCSHCN:

The 2020 Needs Assessment identified children with special health care needs as: ability to transition to adult care, access to education services, ongoing community access to care, addressing health literacy, and parental support. OCSHCN has continued to work on these on-going needs during the pandemic, which remained relatively unchanged, but have been exacerbated over the past year. Families often must forgo care due to long waiting lists, problems getting appointments, issues with eligibility criteria, complex systems to navigate, childcare coordination, language and cultural barriers, transportation issues particularly in eastern KY, and economic constraints. Significant

gaps still exist in accessing the needed supports to transition from pediatric to adult health care, especially for youth with complex medical needs. As COVID-19 continues to spread statewide, children and youth with special health care needs may be at an increased risk for more severe illness and complications. To this end, KY OCSHCN continues to work with parents, teachers, caregivers, and other stakeholders in order to address the needs of children and youth across the state. Telehealth has played a positive role in addressing needs during the pandemic.

Operationalization of the Five-Year Needs Assessment

MCH did not lose sight of the long-term visions and goals. Review of strategic plan, data sets, and program policies and procedures were adapted to meet current pandemic requirements. Individual programs were expected to weekly provide updates to MCH director and monthly reporting was completed to all levels of DPH leadership.

Organizational Structure

The KY Executive Branch has 11 cabinets, with the CHFS being the largest. The state health agency, KDPH, and OCSHCN are organizationally located within CHFS. Administration of the Title V program occurs through the Division of Maternal and Child Health within the KDPH.

The foundational statute KRS 211.180, gives CHFS the responsibility and authority to formulate, promote, establish, and execute policies, plans, and programs relating to all matters of public health. This allows MCH to collaborate with LHDs to fund Title V evidence informed strategies based upon the priority needs. MCH administers many programs, regulatory services, and health promotion initiatives, which include:

- Nutrition Services
    - Federal funded Special Supplemental Nutrition Program For Women, Infants And Children (WIC) including vendor enrollment
    - Nutrition education
    - Breastfeeding education, surveillance, and breast pump rentals
    - Medical nutrition therapy
    - Engagement with local farmer's markets
- Early Childhood Development
    - Health Access Nurturing Development Services (HANDS), a voluntary home visitation program that supports families from pregnancy (primigravida/multigravida) through age 2 of the child
    - Child Care Health Consultation Program provides trainings and technical assistance to out of home childcare settings on health and safety
    - IDEA Part C, Early Intervention Services – First Steps provides comprehensive services for children with developmental disabilities from birth to age 3
    - Early Childhood Mental Health (ECMH) addresses social, emotional and behavioral issues for children through age 5 and various pilot programs for Help Me Grow
    - Partnership with Governor's Office of Early Childhood and BHDID to contract with the 14 regional community mental health centers for program implementation
    - Birth Surveillance Registry (KBSR) provides surveillance for possible causes of birth defects through age 5 and linkage of children with birth defects to university genetic clinics and First Steps
    - Kentucky Strengthening Families (KYSF) focuses on enhancing the protective factors of the family
    - Healing, Empowering, Actively Recovering Together (HEART)
- Child and Family Health Improvement
    - Perinatal program provides technical assistance on reduction of early elective deliveries, presumptive eligibility, and linkage to resources
    - Maternal mortality reviews all maternal deaths, within one year of the end of the pregnancy
    - Pediatric programs include
        - Child Fatality Review and Injury Prevention
        - Coordinated School Health
        - School Health Nursing
        - Childhood Lead and Poisoning Prevention
- MCH Supportive Services provide epidemiologic support for
    - NAS Surveillance Registry

- SUID case registry
- Pregnancy Risk Assessment Monitoring Survey
- Kentucky Birth Surveillance Registry with linkage to genetic clinics and IDEA Part C services
- MCH Budget and Expenditure monitoring

As per the mandates and authorizations in state statute, services provided by OCSHCN include:

- Direct care gap-filling clinics for those children with a diagnosis on the agency's eligibility list
- Audiology services, including hearing conservation, testing, hearing aid fittings, and programming for cochlear implants. OCSHCN administers KY's Early Hearing Detection and Intervention (EHDI) newborn hearing screen surveillance program
- Foster care support programs, which support children with special needs in the child protective service system in collaboration with DCBS
- Family to Family (F2F) Health Information Centers, provide assistance to families and professionals in navigating health care systems; information, education, training, support and referral services; outreach to underserved/underrepresented populations; health programs and policy guidance; and collaboration with other F2Fs, family groups, and professionals in efforts to improve services for CYSHCN
- Operation of the First Steps (Early Intervention) point of entry in the state's largest region
- Care for CYSHCN through its regional centers, ongoing partnerships and collaborations.

Leadership

In February 2020, Dr. Steven Stack became the Commissioner of Public Health just weeks prior to the enactment of COVID-19 emergency policies. Throughout his tenure this past year, his leadership has been pivotal in monitoring and responding to the emergent needs from the pandemic.

Throughout the pandemic, having Medicaid, DPH, and many other programs, under the steady leadership of the veteran Cabinet Secretary Eric Freidlander, was pivotal in the efficient response to a myriad of needs. Many MCH initiatives or staff were diverted to the pandemic response, with greatest impact on staffing being among both state level and LHD staff. This resulted in reduction of population health activities by LHDs, the infrastructure of which did not have capacity beyond pandemic response and core public health services. With the increasing need of MCH leadership staff directed to the pandemic response and program management, an additional Title V Block Grant Coordinator position was established.

MCH Leadership Staff:

- Connie White, MD, MS, FACOG is the Senior Deputy Commissioner for Clinical Affairs, and is Board Certified in OB/GYN with emphasis on patient education and preventive medical care
- Henrietta Bada, MD, MPH, is the MCH Division and Title V Director and is Board Certified in pediatrics and neonatal-perinatal medicine and directs all MCH programming
- Andrew Waters, MPH, is the Assistant MCH Division Director and manages day-to-day MCH operations, budget planning and administration, and functions as the MCH legislative liaison
- Matt Belcher, MPA, Title V Block Grant Coordinator, has 15 years of experience in grant writing and administration, and local community development
- Jan Bright, RN, BSN, Manager of the Child and Family Health Improvement Branch and Title V Block Grant Administrator, has 31 years of pediatric nursing experience
- Tracey Jewell, MPH, Manager of the Program Support Branch, is a MCH Epidemiologist with over 22 years of experience in DPH and Title V
- Nicole Nicholas, MS, RD, LD; Manager of the Nutrition Services Branch has over 23 years of experience as a registered dietician, Kentucky WIC programs
- Paula Goff, MS; Manager of the Early Childhood Development (ECD) Branch has over 33 years of experience in ECD programs and IDEA Part C
- Julie McKee, DMD; State Dental Director: KY Oral Health Program

- Karen McCracken, MCH Family Consultant: Early Childhood Mental Health, KY Strengthening Families, and family informed workgroups
- Vivian Lasley-Bibbs, MPH, directs the Office of Health Equity and is a Health Disparities Epidemiologist and Healthy People 2020 State Coordinator

OSCHN Leadership Staff:

- Ivanora Alexander, BS BME, OCSHCN Executive Director, has a 14-year history with Kentucky's CYSHCN program and has prior service as a rehabilitation engineer/manager designing technology for children and adults with disabilities.
- Edith Halbleib JD, OCSHCN Deputy Executive Director, 25 years' experience as an attorney, with 9 years' experience as the managing director, deputy executive director, or executive director of organizations within the Commonwealth.
- Patricia Purcell MD, MBA, FAAP, OCSHCN Medical Director, has over 20 years' experience as a pediatrician, is a Past President of the KY AAP, is currently the KY AAP District IV Vice Chair, and is an associate professor at UofL's School of Medicine.
- Michelle Marra, RN, BSN, Director of Clinical & Augmentative Services,
- Freida Winkfield Shaw, CPA, Director of the Division of Administrative & Financial Services, has over 20 years of accounting, budgeting, and finance experience, and 15 years in grants management.
- Jonathan Borden, MBA, EDD, DAFS Assistant Director, has over 15 years of experience dealing with policy analysis and reporting in both the public and private sectors.
- Sondra Gilbert, Director, F2F, works with the Am. Acad. of Pediatrics Section on Home Care, Midwest Genetic Network, CMC CollN, Family Voices, and Parent to Parent of KY.

Agency Capacity

MCH capacity was stretched in multiple ways during 2020. There continues to be ongoing turnover of staff from many programs with staff promotions, retirements, and those in pursuit of higher paying positions within state government. This continues to impact program operations secondary to the loss of institutional and program knowledge and skills, thereby needing to train and onboard new staff. The constant shifting of policies/procedures to meet the pandemic emergency further hindered the ability of MCH to operationalize program strategic plans. In many areas MCH adapted to emergencies and rapid changes in regulations by quickly diverting staff to telecommute schedules, moving meetings and trainings to virtual platforms, and utilizing accessible technology to improve efficiency.

The greatest barrier to MCH work was the overtaxed LHD system and hospital system which shifted their primary focus to COVID-19 response. This response is no less heightened today than it was March of 2020. Funding, hiring, and onboarding new staff locally to address the public health emergency and core public health programming supersedes the MCH package work and other collaborative work within their community. Limitations for face-to-face meetings and contacts demand additional planning and organization in a system in which every minute is a precious commodity to protect the public.

Continued Partnerships, Collaboration, and Coordination

Partnerships with state agencies and community partners extend the reach and influence of MCH. MCH and OCSHCN strive to collaborate with federal partners and private organizations to help meet aligned agency goals and to address the priority needs of the women, children, and children with special health care needs. With a 90-plus year history of service provision, OCSHCN has developed formal and working relationships with a variety of programs providing services to children.

Partnerships exist with WIC, family planning, FQHCs, BRFSS, Department for Child Welfare, DBHDID, DMS, and FRYSC. In addition, KY partners with KY Injury Prevention and Research Center at UK, the bona fide agent for injury prevention and the statewide injury prevention plan for children. KDPH and OCSHCN have cross collaboration to provide home visitation to medically complex children in foster care, training, workforce development, expertise, and

specialty providers for gap filling services for children with special needs. These collaborations exist with First Steps, Early Hearing Detection and Intervention, and Child Welfare.

Five-Year Needs Assessment Summary
(as submitted with the FY 2021 Application/FY 2019 Annual Report)

III.C.2.a. Process Description

Summary

MCH and OCSHCN conducted the 2020 KY Title V Needs Assessment with support from the Eastern KY University (EKU) Facilitation Center. The goal of this needs assessment was to identify priorities for the Title V Program over the next five years in a way that takes into account maternal and child health data, local and state stakeholder perspectives, and patient perspectives.

The needs assessment process was organized by MCH leadership, including Dr. Henrietta Bada, MCH Director; Andrew Waters, Asst. MCH Director; Jan Bright, MCH Title V Authorizing Officer/Coordinator; Branch Managers; and epidemiology team along with leadership from OCSHCN which includes Ivanora Alexander, Executive Director; Jonathan Borden, OCSHCN Title V Coordinator, Dr. Patricia Purcell, Medical Director and Karen Mercer, Director of Clinical & Augmentative Services. Beginning in March of 2018, this team met at various times to develop mechanisms to engage stakeholders, set priorities, and collaborate on program mission, goals, and activities.

The Facilitation Center managed the qualitative portion of the needs assessment. MCH and OCSHCN handled the quantitative portion. Many stakeholders were involved throughout the process including local health department staff and patients, OCSHCN staff and patients, and a diverse group of MCH stakeholders.

Process: Quantitative and qualitative methods, data resources

To measure progress on current priorities and build evidence to identify new priorities, KY used quantitative and qualitative analysis techniques. The quantitative and qualitative data resources and a brief description of the process is described in detail in the following sections.

Quantitative Data Resources

MCH Fact Sheets

KDPH MCH produced 120 perinatal fact sheets in 2019, using 2017 Office of Vital Statistics birth and death data. These fact sheets were tailored to each of the 15 Area Development Districts (ADD) and addressed 8 maternal and child health issues including births, breastfeeding, infant mortality, low birth weight, births to Medicaid enrolled mothers, prenatal care, prenatal smoking, and preterm birth. Topics chosen were based on existing knowledge about maternal and child health in KY and findings from birth certificate data. Each fact sheet addressed a specific topic at the local level and allowed regions to compare their findings with statewide outcomes. National benchmarks were included when available. Relationships between topic areas, such as how smoking during pregnancy plays a role in low birth weight, were also included in an effort to better explore maternal and child health in KY. These fact sheets helped identify geographic disparities for various maternal and child health domains, which aided stakeholders in understanding specific health outcomes. Local and state staff utilized this in-depth review to identify health priorities.
These fact sheets are available on the KDPH MCH website, distributed in electronic form to stakeholders, and available in booklet form at the November 2019 KY Maternal and Child Health Conference.

For every domain covered, the eastern Appalachian portion of the state consistently had poor outcomes for issues of maternal and child health. This region of the state is rural and faces a great deal of general health issues related to access to care, socioeconomic-related issues that create barriers for proper medical care, and cultural perceptions and beliefs, which hinder cues to actions. This eastern portion of the state had the highest percentage of mothers who smoke during pregnancy, and the most preterm births and the highest percent of births with a low birth weight. They also had some of the lowest percentages for breastfeeding initiation and some of the highest percentages for births to Medicaid-enrolled mothers (as high as 75% in some areas).

Not surprisingly, urban areas of the state generally had better outcomes overall and had far fewer births to Medicaid

enrolled mothers. While these urban populations contain KY's highest concentrations of the population, they also have an abundance of resources for a variety of maternal and child health issues. While resources are not the only factor at play, this geographic difference was.

OCSHCN Action Plans and Access to Care Plans
OCSHCN tracks its progress each year on its Data Action Plan and its Access to Care Plan. For 2019 the Access to Care plan scored the same as in 2018 as it was already at 94.6%. The Data Action Plan score increased from 76.6% to 86.6% (68 to 78). Both document are included in the material by reference.

Consumer/Family Survey
MCH and OCSHN distributed a 21-question consumer survey (English and Spanish) in local health departments, OCSHCN clinics, hospitals, and social media from May 2019 - March 2020. The survey had the following sections: problems affecting population domains (women, babies and children, teenagers, CYSHCN); services for CYSHCN; access to care; and demographics. A total of 395 surveys were returned, representing 58 of KY's 120 counties (48%). A KDPH MCH epidemiologist analyzed the results.

The most common races represented were White (84.8%) and Black or African American (8.7%). Approximately 1% of surveys were taken in Spanish, and 6.9% of participants identified as Hispanic. The median year of birth was 1990. A brief report of survey findings is included in the attachments.

Stakeholder Survey
A 47-question stakeholder survey was distributed through professional meetings and social media from September 2019 - March 2020. The survey collected demographic information as well as thoughts on health issues, challenges, and successes for various population domains (women, infants, children, teenagers, CYSHCN). A total of 1198 surveys were returned. A KDPH MCH epidemiologist analyzed the results. Attrition was a serious concern with the results. The demographic questions at the beginning of the survey had about 5% missing values; the missing values rate jumped to 25% for questions in the first population domain and gradually increased to upward of 40% for the last population domain. Rather than limiting this sample to the participants who completed the entire survey or reporting information that is potentially biased due to attrition, KDPH MCH decided to exclude this survey for prioritization purposes, and only use it to provide context. For questions prioritizing issues, the frequencies of each response for each applicable question were added together, and then divided by the total number of responses for all applicable questions to obtain the percent of respondents who selected each choice.

Although there were participants from all regions of KY, Western KY was under-represented (8.8% of respondents). The largest response for job role and workplace setting was "Other" (40.4% and 44.9%, respectively), so KDPH MCH could draw few conclusions about the participants' professional experience or role in MCH. Nearly a third of respondents work in a public health department and over a quarter are nurses. Nearly all participants were White (93.3%) and non-Hispanic (98.9%). A brief report of survey findings is in the attachments for MCH, and selected findings are included below.

The volume of survey responses was diminished from previous needs assessments secondary to shifts away from direct patient care services at LHDs and additional planned activities with local primary care offices were cancelled with an onset of increased influenza activity and restrictions that later became part of the now Covid-19 restrictions.

Qualitative Data Resources

Focus Groups
During November 2019 - February 2020, the EKU Facilitation Center conducted five focus groups across KY. The focus groups were held in four cities, with one city hosting an additional focus group for Spanish-speaking families. Combined, 125 individuals participated, representing a broad variety of MCH stakeholders including families and CYSCHN advocates. The purpose of these meetings was to identify the beliefs, values, and opinions of key representatives throughout the state in regards to health-related programs, successes, or barriers impacting women, infants, children, including those with special health care needs, and adolescents. Participants were asked to develop four lists by the end of each session:

maternal and child health initiatives that are working well, community needs by population, barriers to improving the priority needs, and actions to improve the priority needs. The EKU Facilitation Center performed the qualitative analysis and provided a report of findings to KDPH MCH.

Informed Stakeholder Interviews
During February - March 2020, the EKU Facilitation Center conducted 18 telephone interviews with MCH professionals across KY. Participants were invited based on knowledge, diverse backgrounds, perspectives, and geographic representation. The purpose of these calls was to identify the beliefs, values, and opinions of key representatives throughout the state in regards to health-related programs, successes, or barriers impacting women, infants, children, including those with special health care needs, and adolescents. Participants were asked to develop four lists by the end of each session: maternal and child health initiatives that are working well, community needs by population, barriers to improving the priority needs, and actions to improve the priority needs. The EKU Facilitation Center performed the qualitative analysis and provided a report of findings to KDPH MCH.

Kentucky Hospital Statistics
A review of KY hospital data resources was conducted using data sources/reports available from the KY Hospital Association and hospital searches for their required community health needs assessments. While individual hospital assessments were organized and reported in different ways, maternal and child health needs were identified (Kentucky Hospital Association, 2020).

KDPH State Health Assessment
As part of the state health department accreditation process, a detailed state health assessment and update were conducted among all DPH programs. This assessment captured quantitative information for maternal and child health needs.

KDPH Workforce Development Survey
In 2019, KDPH conducted a workforce survey based upon the core competencies for public health professionals developed by the Council on Linkages Between Academia and Public Health Practice as well as the Public Health Foundation Tool, "Determining Essential Core Competencies for Public Health Jobs: A Prioritization Process." This survey was conducted in partnership with the University of KY and Northern KY University, and it had state and local health department representation on the planning workgroup. The survey had 897 responses across all divisions of public health. The results were presented at the KY Health Department Association meeting. The presentation included the combined results from LHD's community health improvement plans. In 2019, there were 49 of 61 jurisdictions that participated. The findings were not surprising as they were in agreement with other MCH surveys and quantitative findings.

OCSHCN Parent Survey
In January of 2017, OCSHCN began administering a new clinic survey. The first report based on the survey responses titled "OCSHCN Clinic Survey and National Survey of Children's Health Data Report" was presented to leadership in June of 2019. The report asks the parents of CYSHCN which were seen in our clinics 37 questions, 35 of which match questions from the NSCH. During the timeframe of the study, over 650 responses were collected. The report is included in the material by reference.

III.C.2.b. Findings

III.C.2.b.i. MCH Population Health Status

With each domain, stakeholders and MCH/OCSHCN leadership reviewed the quantitative and qualitative information available and ranked priorities for each domain for priority areas for the domains. Some priorities were crosscutting and had impact on multiple domains including substance use, mortality, and access to care, poverty, social, emotional, and behavioral health concerns, health literacy, and transition of care.

Women's and Maternal Health

Priority overview

The patient survey identified priorities of: overweight/obesity, depression, drug or marijuana use, pregnancy and health problems related to pregnancy, and second hand smoke. These matched the priority results from 2015, although the order changed for some items. The qualitative results identified similar concerns noting some priorities such as obesity, early access to prenatal care, well woman visits, and oral health were overshadowed by the imminent threats of substance use and social determinants of health. Priorities include substance use, including tobacco products; access to care; women's health preventative care; early prenatal care, early identification and referral for maternal morbidities and treatment options, education and adequate nutrition in pregnancy, behavioral health, and transition of care for identified health conditions after pregnancy; obesity

Strengths and Needs

Stakeholders felt HANDS, LHD health education, and WIC were the most effective form of service for women. Focus group participants and key informants also found these to be strengths along with other initiatives such as Healing, Empowering, and Actively Recovering Together (HEART), safe sleep education, KY Moms Maternal Assistance toward Recovery (MATR), community health workers, and local substance use treatment options.

The patient survey identified access to services as an area of need. Access issues included wait times for medical/dental care, geographic proximity of medical care, availability of specialist care, and obtaining Medicaid coverage. Access to services (including treatment and other resources) was the most commonly chosen factor that influenced family planning and mental health care. Evaluation of quantitative date from area development districts coincide with areas with highest poverty rates, substance use, premature births, teen births, smoking during pregnancy, and other harmful pregnancy outcomes. These outcomes correlate with adverse outcomes across the life course seen in KY. Per hospital discharge data for women of childbearing age, primary codes are because of vaginal or cesarean deliveries, chemical dependency emergency room visits, psychiatric emergency room visits, or treatment for injuries.

The qualitative priorities identified are education and awareness of women's health issues, access to care for routine, specialty, or substance use, access to providers, overall impact of substance use (including tobacco products), and issues created by poverty such as obesity, nutrition, transportation, and living conditions.

MCH Block Grant Efforts

Efforts target improving the health of women and mothers in collaborative efforts with other state and local agencies or programs. The goal is to increase comprehensive treatment and improve preconception and interconception health in partnership with stakeholders to identify gaps and barriers and best practice initiatives.

Perinatal/Infant Health

Priority Overview

The patient survey identified the top issues for babies to be exposure to drugs, alcohol, and cigarettes during pregnancy; second hand smoke; NAS; child abuse or neglect; and babies exposed to substances with long-term delays. Although issues related to substance exposure (including tobacco as well as other substances) were present in the priorities for 2015 and 2020, the other priorities from 2015 (preterm birth and breastfeeding) were not chosen as survey priorities in 2020. Please note the 2020 patient survey did not distinguish between infant and child health, but prioritized issues would be applicable for both infancy and childhood. Priorities include premature birth; infant mortality; substance use exposure, including tobacco products, neonatal abstinence syndrome; infant abuse and neglect, sudden unexpected infant death; infant nutrition, growth and development, early interventions.

Strengths and Needs

Identified areas of strengths were the home visitation program, WIC, LHDs, and social media campaigns. Focus group

comments found that community resources with close relationships with families added protective factors and increased likelihood of positive behavior changes. They found HANDS and First Steps Early Intervention are trusted advisors and models of care. The Hispanic group identified free clinics and support groups as best resources. KY Newborn Screening Program is another strength with over 99% of all newborns screened and 100% referred for evaluation and linkage to long-term care. LHDs provide a positive community linkage for education and outreach for a variety of maternal and child health topics.

Stakeholders' concerns about infants' exposure to tobacco and substances and impact on adverse infant outcomes including preterm birth, child maltreatment, SUID, and growth and development. In order to address infant development, stakeholders suggested focusing on attachment and bonding, a nurturing environment, and early intervention and screening.

Focus groups felt there was a gap in knowledge or awareness of perinatal topics, substance exposed infants, overall growth and development, immunizations, and best practices. They felt safe sleep initiatives still lacked parental buy-in. They voiced a need for greater access for well child providers, healthcare coverage, early intervention services for infants, and proper nutrition. For the Hispanic community or others without health care coverage, they felt funding and limited providers left them at highest risk.

MCH Block Grant Efforts

Approaches include reducing infant mortality with safe sleep education, breastfeeding promotion, early identification and plan of safe care for infants with NAS. KY continues to monitor birth defects, ensure newborn screenings, home visitation, and early intervention services.

Child Health

Priority Overview

The patient survey identified child issues as: in-utero substance exposure; second hand smoke; and child maltreatment. Child maltreatment was a priority in 2015 and 2020, but pediatric obesity and injury prevention were not chosen as patient survey priorities in 2020. However, both topics were heavily weighted by focus groups and key informants. Priorities include child injury, mortality, abuse and neglect; obesity/ proper nutrition; access to care; behavioral health, adverse childhood experiences (ACEs); parental engagement/support; tobacco use, second hand smoke.

Strengths and Needs

HANDS, WIC, and First Steps were identified as community respected and best practice initiatives. Stakeholders identified school based resources such as Family Resources and Youth Services Centers (FRYSC), Coordinated School Health (CSH) efforts, nutrition supports for weekend backpack programs (which supply children with non-perishable food for the weekend), and early childhood centers as strength based resources. KY Strengthening Families (KYSF) is a best practice model for development of improving parent/child resilience through parental partnership in Parent Cafés, and social emotional support for families to develop safe and nurturing environments for parents and children. LHDs were identified as a community partner with the schools to address obesity, nutrition, physical activity and tobacco free environments.

The stakeholder survey identified adverse childhood experiences as a major concern for children and stated it was the biggest factor affecting the standard of living for children. To foster child development, stakeholders recommended focusing on the home environment and parental engagement.

In order to improve access to care, stakeholders recommended improving access to: providers, providers who accept Medicaid, public health school nurses, and health literacy.

Social determinants such as proper nutrition sources, stable housing, and transportation to meet daily needs and for

medical care continued in this domain. The impact of substance use on children with out of home placement in foster care with alternative caregivers, aging grandparents, or great grandparents.Obesity was another concern of stakeholders as they noted children are getting far less exercise, having increased screen time, and have poor nutrition.

MCH Block Grant Efforts

Methods include conducting local child death reviews and development of prevention plans. HANDS, and KYSF supports the overburdened and stressed families. CSH promotes education of the school, child and community to empower positive health choices, while promoting best practice health polices in the school and community.

Adolescent Health

Priority Overview

The patient survey identified as the top issues: bullying, peer pressure, social media; drug or marijuana use; teen pregnancy; depression; teen smoking. Drug or marijuana use, smoking and pregnancy were identified in 2015. New priorities for 2020 include bullying, peer pressure, and social media and depression. Focus groups voiced concerns about the rise in child/adolescent suicide and suicide attempts, lack of coping skills for adolescents, lack of safe environments for adolescents to play or engage with each other, substance use, sexual health, and obesity. Priorities include mental and behavioral health/suicide; obesity, proper nutrition; substance use; tobacco use/vaping, second hand smoke; parental engagement/support; sexual health/teen pregnancy.

Strengths and Needs

Similar themes emerged from the stakeholder survey related to mental health and bullying among adolescents. Stakeholders identified the top factors affecting adolescent mental health as: social/emotional supports, social stigma, and access to mental health care providers. In order to prevent bullying, stakeholders felt that anti-bullying education was the most effective, followed by social/emotional supports, and parental involvement. Stakeholders also felt that social/emotional supports was one of the top factors affecting the standard of living for adolescent.

A concerted focus continues to evaluate and understand the behaviors and values through the Youth Risk Behavior Survey (YRBS) and from the Kentucky Incentives for Prevention Survey (KIP). The 2018 KIP survey had 128,000 student responses. Data from the 2018 KIP survey found an increase in adolescent smokeless tobacco use that doubled the national rate. Marijuana was the most widely used illegal substance increasing from 11.4% in 2016 to 14% of adolescents reporting use in 2018. School safety, bullying, suicide, self-harm, and emotional harm were other concerns.

Stakeholders were concerned that substance use by adolescents could lead to increased school absences and dropouts. Over 100 providers participated in a survey at the KY Youth Health Network in 2019. From this survey, substance use, and youth violence, such as bullying, gun violence, suicide, dating partner violence, and alcohol use were identified as the most common issues youth face in KY. Other concerns noted were risky sexual behavior, obesity, and tobacco use. Participants noted the most important topic to improve adolescent health outcomes would be to address mental health/ACEs and the lack of parental engagement with youth.

Obesity, lack of physical activity and poor nutrition choices were priority concerns. School nurses noted a rise in Type II Diabetics in the high school age and lack of health literacy, and a heightened need for transition for students with chronic health issues to adult providers. Teen pregnancies are declining overall, however, geographically rates are higher in areas of most effected by SDoH.

MCH Block Grant Efforts

Reaching adolescents and effecting change is challenging. Tactics include addressing mental health and gatekeeper assessment in the areas they seek help, such as primary care providers, and school setting. Obesity reduction is part of the

tenants of the CSH programs. A concerted focus continues to evaluate and understand the behaviors and values of this population, and finding community level opportunities to engage them where they live, work, and attend school. Child death reviews and prevention efforts and early linkage with regional mental health centers are pivotal to inform local efforts. LHDs are engaged in development/implementation of suicide reduction strategies.

Children and Youth with Special Health Care Needs

Priority Overview

The patient survey identified these as the top issues for adolescents: developmental, social, emotional screening; finding doctors who can provide care; early identification of special health care needs; making sure that families are able to receive needed services; finding insurance to pay for needed services. Many of the 2015 priorities stayed the same in 2020. The 2015 priorities that were not selected again in 2020 were the ability to find insurance to pay for care and training and support for children with behavioral issues. Priorities include access to care transition services for care and education needs; parental health literacy and supports; provider education and awareness for caring and resources for CYSHCN.

Strengths and Needs

While a lack of providers was a common discussion for this population, the services and clinics provided by the Office for Children with Special Health Care Needs were discussed as a positive statewide resource. First Steps early intervention programs were often cited as the best service for early childhood intervention. The bilingual parent support groups in Lexington and Louisville were named as positive resources for this population.

Of individuals who responded to the patient survey, 85 reported having a child in their family with emotional or mental health disorders, 79 had a child in their family with behavioral problems, 72 had a child in their family with chronic health conditions, and 57 had a child in their family with developmental disabilities. Of those individuals who reported having a child in their family with special health care needs, the majority reported that they would use peer support services if available. However, less than half reported that they were aware of OCSHCN.

Stakeholders felt like these were the factors that most often influenced early intervention: parental understanding of needs and granting consent, lack of providers in the community, and socioeconomic factors.

Stakeholders who participated in meetings or calls shared concerns about a need for bilingual therapists and providers. Access to care with concerns about healthcare coverage, as well as lack of specialists and transportation, were commonly discussed. Education of parents to improve understanding of the child's health care needs, resources, and empowerment of the parent in decision making was a recurring theme in conversations. Transition of the child to adult care providers was considered a strength if the child was part of the OCSHCN services, but lacking in specialty practices. Stakeholders voiced concerns that families of other ethnicities or with language barriers faced discrimination, delay in care, or lack of interpreters to assist with understanding guidance, educational opportunities, or safety factors. Stakeholders voiced concerns about the lack of follow-up for infants with NAS. Mental health supports for both caregivers and children with special health care needs were limited in providers, visits, and insurance coverage. Adequate childcare services for children with special health care needs was viewed as limited.

MCH Block Grant Efforts

OCSHCN efforts are directed toward reducing barriers with local evaluation and care coordination. Regional office staff assist with access issues, transition, and individualized parent supports to improve outcomes for this population.

Cross Cutting/Life Course

As discussed in the summary, multiple priorities were crosscutting of all ages or domains. These include mental health/ACEs, behavioral health, health literacy, health outcome education/awareness, substance use, access to

preventative and specialty care, equity/inclusion, social determinants of health, communication barriers, and substance use impacts both on health and the family unit. These were emphasized both in surveys and discussions and in review of quantitative health outcomes.

III.C.2.b.ii. Title V Program Capacity

III.C.2.b.ii.a. Organizational Structure

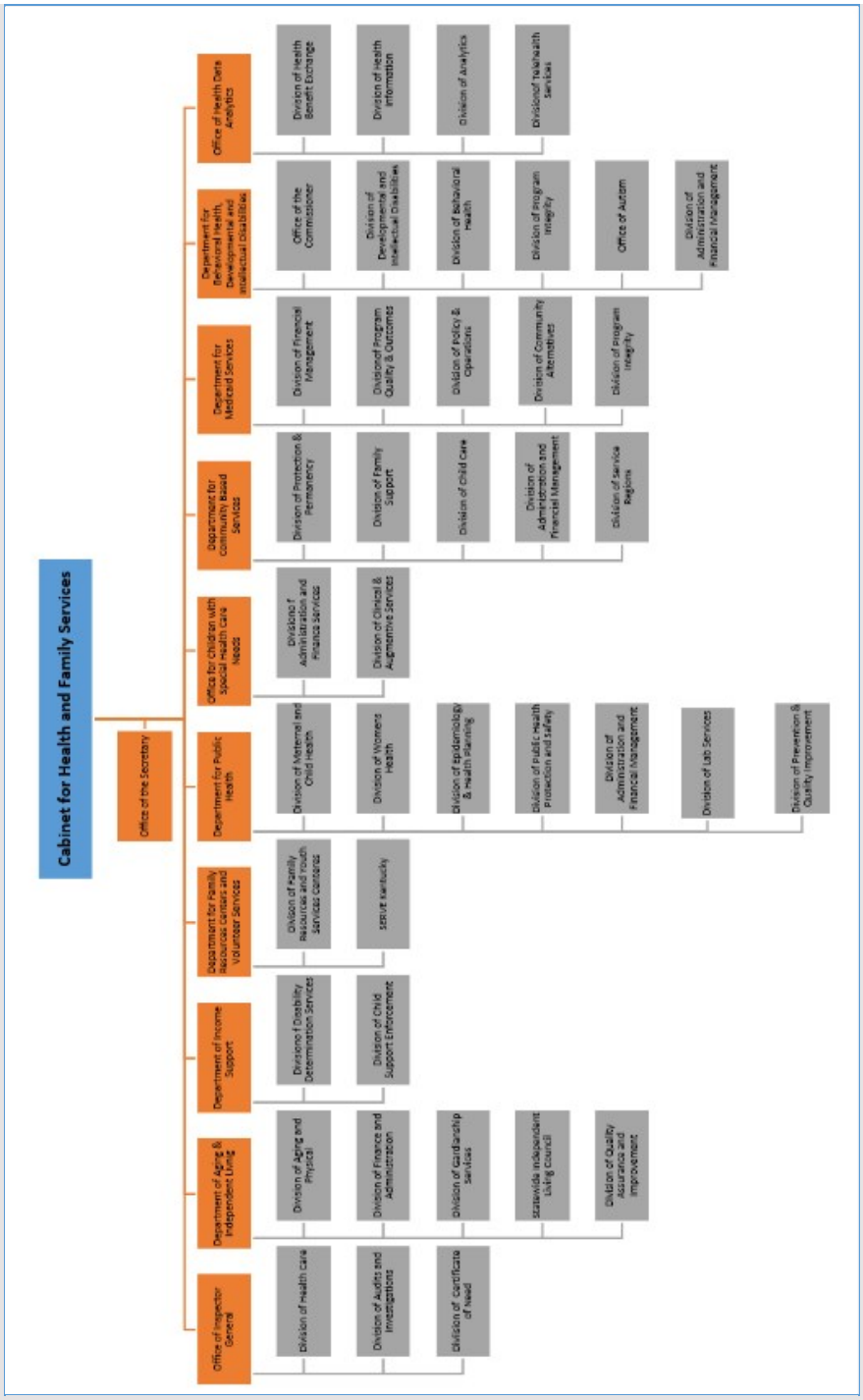
Organizational Structure

Governor Andy Beshear assumed the office of governor, December 2019. The KY Executive Branch has 11 Cabinets, with the largest being the Cabinet for Health and Family Services (CHFS). KDPH and OCSHCN are located within CHFS. Other CHFS agencies include the Departments or Offices for Inspector General (OIG), Aging and Independent Living (DAIL), Income Support (DIS), Family Resource Centers and Volunteer Services (DFRCVS), Community Based Services (DCBS), Medicaid Services (DMS), Behavioral Health, Developmental and Intellectual Disabilities (BHDID), Health Data and Analytics (OHDA), and Office of the Secretary.

KDPH is the state health agency; with Title V program and funds administrated by the Division of Maternal and Child Health under the leadership of Dr. Henrietta Bada. Kentucky Revised Statute (KRS) 211.180 grants CHFS the responsibility and authority to formulate, promote, establish, and execute policies, plans, and programs relating to all matters of public health. The majority of Title V funding allows LHDs to implement MCH Evidence Informed Strategies based upon the priority needs of the MCH population. Other programs supported with Title V funds include maternal mortality, regionalized perinatal care, access to specialty care (Genetics, Developmental Evaluations) and infrastructure for the MCH effort including IT systems, university based trainings, MCH workforce, and pediatric injury prevention technical assistance.

As per the mandates and authorizations in state statute (KRS 200.460-200.499), services provided by OCSHCN include:

1. Direct care gap-filling clinics for those children with a diagnosis on the agency's eligibility list. Services include direct patient care clinics and care coordination by nurses, therapists and specialty providers using a multidisciplinary team approach. Telehealth services are utilized to reach underserved populations and to improve local access to quality care.
2. Audiology direct care services. OCSHCN administrates the Early Hearing Detection and Intervention (EHDI) newborn hearing screening surveillance program.
3. Foster care support program and home visitation supports for children with special needs placed in child protective services in collaboration with DCBS.
4. Autism Spectrum Disorder (ASD) developmental screening is provided by OCSHCN in several locations throughout the state.
5. Family-to-Family Health Information Center to assist families and professionals in navigating health care systems; information, education, training, support, and referral services. This center provides outreach to underserved and underrepresented populations, guides health program and policy, and collaborates with F2F HICs, family groups, and community and state agencies to improve CYSHCN services.
6. Complex medical care clinics where OCSHCN uses funding from a Title V grant award administered through Boston University to provide care to children with medical complexities.
7. First Steps Early Intervention and Point of Entry Services for the KIPDA region of the state which covers 6 KY counties and includes the states most populous county.



III.C.2.b.ii.b. Agency Capacity

Title V provides supports for population health promotion, prevention, or gap filling services for the MCH population, inclusive of children with special health care needs in all 120 counties in KY. These services are in collaboration and agreement with statewide partnerships with LHDs and other community agencies.

Women's/Maternal Health

MCH assures population health services for prenatal, postpartum, and interception plans of care through collaboration with

multiple agencies to promote best practice initiatives. Each LHD assures linkage to care, presumptive Medicaid Eligibility, and provides consultation and education for pregnant women seeking assistance at the LHD. MCH collaborates with the Division of Women's Services (DWH) for family planning and teen pregnancy prevention, and preconception/interconception care efforts. In the past 3 years, KY has developed a quality Maternal Mortality Review Committee and launched the KY Perinatal Quality Collaborative.

Perinatal/Infant Health

Perinatal and infant health relies upon preventative service, promotion of nutrition/breastfeeding, safe sleep practices, and growth and development education to assure a strong and healthy start for infants. KY newborn screening identifies and links infants who screen positive to specialty care for evaluation, diagnosis and long-term care. HANDS home visitation provides support for at-risk families promoting healthy birth outcomes. First Steps early intervention program provides resources for education, health, and social services to meet the special needs of children and families.

Child Health

Child health programs promote well child assessments and physical, emotional, and oral health in children. KY has a robust relationship with injury prevention partners and the KY Department of Education to improve child health outcomes.

Adolescent Health

Adolescents receive gap-filling services for immunizations. MCH's focus has been on community level engagement and promotion to address ongoing mental health initiatives to reduce bullying and suicide, reduce obesity, and promote positive behavior and choices. MCH partners with the DWH for teen pregnancy initiatives.

CYSHCN

Through contractual agreement, or otherwise, OCSHCN provides services necessary to diagnose and treat CYSHCN. OCSHCN holds contracts with state universities, pediatric specialists, and other providers serving the CYSHCN population. OCSHCN staffs nurse care coordinators, service coordinators, social workers, therapists, and parent consultants who work along with families to implement their plan of care.

III.C.2.b.ii.c. MCH Workforce Capacity

MCH employs 95 public health staff focused on improving the well-being of all KY women, infants, children, adolescents, and their families. With 149 employees statewide, OCSHCN strengths include organizational structure, collaborative history, financial management, and affiliation with hospitals and universities.

The foundational statute KRS 211.180, gives CHFS the responsibility and authority to formulate, promote, establish, and execute policies, plans, and programs relating to all matters of public health. This allows MCH to collaborate with LHDs to fund Title V evidence-informed strategies based upon the priority needs. MCH administers many programs, regulatory services, and health promotion initiatives, which include:

- Nutrition Services
  - Federal funded Special Supplemental Nutrition Program For Women, Infants And Children (WIC) including vendor enrollment
  - Nutrition education, breast feeding, and surveillance
  - Medical nutrition therapy
  - Engagement with local farmer's markets
- Early Childhood Development
  - Health Access Nurturing Development Services (HANDS), home visitation program
  - Child Care Health Consultation Program for technical support for health, safety, and nutrition in childcare
  - IDEA Part C, Early Intervention Services

    - Early Childhood Mental Health addresses social, emotional, and behavioral issues for children and pilot programs for Help Me Grow
    - Birth Surveillance Registry (KBSR) provides surveillance for possible causes of birth defects through age 5
    - Kentucky Strengthening Families (KYSF) focuses on enhancing the protective factors of the family
    - Healing, Empowering, Actively Recovering Together (HEART)
- Child and Family Health Improvement
    - Perinatal program provides technical assistance on reduction of early elective deliveries, presumptive eligibility, and linkage to resources
    - Maternal mortality reviews all deaths of pregnant women, within one year of the end of the pregnancy
    - Pediatric programs include
        - Child Fatality Review and Injury Prevention
        - Coordinated School Health
        - School Health Nursing
        - Childhood Lead and Poisoning Prevention
    - Oral health programs provide education and technical assistance to LHDs utilizing public health nurses to screen children and provide fluoride varnish in childcare settings and school settings.
- MCH Supportive Services provide epidemiologic support for
    - NAS Surveillance Registry
    - SUID case registry
    - Pregnancy Risk Assessment Monitoring Survey
    - Kentucky Birth Surveillance Registry with linkage to genetic clinics and IDEA Part C services
    - MCH Budget and Expenditure monitoring

CHFS leadership changed in the fall of 2019 with the change of governorship. Eric Friedlander was appointed as the new Cabinet secretary. Mr. Friedlander has 35 years of public service with most of that time served in CHFS leading KY through successful implementation of the Affordable Care Act and transformation of KY's healthcare delivery system. He returned to this position after serving as the Chief Resilience Officer for Jefferson County with targeted work on infrastructure, poverty, homelessness, and SDoH factors influencing outcomes in that area. His previous positions include Executive Director for the Office for Children with Special Health Care Needs, and Manager of KY's Early Intervention Program.

In February of 2020, Dr. Steven Stack was appointed as the DPH Commissioner. He brings to DPH over 20 years of expertise in emergency department and hospital management, health system reform, physician licensure and regulation, and healthcare anti-trust issues. Dr. Stack has extensive experience in policymaking and advocacy at federal, state, and county levels and before legislative bodies and executive branch regulatory agencies. He also is a skilled public spokesperson and longtime advocate for universal access to affordable and high quality healthcare.

Dr. Henrietta Bada, a neonatologist with the University of KY, has served as the Director for the Division of Maternal and Child Health as well as KY's Title V Director since 2017. Dr. Bada serves as the Mary Florence Jones Professor and Vice Chair of Academic Affairs of the Department of Pediatrics at the University of Kentucky, where she practices clinical neonatology and is an attending physician for the neonatal abstinence care unit. Dr. Bada, a graduate of the University of Santo Tomas, Manila, Philippines, earned a Masters of Public Health from the University of South Florida. She is Board Certified by the American Board of Pediatrics in General Pediatrics and Neonatal-Perinatal Medicine. She has been involved in clinical and basic science research for several years. Her areas of research include newborn brain disorders, perinatal addiction, and developmental follow-up. She served as Principal Investigator (PI) of the Maternal Lifestyle Study (MLS) in collaboration with other PIs from the University of Miami, Wayne State University, and Brown University. The MLS is a longitudinal follow-up of children exposed to cocaine and or opiates in utero until the children reach 16 years of age. Dr. Bada has numerous publications with recent ones related to the findings on follow-up of children and adolescents who had prenatal drug exposure.

Ivanora "Ivy" Alexander was appointed OCSHCN Executive Director in April of 2020. Ivy has worked at OCSHCN since 2007, most recently as Assistant Director of Support Services. Prior to working at OCSHCN, Ivy held positions dealing with vocational rehabilitation and therapy services. Ivy is published in the peer reviewed journal Technology and Disability

regarding rehabilitation in rural areas. She has won awards from the University of Miami Mailman Center for Child Development related to assistive technology as well as a distinguished service award in the field of vocational rehabilitation services. Ivy holds a B.S. in Biomedical Engineering (BSE) from Wright State University.

MCH and OCSHCN Leadership Staff:

- Connie White, MD, MS, FACOG is the Senior Deputy Commissioner for Clinical Affairs, and is Board Certified in OB/GYN with emphasis on patient education and preventive medical care
- Henrietta Bada, MD, MPH, is the MCH Division and Title V Director and is Board Certified in pediatrics and neonatal-perinatal medicine and directs all MCH programming
- Andrew Waters, MPH, is the Assistant MCH Division Director and manages day-to-day MCH operations, budget planning and administration, and functions as the MCH legislative liaison
- Jan Bright, RN, BSN, Manager of the Child and Family Health Improvement Branch and Title V Block Grant Administrator, has 30 years of pediatric nursing experience
- Tracey Jewell, MPH, Manager of the Program Support Branch, MCH Epidemiologist with over 21 years of experience in DPH and Title V
- Nicole Nicholas, MS, RD, LD; Manager of the Nutrition Services Branch has over 22 years of experience as a registered dietician Kentucky WIC programs
- Paula Goff, MS; Manager of the Early Childhood Development (ECD) Branch has over 32 years of experience in ECD programs and IDEA Part C
- Julie McKee, DMD; State Dental Director: KY Oral Health Program
- Karen McCracken, MCH Family Consultant: Early Childhood Mental Health, KY Strengthening Families, and family informed workgroups
- Vivian Lasley-Bibbs, MPH, directs the Office of Health Equity and is a Health Disparities Epidemiologist and Healthy People 2020 State Coordinator
- Ivanora Alexander, BSN, OCSHCN Executive Director, 13 years working at OCSHCN as both a branch manager and assistant director of support services and over a decade more experience in related fields.
- Patricia Purcell MD, MBA, FAAP, OCSHCN Medical Director, has over 20 years' experience as a pediatrician. Dr. Purcell is the immediate Past President of the KY AAP, is currently the KY AAP District IV Vice Chair, and is an associate professor at UofL's School of Medicine.
- Freida Winkfield Shaw, MBA, CPA, Director of the Division of Administrative & Financial Services, has over 20 years of accounting, budgeting, and finance experience, and 15 years in grant writing.
- Karen Mercer, RN, BSN, Interim Director of Clinical & Augmentative Services has over 20 years of state government service, with over 17 years at OCSHCN and three with the Department of Juvenile Justice.
- Jonathan Borden, MBA, Ed.D. Procedures Development Specialist II, OCSHCN Title V MCH block grant coordinator, has over 15 years of experience dealing with policy analysis and reporting in both the public and private sectors.
- Sondra Gilbert, Co-Director, F2F, works with the Am. Acad. of Pediatrics Section on Home Care, Midwest Genetic Network, CMC CollN, Family Voices, and Parent to Parent of KY.

In the past 5 years, the workforce for MCH and OCSHCN has transitioned across the state from direct service provision to population health. Staffing positions have adapted to be less nurse, clinician focused to public health educators or other specialties. Tenure of staff has decreased as pension changes resulted in retirements, attrition, and delay in hiring for positions occurred. MCH has approximately a 25-27% vacancy rate at any time resulting in about 30 vacant positions. Approximately 10% of staff have been in their current role for less than one year. This has resulted in intensive need to for MCH development at all levels of the division. LHDs likewise have had similar impact resulting in multiple education and technical support opportunities between the state MCH programs and local MCH endeavors.

III.C.2.b.iii. Title V Program Partnerships, Collaboration, and Coordination

MCH has many partnerships at the federal, state, and community level to expand the influence and reach to improve outcomes for the MCH population. The primary partnership with OCSHCN allows Kentucky to align agency goals and address priority needs for children with special health care needs. To assure priority goals and program initiatives locally, collaboration occurs at the local level with the LHDs that are able to build work groups within the community. These are often the local school districts, community leaders, private organizations, health care providers, local hospitals, and federally

funded health care systems. KY collaborates federally with the CDC, Department for Medicaid Services, Behavioral Health, Perinatal Quality Collaboratives, and others to align KY goals with those of other states through work completed for CFR, MMR, SUID, PRAMS, SSDI, MIECHV, ECCS, WIC, CoIINs, KY Strengthening Families, and more.

OCSHCN continues to play a critical role in coordinating partnerships with various boards and councils where vision and work is specific to children with special health care needs. For over 95 years, OCSHCN has developed formal and working relationships with a variety of programs and contracts with a network of direct providers for the clients. OCSHCN strives to remain connected with outside organizations that are resources to families of OCSHCN. With Family to Family programming, CoIIN work, and other opportunities, OCSHN is coordinate efforts to serve this population from the local to the federal level.

A more extensive discussion of partnership is addressed specific to each population throughout the narrative sections of this report.

III.C.2.c. Identifying Priority Needs and Linking to Performance Measures

Needs Assessment Plan

The needs assessment process was developed using a logic model identifying primary inputs inclusive of statewide workforce, collaborative agencies, stakeholders, data sources, and consumers as informants of KY MCH needs. MCH goals were for the data to address population-based indicator data, survey data, structured group data, and program-based data. Both quantitative and qualitative input was necessary to understand and inform current and ongoing program activities and to be reflective at the depth of the community level for targeted intervention. With multiple quantitative and qualitative data sets, MCH used multiple methodologies to prioritize data for identification for each population domain and for those that were crosscutting for all domains. Key guiding principles were targeted to focus on the MCH population, health equity and implicit bias, community input/engagement, data driven decisions, evidence-informed practices, collaborative effort with agencies, stakeholders and systems, and accountability.

Activities

Activities included stakeholder and consumer surveys and field testing during the 2018 MCH conference with over 400 stakeholders in attendance. With public health transformation, MCH recognized LHDs and OCSCHN clinic responses would most likely not be at the same volume as with previous needs assessment years. A data distribution plan was completed and included use of multiple formats comprised of presentations at regional meetings and partnership conferences, reports, and use of electronic distribution. To gain stakeholder input, MCH utilized the resources of the EKU Facilitation Center to lead community stakeholder focus groups through vital tabletop discussions of the driving needs for each population, ending with evaluation and ranking priority needs for each. This process of scoring priorities was used with key informant interviews.

Quantitative and qualitative final data reports were posted for a 30-day public comment period with none received.

Prioritization and Linkage to National Performance Measures

During the final prioritization stage, MCH hosted a facilitated meeting with MCH and OCSHCN leadership with review of all data sources and rankings. Discussion included who or what informed the reports, methodology, outcomes, and planning for development of the state action plan. This meeting scored the various topics based upon trend, health and racial equity, impact/severity, preventability, agency capacity, public perception/political will, and stakeholder engagement/capacity. Once prioritization was complete, EKU facilitated multiple small group meetings with this leadership team to link these priorities to the national performance measures and develop the detailed state action plan evidence-informed strategies and measures.

From this process, Kentucky priorities emerged as the following:

1. Infant mortality with specific concerns related to prematurity, substance use exposure (NAS), SUID, abuse and neglect, nutrition, and growth and development

2. Improving women's health with specific concerns around access to care, resource and referral, substance use disorder, maternal mortality, maternal morbidities, and obesity
3. Child injury prevention and mortality with focus on preventable causes of death and improved well child assessment/immunizations
4. Child growth and development with specific focus on behavioral health and ACEs and parental engagement/support, improved physical activity, reduced obesity rates, and substance use exposure
5. Adolescent mental health and suicide prevention
6. Adolescent behavior risk with focus on healthy lifestyle to reduce obesity, prevent substance use including tobacco products, reduce teen pregnancy, and building social and emotional resilience
7. Children with special health care needs' ability to transition to adult care and education services, ongoing community access to care, addressing health literacy, and parental supports

With an informed list of priorities and drivers for these, KY was able to link each population domain to a National Performance measure that allowed the state to continue ongoing targeted best practice interventions, develop new action measures, or adapt other measures to better fit the priority needs. This meant a change in the chosen NPM for women's health, and it intensified the previous surveillance model actions to population health evidence-informed strategies.

Emerging Issues

Issues discussed did not identify large or unknown issues. Rather, the discussions provided valuable insight on the depth of the concerns, limitations of program or community level interventions, or highlighted strengths and positive community constructs that were valuable for continuation. Throughout the various activities these two factors overshadowed all topic areas, the ongoing substance use crisis, and behavioral health needs for all populations.

2015 to 2020 Priority Changes

The priority list from five years ago is relatively unchanged. Instead, the current priority list is inclusive of a deeper depth of detail for informing systems level change and improving quality efforts. In the past 5 years, KY has made informed and targeted changes at many operational levels to improve MCH outcomes. It is anticipated these efforts will continue with ongoing program level strategic planning and adaptation utilizing best practice interventions.

III.D. Financial Narrative

	2018		2019	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	$10,986,565	$10,541,220	$10,963,089	$12,131,422
State Funds	$28,718,900	$26,948,254	$28,704,200	$28,433,200
Local Funds	$0	$0	$0	$0
Other Funds	$0	$0	$0	$0
Program Funds	$25,975,964	$23,700,198	$27,161,800	$24,302,374
SubTotal	$65,681,429	$61,189,672	$66,829,089	$64,866,996
Other Federal Funds	$116,510,768	$118,848,041	$122,983,288	$105,708,439
Total	$182,192,197	$180,037,713	$189,812,377	$170,575,435

	2020		2021	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	$11,100,869	$8,348,724	$11,092,633	
State Funds	$28,300,100	$70,609,373	$28,433,200	
Local Funds	$0	$0	$0	
Other Funds	$0	$0	$0	
Program Funds	$27,995,100	$58,257,638	$24,302,374	
SubTotal	$67,396,069	$137,215,735	$63,828,207	
Other Federal Funds	$124,259,349	$115,584,598	$105,708,439	
Total	$191,655,418	$252,800,333	$169,536,646	

	2022	
	Budgeted	Expended
Federal Allocation	$11,257,105	
State Funds	$70,609,373	
Local Funds	$0	
Other Funds	$0	
Program Funds	$58,257,638	
SubTotal	$140,124,116	
Other Federal Funds	$131,468,670	
Total	$271,592,786	

III.D.1. Expenditures

Block grant funding and expenditures and explanations for significant variations in the expenditure data of 10% or greater compared to the previous year are provided by the state, as reported in Forms 2 and 3. Expenditures for this section are based on actual expenditures for state fiscal year 2020, which ended June 30, 2020. The budget is based on state fiscal year 2022. Reporting of actual expenditures may differ from the reported budget due to state fiscal year carryover and grant year amount variations. The variance in budgeted vs. expended in FY2020 was $2,752,145. Expenditures were less than budget in financial system and will be adjusted to fit within the budget. KY's state fiscal year begins on July 1st and ends on June 30th, which is different from the federal grant year of October 1st through September 30th. Those funds unused within the State Fiscal Year will be spent in the first quarter of the new state fiscal year, July – September, which is the 4th quarter of the federal fiscal year. Other differences may include additional expenditures from other revenues and budget adjustments made throughout the year, but these are generally minor. The Commonwealth of KY requires a balanced budget at the end of each fiscal year.

The COVID pandemic has substantially impacted the LHDs ability to focus on any work other than mitigating the spread of infection in their communities. The state has made significant effort to provide flexibilities where allowable under the federal block grant to provide for indirect work related to COVID that supports the MCH populations. For instance, the state eliminated the required match for purchase of cribs to relieve the demands in that requirement. This enhanced the LHDs' ability to provide safe sleep environments for families in critical need.

KY has funded total expenditures of 48.5% from federal funds, 32.8% from agency funds, 10.4% from general funds, and 8.3% from tobacco master settlement funds. Maintenance of effort and match are made up of total State General Funds and Agency Funds. Details of these sources are found in Form 2.

As reported on Form 3, KY utilizes the Title V funds to reach for direct, enabling and population health services. Title V funding is a payor of last resort.

As reported on Form 5, per DPH Custom Data Processing report, 22 pregnant women were served through the LHD. Of these, 26.1% had coverage with Title XIX, 5.9% had services covered with private or other payor, 67.6% had not recorded payor source, and 0.4% had an unknown payor source. LHDs assist women to apply for Medicaid services and linkage to community resources.

For infants less than 1 year of age 4,589 had direct services by the LHDs in WIC, medical nutrition, HANDS, immunization, well child or childhood lead screening. Of these 78.9% were served by Title XIX, 1.3% had private or other coverage, 18.9% had no known coverage, and 0.9% was unknown. For this population, LHDs also assist with Medicaid enrollment, and linkage to community resources.

For children 1-21 years of age, 67,114 encounters were found in the CDP system. Of these 64.1% were served by Title XIX, 7.0% by private or other coverage, 28.8% had no coverage, and 0.1% was unknown. LHDs have an ability to meet gap filling services with the well child program, WIC, HANDS and Vaccines for Children Program. Many also do childhood lead screenings, and other services such as school health nursing or other direct services using the local tax base or contractual agreements.

For children with special health care needs, 79,032 individuals received services through the OCSHCN offices or other clinic services as per contractual agreements. In OCSHCN clinics direct services provided to 5,554 children had 74.9% served through Title XIX, 17.6% had private or other payor source, 7.5% had no coverage, and 0.0% had unknown coverage. OCSHCN ensures those in need of services and who meet qualifications have services

provided by OCSHCN or by contractual partners. For those meeting guidelines, 100% of service is provided at no cost or at a reduced cost.

For 2020, pregnant women, infants, and children counts changed significantly as LHD transformation from direct services to population health programming changed. Additionally, the pandemic response limited the number of in person direct services provided by LHDs and families were hesitant to seek preventive health services for fear of exposure to COVID-19. Initially, Kentucky LHDs shut down all but essential or emergent visits further limiting the number of Kentuckian's reached. MCH best practice initiatives (packages) in previous years have broad community outreach in schools, community organizations, childcare agencies, hospitals, and providers. These efforts became almost non-existent in rural areas with limited PH workforce. In FY20, OCSHCN typical outreach efforts were curtailed for population health due to the COVID19 pandemic. To the extent possible OCSHCN attempted to continue outreach through virtual meetings, phone, and email.

LHDs deliver Title V services for their respective county's community MCH populations. Greater than half of the MCH Title V funds go directly to expenditures for services at the LHDs. MCH's goal is to assure some level of flexibility for LHDs to meet community needs while maintaining accountability for Title V funding.

Promotion of enabling, population-based, and system services within the changing healthcare landscape of KY is being utilized by the KY Title V Program to offset the decreasing direct services to MCH populations. Title V funding is used as the linchpin for many population-based activities for mothers and children in the local communities. LHDs are encouraged to partner with community providers, federally qualified health centers, and especially primary care providers to assure MCH services are available. In FY18, LHD funding was designated for use only in population health measures or the enabling service of activities provided with the Cribs for Kids package or dental varnish for children package. Title V funds are not used for direct services.

Title V federal funds to LHDs are managed through allocations from KPDH and monitored by the system-wide financial structure capturing all LHD expenses. LHDs report activities directly to the MCH Title V Program. The MCH coordinator reviews these monthly to assure activities and expenses align to meet MCH population needs. Beginning with FY19, LHD reimbursements are held for lack of reporting activities.

Expenditures for Federal MCH Title V Program Services are divided by MCH service types provided. The following percentages are inclusive of administrative costs for enabling and public health services and systems.

- 0% Direct Health Care for preventive and primary care for pregnant women, mothers, and infants up to 1 year of age
- 0% Direct Health Care for preventive and primary care services for children
- 0% Services for CSHCN
- 13% Enabling services
- 87% Public health services and systems

The percentages provided are estimates based on available data since KY accounting systems do not specifically identify these types of services. Beginning in FY19, expenses for best practice initiatives were identified in the accounting system to better allow for monitoring of expenses by the LHDs. These percentages do not include other MCH activities funded by other federal funding sources.

Title V funds are not used for reimbursing for direct medical claims. Previous fiscal years allowed for Title V funds to be used as payor of last resort. With expanded Medicaid and aggressive outreach/referral, it is rare for LHDs to pay for deliveries. To reduce probability of this need, LHDs aggressively assist with presumptive eligibility. LHDs

continue to contract with local providers, hospitals, and labs or provide in-house prenatal services to ensure the needs of this population are met. Title V funds are not used for in-hospital services as hospitals are obligated to serve the uninsured.

KY's fiscal responsibilities in the face of rising pension costs and decreasing state revenue has created a need to review processes within MCH and with LHDs to find mechanisms of change to improve efficiencies with care coordination, program provisions, and utilization of community resources. As stated in previous sections, KY LHDs are at risk of insolvency in FY21.

It should be noted that KY's largest non-federal investment in encounter-driven primary and preventive services for pregnant women, mothers, and infants is the $8.2M dedicated for the core HANDS home visiting program for first-time parents funded from Master Settlement Tobacco Funds. These funds provide the opportunity to leverage an additional $25M in federal and Medicaid funds to support KY's Core HANDS home visitation services. Since 2011, KY has received Maternal, Infant, and Early Childhood Home Visiting (MIECHV) federal funding to provide home visitation services to multigravida families (families with more than one child) in 29 counties deemed at highest risk. The most recent MIECHV award was $7.9M. An additional $6.6M was appropriated in KY General Funds in 2015 to expand multigravida services to the remaining KY counties not covered by MIECHV grant funding. This funding provides assessments and professional and paraprofessional visits to nearly 11,000 families annually for prenatal populations and children through age three. Eighty-five percent of families enter this program during pregnancy. With ongoing need to address the growing population of NAS, this program provides strong supports toward a plan of safe care for the infant/child. This KY investment is not part of the Title V budget forms as it is used for the MOE requirement for MIECHV. This investment is a significant part of Title V programming.

To address needs of children, public health nurses provide well child exams, screenings, health education, and other preventative primary services. They are trained to provide fluoride varnish services in populations in which dental providers are limited, enabling this service for the school age population. Title V funds support assurance for specialty services for comprehensive developmental evaluations at university-based, multidisciplinary child evaluation centers. Non-federal MCH funds support access to specialty visits for genetics, oral health services, and the Part C Intervention services (not covered by Medicaid). Non-federal funding supports the KY Metabolic Foods and Formula Program to provide foods and formula for children with metabolic disorders who lack an ability to pay for life-saving specialized nutrition.

Enabling services supported by Title V include supports for 23 LHDs to assist the pregnant women for complete Medicaid presumptive eligibility, promotion of early entry into prenatal care, and assessment of need and referral for services through HANDS, WIC, smoking cessation, substance use treatment, or domestic violence counseling. This referral process is foundational to LHD programming and is supported by nonfederal dollars in some capacity by all LHDs.

Non-federal funding is used for:

- KY Newborn Screening Program to include referral, counseling, and follow-up to the point of confirmatory diagnosis with the specialty provider
- KY Metabolic Foods and Formula programming to provide medically prescribed metabolic foods/formulas as a payor of last resort
- KY Childhood Lead Poisoning Prevention Program case management and prevention activities for children with elevated lead levels

The final amount of federal and non-federal funding in MCH goes to support Public Health Services and Systems. An

example of this is funding utilized for various programs to support safe sleep education to community partners and childcare centers. Title V funds support workforce development trainings for prenatal and public health programs.

During FY2020, the total expenditures for OCSHCN (including administrative costs for direct/enabling services) are as follows:

- 0% Direct Health Care for preventive and primary care for pregnant women, mothers, and infants up to 1 year of age
- 0% Direct Health Care for preventive and primary care services for children
- 32% Services for CSHCN
- 68% Enabling services
- 0% Public health services and systems

OCSHCN continues to preserve infrastructure and serve families and children in need of programs and services available. Our office will continue to build partnerships and heightened awareness of community resources. In addition to MCH Title V Block Grant dollars, OCSHCN receives funding from the state general funds, agency funds, a CDC grant, and two HRSA grants. Agency funds generated are comprised of other agencies reimbursements, dividends, a cost report settlement, and third-party patient billings for direct patient care and care coordination.

Addendum

The Office of Financial Audits completed a comprehensive, routine external audit of the MCH Title V Block Grant in state FY20, which was inclusive of all parts, narrative sections and reporting forms. Weaknesses identified were an inability to reconcile various line items in the report to spreadsheets and other documentation used for creation of the annual report. This occurred secondary to various data sources such as vital statistics data, claims data, financial management systems, and others that are updated as new information is stored. Audit recommendations was for CHFS maintain supporting documentation used for the preparation of the MCH report. However, the auditor noted that CHFS was unable to provide supporting documentation for some report data elements due to the source of the information being dictated under data use agreements, from third parties, or changed in the accounting system after the report date.

MCH has developed a plan to address all recommendations. This is the fourth year for preparation of the annual report by the Title V coordinator and the budget analyst. Both assisted with this routine audit. In 2019, a procedure manual was drafted. The manual is reviewed and updated annually. This manual is provided for the auditor for understanding of how many data are retrieved for the grant forms and narrative. A procedure to retain data files is in place. MCH added a FTE position (coordinator) to assist with development and record management of the grant files and documents.

III.D.2. Budget

The KY Title V block grant is spent in compliance with the federal requirements for use of the funds. KY budgeted 39.9% of the FY2022 budget to support preventive and primary care for children and 31.4% for children with special health care needs. Administrative costs are budgeted at 10% of the block grant funding, but spending is often less with certain administrative costs met through state match.

The total required $4 federal/$3 state match for KY is $8,442,829 (based on $11,257,105 award [B0440136]), which includes OCSHCN and MCH. OCSHCN is responsible for their portion of the match (34.9%, or $2,946,547) and the remainder ($5,496,282) is the responsibility of MCH. Both agencies have more than adequate funds from state funds to meet the match requirement. KY's total maintenance of effort from 1989 is $22,552,700. KY's MCH effort far exceeds the match and maintenance of effort requirements. Maintenance of effort and match are made up of State General Funds and Agency Funds.

KY's total budget for State FY22 increased 8.5% based on expenditures from FY20. For FY22, the total MCH budget was funded from:

- 48.4% -- Other Federal Funds (1200; $131,468,670)
- 30.3% -- Agency Funds (13XX; $82,158,620)
- 9.6% -- State General Funds (0100; $26,016,560)
- 7.6% -- Tobacco Master Settlement (65XX; 20,691,831)
- 4.1% -- Federal MCH Block Grant (1200; $11,257,105)

MCH feels certain that state and agency funds required for the 1989 maintenance of effort level of $22,552,700 and the match of $8,442,829 will continue to be available in the conceivable future.

For the FY22 budget, $6,150,000 of the MCH Title V Grant allocation has been allocated to LHDs to provide direct, enabling, and public health services/system-building, depending on needs of the local MCH populations. The state assures these funds will be used appropriately through a select list of MCH Evidence Informed Strategies as options, and some of the funding remains categorical. The remainder of the MCH allocation is budgeted for public health services and systems. These include surveillance (maternal mortality, child fatality review); regionalized perinatal care; information technology systems for data collection; workforce development and trainings; and technical assistance to LHDs and other agencies for pediatric injury prevention.

Other Federal funding received includes:

FY22	Fund Code	Major Program	Major Program Name
$34,108,320.36	1200	0116	WIC Administration
$74,993,942.89	1200	0117	WIC Food
$215,418.00	1200	0119	WIC FMNP Grant
$210,467.00	1200	0120	WIC Management Information System Project
$140,311.00	1200	0121	WIC Electronic Benefits Transfer Project
$7,943,309.00	1200	0130	Affordable Care Act Maternal, Infant and Early Childhood
$2,759,297.00	1200	0152	Infants And Toddlers Disabilities
$80,900.00	1200	0153	Sudden Unexpected Infant Death Case Registry
$160,020.00	1200	0196	Pregnancy Risk Assessment Monitoring System
$256,423.00		0229	WIC Infrastructure Grant Fund
$1,282,726.00	1200	0254	WIC Peer Counseling
$7,746,786.00		0117AR	WIC ARPA Funds
$979,000.00	1200	0170OL	Childhood Lead Poisoning
$100,000.00	1200	0177OL	State Systems Dev Initiative
$160,000.00	1200	0602N2	Early Hearing Detection, Diagnosis and Intervention (CDC)
$96,750.00	1200	0603WV	Family Professional Partnership/CSHCN
$235,000.00	1200	0604WV	KISS (HRSA)

Non-Federal program funding MCH receives includes:

Amount	Fund Code	Sub-function	Description
$2,195,093.40	0100	YAAA	Administration
$3,578.83	0100	YAHD	Audiology
$869,043.79	0100	YAAW	Audiology (100%)
$33,834.78	0100	YAUC	Autism Clinics
$93,247.95	0100	YAUT	Autism Council Only
$6,594.45	0100	YTAD	Case Management Travel
$194.02	0100	YAMA	Cerebral Palsy (100%)
$70.00	0100	YAHA	Craniofacial Services (100%)
$853,178.85	65S0	S8TA	ECD Mental Health (100%)
$83,493.70	65S0	S9TA	ECD Oral Health
$130,303.34	0100	YAFS	First steps
$31,553.05	65S0	S7TA	Folic Acid
$528,522.69	0100	YAAF	Foster Care Services
$181,879.90	0100	SJPF	Genetics
$8,185,916.18	65S0	S2TC	HANDS (100%)
$15,997,268.42	13GP	S2TC	HANDS (100%)
$3,257,994.60	0100	SJTE	HANDS GF (100%)
$4,096,860.00	13TE	SJTE	HANDS GF (100%)

$740,239.34	65S0	S4TA	Healthy Start
$1,029.78	0100	YAHO	Hearing Aids Only
$10.00	0100	YAGA	Heart (100%)
$13,461.30	0100	YBBA	Hemophilia Adult
$633,141.23	0100	SJPA	KEIS Administration (100%)
$11,352,715.14	0100	SJPB	KEIS-KY Early Intervention Sys (100%)
$14,488,365.64	138G	SJPB	KEIS-KY Early Intervention Sys (100%)
$5,859.28	0100	YAFP	KY Early Intervention Program
$3,240,501.28	0100	SJBA	Maternal and Child Health (100%)
$279,082.93	0100	SJBB	MATCH MCH Block Grant (100%)
$90,000.00	0100	SJPP	Neonatal Abstinence Syndrome
$90,459.90	138G	SJPP	Neonatal Abstinence Syndrome
$10,282.54	0100	YADA	Neurology (100%)
$98,864.08	0100	SJBQ	Newborn Screening Case Management
$35,000.00	0100	SJPR	Nurturing Parenting Program
$25,477.56	138G	SJPR	Nurturing Parenting Program
$151.07	0100	SJRA	Nutrition Services (100%)
$10.00	0100	YALA	Opthamology (100%)
$1,406,607.10	0100	SCDT	Oral Health
$40.00	0100	YABA	Orthopedic (100%)
$1,376.55	0100	YAJA	Otology Services (100%)
$3,187.25	0100	SJBV	PKU Formula (100%)
$254,351.96	0100	SJSA	Program Support (100%)
$977,266.23	0100	YAAS	Social Services
$291,318.95	0100	YATT	Therapeutic Service Branch
$4,477.35	0100	YTAW	Travel Audiology
$1,963.21	0100	YTFF	Travel NCI/Foster Care
$346.50	0100	YTAS	Travel Social Services/Nutrition
$497.82	0100	YTAT	Travel Therapy
$14,661.00	0100	SJRR	WIC Farmers Market Nutrition (100%)
$602,793.65	1394	YAAA	Administration
$3,022.89	1394	YAAI	EDHI program
$155,135.65	1394	YAAK	Medicaid Receipts Fund/MCO Receipts/Revenue Fund
$2,095,460.23	1394	YAFP	Kentucky Early Intervention Program
$592,642.97	1394	YAFS	First Steps
$1,413.50	1394	YAGA	Heart Services
$85,999.58	1394	YAHC	Humana Care Source Paid Claims
$892.50	1394	YAHO	Hearing Aids Only
$1,572.97	1394	YAJA	Otology Services
$38,433.65	1394	YAMC	Anthem MCO Paid Claims
$300,235.20	1394	YAPP	Passport Paid Claims
$187,162.57	1394	YATN	Aetna Paid Claims
$210,063.74	1394	YAWC	WellCare Paid Claims
$124.59	1394	YBBA	Hemo Adult

$498,759.43	1394	YCHC	Humana Care Source Cost Settlement
$825,404.02	1394	YCMC	Anthem MCO Cost Settlement
$16,162.11	1394	YCOI	Coins
$2,297,640.88	1394	YCTN	Aetna MCO Cost Settlement
$1,167.83	1394	YPBT	BEHAVIOR PARENT TRAINING
$207,235.00	138G	SJBV	PKU Formula
$7,500.00	138G	SJBA	Maternal and Child Health
$38,308.04	138G	SJBM	Coordinated School Health
$ 15,163,749.68	138G	SJPB	KEIS-KY Early Intervention System
$80,879.00	138G	SJPP	Neonatal Abstinence Syndrome
$19,753,357.00	13GP	S2TC	HANDS
$4,295,072.00	13TE	SJTE	HANDS GF
$299,533.72	65S0	S2TC	HANDS
$10,497,915.66	65S0	S8TA	Early Childhood Mental Health

III.E. Five-Year State Action Plan

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

State: Kentucky

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

KY is primarily a rural state with varied cultural, geographic, and economic barriers for assuring the mission to promote positive health outcomes for the MCH population. To promote success and reduce barriers, KY has strong alliances with LHDs, universities, community organizations, and stakeholders to guide policy development and program efforts to support the needs of women, children, and families in KY. In a decentralized public health system, KY MCH Title V serves as the lynchpin for all parts of MCH strategic planning and responses to public health demands across all domains.

Goals & Mission

As a leader in public health, the MCH Title V Program encourages and promotes LHDs to be the convener and collaborator with hospitals and community partners to use evidence informed strategies (“packages”) to address the needs identified. This requires the LHD to develop annually a work plan of activities and ongoing program evaluation and surveillance. The goal is to assure continuity of improved health indicators across the life course and reduce chronic health outcomes, disparity, and mortality. These strategies support KY’s chosen performance measures, while allowing LHD autonomy and innovation in approaches to best serve the individual community. LHDs select 2-5 packages with a requirement that one chosen package must address infant mortality. Through utilization of package funds, LHDs are able to leverage both Title V grant funds and local funds for activities related to:

- Abusive head trauma in infants/children
- Safe sleep education for families, childcare, and community partners
- Bullying and suicide programs
- Tobacco cessation policy in schools/community
- Access to oral health assessments and dental varnish for school-aged children
- Resource and referral for prenatal services
- Education to birthing facilities to reduce early elective deliveries
- Child fatality review
- Promotion of building healthy communities
- Family centered care and nurturing family programs

LHDs are encouraged to mold the strategies to fit their community needs. The Title V program reaches families deep into the community through school-based programs, local clinics, community partners, faith-based organizations, and providers.

Since inception of the packages, MCH has received many reports from localities of innovative projects and approaches to address single population needs or those that are crosscutting for the entire MCH population. These models have included ways to engage with partners such as:

- local justice departments to promote strengthening family course work to reduce the incidence of child abuse/PAHT on work around PAHT
- educating high school students who may be alternate caregivers on PAHT and safe sleep
- local garage to restore/repurpose bicycles for distribution to children who are encouraged to be more active to reduce obesity
- Youth led initiatives to fundraise the match for cribs for use in their community to reduce SUID
- Variety of farm to table initiatives using fresh produce with education on planting, harvesting, and storing produce for the winter or community gardens with faith-based partners

LHDs are required to maintain fiscal accountability for use of funds as per federal grant guidelines. Reporting on

best practice initiatives, or packages is required monthly. This reporting is shared with program subject matter experts for ongoing assessment of emerging, or ongoing efforts made to improve outcomes on identified needs at the local level and for ongoing technical support.

MCH contracts with the University of Kentucky and University of Louisville for assessment, screening, and treatment of:

- Premature infants
- Genetic, congenital, and metabolic disorders
- Early childhood growth and development programs
- Referrals for more evaluation and mental health screenings

As part of ongoing MCH work, LHDs continue to assist families with Medicaid enrollment with those seeking assistance or services at the LHD.

At the state level, MCH and OCSHCN workforce actively participate in multiple partner collaborations within:

- Department for Education
- Department for Behavioral Health, Developmental and Intellectual Disabilities
- Workforce Development and Education
- Council for Developmental Disabilities
- Medicaid
- Autism Awareness Council
- Prevent Child Abuse of KY
- Governor’s Child Fatality and Near Fatality External Review Panel
- KY Perinatal Association
- March of Dimes
- Dental Health
- Multiple other state agencies

These collaborations have allowed leveraging of Title V funding and an ability to have a greater depth of reach across KY. These groups often have cross cutting initiatives, and these valuable partnerships allow for the expertise of an individual agency to have broader reach to the MCH population locally.

Throughout the year, staff engage partners and organizations for educational or technical opportunities to promote activities that address the identified priority needs of KY. During 2020 these were diverted to virtual webinars available on the KY TRAIN system.

KY has focused on implementing core public health functions to inform policy development when addressing critical issues affecting the MCH population across the full life course. MCH recognizes there are critical periods, from prior to conception throughout the lifespan, influencing the health and well-being of the individual. KY has a need to continue this focus as generations of alternate caregivers for children affected by substance use, complex medically fragile conditions, and behavioral health needs are growing. Many children are in out-of-home placements through foster care. Kinship care now extends to older generations of great and great-great grandparents. DCBS and CPS have strong relationships with the pediatric staff in MCH to communicate ongoing areas of concerns, shared educational opportunities and a shared voice with state legislators for legislative changes needed to keep children safe.

MCH and OCSCHN leadership collaborate and participate on state initiatives by sharing resources and workforce

capacity for data analysis, assessment, referral for care, and utilization of care coordination. OCSHCN functions as a point of entry for the largest First Steps region in KY. OCSHCN strives to address the rural needs of KY's children with special health care needs by providing access to care through 11 regional offices and 6 satellite clinics, which include care coordination, referral for services, partnerships in service delivery, and offering providers the use of space and telehealth equipment at OCSHCN locations.

OCSHCN supports comprehensive and family-centered care for children and youth with special health care needs from identification of children, enrollment in services, screening for well child needs, referrals as needed, and meeting with the child and family in their home community for specialized health care. This model aligns with *AMCHP's National Consensus Standards for Systems of Care for Children and Youth with Special Health Care Needs.*

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

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

In 2020, MCH enhanced its workforce capacity despite many staffing obstacles because of COVID-19. MCH leadership planning and utilization of full-time merit, contract, and temporary staff assignments were challenged to become fluid and adaptive to pandemic guidance. For some, this meant quick action to move full program staff to telecommuting, training on use of many virtual platforms for communication and work, and on-site work in the office building only when essential. Program policies/procedures, emergency orders, and reporting were adapted to work in the telehealth service provision as suspension of home visitation and face to face work was begun. Staff, community agencies, and clients had to adapt to new technologies and techniques for communication and engagement. This was especially true among those who routinely had contact with LHDs, hospitals, and other stakeholders at the local level. These partners also were adapting practice to meet the challenge of direct care to parents and caregivers and very limited face-to-face interaction. Education in early intervention with parents was adapted for families to continue services virtually, and training was quickly adapted on how to teach a parent a skill through virtual sessions.

MCH workforce continued to have online resources and virtual conferences to assist staff throughout 2020. Five MCH, KY Perinatal Association, and March of Dimes courses were made available on TRAIN. Using the skills of UK and UL pediatricians and expertise, MCH published 6 Pediatric courses. As the year progressed, many schools of nursing utilized the courses addressing domestic violence, safe sleep, PAHT, child abuse/neglect, and mental health strategies with adolescents as part of their distance learning opportunities with nursing students. This endeavor led to other opportunities in which the MCH pediatric team was able to influence panel discussions for other nursing school opportunities. Engagement by nursing students on a live panel was strong as they now recognized the value of public health nursing, and the different nuances of how data informs much of the work they will be part of in their future career.

Safety protocols from our emergency operations plan(s) were quickly enacted, and other measures had to be developed for staff to perform their job duties. The onboarding of new staff was adapted to virtual work with intensive technical support. Staff meetings and other branch and division meetings were held virtually.

Throughout 2020, education and workforce development provided training opportunities via a national public health web-based training system, Training Finder Real-time Affiliate Integrated Network (TRAIN). TRAIN became a vital source for quick (less than 3 minute) updates on COVID-19 symptoms, response, testing, vaccination or professional support for KY. Safety messages were developed for child injury specific to TRAIN using mini-YouTube videos.

As reported in previous report, TRAIN completed a public health workforce assessment, fall 2019. This assessment had over 897 respondents to determine whether the respondents felt competent of core public health measures, application of public health sciences, public health evidence-based initiatives, and research/ethics in public health. For each topic area, over 40% were aware of the subject matter with 30% feeling knowledgeable and less than 8% feeling proficient. Higher level of proficiency was linked to managers and public health leadership. The survey included topics on communication, analytical assessment, policy development, data collection, usage and information technology, and cultural competency. This assessment has highlighted opportunities for staff development in all arenas of public health and continues to be a source of information for informing what educational opportunities users feel will improve their workforce knowledge.

Results from this assessment and the local community health assessments aligned with those needs found on the 2020 Title V assessment inclusive of: obesity/physical activity, impact of substance use disorders, teen pregnancies,

and mental health concerns. This information further aligned with the state health assessment findings and goals set in the state health plan. This information along with ongoing program assessments have informed presentations, trainings, and technical support across KDPH and with in-depth trainings offered by MCH to stakeholders and clinicians at conferences, regional meetings, and via virtual platforms. Having this system initiated prior to the pandemic outbreak has allowed KY Title V to be proactive in reaching the community quickly.

Since December 2018, the MCH Title V nurse administrator, Jan Bright has anchored the nursing training components for KDPH and provided ongoing nursing support during an extended vacancy for the chief nurse role. This interim opportunity presented MCH an ability to raise awareness and offer support for inclusion of all MCH populations. During 2020, KDPH was able to successfully hire Dr. Ruth Willard as the Chief of Nursing for DPH. Transitioning of nursing education was completed by end of year. Dr. Willard and the MCH nurses continue to have focused discussions on program nursing processes for updates to the core service guidelines.

MCH employs 95 public health practitioners focused on improving the health, safety, and well-being of all MCH populations. MCH continues to have a vacancy rate of 25-27% with an additional 30% of staff in their role for a year or less. Most vacancies are not in programs directly supported by Title V. Despite staffing barriers, MCH continues to meet program benchmarks and promote activities as planned.

MCH supports local MCH professionals with trainings and technical assistance, and funds assure a MCH coordinator at 58 LHDs. Allocation amounts may not support a FTE; however, local health departments support the position using local tax funds. The MCH workforce development trainings are available via several modalities including federal, regional, and state face-to-face meetings, webinars, and virtual learning networks such as the Social Determinants of Health CoIIN. MCH programs that provide statewide services, such as HANDS and KY's Part C Early Intervention System (First Steps), have training coordinators dedicated to ensuring that all providers within their program have the critical competencies to complete their work. MCH contracts with university partners for specialized trainings such as clinical training for well child assessments and prenatal services for LHD staff.

With Public Health Transformation, LHDs are intentional with population health measures/activities while providing ongoing support to local direct care providers. However, with fiscal uncertainty, many LHDs reduced their workforce. With the ongoing work of the pandemic, this has created ongoing constraints as primary focus is on Covid-19 efforts and regulatory core services locally.

MCH continues to participate in a workforce project led by the Division of Epidemiology and Health Planning called Building Epidemiology Capacity in KY (BECKY). State and university partners train current public health students so they can provide assistance on state projects. This project allowed students to work with the epidemiologists on many projects and some medical resident students to assist with the perinatal quality collaborative launch.

Importantly during the pandemic, OCSHCN has continued to partner with KY's two research level universities, the University of Kentucky (UK) and the University of Louisville (UofL).

OCSHCN means to employ 150 staff which is currently at 130 due to unfilled positions. Title V. Consistent with the Title V mission; OCSHCN has historically provided gap-filling direct services, as well as an array of enabling services such as care coordination. Direct medical services are provided to children with defined medical conditions throughout the state in 11 regional offices and 6 satellite clinics. For the past 6 years, OCSHCN has been working toward expanding non-direct services. OCSHCN employs an Assistant Director charged with achieving this goal in a deliberate and planned manner. OCSHCN goals for non-direct services include:

- Building community partnerships throughout the state
- Expanding targeted outreach

- Coordinating expansion of the telehealth program
- Strengthening family partnerships
- Providing support services for the non-English speaking immigrant population
- Establishing advisory committees
- Observing quality improvement
- Implementing data collection
- Promoting family centered care

Our updated Access to Care Plan pursuant to SPM #3 which has been updated with last year 5-year needs assessment, is attached in the supporting documentation.

OCSHCN makes every effort to improve workforce capacity. Using materials available on the MCH Navigator as guidance, leadership staff regularly update the MCH Primer, which is posted on the staff intranet and is a required training for new employees. In tandem with new employee MCH orientation, employees are trained on OCSHCN and the state's language interpreter services. In FY20 the various trainings were consolidated into one day of training to include our POE First Steps program, our intranet, HIPPA, and F2F program. The meeting is kicked-off by an introduction to the agency by the executive director. Core competencies training is provided through the CDC's TRAIN program. Staff are encouraged to seek personalized opportunities for growth in their field as they pertain to job duties and may use the states MyPurpose portal to take classes for professional growth. Social workers may choose to attend trainings related to resource brokering or advocacy, and nurses may pursue training in case management, among other opportunities. Trainings on PPE and working with CYSHCN during the pandemic have also been made available to staff. OCSHCN staff also receive informal training on important issues (such as transitions, medical home, insurance, care coordination, billing, etc.). Staff also learn about issues regarding CYSHCN through presentations at monthly statewide manager's meetings, often by a guess speaker to the agency, with the guest speaker portion of the meeting open to all interested staff. With the deaths of Kentucky EMT Breonna Tayler in March of 2020 and George Floyd in May of 2020, KY's Cabinet for Health and Family Services began encouraging its offices to form Racial Equity Communities of Practice (RECP). OCSHCN has done this and the OCSHCN RECP core team meets every two weeks with outreach to the rest of staff having just begun.

OCSHCN staff virtually attended the annual AMCHP conference and other relevant opportunities to stay abreast and learn from other states. OCSHCN participated in the AMCHP's conference poster presentation on how our existing telehealth services have grown since the start of the pandemic. OCSHCN reviews all available technical assistance opportunities, formal and informal, and attempts to expand the knowledge base of staff. With the assistance of various CYSHCN experts, the ultimate goal is to develop and promote systems of care and improve access for CYSHCN.

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

KY's Title V program is committed to partnering with families and consumers. These partnerships provide a unique perspective that strengthens the quality and effectiveness of MCH programs. Title V strives for services to be provided in a culturally competent manner that extends beyond medical interpretation due to language barriers and differences in health beliefs and behavior patterns of various cultures. MCH employs a family consultant who assists stakeholders to host Parent Cafés and provide trainings for nurturing families and other programs through work on KY Strengthening Families (KYSF). She represents MCH and is the family voice in policy, planning, and development of resources. The MCH family consultant participates with the AMCHP Family Engagement Community of Practice CoIIN to develop a family engagement tool kit.

To broaden the reach of programs and services, OCSHCN attempts to be reflective of the population served by:

- Seeking parent representatives from diverse cultural, socioeconomic, ethnic or racial backgrounds
- Improving geographical diversity through use of video conferencing during council meetings
- Encouraging Hispanic participation in support groups or adding representation on other support groups to reduce language barriers
- Embedding Family to Family (F2F) Health Information Center initiatives in onsite OCSHCN clinics and in select rural KY clinics (Autism clinic in Corbin, KY)
- The F2F Director has been on the CoIIN's team for the last 4 years.
- Conducted trainings on what telehealth is and how to access telehealth.

OCSHCN funds support groups for Spanish-speaking families of CYSHCN. These support groups help Latino/Latina families with language and cultural barriers increase their knowledge and access to services, which will greatly enhance children's health and well-being and reduce caregiver stress that can negatively affect CYSHCN and their families.

OCSHCN has a long-standing partnership with the Louisville LaCasita Center which hosts "Una Mano Amiga" (A Friendly Hand) monthly support groups for mothers and a second group for families. Maria Fernanda Nota, MD, helped initiate the support groups at La Casita, and she replicated the concept in Lexington in January 2017. She operated "Un Abrazo Amigo" (A Friendly Embrace) until a local physician, Janeth Ceballos Osorio, MD, University of KY Pediatrics, took over in August 2018. The first support group meeting under Dr. Ceballos's guidance was in October 2018.

Advisory Committees

Established OCSHCN advisory committees provide opportunities for family leadership and include:

- Hemophilia Advisory Committee (HAC)
- Parent Advisory Council (PAC)
- Youth Advisory Council (YAC) - eligibility is open to all CYSHCN (not just OCSHCN enrollees)

OCSHCN includes parent representatives on ad hoc groups (Data Advisory, Healthy Weight, Strategic Planning, and Periodic Action Learning Collaboratives). The goal is to grow parent involvement beyond a committee presence toward front-end collaboration. The more family members are involved and prepared, the more they can contribute. Training to orient interested parents and youth to agency operations is provided as needed/requested. F2F funds support training, and the peer-to-peer parent-match program provides mentoring. OCSHCN attempts to help families understand their child's care and empower them to assume leadership roles to advocate for their own child and other CYSHCN. Leadership promotes a family perspective at the state level and invites the F2F project director

to present at monthly statewide manager's meetings as well as at advisory committee meetings.

OCSHCN provides stipend reimbursement for time, travel, and child-care costs for F2F and PAC members. Technical assistance to advisory councils includes staffing, guidance, orientation, logistical planning, and hosting of meetings. Opportunities are sought to provide F2F support parents fully or partially to attend national conferences and training events.

OCSHCN invites PAC members to staff training events, which are of a limited frequency agency wide. An orientation training document for new providers discusses the agency's mission and the vision of family involvement. The co-directors of F2F are parents of children with special health care needs – now adults. They are valued and hard-working members of OCSHCN's staff and are involved in a variety of aspects of agency operations on behalf of the CYSHCN population. Furthermore, a network of capable support parents assists with statewide initiatives and serves on external boards such as the UK Human Development Institute.

The MCH Early Childhood Mental Health team leads the KYSF and Youth Leadership Team. This team consists of family and youth organizations while advocating to promote strength-based, family, and youth-driven principles and values. The Leadership Team focus is to reestablish connections with Regional Leadership Teams and offer support.

- Regional Teams included family and youth representation in the following regions:
    - Eastern KY: 4 counties (Big Sandy)
    - Northern KY: 8 counties (Northern KY)
    - Western KY: 8 counties (Purchase Area)

Since the onset of KYSF, teams have:

- Hosted 6 two-day Family Thrive Training of Trainers that certified 217 trainers to promote best practices for family and youth engagement and use of protective factors to reduce the risk of adverse childhood experiences.
- Hosted more than 2,500 sessions and trained over 13,000 participants.
- Hosted parent, youth, and community cafés, which engage participants in self- reflective discussions about protective factors. Parents now lead or co-lead Parent Cafés in the Western and Northern KY Regional Team areas. Youth lead cafés in Western and Eastern KY Regional Team areas.
- More than 1700 people who have experienced a café since 2015.
- The Café Collective (social media group), which was created by the Western KY Team to help with advertising cafés to families. In 2019, other KY parents requested the opportunity to join the collective, so the group became public and promoted as the one-stop page for locating a café.
- The Leadership Team that developed a Family Thrive Action Guide in 2018 and distributed 1,000+ guides.

The KY Early Intervention (Part C) System (First Steps) has five parent representatives on the Interagency Coordinating Council (ICC). The mission of the ICC is to:

- Maximize the potential of infants and toddlers (birth through 2) having, or at risk of having, developmental delays and disabilities through a comprehensive statewide system
- Advise and assist the state lead agency in the ongoing development of the early intervention system

First Steps has a central office parent consultant to assure family perspectives on service delivery and programming. This consultant serves as the MCH parent consultant and reviews materials for all MCH programs and/or connects programs to families for parental input.

The Part C program conducts family surveys annually to assure the program is meeting family needs, which

consistently indicate First Steps provides needed support so that parents know their rights, communicate their children's needs, and learn how to help their children learn and grow. The parent consultant also compiles resources for parents and families, disseminates a bi-monthly family newsletter, and maintains consistent outreach on a monthly basis to families in order to ensure family perspectives on programming are current and addressed.

Parents participate in task specific workgroups to improve the family assessment process used by the Part C Program. Parents who are members of these two workgroups convene to develop quality standards and core competencies for service coordinators and early intervention services providers. The quality standards provide guidance for program improvement and may lead to the development of a tiered reimbursement rate.

As part of the State Systemic Improvement Plan (SSIP), new families view a short video that depicts what early intervention services look like and then respond to a short survey. Re-administration of the survey occurs after early intervention services begin. Data from the survey will help to determine the effectiveness of the provider coaching/mentoring professional development that First Steps is piloting.

Strategic and Program Planning

Families and consumers are included in efforts to develop family-centered programs across all programs within MCH and OCSHCN. HANDS solicits input from the perspective of parents and service providers through completion of two different satisfaction surveys on an annual basis, which impacts program planning.

- The HANDS Parent Satisfaction Survey is distributed to participants actively receiving services and those who have exited the program over the past twelve months
- The HANDS Site Satisfaction Survey is distributed annually asking about:
    - Support received from technical assistance services
    - Value of training opportunities
    - Areas of program implementation that need additional support
    - Materials and resources

Quality Improvement

Planning for increasing parent engagement to inform MCH processes began in 2018. In 2020, MCH established specific guidelines, a mission statement, training guidelines, and a tiered parent involvement structure for the Parent Advisory Council (PAC). Due to Covid-19 restrictions and constraints as well as workforce capacity concerns, the PAC has not yet fully launched this parent-led advisory council; but is actively moving this effort forward and anticipates parent recruitment and fully established PAC within FY2022. The MCH PAC will meet four times annually to review current projects in partnership with MCH to inform quality improvements across the MCH healthcare system. The PAC will undergo family peer support training and individuals will be mentored and trained on the various MCH projects, giving the PAC inclusion in overseeing and shaping guidance for ongoing needs assessment, program monitoring, educational offerings, and quality improvement activities within MCH.

In 2020:

- Many parent and family engagement programs were cancelled, including scheduled mini parent conferences across the state due to Covid restrictions or stay-at-home emergency orders. These conferences are set to resume beginning in 2022, with a mini one-day parent conference being held in 5 different regions throughout the state.
- First Steps parent consultant obtained a professional Zoom account in conjunction with the Coaching in Early Intervention Training and Mentorship program. This allowed staff in early childhood to utilize virtual means to

reach parents and hold a parent engagement webinar.

- First Steps held a Virtual Parent Webinar with the focus on tele-intervention, subsequent changes made in services due to the state of emergency, how it effects families, and an explanation of the role that Coaching would hold in tele-intervention practices. Fifty-four (54) parents signed up for this webinar and the session was recorded for viewing after the event.
- Due to the nature of the state of emergency, much of the Parent Consultant's duties shifted to greater parental support via telephone and Zoom as well as taking concerns and input from stakeholders known to the State Lead Agency in order to help shape the Part C response to the pandemic and include parental viewpoint and input as the SLA constructed the on-going, frequently changing safety and service protocols throughout 2020 for FY2021.

Workforce Development and Training

In 2018, the MCH parent representative provided multiple trainings to community partners, parents, MCH staff, and others on inclusion of the parent voice when developing trainings or educational offerings. The KSF framework was reinforced with MCH staff for inclusion in program planning and MCH best practice packages.

Block Grant Development and Review

Families and consumers had numerous opportunities to provide input on the 2020 Needs Assessment as well as the Title V application in KY. Two key components of the needs assessment were consumer surveys distributed through LHD and OCSHCN sites. MCH convened a specific focus group to assure parents of special needs children in the Hispanic community were able to inform the 2020 needs assessment outcomes. From this meeting, multiple parents were identified to participate in the MCH advisory parent group. OCSHCN continued the development of scorecards based on the 2020 needs assessment.

Materials Development

MCH programs continue to identify areas of parent education. Sources for this are PRAMS, local program reviews, and information requests received from DCBS. Based on suggestions and needs assessment data from multiple audiences, various parent virtual trainings have been developed in partnership with community agencies to address safe sleep, childhood injury prevention, and supports for programs working with parents/families.

ECMH training continues to concentrate on:

- Increasing adult awareness about why children exhibit challenging behaviors
- Building social and emotional skills of the adults who work with children birth to age 5
- Providing tangible, quick reference tools for use by teachers and parents about how to continue building these social and emotional skills in young children

As MCH plans for the next 5 years, work will continue to have a family/parent focus. Efforts specifically will be to support family use of technology to assure ongoing engagement when face to face activities/meetings are unavailable, expand services to underserved areas of KY, and build on the KYSF strength based approach in building protective factors that promote well-being in families and youth across the lifespan.

MCH will continue the positive work of KYSF, Family Thrive, Parent Cafés, and Connect the Dots curriculum and plans to develop a concise way to gather outcome data. MCH programs utilize the childcare health consultants (CCHCs) to reach families using local childcare resources. The CCHCs have provided ongoing strength-based education and outreach to families and childcares in a rapid manner to address the pandemic guidelines for

childcare reopening, management of infectious disease in childcare agencies, and help to reduce anxieties for both childcare workers and families in supporting educational opportunities for COVID-19 mitigation and safety factors in the childcare setting.

With the reorganization of adolescent health programs which moved under MCH leadership, it is anticipated there will be additional opportunities to expand the reach to this population.

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

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

MCH Epidemiology

Epidemiology has a central role to play in public health, education, and research and is arguably the only discipline unique to public health. Nationally, there is a shortage of epidemiologists and epidemiological capacity within the health workforce and health research. In KY, there are approximately 115 epidemiologists in the Department for Public Health, who commonly have MPH degree(s) and enter the public health workforce as practicing epidemiologists straight out of graduate school.

Within MCH, the Program Support Branch, led by Tracey Jewell, oversees and directs five epidemiologists and two budget specialists who are responsible for managing/analyzing data, fulfilling data requests both internally and externally, preparing reports, presenting data, evaluating programs, conducting needs assessments, and writing grants. This branch recently hired a full-time Epidemiologist I in February 2021 increasing the total number of full-time Epidemiologists within MCH to five. This branch has experienced one turnover in the last five years, a budget specialist moved out of state, and the vacancy has been posted for the position to be filled. Two senior staff have been promoted recently one to an Epidemiologist III and one to an Epidemiologist II. It is anticipated that, in the future, the two Epidemiologist I staff will be promoted based on performance and experience. This branch has made great strides in program support and analysis by providing on-going epidemiological support to MCH programs, producing data reports and publications, and having those documents more readily accessible to stakeholders.

Currently, MCH epidemiology workforce capacity is doing more with less. The need for more rigorous data and enhancements to existing surveillance systems has demanded a wider range of skillsets among epidemiologists, program support staff, and managers. Staff are more frequently being asked to evaluate existing data collection systems and make recommendations for modifications that will best meet the needs of the program and collect data in a meaningful way with the least amount of burden possible. To do this, staff must have a basic understanding of various software platforms available for data collection and storage and have a working knowledge of the most appropriate software to use for data analysis. Staff within the Program Support Branch continue to build upon their existing skills by participating in trainings related to various software options available.

The funding structure for the Program Support Branch is divided among state general funds and various sources of federal funds. Those federal funds include cooperative agreements with the CDC for conducting the following programs: Birth Surveillance Registry, Childhood Lead Poisoning Prevention and Surveillance, Pregnancy Risk Assessment Monitoring System (PRAMS), and the Sudden Unexpected Infant Death Registry (SUID). Federal funds are also received through HRSA to conduct the following programs: Title V, State System Development Initiative (SSDI), and Maternal Infant Early Childhood Home Visiting (MIECHV). In addition, federal money through USDA for Women, Infants, and Children (WIC) are also utilized. All staff within the Program Support Branch have their salary and fringe benefits paid for by one or a combination of the state general funds or federal funds discussed above.

Project Support

There are wide range of disciplines and projects epidemiologists support both in public health and outside of DPH. While these projects may vary in terms of topic, they all have the same over-arching goal of improving the lives of the families they serve.

The Program Support Branch routinely gathers data and conducts a thorough analysis of the data to support programs and projects. In addition to data analysis and surveillance, staff also support programs by conducting

needs assessments and evaluating programs. These processes help determine priority areas of focus and whether or not existing programs are meeting the needs of the population or if they need to be altered in any way. Conducting both a needs assessment and a program evaluation helps to ensure fiscal responsibility as well which lends to the creditability of the agency. Other ways support for projects is achieved is through participation in steering committees, stakeholder groups, advisory committees, and grant writing.

MCH epidemiologists support Title V by aiding with data collection, analysis, and interpretation. The epidemiologist prepares data presentations for use in conducting the needs assessment, assists in the needs assessment process, and provides overall recommendations to the program based on data analysis results. Certain areas of the Title V block grant application are written by the epidemiologists and data for performance measures are collected and reviewed for accuracy by senior epidemiologists.

MCH continues to participate in a workforce project led by the Division of Epidemiology and Health Planning called Building Epidemiology Capacity in KY (BECKY). State and university partners train current public health students so they can help on state projects. This project has allowed students to work with epidemiologists on many projects and some have even participated in outbreak investigations.

Data Collection

MCH Epidemiologists currently utilize a variety of data systems and methods to collect and analyze data. Routine surveillance and analysis are dependent upon different types of data collected and the feasibility of linking multiple databases. Types of databases include, but are not limited to; vital statistics data such as birth and death data; clinical data such as childhood lead poisoning, birth defects, NAS registry, newborn screening; billing data such as hospital discharge data and Medicaid claims; service data such as WIC, HANDS (home visiting), First Steps early intervention data; survey data such as PRAMS; and other surveillance systems that include a case review component such as SUID, Child Fatality Review, and Maternal Mortality Review. Whether managed directly by MCH or direct access is obtained from the owner, these are the primary sources of data utilized for monitoring MCH programs and for Title V reporting.

Just as there are several different types of data collection systems and data itself, there are also different and numerous software systems available for data analysis. The MCH epidemiologists all have varying skill sets and preferences for software platforms, but they all work together and provide assistance to one another on a regular basis. The majority of the epidemiologists utilize SAS software for analysis as well as SPSS, REDCap, ArcGIS, and MS Excel. Staff also participate in trainings to enhance current skill sets or to learn a new software system on an on-going basis.

Emerging Technology & Continued Development

MCH Program Support Branch continues to evolve with rapidly changing technology. Staff continue to enhance and learn new skills for analysis and software platforms to meet arising needs and newer technology. These skills will be built over time allowing the infrastructure to be in place to support the programs as technology changes. This will ensure that data collection and analysis will be at the forefront of support provided.

MCH Program Support Branch has several projects in development and/or in the process of initiating in 2021 and beyond. Some of these include re-designing or enhancing a few of the data collection systems to meet the changing needs of the program and allow for more flexibility with Telehealth options. Some of the data systems that are being restructured include: HANDS home visiting, Newborn Screening, and Childhood Lead Poisoning. MCH is working

closely with IT developers to ensure all program requirements related to data reporting are not compromised with the re-design and all needs are met.

Additional projects currently in the developmental and or approval process involve linking two separate data systems to create a linked cohort from which a detailed analysis will be conducted. One of these projects involve linking the NAS registry data with the Kentucky All Schedule Prescription Electronic Reporting (KASPER) data system. KASPER is the prescription drug monitoring program for KY and contains data on all scheduled/controlled substances prescribed. Data from the NAS registry will be linked with the KASPER data on common identifiers collected in each system. A linked cohort will be created for use in analysis to help determine which mothers of NAS infants were utilizing MAT and the outcomes of those infants. MCH is currently in the process of finalizing a Memorandum of Understanding and obtaining appropriate approvals for this data linkage to occur.

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

The Kentucky State Systems Development Initiative (SSDI) is involved with all MCH domains. The purpose of this grant is to enhance the data analytic capacity within MCH in order to address three goals:

- Build and expand KY's MCH data capacity to support Title V efforts
- Increase the linkage of key MCH datasets to improve the quality of data available for policy and program development
- Develop and enhance surveillance systems to address emerging MCH issues in KY

The SSDI grant provides KY an opportunity to build on existing data infrastructure and enhance the quality of data. SSDI program staff, comprised of MCH epidemiologists, assist in on-going needs assessment processes, monitor progress on NPMs, SPMs, and structural/process measures, complete analysis of all state-level data and data visualizations reported in the block grant, and contribute to various parts of the MCH block grant narrative.

In addition to activities directly connected to the block grant, SSDI staff are involved in data management and dissemination for a variety of MCH programs. Such programs include:

- Neonatal Abstinence Syndrome (NAS)
- Child Fatality Review (CFR)
- Sudden Unexplained Infant Death (SUID) Case Registry
- Childhood Lead Poisoning Prevention Program (CLPPP)
- Kentucky Birth Surveillance Registry (KBSR)
- Maternal Mortality Review (MMR)
- Pregnancy Risk Assessment Monitoring System (PRAMS)

While Bethlyn Shepherd, a MCH epidemiologist, provides administration and oversight of the SSDI grant, all KY MCH epidemiologists are involved in the aforementioned activities that support the KY MCH Title V efforts.

Achievements

Since improvements in data management and utilization are always progressing, a few MCH programs had some noteworthy achievements for the past grant cycle with the help of SSDI. These include:

- Improvements in the KBSR abstraction process and expansion of staff who perform abstractions has been implemented and streamlined. Numerous highly qualified nurses with appropriate qualifications for understanding birth defect abstractions perform most of the abstraction process. MCH epidemiologist provide quality control of data accuracy.
- PRAMS received the weighted data from their first data collection and was able to share this data with numerous MCH programs and stakeholders across the state. Additional questions were added as a call back option where participants were asked about perceptions, beliefs, and behaviors regarding opioid use. These additional questions will greatly help MCH and Title V activities by expanding our understanding of opioid misuse and opioid use during pregnancy.
- MCH purchased access to a new secure web application known as REDCap, now are utilized by numerous MCH programs for basic data collection and survey needs. Multiple surveys and surveillance projects have been created and utilized using REDCap.
- CLPPP has initiated the process of building a completely new database for tracking of blood lead surveillance and management of childhood lead poisoning cases across the state.
- Improvements have been made in the creation of data visualization tools for stakeholders to include annual fact sheets of MCH priority indicators.

- A comprehensive memorandum of understanding between the KY Division of Maternal and Child Health and the KY Office of Vital Statistics has been created and implemented. This assures continued real-time access to birth, death, and stillbirth certificate data.
- In 2020, OCSHCN created more surveys for our telehealth patients, our staff on dealing with COVID, and our web-developing ECHO Autism program, and our telehealth lending library program that will rollout in FY22.

SSDI 5-Year Plan

While much has been achieved in the previous grant cycle, data is useless if not forward moving, and we must constantly think of the next set of goals. For the following grant cycle, SSDI hopes to further assist MCH programs in utilization of existing databases and improve data dissemination to stakeholders. This will be done by:

- Maintaining existing data collection methods while continuously identifying program-specific improvements.
- Expanding MCH REDCap utilization for data collection and survey needs.
- Expanding data visualization tools shared with stakeholders (including annual reports and fact sheets) based on shifting and evolving MCH issues and areas of concern.
- Improving data linkage among MCH programs to create a well-rounded understanding of health issues affecting KY's MCH population.
- Identify COVID-related changes in KY's MCH population through utilization of existing datasets.
- With multiple data reports to MCH, DPH, the Cabinet, and stakeholders, it is envisioned that MCH will be able to monitor any successful transition from data to action by different programs.

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

Other MCH Data Capacity Efforts

MCH collects and evaluates data through many data sources protected by the KY Online Gateway, designed by state developers, or through national databases. Databases are specific to the program for surveillance, case management, care coordination, program evaluation, or some combination thereof. MCH continues to focus on design or database structure changes when indicated for a more efficient data collection and to maintain data integrity and accuracy in analysis and reporting. SSDI has provided the opportunity to increase our capacity to carry out database linkages to expand, complement, and to better assess information from multiple sources.

In addition to SSDI, MCH is supported by many databases/IT systems that are funded with state ds and federal funds. Those federal funds include cooperative agreements with the CDC for conducting the following programs: Birth Surveillance Registry, Childhood Lead Poisoning Prevention and Surveillance, Pregnancy Risk Assessment Monitoring System (PRAMS), and the Sudden Unexpected Infant Death Registry (SUID). Federal funds are also received through HRSA to conduct the following programs: Title V, State System Development Initiative (SSDI), and Maternal Infant Early Childhood Home Visiting (MIECHV). In addition, federal funds from USDA for Women, Infants and Children (WIC) are also utilized.

MCH utilizes a variety of data systems and methods for data collection and analysis. Data collected and analyzed for routine surveillance and analysis differ according to the purpose and the focus of the surveillance. Data collected for MCH programs include but are not limited to the following:

- vital statistics birth and death data
- clinical data: childhood lead poisoning, birth defects registry, NAS registry, newborn screening
- billing data: hospital discharge and Medicaid claims
- Public health service: WIC, HANDS (home visiting), First Steps or early intervention services
- Surveys: PRAMS, surveillance systems that include a case review component (SUID, Child Fatality Review, and Maternal Mortality Review).

There are also numerous software systems available for data analysis. The MCH epidemiologists all have varying skill sets and preferences for software platforms. Staff routinely work together, provide assistance to one another and share knowledge of various programs in order to minimize or prevent duplication of effort. The MCH epidemiologists utilize SAS software for analysis as well as SPSS, REDCap, ArcGIS, and MS Excel. Staff also participate in trainings to enhance current skill sets or to learn a new software system in an on-going basis.

In the 2020 needs assessment several strengths and needs were identified from both quantitative and qualitative data. Epidemiological data and data enhancement techniques support Title V needs assessment process and annual programmatic reporting.

MCH and Title V continues its partnership and collaborate with other divisions within DPH such as the Division of Women's Health, Epidemiology, Prevention of Chronic Diseases and other departments (Medicaid on Services, Behavioral Health and Community Based Services).

There are key challenges to the MCH data capacity effort, but these are not in surmountable. The length of the approval chain for reports and presentations generated from the Division of MCH is one example. This process continues to be refined. The creation of a program support branch within the Division has helped to overcome the silos among programs that have been in existence for several years. Prior to the restructuring epidemiologists were exclusively assigned programmatically to one or a small group of programs. Programs now have increased

awareness of what the branch can offer, from data collection and analysis, to presentations, recommendations, and program evaluation. With the creation of the program support branch, the epidemiologists are assigned to tasks utilizing everyone's strengths and knowledge. This has resulted in staff learning from each other and working together in a more efficient manner to complete tasks or meet pressing deadlines. The program support branch often accommodates requests for data or information from funding agencies, department leadership, other departments, the Commissioner and Cabinet Secretary's office, as well as legislators and the governor.

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

Background and Organization

The purpose of the KY Emergency Operations Plan (KYEOP) is to define the general responsibilities of emergency response agencies, their partners, and the organizational structures required when activated to respond to emergencies, disasters, and technological incidents [all hazards] affecting the Commonwealth of KY and its citizens.

This all-hazards emergency plan is described and required in KY Revised Statue (KRS) 39A and is activated upon order of the Governor of the Commonwealth of KY, the Director of KY Emergency Management, or their authorized representatives. Parts of this plan or the entire plan are automatically activated when:

- A general declaration of a disaster or an emergency by local, state, or federal authorities, or
- Required by the size and level of impact of a catastrophic event, or
- Required to implement actions necessary to place emergency personnel on active readiness levels for an impending incident or scheduled event.

This plan is the cornerstone document of the Commonwealth Comprehensive Emergency Management Program established to support an integrated emergency management system, providing for adequate assessment and mitigation of, preparation for, response to, and recovery from the threats to public safety and the harmful effects or destruction resulting from all major hazards.

Cabinet for Health and Family Services (CHFS) is the primary state agency responsible for coordinating and regulating health, medical, and social support services during emergencies or disaster events. During such circumstances, the Department for Public Health (DPH) is responsible for coordinating:

- Assessment of public health and medical needs
- Disease surveillance
- Mobilization of trained health and medical personnel and emergency medical supplies
- Provision of public health environmental sanitation services
- Food safety and security
- Disease and vector control
- Safety and security of drugs
- Biologics and medical devices distributed via the SNS program
- Establishment and staffing of special medical needs shelters and mass fatality management
- Handling, analysis, and identification of hazardous materials

MCH has specific Continuity of Operations Plans (COOP) in place to address nutrition for pregnant women and children through the WIC program, access to dieticians, and an outbreak plan through the Division of Epidemiology and Health Planning. During mass emergencies in other states, KDPH has assembled nursing strike teams to join Public Health efforts in other states. Nurses from MCH have been part of these teams as KDPH strike team leaders in years past. During COVID-19, MCH nurses operated as Subject Matter Experts for the COVID-19 Hotline, and ongoing program guidance.

The KDPH Continuity of Operations Plan (COOP) has procedures and protocols in place detailing how KY would assure newborn metabolic screening and critical congenital heart disease (CCHD) processes would be maintained during an emergency. COOP also addresses programmatic plans for maintaining metabolic foods and formula services.

As these plans evolve to meet an ever-increasing changing response landscape, MCH is consulted each year to provide information specific to the needs of the KY MCH population. Title V leadership is part of DPH preparedness and response planning process. The Assistant Director serves as the MCH representative.

COVID-19 Response

Beginning in March 2020, many operations were needed to respond to COVID-19. MCH collaborated with OB/GYNs, MOD, and others for rapid development of education opportunities, hospital guidelines, and webinars for caring for women with COVID-19 during pregnancy. Dissemination of information occurred via the State Health Operations website, CHFS media system, and a multitude of distribution lists. MCH staff from across the division provided subject matter expertise and continue to support this effort to reduce negative outcomes in KY. Local health departments were significantly affected by the pandemic. Many LHD staff were entirely devoted to the local response efforts, thereby creating staffing shortages for other programs in MCH. In-home programs and direct care services quickly had to adapt to alternative methods of service delivery. Single point pick-up locations or door drop-off of nutritional supplies, cribs, and other materials were created, essentially within days. Additionally, it cannot be understated the impact COVID-19 had on local hospitals, with staffing shortages related to the pandemic response. Access to care was impeded by the state-of-emergency stay-at-home orders and the unwillingness among individuals not to seek care. Alternatively, those who would normally see their regular physician sought care in emergency rooms, thereby further adding strain on the healthcare system.

One of the most significant impacts COVID-19 was the transitioning of staff to working from home. As a result, as in like most organizations and agencies, MCH and OCSHCN staff saw a substantial increase in virtual meetings as the primary form of communication and information sharing. As a response to pandemic restrictions, MCH became a convener, attender, or leader of multiple organized stakeholder meetings. This was challenging early on but led to an increase of cross-collaboration for population outreach, service provision and virtual educational opportunities, improved communications, and linkage of many stakeholders with shared purpose or mission, and in some cases, an increase in workforce to meet the increasing demand for state needs. The increased use of telehealth has been one encouraging result of the pandemic. MCH quickly identified essential and non-essential services for KY women and children. Programs such as WIC, foods & formula, and newborn screening were considered essential early in the pandemic. Some programs were put on hold or delayed, and some staff were temporarily reassigned to assist with pandemic response.

Emergency response plans were updated, and continue to be updated, to include lessons learned throughout the pandemic response.

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

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

MCH has many partnerships at the federal, state, and community level to expand the influence and reach to improve outcomes for the MCH population. The two primary partnerships are with local health departments and with the OCSHCN. These vital partnerships allow MCH to align agency goals and address priority needs for the maternal child health populations.

To assure priority goals and program initiatives locally, collaboration occurs at the local level with supports from the LHDs. LHDs are able to convene, and organize local agencies, health care providers, hospitals, FQHCs, and parent groups for focuses initiatives to meet the MCH population needs. They leverage the work, resources and funding to develop health promotion/awareness campaigns that address child injury prevention, prenatal care access, SDoH and more. Work locally in these partnerships has a depth of understanding of culture, ethnicity, and need that is often quite successful. These efforts build pride in ownership of the program outcomes, and community plan. And the parents and families, are more likely to feel they are represented in the efforts being made.

Federally, KY collaborates HRSA, CDC, CMS, Behavioral Health, Perinatal Quality Collaboratives, and others to align KY MCH goals with national endeavors that complement the MCH efforts to improve outcomes. Programming and action plans involve data sharing and collaborative work for CFR, CSLC, MMR/MMRIA, SUID, PRAMS, SSDI, MIECHV, ECCS, WIC, CoIINs, KY Strengthening Families, and more.

One example of how MCH staff develop and maintain warm working relationships with all levels of engagement led to sharing of safe sleep materials with Maine. This state adapted the KY social media messages, PSAs and materials to “fit” their demographics. Locally, a LHD pulled together education partners, pediatric providers, and the Cincinnati and UK Children’s hospitals to pilot a curriculum in 2019 that addressed safe sleep, PAHT, and child abuse prevention activities with junior and senior level high school students.

OCSHCN continues to play a critical role in coordinating partnerships with various boards and councils where vision and work is specific to children with special health care needs. For over 95 years, OCSHCN has developed formal and working relationships with a variety of programs and contracts with a network of direct providers for the clients. OCSHCN strives to remain connected with outside organizations that are resources to families of OCSHCN. With Family-to-Family programming, CoIIN work, and other opportunities, OCSHN coordinates efforts to serve this population from the local to the federal level.

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

Title V MCH-Title XIX Medicaid Inter-Agency Agreement (IAA)

Contractual Agreement:

In Kentucky the contractual agreement defines the roles of both parties regarding the implementation and administration of Title V funds and services. The language from the contract document is as follows: “The Cabinet for Health and Family Services (CHFS) intends to avail itself of the services of the Department for Public Health (DPH). The Department for Medicaid Services (DMS) has been designated the single state agency - as defined by 42 USC 1396 (a) (5) - responsible for administration of the Medical Assistance Program as prescribed by Title XIX of the Social Security Act, and 907 KAR 1:360 provides for an interagency agreement between DPH and DMS for the provision of preventive and remedial health care services.”

Program Outreach and Enrollment:

KY MCH and the KY DMS, inter-agency agreement exists a referral based administrative arrangement, whereas enrollment in Medicaid services are pivotal to MCH program services, policies and procedures. Locally LHDs provide enrollment opportunities and technical support for clients seen in their agency. Collaborative enrollment efforts also extend to OCSHCN clinics where social workers assist families with Medicaid enrollment, Waiver plans and counsel families on available resources. Kentucky Medicaid, using the KYNECT platform has expanded enrollment by leveraging partnerships with TANF, DPH, BHDID and other agencies all organized within CHFS.

Health Care Financing:

According to Medicaid.gov, “by contracting with various types of MCOs to deliver Medicaid program health care services, states can reduce Medicaid program costs and better manage utilization of health services. Currently the MCOs in Kentucky are:

- Aetna Better Health of Kentucky
- Anthem Blue Cross Blue Shield
- Humana Healthy Horizons in Kentucky
- Passport Health Plan by Molina Healthcare
- UnitedHealthcare Community Plan
- WellCare of Kentucky

The percentage of service delivery and Medicaid reimbursement rates among the MCOs varies among service providers and types of services performed. KY Medicaid has a “contracted allowable” rate, or predetermined, defined rate that Medicaid will reimburse the healthcare provider. In Kentucky, those rates set by DMS and MCOs are generally range between 45%-60% of the service charge billed to private insurance and individuals.

Primary care case management (PCCM), was utilized in Kentucky throughout the 1990’s, but had grew out of favor among state officials and service providers by the early to mid-2000’s. With the recent Medicaid expansion in Kentucky, there are very PCCM arrangements in the state, with patients and providers favoring the larger, state-wide MCO network.

Waivers and Service Delivery:

There are several Medicaid waiver programs in Kentucky. They are:

- Home and Community Based Waiver (HCBW)
- Supports for Community Living (SCL)
- Model Waiver II
- Michelle P (MPW)
- Acquired Brain Injury (ABI), Acquired Brain Injury Long Term Care (ABI LTC)

DMS administers KY's Medicaid waiver programs. The Supports for Community Living (SCL) and Michelle P (MPW) Waivers provide services to persons with intellectual and developmental disabilities in Kentucky. To qualify for the Supports for Community Living waiver you must have Intellectual & Developmental Disabilities (IDD). Developmental Disability (DD) are severe, life-long disabilities attributable to mental and/or physical impairments, manifested before age 22. Developmental Disability (DD) results in substantial limitations in 3 or more of the following major life activities: Self-care, Understanding and use of language, Learning, Mobility, Self-direction or Capacity for independent living, and a recipient must meet the Medicaid income limits. Due to the limited capacity of most of Kentucky's Medicaid waivers, particularly with MCH populations and children with special health care needs, many families and children are on the waiting list for an extended period (that could be years), resulting in limited resources for this vulnerable population.

Policy Formulation:

MCH and DMS have a long history of working together collaboratively in order to meet the needs of women and children in KY. In addition to the inter-agency contractual relationship, Dr. Judith Theriot, the medical director for the KY OCSHCN sits on various policy making boards and advisory groups with KY DMS. She represents MCH and OCSHCN regarding the needs of women and children, particularly children with special health care needs. This representation helps to guide and shape policies and procedures that will result in positive outcomes for KY families.

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

State Action Plan Introduction

In the 2020-2025 State Action Plan, Kentucky MCH identified and developed, or continued seven NPMs. They are as follows:

1. NPM #1: Percent of women, ages 18 through 44, with a preventive medical visit in the past year.
2. NPM #4: A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months.
3. 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.
4. NPM #7: Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9.
5. NPM #8: 8.1) Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day & 8.2) Percent of adolescents, ages 12 through 17 who are physically active at least 60 minutes per day.
6. 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.
7. NPM #14: 14.2) Percent of children, ages 0 through 17, who live in households where someone smokes (relative to adolescent health).

For some needs identified, it was felt a state performance measure would better fit either the program strategic plan, or state ability to be intentional in strategies. The seven SPMs are:

1. Reduce by 5% the rate of neonatal abstinence syndrome among Kentucky resident live births.
2. Reduce by 10% the number of maternal deaths of Kentucky residents associated with substance use disorder by 2025.
3. Percent of OCSHCN Access to Care Plan components completed.
4. Percent of OCSHCN Data Action Plan components completed.
5. Percent of children ages 0-17 who are adequately insured.
6. Reduce by 5% the number of child and adolescent deaths categorized as suicide by 2025.
7. Adverse Childhood Experiences

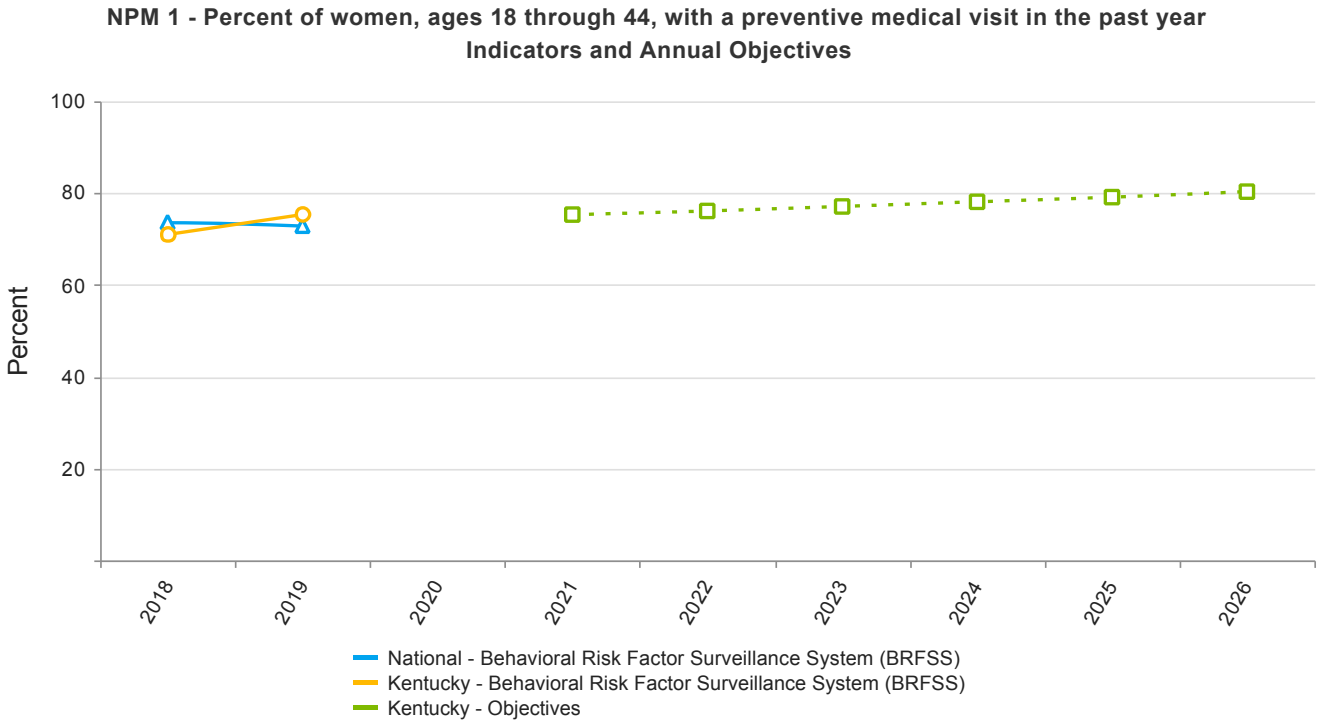
In the following domain sections, it is recognized that many programs, state partner initiatives, data sets and efforts are made to improve knowledge, outcomes, or strategies for each domain. In Kentucky, many crosscutting needs impact all levels of the MCH population. Strategies for these are detailed specifically only in each domain. As noted in previous sections, the pandemic was at times almost an insurmountable obstacle to be able to reach the public and taxed the public health workforce in ways that have not previously been seen. Impact was felt in each NPM or SPM work as program staff constantly shifted priorities, actions, and efforts to meet the next change in the health care or community landscape. MCH met LHDs at their point of need, to try to develop educational opportunities virtually, or in development of materials for virtual social media platforms, legislative emergency regulations, and ongoing guidance.

Women/Maternal Health

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 2 - Rate of severe maternal morbidity per 10,000 delivery hospitalizations	SID-2018	75.2	NPM 1 NPM 2
NOM 3 - Maternal mortality rate per 100,000 live births	NVSS-2015_2019	29.7	NPM 1 NPM 2
NOM 4 - Percent of low birth weight deliveries (<2,500 grams)	NVSS-2019	8.7 %	NPM 1
NOM 5 - Percent of preterm births (<37 weeks)	NVSS-2019	11.3 %	NPM 1
NOM 6 - Percent of early term births (37, 38 weeks)	NVSS-2019	31.3 %	NPM 1
NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths	NVSS-2018	6.0	NPM 1
NOM 9.1 - Infant mortality rate per 1,000 live births	NVSS-2018	6.0	NPM 1
NOM 9.2 - Neonatal mortality rate per 1,000 live births	NVSS-2018	3.7	NPM 1
NOM 9.3 - Post neonatal mortality rate per 1,000 live births	NVSS-2018	2.3	NPM 1
NOM 9.4 - Preterm-related mortality rate per 100,000 live births	NVSS-2018	152.1	NPM 1
NOM 10 - Percent of women who drink alcohol in the last 3 months of pregnancy	PRAMS	Data Not Available or Not Reportable	NPM 1
NOM 11 - Rate of neonatal abstinence syndrome per 1,000 birth hospitalizations	SID-2018	23.1	NPM 1
NOM 23 - Teen birth rate, ages 15 through 19, per 1,000 females	NVSS-2019	24.9	NPM 1
NOM 24 - Percent of women who experience postpartum depressive symptoms following a recent live birth	PRAMS-2019	13.9 %	NPM 1

National Performance Measures



Federally Available Data		
Data Source: Behavioral Risk Factor Surveillance System (BRFSS)		
	2019	**2020**
Annual Objective		
Annual Indicator	70.8	75.2
Numerator	520,595	556,691
Denominator	735,403	740,672
Data Source	BRFSS	BRFSS
Data Source Year	2018	2019

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	75.2	76.0	77.0	78.0	79.0	80.2

Evidence-Based or –Informed Strategy Measures

ESM 1.1 - Number of women receiving assistance, education, or guidance for getting a well woman visit, immunizations, or referral to tobacco cessation programs, substance use programs or other referrals.

Measure Status:	Active

State Provided Data		
	2019	2020
Annual Objective		
Annual Indicator		1,225
Numerator		
Denominator		
Data Source		MCH Package Counts No. 204-Prenatal Referrals
Data Source Year		2020
Provisional or Final ?		Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	2,000.0	2,200.0	2,300.0	2,400.0	2,500.0	2,500.0

State Performance Measures

SPM 2 - Reduce by 10% the number of maternal deaths of Kentucky residents associated with substance use disorder by 2025

Measure Status:	Active

State Provided Data			
	2018	2019	2020
Annual Objective			51.5
Annual Indicator	53.5	51.3	50.7
Numerator	23	39	35
Denominator	43	76	69
Data Source	Office of Vital Statistics death certificate files	Office of Vital Statistics death certificate files	Office of Vital Statistics death certificate files
Data Source Year	2017	2018	2019
Provisional or Final ?	Provisional	Provisional	Provisional

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	49.5	47.0	45.5	44.5	43.5	42.5

State Action Plan Table

State Action Plan Table (Kentucky) - Women/Maternal Health - Entry 1	
Priority Need	
Reduce maternal morbidity and mortality rates in Kentucky	
NPM	
NPM 1 - Percent of women, ages 18 through 44, with a preventive medical visit in the past year	
Objectives	
Increase by 5% the number of women who are screened for well-women preventive health visits, immunizations, and referral to primary care provider by 2025.	
Strategies	
• Utilize media outlets to promote preventative medical visits.	
• Develop educational modules focused on the Well-Woman Visit	
• Integrate well woman visit messaging in prenatal program evidence informed strategies	
• Provide education to women and track use of the Well-Woman Visit and referrals into evidence-based programs such as WIC, HANDS, and MIECHV/other home Visiting Programs.	
• Increase the number of educational presentations and materials regarding prevention and factors that significantly impact women's health (e.g., smoking, SUD, domestic violence, depression) to health care providers.	
• MCH remains committed to ongoing successful strategies/initiatives.	
ESMs	**Status**
ESM 1.1 - Number of women receiving assistance, education, or guidance for getting a well woman visit, immunizations, or referral to tobacco cessation programs, substance use programs or other referrals.	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

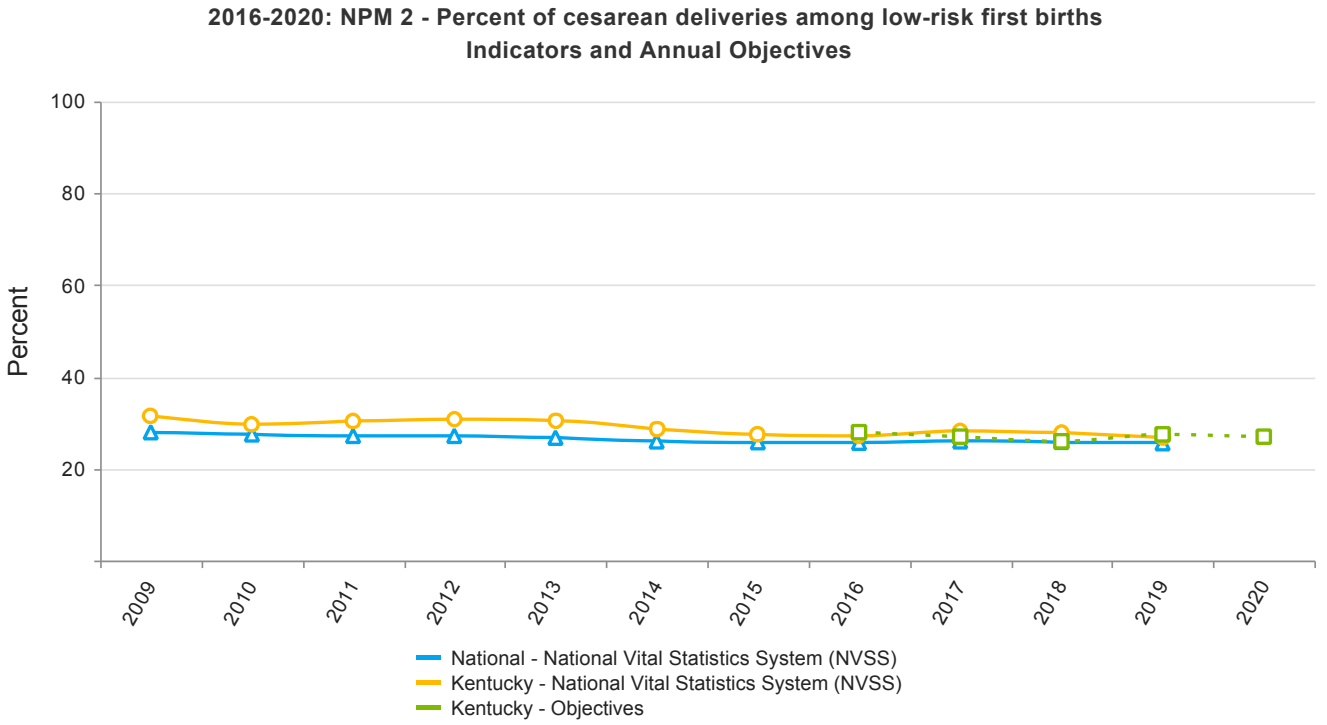
NOM 11 - Rate of neonatal abstinence syndrome per 1,000 birth hospitalizations

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 (Kentucky) - Women/Maternal Health - Entry 2
Priority Need
Reduce maternal morbidity and mortality rates in Kentucky
SPM
SPM 2 - Reduce by 10% the number of maternal deaths of Kentucky residents associated with substance use disorder by 2025
Objectives
Reduce by 10% the number of maternal deaths of Kentucky residents associated with substance use disorder by 2025
Strategies
• Identify maternal deaths of any KY female resident between the ages of 15-55 years who was pregnant within one year prior to death regardless of the cause of death with drug overdose defined by ICD10 code of X40-X49
• Ensure review by Maternal Mortality Review Committee (MMRC) within 1 year of death
• With guidance of MMRC develop recommendations from case findings for inclusion in the annual Maternal Mortality Review and Prevention report and provide information to KY Perinatal Quality Collaborative
• Develop presentations of MMRC findings for stakeholders
• Apply for AIM status and develop educational strategies for promotion and use of Maternal Safety Bundles

2016-2020: National Performance Measures



Federally Available Data					
Data Source: National Vital Statistics System (NVSS)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	28	27	26	27.5	27
Annual Indicator	27.4	27.2	28.3	27.8	26.8
Numerator	5,018	4,819	4,907	4,752	4,484
Denominator	18,321	17,748	17,321	17,108	16,740
Data Source	NVSS	NVSS	NVSS	NVSS	NVSS
Data Source Year	2015	2016	2017	2018	2019

2016-2020: Evidence-Based or –Informed Strategy Measures

2016-2020: ESM 2.1 - Number of outreach activities (data reports, presentations, and technical assistance) on the topic of cesarean deliveries among low-risk first births.

Measure Status:				**Active**	
State Provided Data					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective		9	11	13	15
Annual Indicator	7	9	13	3	0
Numerator					
Denominator					
Data Source	State specific data	State Specific Data	State Specific Data	State Specific Data	State Specific Data
Data Source Year	2016	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Final	Final	Final

KY MCH has had many evidence-based strategies to improve the health of women and mothers. Based upon the findings in the 2020 needs assessment and in ongoing program level evaluations, MCH continues to identify best practice strategies or initiatives for health promotion, outreach, and enabling services with providers, birthing facilities, and community partners/stakeholders. MCH accomplishes this through allocations of MCH Title V funds to LHDs for local implementation of the MCH best practice initiative packages. Based on community needs, LHDs can opt-in and select 2-5 packages with a requirement that at least one package chosen to address infant mortality. All are required to complete work with child injury prevention and child fatality reviews.

MCH sets the allocations for LHDs based upon a formula using population estimates of number of children and women of childbearing age enrolled in Medicaid, and families residing in service are of LHD at 200% below federal poverty level. Allocations are used for reimbursement of costs of the in provision of deliverables per package guidelines. LHDs, stakeholders, and collaborative partners are engaged at both the local and state level, building an integrative strategic plan across all levels.

Women/Maternal Health Domain Annual Report

In 2015, MCH began, as part of the national effort to "Put the M back in MCH," to intentionally evaluate ongoing maternal health efforts. In 2017, MCH became a catalyst in program change to incorporate new information from national resources and align data measurements, with national data sets. In 2019, MCH continued to promote best practice with local collaboration with an extensive group of partners both internally and externally to address issues related to women/maternal health. Three vital and successful partnerships with the KY Perinatal Association (KPA), KY Chapter of March of Dimes (MOD), and the Healthy Start Program in Louisville have created opportunity for MCH to work with grass roots organizations and collaborations beyond the reach of the LHD or birthing hospitals. This work led to establishment of the Kentucky multidisciplinary MMRC, KY Perinatal Quality Collaborative (KyPQC) and Alliance for Innovation on Maternal Health (AIM) designation in 2020. This work convened by MCH Title V leadership, continues to be a primary source of information for perinatal health. The collaboration has the highest level of leadership involved in DPH, BHDID, local hospital leadership, KPA, AWHONN KY, MOD, and more.

As efforts to address outcomes progressed, KY elected to retire in FY20, *NPM #2: Percent of cesarean deliveries among low-risk first birth*. KY preterm birth rates prior to 37 weeks gestation remain higher than national averages supporting efforts to reduce early elective deliveries and address maternal morbidities that may lead to a medically necessary early delivery. Work to improve this outcome included legislation to limit payment for early elective deliveries by state MCOs and Medicaid, multiple awareness and health promotion campaigns, dissemination of KY specific data, webinars, and regional/state meetings. Through all efforts, KY worked closely with March of Dimes and the Kentucky Perinatal Association. During this time, it was noted hospitals which developed a strong review system to determine medical necessity, had lower rates of elective C-section.

During the 2020 needs assessment, local stakeholders were vocal about improving the health of women of childbearing age. This concern had the highest count from participants for this domain. Many comments related to obesity, tobacco use, substance use, and morbidities that lead to early deliveries were discussed. One participant in a large urban area noted women who are not actively seeking family planning options may not have a well woman visit until pregnancy. Available data from the Behavioral Risk Factor Survey System (BRFSS) shows 70.8% of KY women report having an annual well woman exam. This visit is critical, which serves as an opportunity to counsel the woman on a healthy lifestyle to minimize health risks and poor outcomes across the life course.

With a heightened awareness regarding morbidity, referral, and improving the overall health of the woman, KY MCH shifted program plans to address *NPM #1 Percent of women, ages 18 through 44, with a preventive medical visit in the past year* and the well woman visit with a goal to improve rates of visits and reduce morbidities in pregnancy.

KY MCH has had a strong partnership with the CHFS Division of Women's Health (DWH), which has developed relationships with many federally qualified health centers (FQHCs) for family planning and collaborates with the LHDs and FQHCs for delivery of services for breast and cervical cancer screening, evaluation, referral, and treatment. This relationship allows both the DWH and MCH to extend messaging deeper into the community.

During 2020, the MCH perinatal program nurse consultant met with leaders from Healthy Start, March of Dimes, local Jefferson County Doulas, midwives, and others to understand best practice efforts for encouraging women to

prioritize themselves and their annual exam. This effort also had many discussions related to health equity, particularly in the west side of Louisville and ongoing issues with racial bias. From these discussions, a new MCH best practice package was developed and initiated beginning with state FY22 to address promotion of well woman exams, ongoing care of chronic health conditions, resource and referral for any identified needs, media promotions or other innovative ideas the LHD may have to improve rates of women getting their annual exam, immunizations, and screenings.

Maternal Morbidity:

Discussions held during 2020 with the DMS Chief Medical Officer, Dr. Judy Theriot, DPH Deputy Commissioner Dr. Connie White, KPQC, and KPA included how Kentucky women have multiple risk factors for poor pregnancy/birth outcomes ranging from smoking, substance use, obesity, diabetes, hypertension, or SDoH factors such as abject poverty, lack of healthy food, housing instability and others.

Kentucky joined a Medicaid Innovation Accelerator Program looking at development of data analytic capacity to support reduction of maternal mortality and severe maternal morbidity in Medicaid. Review of DMS data sets by maternal ICD codes revealed alarmingly high rates of some severe maternal morbidities.

Rates of maternal mortality (MM) and severe maternal morbidity (SMM) are rising and disproportionately affect African American and rural moms. Recognizing these challenges, the Kentucky Department of Medical Services has interested in strengthened its partnerships with the Kentucky Department of Public Health (DPH), specifically with the recently established Maternal Mortality Review Committee and Perinatal Quality Collaborative, thereby building analytic capacity to examine MM and SMM in Medicaid enrollees. SMM was identified based on the Center for Disease Control and Prevention's (CDC's) 21 indicators of severe maternal morbidity. Key findings from the Preliminary analyses include the following:

- In 2017, the prevalence of MM was 13.5 per 10,000 live births. The prevalence of SMM was 350.4 per 10,000 live births.
- Beneficiaries with one or more SMM diagnoses were 20.5 times more likely to die in the first year after delivery than beneficiaries without SMM diagnoses.
- The rate of MM among women with SMM was more than double the rate among women without SMM, consistent with the notion that SMM and MM are part of a continuum of increasing adverse maternal outcomes.
- The most common forms of SMM that led to death were cardiac arrest/ventricular fibrillation, ventilation, and acute myocardial infarction.

Kentucky Medicaid has been chosen to participate, as one of nine state teams, in the Improving Postpartum Care Affinity Group.

- A key challenge and major intervention for this population is in increasing both the quantity and quality of postpartum care visits, as well as continued screening and support systems for women in this population.

- Beginning in 2021, Medicaid's managed care organization partners all have value added services for pregnant and parenting women. Women with high-risk pregnancies will receive care management services, and all women will receive incentives for attending prenatal care visits and postpartum care visits.

Despite all the advances in science, maternal morbidity and mortality has not decreased in recent years. In fact, as KY developed better analytics for the Maternal Mortality Review Committee (MMRC), it was evident there was growing concern for looking at all causation for maternal mortality. Drivers for morbidity became a topic of concern for the MMRC with a need to engage and continue development of the KY Perinatal Quality Collaborative (KyPQC).

The health care delivery system in KY has undergone significant changes in the past few years through Medicaid expansion and the implementation of components of the ACA. The number of individuals in KY without insurance has decreased dramatically. The women who have health care coverage are now able to access preconception and interconception care.

Other changes such as public health transformation reduced services through local health departments. LHDs

continue to struggle with adapting to population health services for prevention and promotion. Successful LHD endeavors are ongoing assistance to apply for KY Medicaid and the wrap around services that create a safety net for clinical services for pregnant women. They assist with presumptive eligibility for Medicaid. LHDs provide assurance that women can access prenatal care in their community, whether by referral to local obstetricians or contracts with local providers.

Access to prenatal care is enhanced by presumptive eligibility (PE) for a short duration of time, 60 days, while eligibility for full Medicaid benefits is determined. While PE is very valuable, women who ultimately are denied benefits may not apply for PE until late in pregnancy to assure some form of coverage for the expensive cost of delivery. As local health departments move to PH Transformation, the safety net provided by LHDs may greatly decrease.

Title V grant funding may be used to support education, outreach, or enabling services for this population. Referrals to address smoking cessation, domestic violence, mental health services, and substance use disorders is standard service for each LHD. Many have many contracts with a FQHC in the area.

Preconception health counseling, including the distribution of folic acid/multivitamins, continue at LHDs and partner providers through MCH and Family Planning Programs. Women seen in the LHD or through contracted providers were provided preconception counseling and, when needed, a year's supply of multivitamins. Clients, with positive pregnancy tests, received prenatal vitamins and counseling by the local health department staff, along with counseling on how to obtain prenatal care, apply for Medicaid, and referral for other services if noted during initial screening.

Substance use disorder creates further challenges in identifying and protecting the pregnant woman. Women have fears of removal of the infant at birth and do not readily seek out prenatal care. Treatment options across the state are varied, and social supports for these women are inherently limited. While the work and planning for a plan of safe care has progressed to piloting the Healing, Empowering, and Actively Recovering Together (HEART) Program, communities across the state are needed for expansion of this promising program. Establishing HEART requires time, workforce, funding, and a strong community collaborative team that has all stakeholders at the table with each entity actively supplying funds, staff, and knowledge to assure success.

As MCH worked with providers for the needs assessment, reviewed mortality cases, and began the KyPQC, other concerns were raised regarding domestic violence, depression, and use of alcohol or marijuana during pregnancy, and oral health. PRAMS provided a unique understanding of the values and beliefs held by Kentucky mothers.

2019 PRAMS Cohort:

Among this cohort's unintended pregnancies:

- Three out of five mothers were not using contraceptives at the time of conception.
- Half of mothers that never wanted to be pregnant were not using contraceptives at the time of conception.
- More than half of the mothers who had unintended pregnancies fall between the ages of 20-29 years.

Smoking/Substance Use:

- Roughly one in four mothers reported smoking at some point during their pregnancy (27%)
- Just over 6% of respondents report e-cigarette use before pregnancy; 2% report e-cigarette use in the last three months of pregnancy.
- 5% of mothers report marijuana use during pregnancy.
- 14.5% of women reported alcohol use prior to pregnancy.

Prenatal Care:

- Four out of five PRAMS mothers received adequate prenatal care, based on the Kotelchuck Index.
- Four out of five PRAMS mothers report having some sort of dental insurance. Of respondents 9% report having trouble finding a dentist to take Medicaid patients.

KBSR:

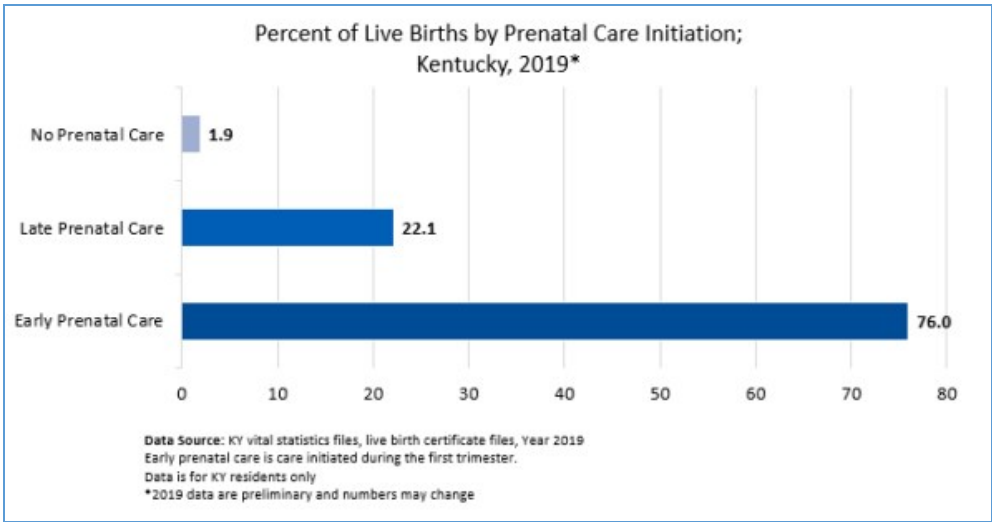
For NOM 10, KY does not have a reliable data source. In review of birth surveillance data, the number of children

with FAS annually is listed below. It is anticipated that the 2018-2019 counts could be artificially low as diagnosis can occur as late as age 3-5 when a child may miss developmental milestones.

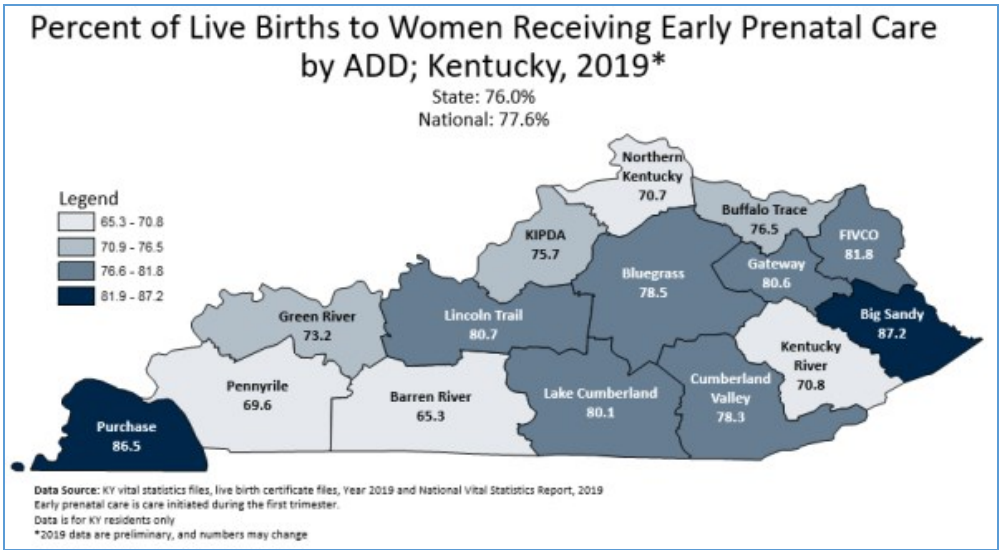
- 2015: 27 children
- 2016: 23 children
- 2017: 28 children
- 2018: 22 children
- 2019: 17 children

Prenatal Health:

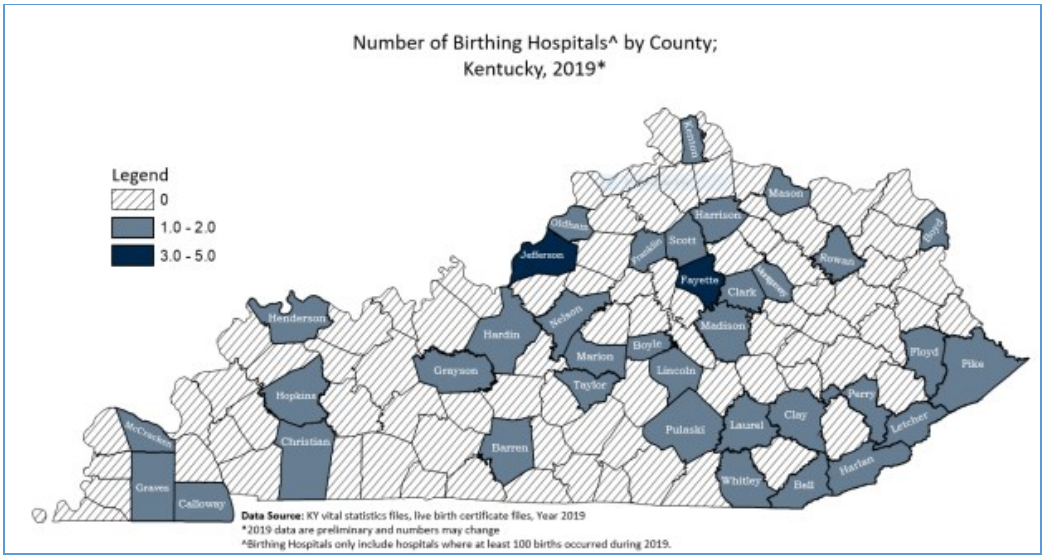
With an understanding of the risks associated with late prenatal care, additional data sets were reviewed. Overall, 76% of all live births in Kentucky have early prenatal care initiated. Most of these were in rural areas of the state. The Healthy People 2020 goal was for 77.9% of pregnant women to receive early prenatal care.



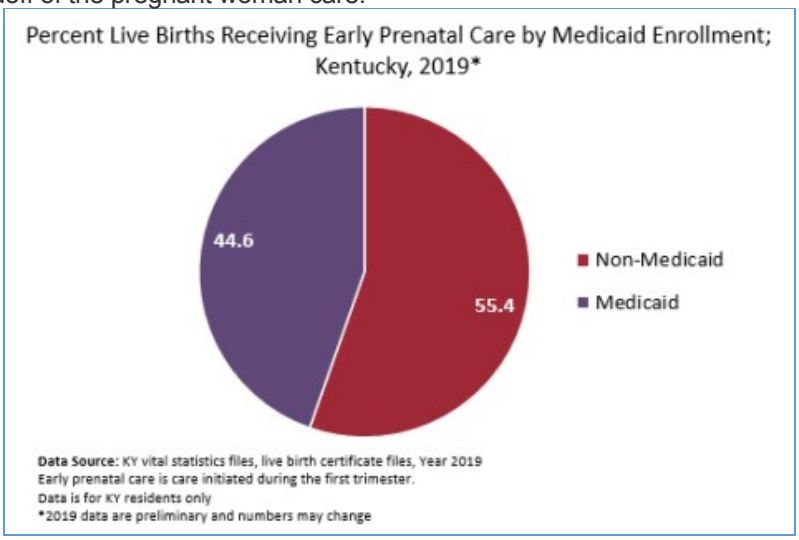
While Kentucky is close to 2020 Healthy people goal, there are still areas of rural Kentucky well below the state average.



Resources to a birthing hospital and providers are likewise limited for these areas. Far eastern Kentucky is served by the University of Kentucky, Baptist Health, Saint Joseph chain of hospitals, and the Appalachian Regional Hospital systems. Within these systems of care, there are many opportunities for regional care clinics and providers. In western Kentucky, there are far fewer birthing hospitals limiting access to care.

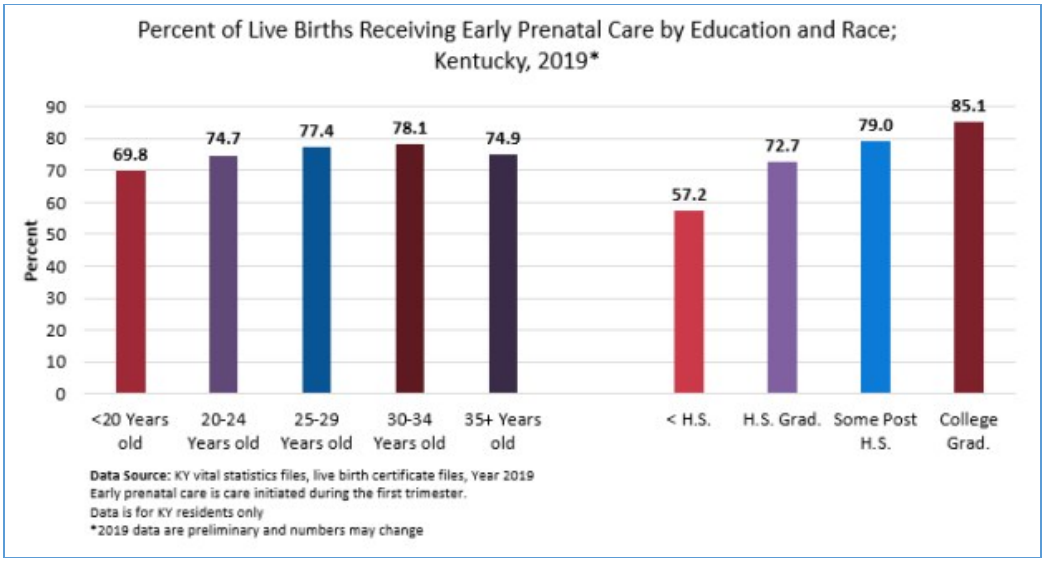


With the advent of Public Health Transformation, LHDS have limited access and provide minimal screening to the pregnant woman. LHDs are assisting women in KY needing prenatal and postnatal care with family planning, pregnancy tests, referrals to obstetric providers, and wraparound services, including HANDS, WIC, and support for smoking cessation, dental care, interpersonal violence counseling and substance abuse treatment. To improve pregnancy outcomes, LHDs departments have established contracts or collaborations with service providers within the community to furnish care to lower income and high-risk women and their children. This system allows the LHD to set the appointment and have a warm handoff of the pregnant woman care.



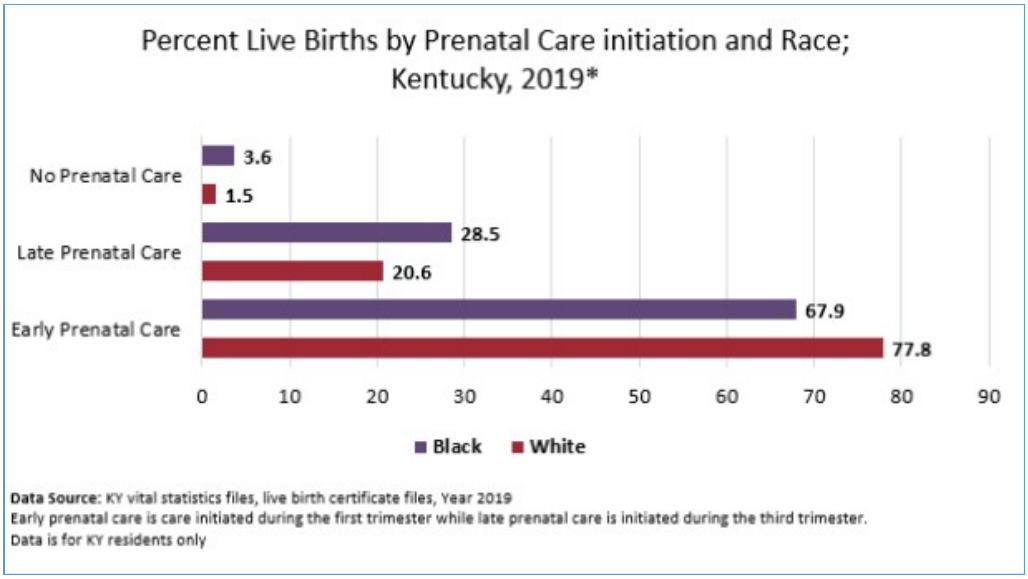
Early prenatal care among the Medicaid population is slightly less than those insured with other sources. Anecdotal discussions with stakeholders at the LHDs were varied for "why" they felt this occurred. Some noted many women do not qualify for Medicaid benefits prior to pregnancy and that they may not know the pregnancy may qualify them for benefits. Other reports were that undocumented immigrants did not apply as they understood presumptive eligibility (PE) time limitations and waited to obtain Medicaid so their PE time would be during delivery to cover the expensive hospitalization. For this group of women, when denied Medicaid, their ability to seek care. The greatest ideas were that some women with substance use disorders cannot mentally or cognitively complete the process of enrollment or are frightened of engagement with healthcare providers as they fear their child will be removed from their care upon birth. Kentucky continues work to understand barriers and build systems of care to overcome using local resources when available.

Early prenatal care data was reviewed from multiple perspectives. By age, it is not surprising that the highest rates of initiation of care were between 20-34 years of age. Likewise, lower rates were in the teen population or among those women who did not complete high school. Educational attainment resulted in improved likelihood of early prenatal care initiation.



As reported on Kentucky live birth certificates, early prenatal care was disproportionally and significantly higher among Caucasian mothers (85.2%) as compared to Black mothers (8.3%). Black mothers were almost 3 times more likely to have no prenatal care. Black mothers had higher rates of late prenatal care as compared to Caucasian mothers.

With the largest population of black Kentuckians residing in urban areas of the state, where the largest number of resources, hospitals, and providers, this is an alarming fact.

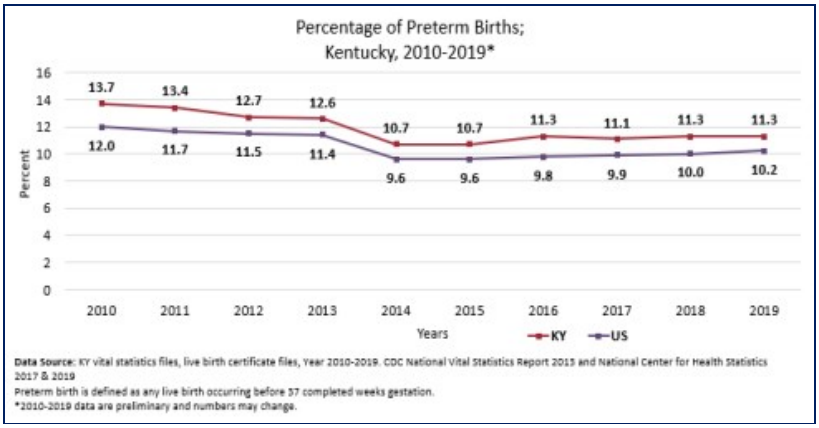


One major resource is the work by Healthy Start Louisville who strives to understand and overcome barriers for engaging women earlier in pregnancy. This group focuses on embraces racial, ethnicity, and cultural differences to ensure each client can have strength in understanding their opportunities for care, insurance, or resources. More information regarding the work of Healthy Start Louisville is included in the Perinatal Health domain narrative.

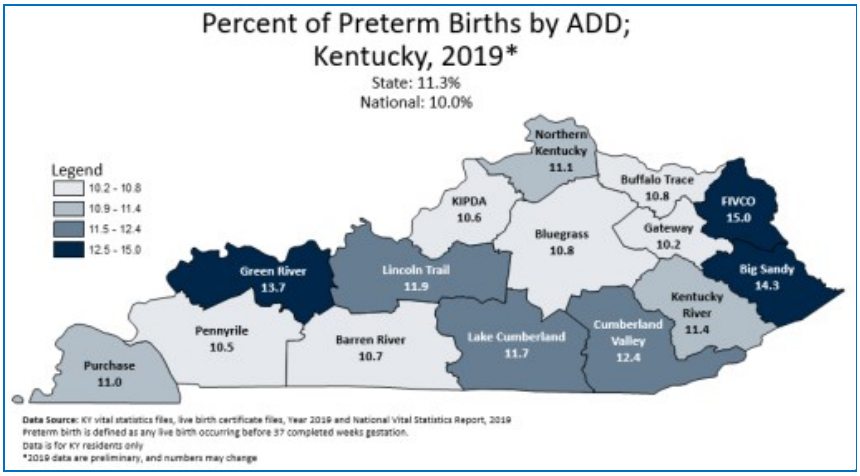
Preterm Birth:

KY's prematurity prevention activities began through a pilot project to reduce preventable preterm birth with funding from the MOD and Johnson & Johnson Pediatric Institute with many activities developed out of the Healthy Babies are Worth the Wait campaign. Lessons learned from this campaign are ongoing in health promotion to reduce early elective deliveries by the LHDs, hospitals and providers. This community-based, multi-layer approach to prematurity

prevention in three intervention communities with a range of health care settings was successful in showing that a partnership between hospitals, health departments, and communities could reduce preterm birth from EED which could also influence prematurity rates. In pilot sites that engaged all parties in reducing preterm rates, they noted a 12 percent decline for their areas. However, over the years, this activity at the LHDs shifted in focus to harm reduction activities, and linkage to care.

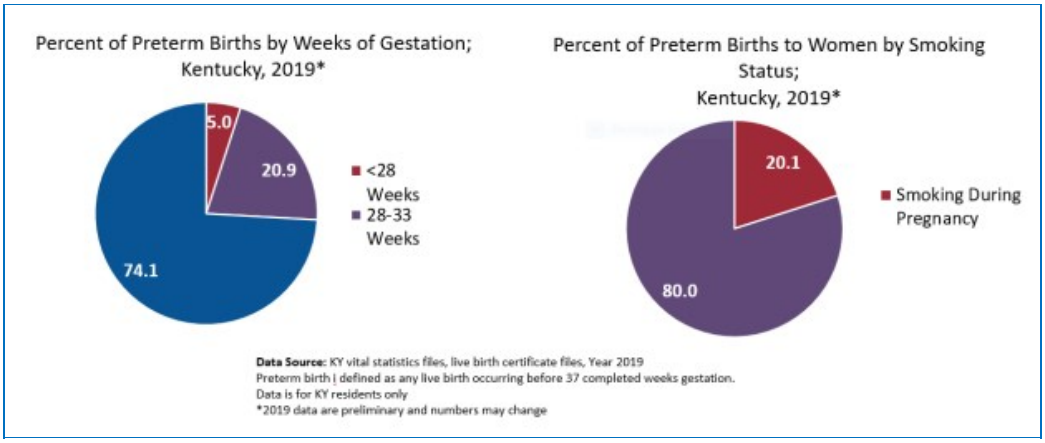


Overall, the rates for KY preterm births have been static and above the national rate. Data from the OVS birth certificate files show the percentage of births were higher for black infants (14.1%) than for white infants (11.2%). Preterm births were more likely in women age 35 or older and in women with less education, further reinforcing a need to continue health promotion and prevention activities to improve the health of the woman prior to conception and across the life course.



Preterm rates are significantly higher in the far eastern part of Kentucky with limited resources, higher rates of poverty, higher rates of substance use, and other SDoH risk factors. Efforts to reduce preterm birth rates are focused on behavior changes and outreach.

Preterm birth primarily occurs (74.1%) at 34-36 weeks of gestation. Of preterm births it is notable that 80% of preterm births had smoking during pregnancy as a risk factor.



Data Dissemination:

During 2020, MCH convened meetings with KY MOD Chapter, KPA, and Healthy Start Louisville to address social determinants of health, provide data from many MCH programs, and present quantitative KY specific data. From this effort, 5 web-based training opportunities were developed and placed on KY TRAIN for attendance of any discipline. Reviews of the courses have been positive with the greatest response to the presentations about NAS and the MCH opioid response for Kentucky.

Additionally, MCH distributed the annual NAS report, and other data briefs topic specific for MCH programs or initiatives via email distribution lists, and in collaboration with the KPQC, or KPA work.

Hepatitis C:

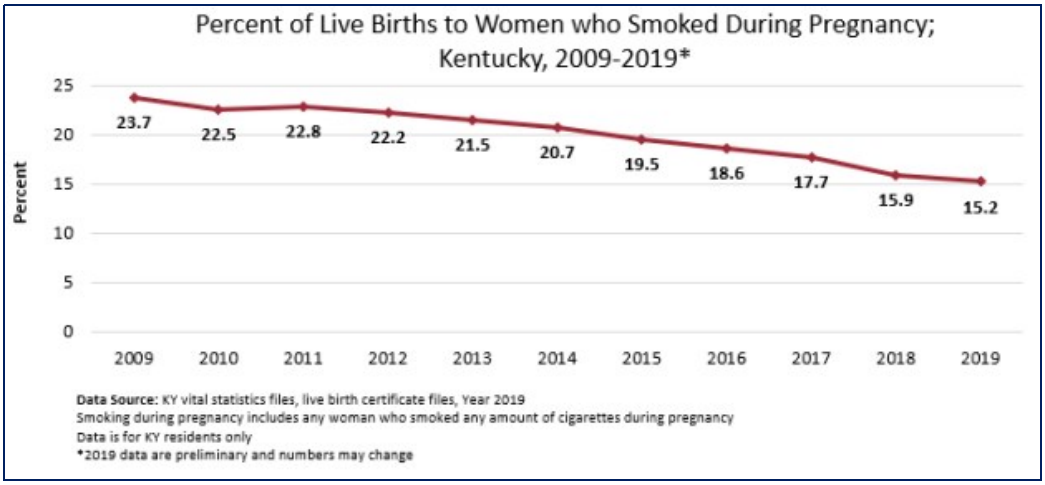
The Viral Hepatitis Program (VHP) had a large impact from pandemic as the two staff members in this program were assigned to the DPH Covid-19 response full time. During this time, the VHP was still able to add three additional FTEs in the coming months: an additional epidemiologist, a perinatal hepatitis C epidemiologist/coordinator, and a prevention coordinator. The perinatal hepatitis C position is part of the CDC Epidemiology and Laboratory Capacity (ELC) grant, housed within the Reportable Diseases Section. Hepatitis C was an optional project in the base grant focused on congenital infections. Despite competing priorities with pandemic response, VHP recognizes the following accomplishments:

- Collaboration with CDC to build a perinatal hepatitis C page in the National Electronic Disease Surveillance System (NEDSS) during the hepatitis Message Mapping Guide implementation process. The page is currently in the staging environment in NEDSS. There is a page for the birth parent and infants/children and these pages can be associated with one another. This will replace the current tracking system, GenTrack (a homegrown system).
- Collaboration with the Kentucky Health Information Exchange (KHIE) and Deloitte to build pages for electronic case reporting for hepatitis C. Once complete, this will replace the EPID 394 paper form that is completed and faxed to public health. Eventually, the goal is to automate the electronic case report entering into the NEDSS page mentioned above.
- Awarded new program funding for continued prevention and surveillance efforts: CDC PS21-2103 Integrated Viral Hepatitis Surveillance and Prevention Funding for Health Departments. Kentucky was one of fourteen jurisdictions awarded for an optional component focused on prevention of hepatitis in persons who inject drugs.
- Continued progress in utilizing robust electronic lab report data to determine prevalence, disease distribution, and continuums of cure and care for hepatitis B and C.

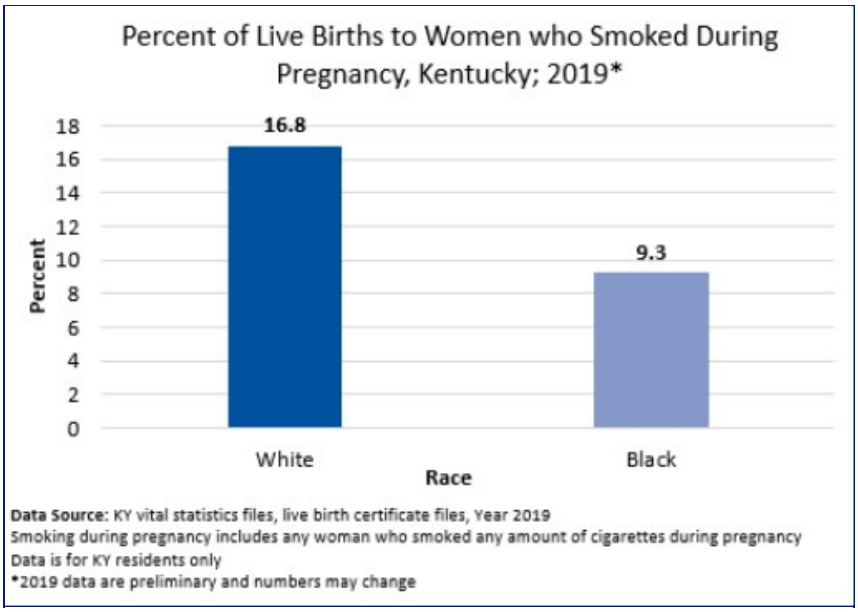
Tobacco Use:

Reducing tobacco use among pregnant women in KY continues to have a high priority. Over the years, many efforts and programs were initiated with minimal success in reducing and engaging women to stop smoking prior to conception or during pregnancy. The current MCH Assistant Director, Andy Waters has noted on many occasions the difficulties in establishing a program that can successfully engage pregnant women. The perinatal nurse

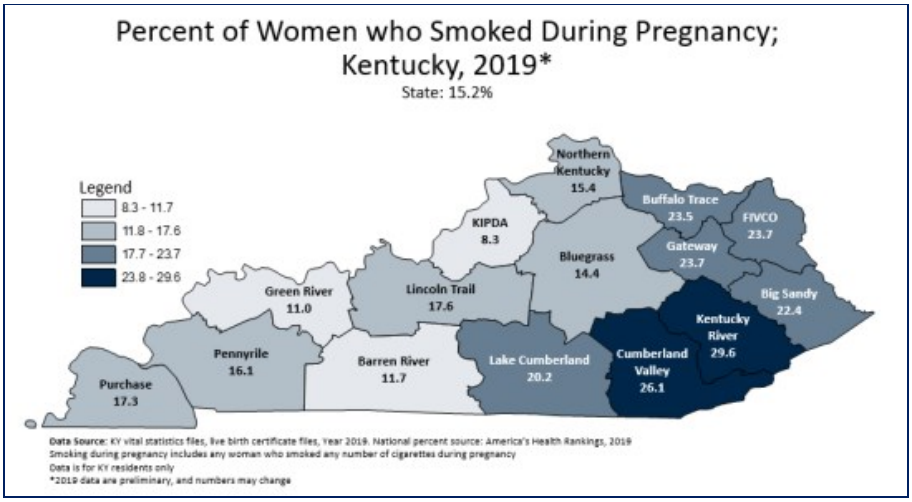
consultant has noted small successes with previous endeavors only when there was a full-time employee at the pilot program who kept a warm 1 on 1 relationship with the mother seeking to stop smoking. In areas in which there is not an actual person making ongoing care coordination/case management contact, and doing referral services only, rates were far less successful to getting the pregnant woman to engage with the KY QUIT line or other smoking cessation initiatives.



While the percentage of women who smoke during pregnancy steadily declined in it is well above the US rate of 6.5%. Smoking during pregnancy is more likely to occur in women with less than college education. Caucasian women were more likely to smoke in pregnancy than black women, and over 2/3 of those who smoked during pregnancy in 2018 had a high school education or less.



Geographical distribution of smoking during pregnancy continued to be highest in KY districts with the highest poverty rates and other social determinants of health impacting access to care, education, employment, and transportation. Tobacco use is a common factor in premature birth, birth defects, and it is a risk factor for sudden unexpected infant death. These outcomes have higher rates in the same areas of KY in which tobacco use and substance use rates are higher in pregnancy.



Quit Now KY has a pregnancy/postpartum protocol that is available to all KY residents 15 years of age or older who are currently pregnant. This protocol includes a designated female coach assigned to each pregnant woman. During pregnancy, each woman receives $5 per completed call for up to $25 and during postpartum each woman receives $10 per completed call up to $40.

In 2019, MCH explored the Tobacco Prevention and Cessation Program methods to improve outcomes for pregnant women who smoke. The following Prenatal Smoking Performance Improvement Plan (PIP), through an enhanced Obstetric Care Management model, continues to be refined in partnership with Medicaid MCOs and the Quality Improvement Branch. The suggested PIP template suggests the following areas:

- Develop a care management program to enhance reach to target the smoking subpopulation for smoking cessation outreach and follow-up.
- Tailor care coordination with care management to susceptible subpopulations as indicated by risk factors identified in focused study.
- Use Health Risk Assessments (HRAs) and develop new methods to identify smokers.
- Improve HRA response rates by collaborating with providers to complete HRAs for new members.
- Develop a MCO smoker registry to identify smokers for outreach, engagement in cessation counseling, and referral to the KY Quitline.
- Work to track members who contact the Quitline, receive services, and monitor quit status.

While KY has made some progress in decreasing the number of women who smoke during pregnancy, the rates of smoking during pregnancy in KY remain almost double that of the nation. KY is consistently one of the worst states on this indicator. Initial efforts to encourage participation of pregnant smokers in Quit Now KY have not been successful. In 2020, there were a total of 56 women enrolled in the pregnancy protocol and 43 women enrolled in the post-partum protocol.

Title X Family Planning:

The Division of Women's Health (DWH) continues to administer the Title X Family Planning Program (FPP) with a priority to provide all citizens of KY, especially low-income citizens, with quality family planning services. KY Public Health (PH) Transformation in 2019 has changed how the FPP is providing access to family planning across the state. PH Transformation removed family planning as a core public health service, defining it as a service based on local public health priorities.

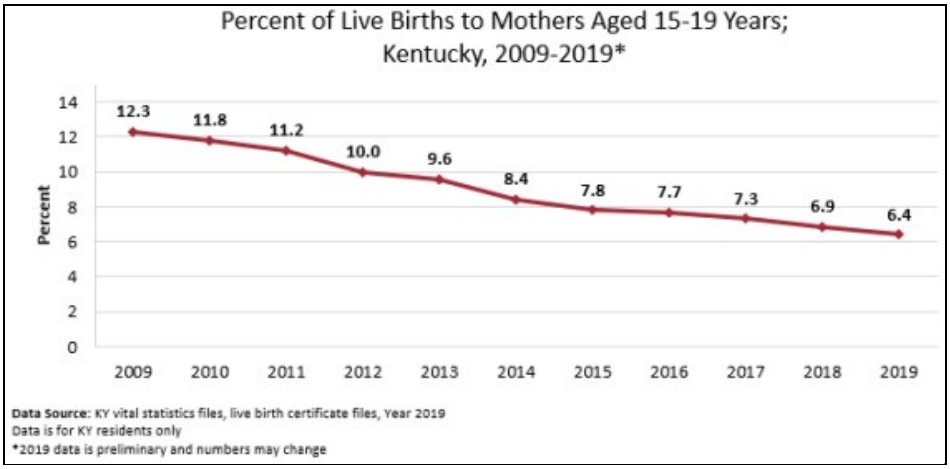
As a result of PH Transformation, 26 of the 62 LHDs chose to either decline Title X funding or receive limited funding to provide only STD testing and pregnancy testing. These 26 LHDs also declined all Kentucky Women's Cancer Screening Program (KWCSP) funding to provide breast and cervical cancer screening. The DWH has worked to partner with the FQHCs and other providers in all areas of the state where LHDs limited or stopped providing family planning services.

Promotion of an annual exam is encouraged for patients receiving family planning services. The year 2020 has

proved difficult for family planning and other clients to obtain annual exams due to the restrictions caused by the COVID19 pandemic. Although telehealth visits helped bridge the gap for some of the visits, there are some parts of annual exams that must occur in-person. This resulted in a decrease in the number of family planning visits. 24,173 women were served by Title X for the year of 2020 compared to 35,518 women served by Title X for the year of 2019.

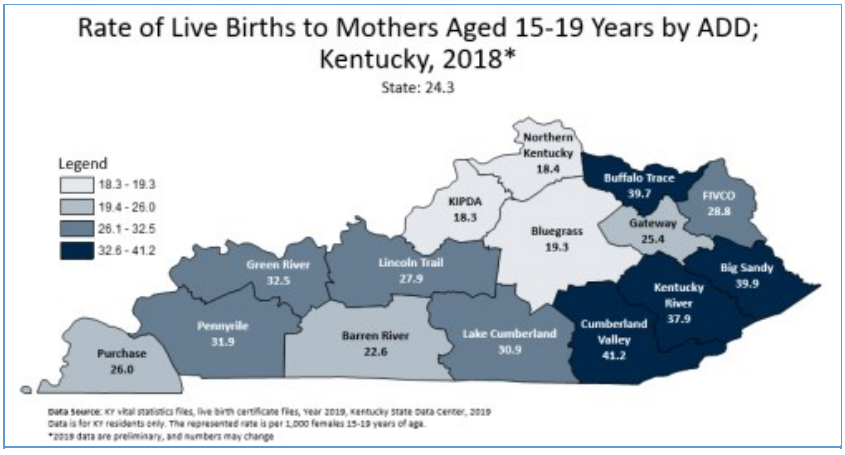
Teen Birth:

Since 2008, KY has experienced a steady decline in teen birth rate of fifteen to nineteen-year-olds. The teen birth rate has steadily decreased from 13.1% in 2008 to 6.4 in the current reporting period.



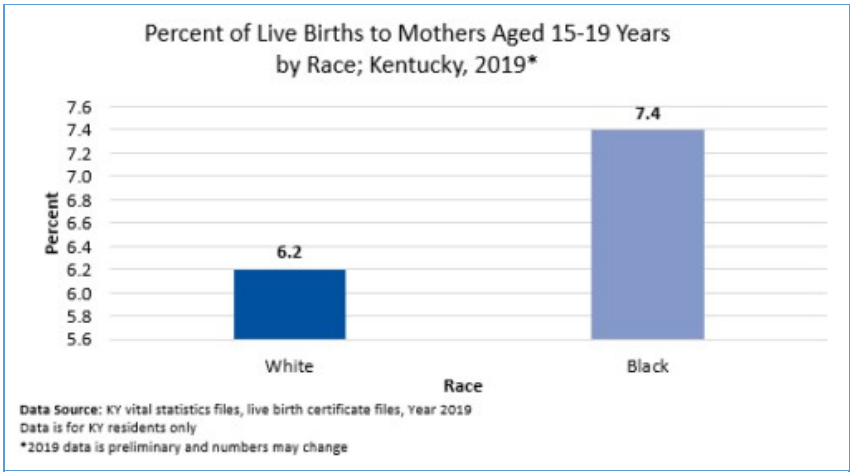
MCH collaborated with the Division of Women's Health (DWH) Adolescent Health Program on many adolescent health issues. The DWH Adolescent Health Program continues to receive federal funding to prevent teen pregnancy and promote positive youth development through the Sexual Risk Avoidance Education (SRAE) grant and the Personal Responsibility Education Program (PREP) grant. Beginning in state FY22, Adolescent Health, the SRAE and PREP grant work is being organized to the Child and Family Health Improvement Branch of Maternal and Child Health.

KY continues to struggle with high teen birth rates in comparison to the national rates. Historically, KY's teen birth rate ranks 5th to 7th highest in the nation, depending on the year. While the overall teen birth rate is improving, a geographical view revealed areas in eastern Kentucky have teen births accounting for as much as 10.8%.

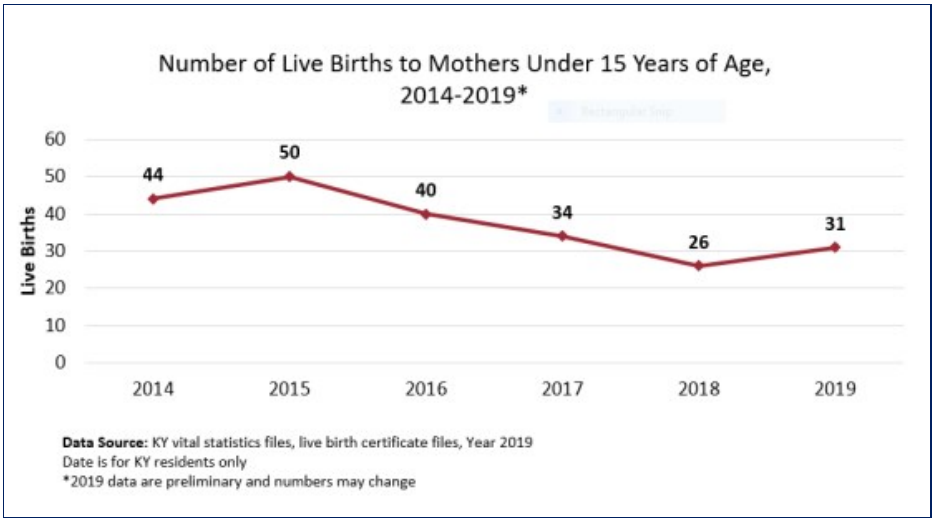


The teen birth rate is higher in Blacks at 7.4% compared to 6.2% in Caucasians.

Teen births were more likely to have early prenatal care.



Another alarming finding is the number of births to KY children less than age 15, reinforcing the need for intervention with child abuse and for education at younger ages regarding sexual intercourse. KY Youth Risk Behavior Survey data had data showing between 5.5-9.7% of middle school students reported having sexual intercourse in the past 3 years.



In the past 3 months, the MCH Adolescent Health program began collaboration planning with the Department for Community Based Services (DCBS) Division of Family Support and their "The Assistance for Needy Families" (TANF) grant. One of the goals of the TANF grant is to "Prevent and reduce the incidence of out-of-wedlock pregnancies" which mirrors the premises of the Sexual Risk Avoidance and Personal Responsibilty grants. A second goal of TANF that fits well with these two grants is to "Encourage the formation and maintenance of two-parent families" to "foster economically secure households and communities for the well-being and long-term succcess of children and families".

Kentucky participates in the Youth Risk Behavior Survey (YRBS) Program through the Centers for Disease Control and Prevention (CDC). Biennial surveys taken from Kentucky middle and high school students in the areas of Nutrition, Physical Activity, Injury and Violence, Tobacco Use, Alcohol and Drug Use and Sexual Activity are recorded. The following table describes trend data for 2015 to 2019 in several areas

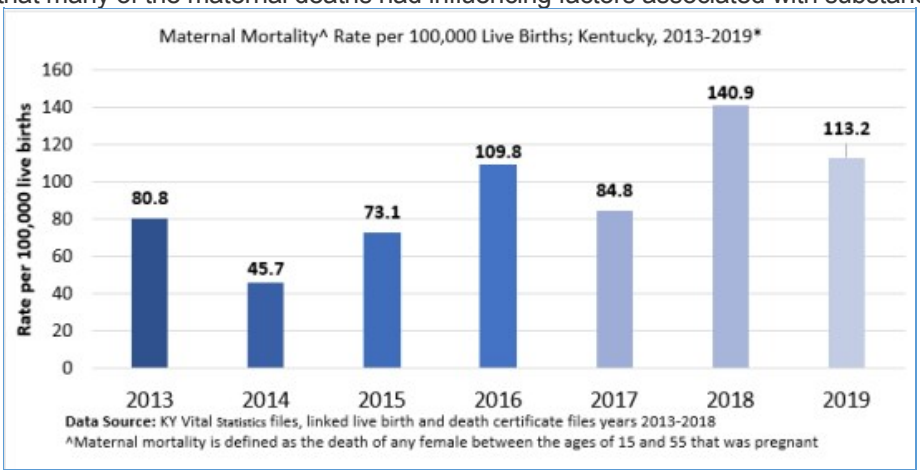
Table 3- 2015 to 2019 Trend Data KY YRBS Results for Middle School and High School

	Middle School			High School		
	2015	2017	2019	2015	2017	2019
Ever had sexual intercourse	9.7%	5.5%	8.3%	41.7%	34.8%	39.2%
Had sex with 3 or more people	3.1%	1.4%	1.7%	10.4%	9.6%	8.5%
Used a condom w/ last sexual intercourse	53%	*	56.4%	53.9%	48.7%	52.6%
Forced to have sex	Not asked	Not Asked	Not Asked	10.3%	6.5%	6.8%
Students who had sexual intercourse during last 3 months who drank or used drugs before intercourse	Not asked	Not Asked	Not Asked	17.1%	17.5%	14.9%
Ever used marijuana	9%	7.3%	9.5%	33.1%	32.1%	31.9%
Students who do not have a trusted adult in their life to talk to about serious problems	12.5%	10.5%	12.5%	13.9%	11.3%	15.52%

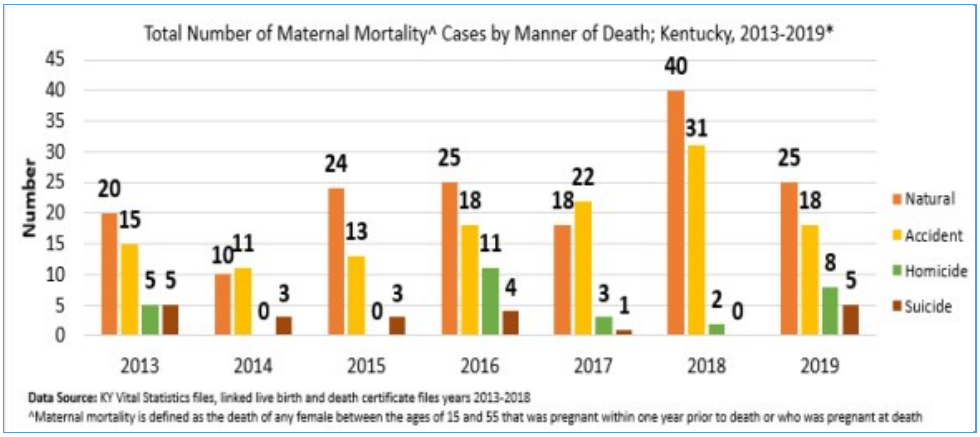
*Data not available. Fewer than 100 students in this group

Maternal Mortality Review:

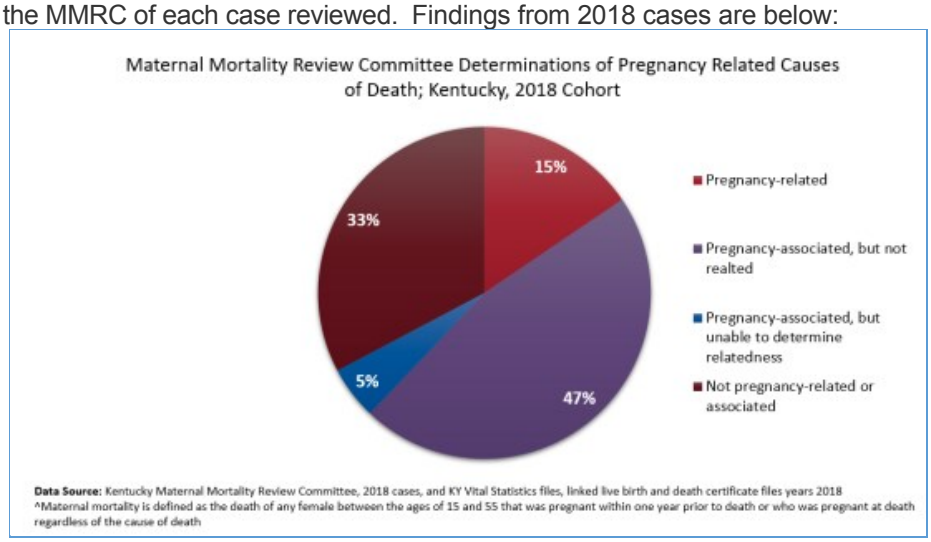
Maternal death is the worst outcome of pregnancy with one death being too many. Maternal deaths have significant repercussions, as women are crucial to a prosperous and healthy community. In KY, maternal mortality rapidly increased with some years double or triple the rate known prior to 2013. This prompted a deeper evaluation for cause and manner to attempt to understand the rise of cases. As in the figure below, the rate of maternal deaths in KY nearly doubled between 2013 and 2018. With a deeper review of only death certificate data, it became evident that many of the maternal deaths had influencing factors associated with substance use disorder.



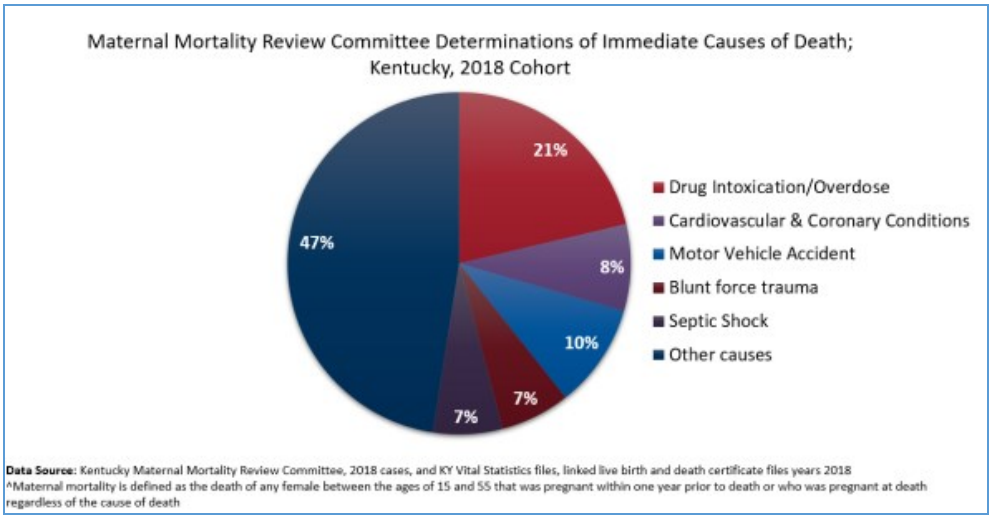
Further review of accidental deaths found over half had at least one ICD code related to substance use disorder or drug overdose.



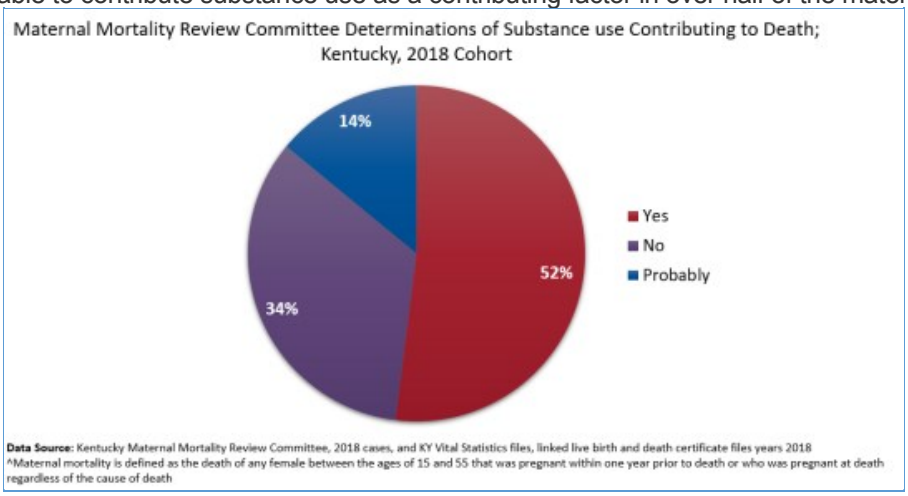
In 2017, the Maternal Mortality Review Committee (MMRC) was developed and began reviewing deaths from calendar year 2017. The pregnancy-associated but not related causes such as accidental injury, suicide, and homicide, appear to be the precipitating cause of most of these deaths. Pregnancy relatedness was determined by the MMRC of each case reviewed. Findings from 2018 cases are below:



Additionally, the MMRC determined with the death certificate data and case findings the immediate cause of death. From the 2018 Cohort the greatest number of cases had multiple causes of death and one immediate cause was not determined. The second largest category was directly related to drug intoxication and/or overdose.



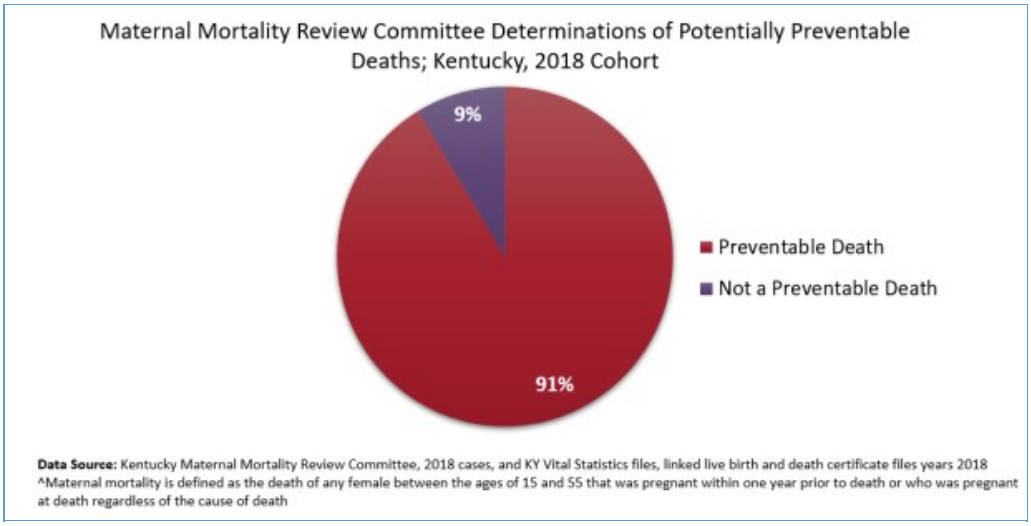
DPH reviewed the 2018 substance use cases for more detailed information. With an increasing rate, it became imperative for Maternal and Child Health (MCH) to understand the factors influencing this increase. The MMRC was able to contribute substance use as a contributing factor in over half of the maternal mortality cases.



Comparison of the 2017 and 2018 cohorts for key factors is displayed below. Cardiac diagnosis related to substance use along with polysubstance use was one driver in recommendations for the KPQC planning committee.

Maternal Substance Use	2017 Cohort %	2018 Cohort %
Cardiac Diagnosis related to Substance Abuse	10.2	17.2
Denied Substance Use, None, or Unlisted	41	34.4
Mono Substance Use	20.5	12
Polysubstance Use	33.3	51.7
DCBS Involvement of Mothers with Substance Use	28.2	41.3
Law Enforcement Involvement of Mothers with Substance Use	33.3	53.4
Mothers on Medicaid with Substance Use	46.1	55.1

The greatest sobering factor was the categorization that resulted in some probability of preventability in all of the maternal mortality cases with 1 of 9 cases determined to have been preventable with intervention during the pregnancy, delivery, or postpartum period.



Many had substance use involvement, mental health concerns, or other identifiable causes that if intervention had been taken could have potentially saved the life of the mother. These includes seatbelt use, substance use treatment with care coordination, early referral/treatment and management of underlying health conditions such as diabetes or infectious disease. Likewise, it is known that social determinants of health, such as transportation, homelessness, access to care, domestic violence, and a geographically rural state, limit early preventive care to reduce risk and address morbidities. Factors affecting morbidity, such as tobacco use, obesity, socioeconomic disparities, depression, mental health conditions, and substance use disorder increase the risk of mortality in Kentucky.

Disparities in KY vary by geography, race, and access to care. Appalachian communities are unique and deserve special attention given the rural, resource-limited, socio-economically impoverished nature of families in this part of KY with an additional burden of low health literacy and limited access to care. Nationally, African American women are estimated to be three to four times more likely to die from a pregnancy-related complication.

Maternal Race	2017	2018
African American	2.5 %	13.7 5%
Caucasian	74 %	82.9 %
Hispanic (Cuban)	2.5 %	0
Native American	0	1.7 %
Unknown/other	21 %	1.7 %

From review of death certificates, maternal deaths appear to be higher among black women in the two largest urban cities of Lexington and Louisville. Providers and birthing hospitals are more readily available in these urban cities. Although providers and birthing hospitals are readily accessible, there are other factors such as lack of transportation, lack of insurance, and systems issues that may be a barrier when seeking prenatal care that may explain disparity in maternal mortality by race.

	2017	2018
Zero PNC visits	20.5 %	8.6 %
1-4 PNC visits	18 %	25.8 %
5-9 PNC visits	20.5 %	24 %
10+ PNC visits	33.3 %	25.8 %

Prenatal care visits among maternal mortality cases were evaluated to determine at what point mothers engaged in healthcare. The chart below shows the highest rate had 10 or more visits during pregnancy.

In addition, DPH categorized the deaths within the periodicity below to examine how these maternal deaths related to the timing of labor and delivery.

Timing of Death in Relation to Delivery and Risk Factors		
Characteristics	2017 Cohort	2018 Cohort
Pregnant at time of death	25.6 %	29.3 %
Death within 3 days of delivery	20.5 %	22.4 %
Death within 42 days of delivery	30.7 %	27.5 %
Death within a year of delivery	94.8 %	84.4 %

A recommendation from the review of the graph below is for obstetricians to follow-up with mothers within 3 days to 1 week from delivery and more intensive 6 weeks visits, screenings, or assessment instead of a general follow-up in 6 weeks. As shown in the table, over 20% of cases occurred within 3 days of delivery.

During the past year, the Covid-19 pandemic affected the MMR process by increasing the amount of time in receiving the requested records from various facilities. Some facilities changed their internal process of requesting records and so the MMRC coordinator had to adjust the process of requesting records. Some facilities with only one medical record staff person work only work one day a week, thus slowing down the timeframe in receipt of records. During the pandemic, the MMRC continues to meet every 2-3 months but these meetings are held virtually. With most maternal deaths determined to be preventable, it is imperative KY identify factors involved in maternal deaths and translate MMRC recommendations into prioritized strategies for primary, secondary, and tertiary prevention to reduce maternal mortality. New recommendations from the review of cases this past year include address the continuation of respiratory and cardiac evaluation as well as comprehensive healthcare evaluations of the woman throughout her pregnancy, providing targeted case management and incentive based postpartum visits, and addressing substance use through the development of standard of care, linkage to prenatal care for substance use women and creating a consultation team related to opioid usage and intervention.

Kentucky Perinatal Quality Collaborative:

In November 2018, KYMCH, DPH, and Medicaid began exploring options to revive the KY Perinatal Quality Collaborative (KyPQC). This involved research with successful perinatal collaboratives in other states, research into the successes and barriers previously experienced in KY, and collaboration with the MOD, KPA, and the Association of State and Territorial Health Officials (ASTHO). The planning began with a federal ASTHO strategic meeting involving the DPH Commissioner, Chief Medical Director for KY DMS, MCH Division and Title V Block Grant Director, and the BHDID Director. From this meeting, a strategic plan was developed for the next 18 months that included development of a KyPQC to address substance use in pregnancy and Neonatal Abstinence Syndrome (NAS) plan of safe care.

This effort grew with the CDC grant award to the KIPRC for establishment of a KyPQC to work on the program plan developed with ASTHO and a field agent housed in DPH from ASTHO. With this support, KY held the official launch meeting of the KyPQC in October 2019 at Churchill Downs in Louisville, KY. The KyPQC Central Office is housed in the DPH, which serves as a means to enhance networking and collaboration with other statewide programs that work in the realm of improving maternal and infant health throughout the state of Kentucky. The overall mission and vision of the KyPQC is to make Kentucky a great place for every woman to have a baby and a great place for every baby to be born!

The KyPQC is comprised of three workgroups: Obstetrics (OB), Neonatology (Neo) and Data & Analytics that develop goals and initiatives to improve maternal and infant health outcomes. A Steering Committee, an advisory board of 15 appointed members with representation from key stakeholders that includes health industry leaders, professional organizations, public and private payers, universities, and birthing hospitals, monitors the goals and

initiatives developed by workgroups to ensure alignment with the mission of the KyPQC.

The OB and Neo workgroups developed two surveys (NAS Reporting Baseline Survey and Perinatal Pain Relief for Opioid Use Disorder (P-PROUD) Baseline Survey) that were administered on January 11, 2021 to all 46 birthing hospitals in the state to gain information about hospital-specific practices in regard to the care and treatment of women and infants affected by SUD/OUD. The results of these surveys allowed KyPQC to tailor our first quality improvement initiatives to the needs of each hospital and inform the development of training, guidance, resources, and clinical protocols for the standardization of care. KyPQC is currently recruiting 5-6 hospitals to serve as pilots for these first initiatives. The Data & Analytics workgroup supports both OB and Neo initiatives by establishing a data collection tool that the other groups can use when collecting hospital-specific data.

The KyPQC routinely provides updates of workgroup initiatives and accomplishments to a growing network of more than five hundred current newsletter subscribers. The KyPQC also hosts regular webinars on current and important topics in the perinatal care space that provides hour long education and training. Recordings of all webinars undergo a credentialing process that allows participants to receive nursing contact hours following the completion of an assessment.

Furthermore, the enrollment, of Kentucky into the Alliance for Innovation on Maternal Health (AIM) program as part of the 2021 spring cohort is another key resource for the data and quality improvement infrastructure. AIM is a national data-driven maternal safety and quality improvement initiative working towards reducing preventable maternal mortality and severe morbidity across the US. Kentucky joins 40 other states (including the District of Columbia) already participating in AIM to focus on national, state, and hospital-level quality improvement efforts for improving overall maternal health outcomes.

MCH Best Practice Strategy Packages:

In SFY19, the MCH Prenatal Care Tracking Package was selected by 23 LHDs with 1,944 women receiving assistance in obtaining and continuing prenatal services. This strategy helped LHDs improve their internal process of tracking the initiation and continuity of prenatal care. Pregnant women receive referrals for services such as WIC, HANDS, breastfeeding peer counseling, and other services as appropriate. The specific strategies include coordinating care for pregnant women with local providers, ongoing contact with pregnant women, assistance with enrollment in Presumptive Eligibility (PE) and Medicaid, and referral of women denied Medicaid to providers for the Title V Public Health Prenatal Program. Through this package, LHDs are tracking these women to see if they initiate prenatal care within the first two weeks of a positive pregnancy test, thus increasing the chances of improved perinatal outcomes. While following up with patients about initiation of prenatal care, LHD staff may also assess for barriers to care such as a payor source and assist with the application process for Medicaid, PE, or the Public Health Prenatal Program. By assuring that women are obtaining early and ongoing prenatal care, there are many opportunities to educate these women about the risks associated with cesarean sections and EEDs.

In SFY20, 10 LHDs implemented the Prenatal Care Referral best practice initiative practice. This work reached 1,408 women with referrals of 166 women for prenatal care within the first trimester, linked 352 women to WIC, 340 to the HANDS home visitation program, 363 for dental care, and over 400 being screening for intimate partner violence, depression, and substance use. This work often involved connections with local birthing hospitals, local OB/GYN and substance use centers that directly served pregnant women in obtaining MAT.

Other Programs Affecting Women and Maternal Health:

KY's progress related to maternal morbidity continues through the Health Access Nurturing Development Services (HANDS) home visitation program. HANDS began in 1998 as KY's voluntary home visitation program designed to assist overburdened expectant and first-time parents, prenatally through age 3. In 2011, HANDS expanded to serve multigravida families. HANDS' focus on fostering early childhood development, nurturing relationships, and learning which serves more than 12,000 families statewide. The paraprofessional and professional HANDS home visitors build relationships with the parents of young children and work on positive parenting and family self-sufficiency skills using a strengths-based curriculum. These protective factors build resilience and positive outcomes for both the child and parents. Previous outcomes studies report the infant mortality rate was 74% less likely among HANDS participants than statewide.

KY was a recipient of formula and competitive grant funds through the Maternal Infant Early Childhood Home Visiting (MIECHV) Program. At full implementation, 78 counties received expanded services (in addition to the core HANDS program, which is in every county). Due to changes in the federal MIECHV, currently only 29 of KY's highest at-risk counties receive support by MIECHV Formula funds. The benchmark results from this program found improvements in maternal and newborn health; school readiness and achievement; increased screening for domestic violence and referrals for victims of domestic violence; family economic self-sufficiency; referrals for other community resources; decreased mother and child visits to the Emergency Room; and decreased incidence of child injuries requiring medical attention.

During 2018, the state workforce for HANDS was dramatically reduced as veteran staff retired or found other state promotional opportunities. Regardless of this workforce transition, HANDS continued to meet federal standards of programming with local field representatives' assistance and serve the women and children of KY. In 2020, MCH was able to onboard and fill many of the vacant positions. As previously stated, HANDS work targeting reaching at risk families using multiple virtual platforms, telephone care coordination, and addressing other barriers for virtual engagement such as lack of internet connectivity services and more.

Women/Maternal Health - Application Year

Based upon outcomes from the 2020 needs assessment, the state action plan was updated to focus on *NPM #1: Percent of women, ages 18 through 44, with a preventive medical visit in the past year*. With this change, KY's developed strategies to influence positive health outcomes across the life course and reduce the incidence of maternal morbidities or mortalities.

Based upon the needs identified, MCH strategies include:

1. Increase the availability of KY-specific data regarding the number of women who have a preventive health visit or screening
2. Develop a dissemination plan for data briefs, health promotion documents about screening, SUD, tobacco use, domestic violence, social determinants of health, and behavioral health needs
3. Utilize various media platforms to promote the well woman visit
4. Increase provider educational opportunities regarding the well woman visit, as well as specific topics that negatively impact long term health outcomes or pregnancy outcomes
5. Utilize MCH programs such as WIC, HANDS, and MIECHV to promote the well woman visit

MCH will continue engagement through many partners for development of a trained and competent work force. This workforce is needed for health promotion. KY will also promote this strategy through the work of the KyPQC and other community partners. MCH will continue to collaborate across all programs for education and promotion of its various programs to assure continuity and to eliminate silos in communication with the community. This work is ongoing for FY22 with goals to further expand the MCH promotion activities, development of a MCH media campaign, linkage to other CHFS programs, TANF, and BHDID.

Additionally, KY continues the partnership and promotion of the prenatal referral evidence-based practice with the LHDs to support pregnant women seeking presumptive eligibility with Medicaid and to offer and provide services such as WIC, home visitation, and referral to local agencies for care as identified for tobacco cessation, SUD treatment, behavioral health care, and immunization administration. KY recognizes that insurance coverage and medical management from preconception to the postnatal period is imperative to reduce maternal morbidity and death, preterm births, and the number of low-birth-weight infants. This remains a public health challenge and core function for MCH.

To improve outcomes related to women's health, the MCH Prenatal Referrals Package will continue. It requires LHDs to provide or refer pregnant women wrap around services for smoking cessation/reduction, treatment referral for substance use, referral for intimate partner violence, referral for WIC/HANDS, and support for applying for Medicaid.

In the next year, MCH plans to develop a new evidence-informed strategy (EIS) or evidence-based package targeting reduction of tobacco use in the pregnant population. This package will be designed in partnership with the Tobacco Cessation Program, and it will allow LHDs to provide smoking cessation education to providers and pregnant women in the LHDs.

With Public Health Transformation, the Public Health Prenatal Program is no longer a core function for the LHD. The LHDs are encouraged to devote funding from state and local resources for population health measures as determined by in-depth community needs assessment identifying public health priorities locally.

The new MCH package Well Woman Visit kicked off with the start of the state FY22. Currently, LHDs are drafting program plans for use of this package during the upcoming year. Already, one district health department has discussed how they can use this package with COVID-19 education to promote vaccination during pregnancy, and

well woman visits, along with incorporation of breastfeeding and safe sleep messaging.

KY continues work for *SPM 6.6: Reduce by 10% the number of maternal deaths of Kentucky residents associated with substance use disorder*. Identified cases with substance use ICD codes and substance use indicated on death certificates will be reviewed by the MMRC. The MMRC continues to meet on an aggressive schedule every 8 weeks to review cases and identify recommendations for prevention. This committee has members who also support the KyPQC and assist with program education development for MCH and KyPQC. These activities will continue. KY has access to the CDC database, MMRIA, and began entering data. The workforce was increased to include a temporary part-time nurse to give the FTE nurse time for chart abstraction and data submission to MMRIA.

KY continues work to partner with the DPH Commissioner's office for building the infrastructure and to mature processes for the KYPC. With ongoing work with the enthusiastic group of volunteers, KY hopes to begin a survey of hospitals and the promotion of maternal safety bundles.

KY MCH has plans for regional meetings to share MCH data, program outcomes, and opportunities for improvement. The structure of these meetings for the coming year may need to continue in the virtual format. MCH has many active community partners for promotion of the events and some that may be able to present innovative programming such as lessons from the field on how they found ways to reduce barriers, SDoH, and implicit bias to strengthen the mother/child dyad.

Immunization:
The DMCH collaborates with the DEHP to promote Hepatitis C screening, documentation, and reporting to KY stakeholders.

Emergency Planning:
Annually a review of the Continuity of Operations Plans is evaluated and updated per DPH protocol.

Perinatal/Infant Health

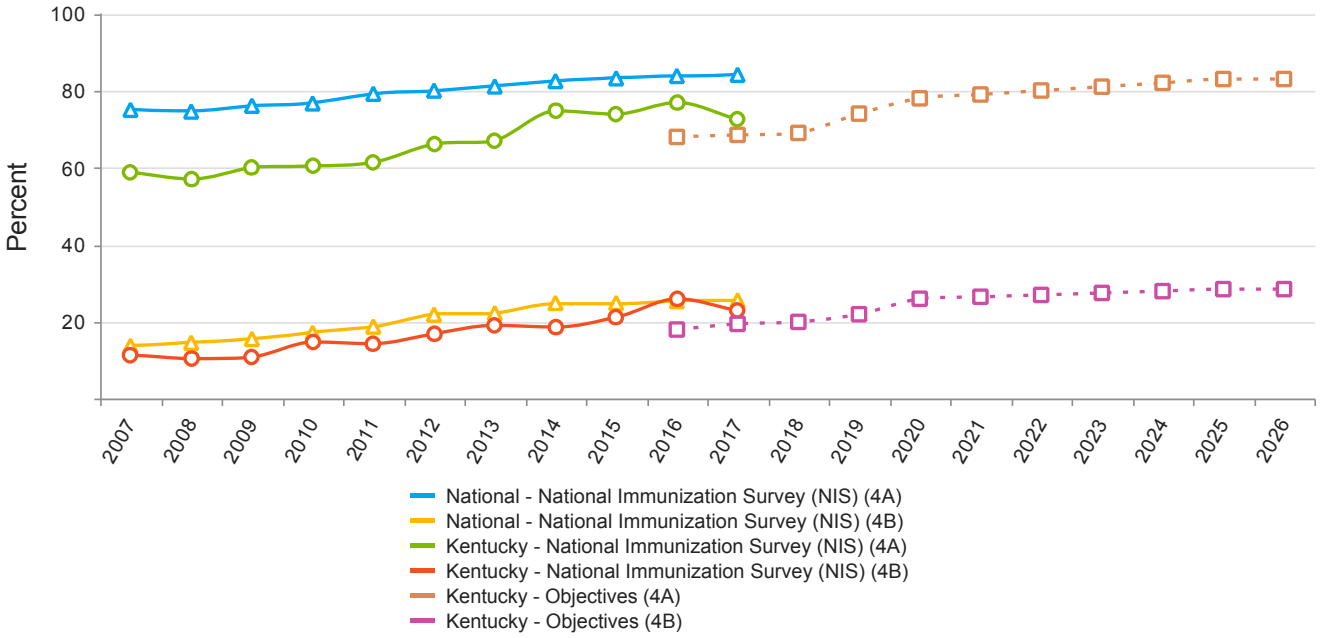
Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 9.1 - Infant mortality rate per 1,000 live births	NVSS-2018	6.0	NPM 4 NPM 5
NOM 9.3 - Post neonatal mortality rate per 1,000 live births	NVSS-2018	2.3	NPM 4 NPM 5
NOM 9.5 - Sudden Unexpected Infant Death (SUID) rate per 100,000 live births	NVSS-2018	111.3	NPM 4 NPM 5

National Performance Measures

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

Indicators and Annual Objectives



NPM 4A - Percent of infants who are ever breastfed

Federally Available Data					
Data Source: National Immunization Survey (NIS)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	68	68.5	69	74	78
Annual Indicator	66.9	74.9	73.9	76.7	72.6
Numerator	32,863	39,855	36,330	36,027	38,301
Denominator	49,132	53,240	49,132	46,956	52,779
Data Source	NIS	NIS	NIS	NIS	NIS
Data Source Year	2013	2014	2015	2016	2017

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	79.0	80.0	81.0	82.0	83.0	83.0

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

Federally Available Data					
Data Source: National Immunization Survey (NIS)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	18	19.5	20	22	26
Annual Indicator	19.0	18.5	21.1	25.8	23.0
Numerator	9,175	9,330	9,877	11,614	11,906
Denominator	48,213	50,546	46,742	44,939	51,775
Data Source	NIS	NIS	NIS	NIS	NIS
Data Source Year	2013	2014	2015	2016	2017

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	26.5	27.0	27.5	28.0	28.5	28.5

Evidence-Based or –Informed Strategy Measures

ESM 4.1 - Number of hospitals receiving technical assistance, educational offerings. Policy review from public health (LHD or state program) about the 10 steps to successful breastfeeding

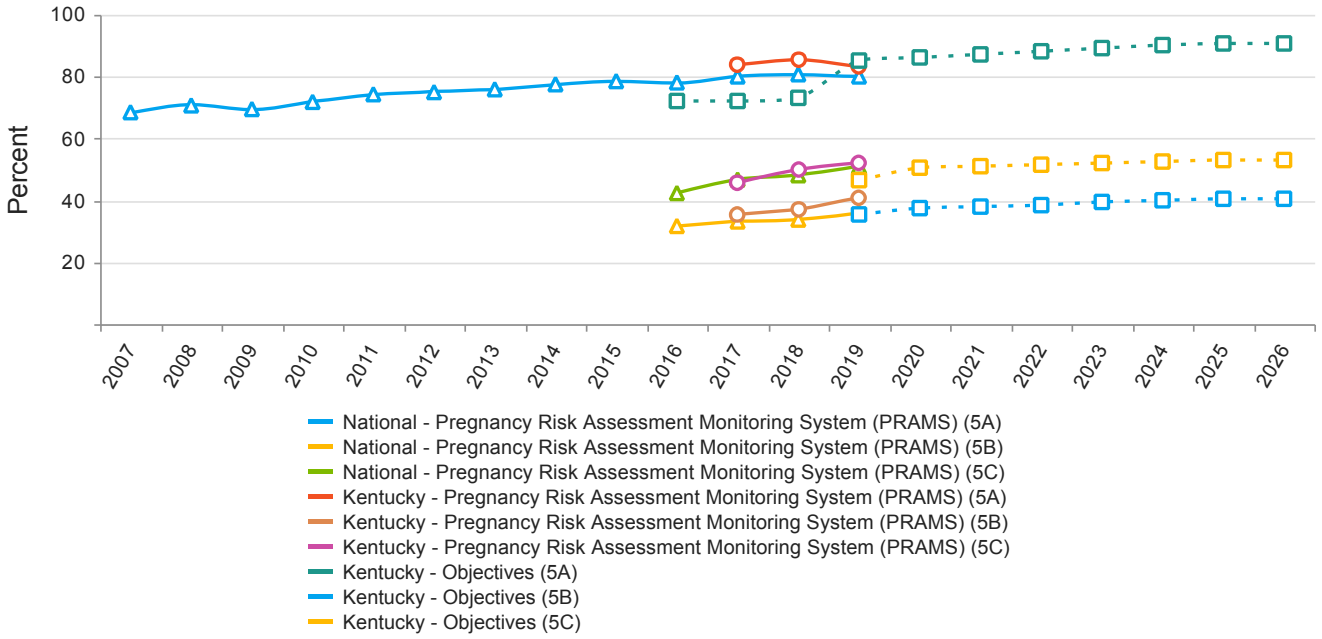
Measure Status:	Active

State Provided Data				
	2017	2018	2019	2020
Annual Objective			32	33
Annual Indicator			30	10
Numerator				
Denominator				
Data Source			KY Nutrition Services Records	KY Nutrition Service Records
Data Source Year			2019	2020
Provisional or Final ?			Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	34.0	35.0	36.0	37.0	38.0	40.0

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

Indicators and Annual Objectives



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

Federally Available Data			
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)			
	2018	**2019**	**2020**
Annual Objective	73	85	86
Annual Indicator	83.9	85.5	83.0
Numerator	40,180	40,711	36,727
Denominator	47,882	47,599	44,229
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2018	2019

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective	72	72	73	85	86
Annual Indicator	71.4	71.4			
Numerator					
Denominator					
Data Source	KY PRAMS pilot project	KY PRAMS Pilot Project			
Data Source Year	2010/2011	2010/2011			
Provisional or Final ?	Final	Final			

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	87.0	88.0	89.0	90.0	90.5	90.5

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

Federally Available Data			
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)			
	2018	**2019**	**2020**
Annual Objective		35.5	37.5
Annual Indicator	35.3	37.3	40.8
Numerator	16,040	16,812	17,094
Denominator	45,490	45,109	41,943
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2018	2019

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	38.0	38.5	39.5	40.0	40.5	40.5

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

Federally Available Data			
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)			
	2018	**2019**	**2020**
Annual Objective		46.5	50.5
Annual Indicator	45.9	50.0	52.0
Numerator	20,900	22,301	21,974
Denominator	45,561	44,602	42,245
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2018	2019

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	51.0	51.5	52.0	52.5	53.0	53.0

Evidence-Based or –Informed Strategy Measures

ESM 5.1 - PRAMS mothers who report placing their infants in a back-to-sleep positioning by September 30, 2025.

Measure Status:	Active
State Provided Data	
	2020
Annual Objective	
Annual Indicator	83
Numerator	
Denominator	
Data Source	KY PRAMS Weighted Data Set
Data Source Year	2019
Provisional or Final ?	Final

Annual Objectives					
	2022	**2023**	**2024**	**2025**	**2026**
Annual Objective	79.0	80.0	81.0	82.0	84.0

State Performance Measures

SPM 1 - Reduce by 5% the rate of neonatal abstinence syndrome among Kentucky resident live births

Measure Status:	Active

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective		23.8	22.5	22	21.5
Annual Indicator	24.3	22	16.8	21.3	22.6
Numerator	1,354	1,114	907	1,102	1,202
Denominator	55,714	50,716	53,923	51,629	53,069
Data Source	KY NAS registry and live birth cert files	KY NAS registry and live birth cert files	KY NAS registry/OVS Live Birth Records	KY NAS registry/OVS Live Birth Records	KY NAS registry/OVS Live Birth Records
Data Source Year	2015	2017	2017	2018	2019
Provisional or Final ?	Final	Provisional	Provisional	Provisional	Provisional

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	21.0	20.5	20.0	19.5	19.0	18.5

State Action Plan Table

State Action Plan Table (Kentucky) - Perinatal/Infant Health - Entry 1	
Priority Need	
Reduce Infant Mortality Rate	
NPM	
NPM 4 - A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months	
Objectives	
Increase by 5% the number of infants exclusively breastfed through 6 months by 2025.	
Strategies	
• Develop annual survey for birthing hospitals to measure progress on 10 steps for successful breastfeeding	
• Educate the general public and health care providers on the importance and benefits of breastfeeding (short-mid)	
• Partner with WIC, Kentucky Hospital Association and health promotion programs at state and local health departments to assist birthing hospitals in implementing and increasing the number of hospitals who operationalizing the 10 steps for successful breast feeding (long)	
• Development of web-based parent materials, social media educational opportunities, linkage to virtual breastfeeding support (long)	
• Development and implementation of comprehensive breast feeding support and education training with local agency staff in WIC (long)	
• Offer Train the Trainer offerings to increase capacity of designated breastfeeding experts at all LHDs (mid)	
• Build work force capacity in the community for peer support counseling (long)	
• Develop education materials/offerings for employers regarding designing supportive policies for Mother-Friendly breastfeeding	
• Develop evidence based initiatives for nutrition education, breastfeeding, employer supports for breastfeeding, media campaigns	
ESMs	**Status**
ESM 4.1 - Number of hospitals receiving technical assistance, educational offerings. Policy review from public health (LHD or state program) about the 10 steps to successful breastfeeding	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 (Kentucky) - Perinatal/Infant Health - Entry 2

Priority Need

Reduce Infant Mortality Rate

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 by 5% (current 79% for 2018 PRAMS data) the percent of PRAMS reporting mothers who place their infants in a back-to-sleep positioning by September 30, 2025.

Strategies

- Distribute parent education materials (in other languages) to birthing hospitals and providers
- Development of online modules for home visitation programs, CPS or other targeted providers.
- Maintain 100% of infant deaths that are reviewed by a multi-disciplinary review team.
- Development of educational materials at statewide literacy rate.
- Implement targeted interventions at both the state and local level identified populations/areas at greatest risk of non-back sleep.
- Include culturally sensitive education opportunities for addressing risk factors, smoking during pregnancies, environmental exposure, how to have conversation with parents on assessment of safe sleep environment, substance use, teen births.
- MCH remains committed to ongoing successful strategies/initiatives.

ESMs	Status
ESM 5.1 - PRAMS mothers who report placing their infants in a back-to-sleep positioning by September 30, 2025.	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 (Kentucky) - Perinatal/Infant Health - Entry 3

Priority Need

Reduce outcomes related to substance use disorder for pregnant women and reduce the number of Neonatal Abstinence Syndrome Cases

SPM

SPM 1 - Reduce by 5% the rate of neonatal abstinence syndrome among Kentucky resident live births

Objectives

Decrease by 5% the number of new cases of neonatal abstinence syndrome (NAS) by 2020

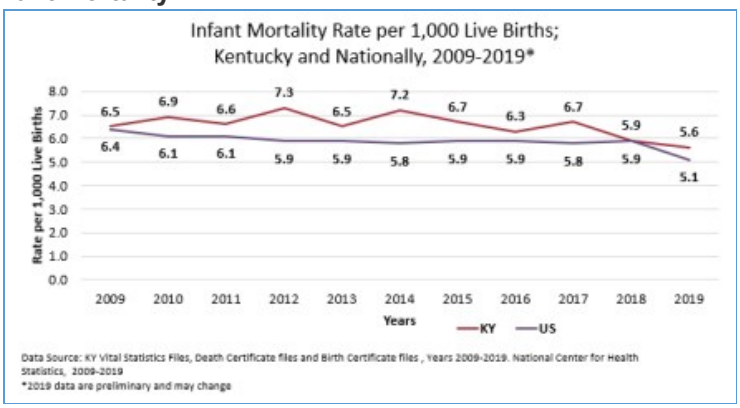
Strategies

- Provide technical support to reporting facilities.
- Complete at least one report on the findings annually.
- Continue collaborations with other state agencies to address the opioid epidemic.
- Coordinate with KY Perinatal Quality Collaborative to develop ongoing educational opportunities to address early identification of substance use during pregnancy with referral and care coordination for pregnant woman.
- Develop educational offerings for providers and birthing hospitals re: NAS

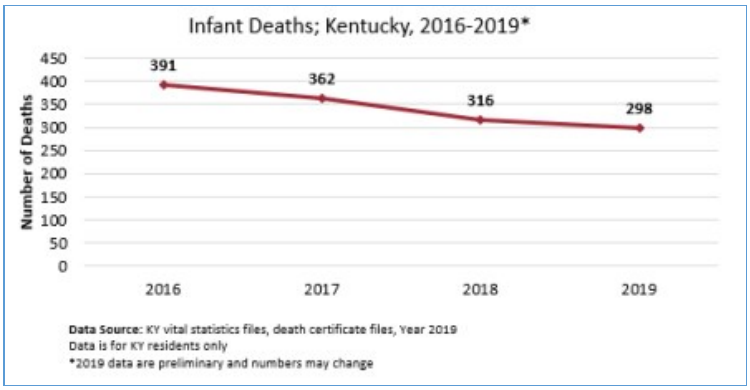
KY has targeted efforts to mitigate risk factors and promote protective factors to reduce infant mortality. MCH has many initiatives and programs that support infant growth and development. The NPMs selected will continue for the next grant cycle and remain part of the selected measures from the 2020 needs assessment. These are:

- *NPM # 4: A) Percent of infants who are ever breastfed, B) Percent of infants breastfed exclusively through six months*
- *NPM # 5: Percent of infants placed to sleep on their backs*.

Infant Mortality:

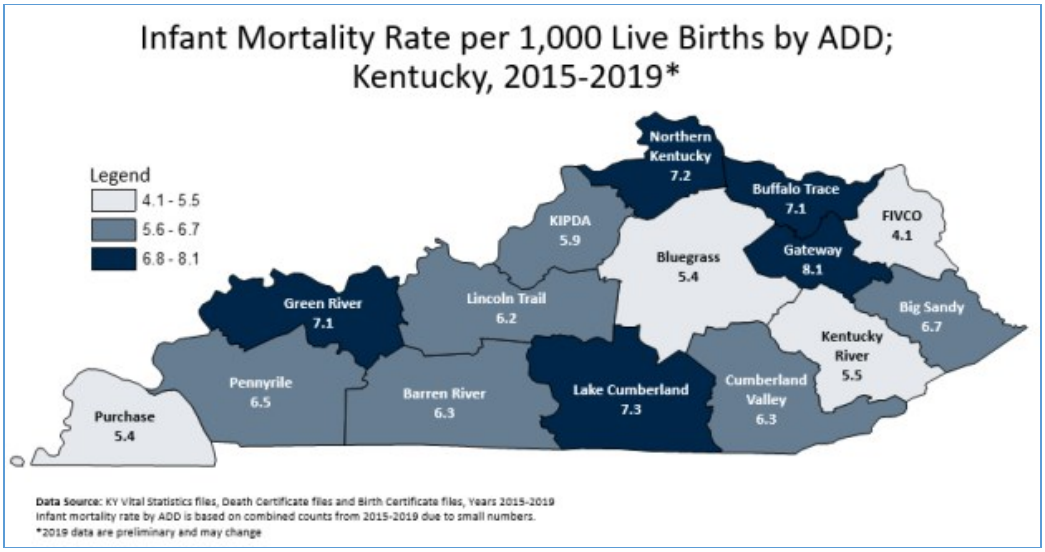


Infant mortality remains the single best indicator of the health of a state. In KY, this continues as a priority need for the perinatal/infant health domain. The infant mortality rate in KY has not shown the degree of improvement seen in the national infant mortality rate. In 2018, the KY infant mortality rate mirrored the rate nationally. In this reporting period, KY rate dipped yet again to 5.6/1,000 live births. However, the rate nationally declined to 5.1/1,000 live births. While these numbers are encouraging, MCH remains vigilant with respect to infant mortality, as the rate for KY has hovered at an average of 6.6/1,000 live births for the past 4 years with a concern that this rate may not be stable in the coming years.

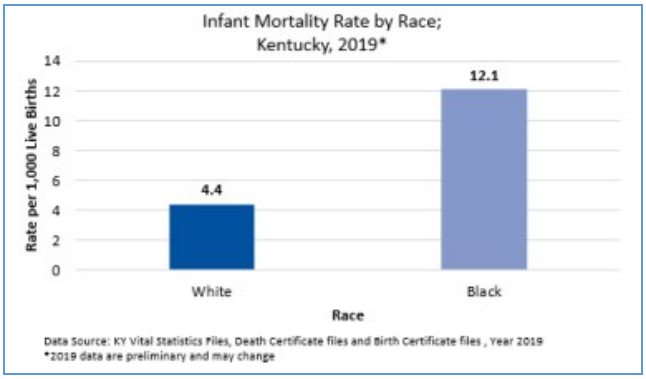


As shown in the figue, the total number of infant deaths has steadily decreased since 2016. This is in large part related to ongoing work addressing reducing preterm birth, promoting of safe sleep to reduce SUID cases, and reducing other preventable causes of infant death.

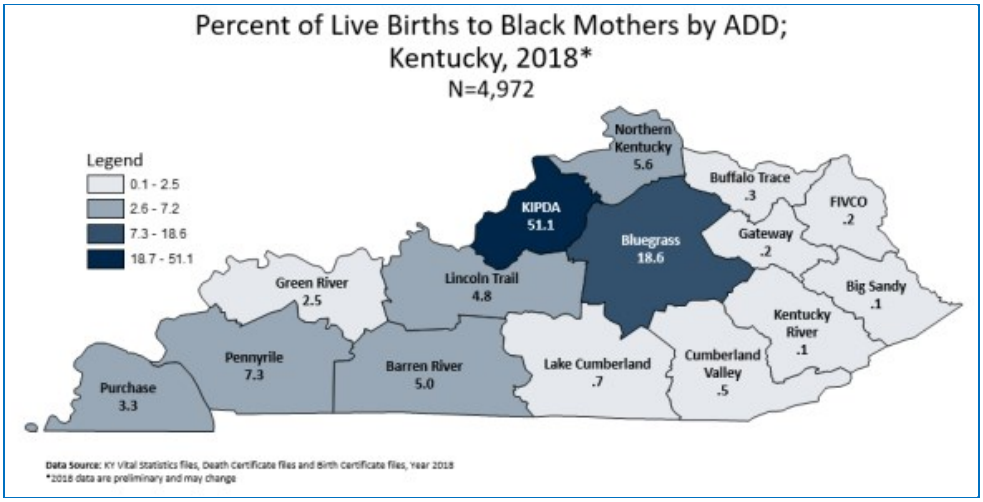
The map below illustrates infant mortality rate by geographic region. Historically, Eastern KY has seen higher rates of infant mortality, generally known to be associated with risk factors of smoking in pregnancy, NAS, preterm births, and teen pregnancies. Infant mortality appears to be more dispersed statewide with increased rates in the northern, south central, as well as in the west. The central and greater Louisville metro areas generally are richer in resources such as transportation and employment, as well as better access to healthcare, more hospitals, and providers and other supports for mothers and families. However, in the Bluegrass and KPDA districts (Lexington and Louisville respectively), there are still smaller communities, within the cities, with disparate outcomes for Black and Hispanic populations.



Additionally, the infant mortality rate for males is 5.7 per 1,000 live births and for females is 4.4 per 1,000 live births. A wide disparity between Caucasian and Black infants continues to impact our state, with a Black infant being almost three times as likely to die (12.1 per 1,000 live births for Black infants and 4.4 per 1,000 live births for Caucasian infants). These data are concerning given that over half the African American population in KY reside in the Louisville metro area, which generally have greater access to healthcare. MCH remains vigilant in reducing the infant mortality rate among this population.



As illustrated in the map below, the greatest number of live births to Black Mothers occur in the two largest urban areas in the state.



Title V continues to provide gap-filling services for pregnant KY women and their infants during the perinatal period as described in the woman's health section. MCH has worked with the Cabinet's Office of Health Policy to include

the most recent recommendations from the National Guidelines for Perinatal Care in the State Health Plan. In addition, MCH provides Title V funding to the state's two university-based regional perinatal centers to monitor outcomes of the highest risk infants and compare KY's outcomes to national data.

Nationally, the Infant Mortality CoIIN has identified risk appropriate care for high-risk infants and mothers, safe sleep, breastfeeding, prematurity and EED prevention, smoking cessation, and social determinants of health as primary strategies for addressing infant mortality. KY MCH participated in each of these CoIIN projects to bring best practices to our state's efforts in these areas. Beginning in 2018 and continuing to current day, KY has promoted education on implicit bias. KY joins with many partners to promote educational opportunities as will be explained throughout this section.

Breastfeeding Promotion

KY elected to focus on *NPM #4: A) Percent of infants who are ever breastfed* and *B) Percent of infants breastfed exclusively through 6 months*.

Various formats used to provide breastfeeding education to the public and health care providers include distribution of handouts, advertisements through regional/local billboards, internet, and movie theaters, classes, and community events. Additionally, this past year, a virtual conference was held to provide additional education and networking. Approximately 60 participants attended this two-day virtual conference. These annual events have the additional benefit for community level staff to network and share successful endeavors from across the state with each other. Four regional coalitions promoted breastfeeding through social media, and outreach.

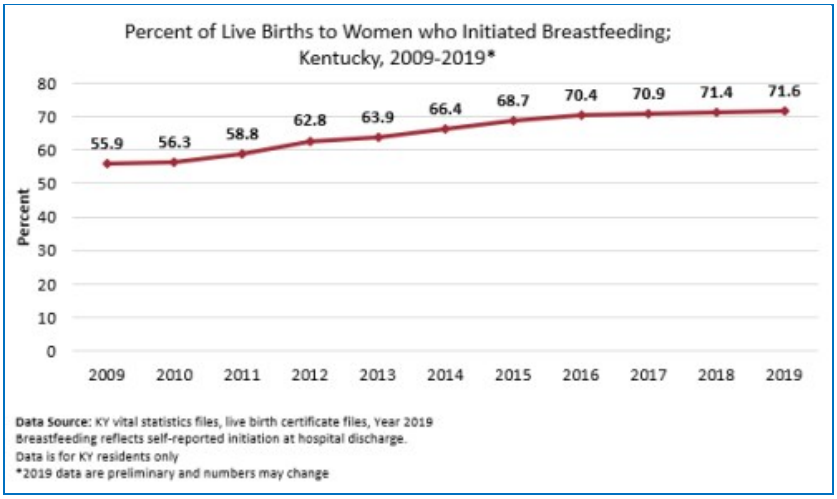
From the 2018 PRAMS cohort, MCH learned:

- Four out of five mothers reported ever breastfeeding their infant, and 54% were still doing so at the time they were surveyed.
- Four out of five mothers report getting their breastfeeding information from their primary care physician.
- The major barrier to breastfeeding initiation is mother's desire not to, but it is unclear why this occurs.

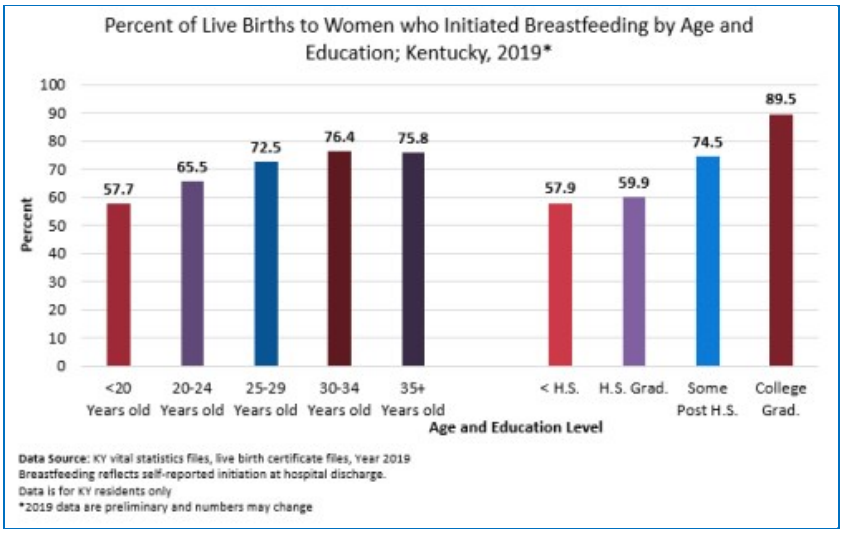
Ten Steps to Successful Breastfeeding

KY adopted the evidence-based practice: Ten Steps to Successful Breastfeeding Promotion to improve breastfeeding rates. To reduce barriers for incorporation of each step into practice and policy, regional breastfeeding coordinators provide education, training, and support to hospitals. For hospitals that wish to obtain Baby Friendly Hospital designation, they must include all steps in practice and policy. The KY WIC office surveyed birthing hospitals to determine what assistance or technical support would be most beneficial to increase the number of steps implemented and to determine how many were seeking a Baby Friendly Hospital designation. In 2020, due to COVID-19 there was limited outreach and breastfeeding promotion to hospitals.

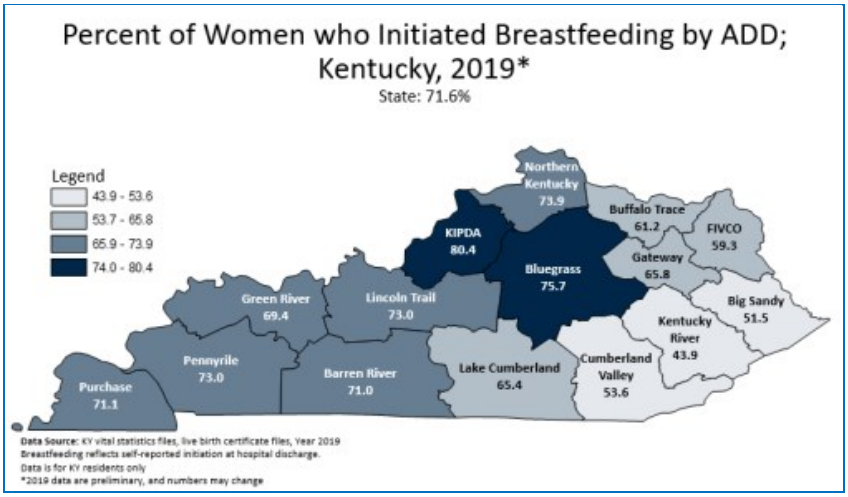
Breastfeeding Initiation rates showed a steady increase, a success for KY's effort. Rates increased from 55.9% in 2009 to 71.6% in 2019. Over the past few years, KY breastfeeding efforts to promote breastfeeding in the hospitals and interventions to promote kangaroo care and breastfeeding education and support were the activities responsible for the improvement in breast feeding rate.



KY also has better rates of initiation with older mothers and higher levels of education. While initiation rates are better, areas of KY with higher rates of infant mortality have smaller rates of breastfeeding initiation. Measuring duration rates continues to be difficult and the rate for mothers who continue to breastfeed their 6-month-old infants has increased to 44.5% reported for 2017 births (Centers for Disease Control, 2020).



As shown in the map below, the areas with low breastfeeding rates are those in the eastern part of KY with similarly poor maternal outcomes.



Even though improvements in breastfeeding have been made over time, KY remains well below the nation (48.6%) in terms of the percent of mothers who breastfed their infants at six months of age.

Regional breastfeeding coordinators provide breastfeeding training, technical support, and education to hospitals. They have community-wide focus reaching health departments, nurses, and college and high school students. These trainings promote and encourage best practices, breastfeeding duration, and accessing available resources, providing supports after birth for mothers to be able to return to school or work. The WIC Program staff, and Regional breastfeeding coordinators provide support to birthing hospitals to increase the number implementing kangaroo care in their facilities. Currently, approximately 95% of KY's birthing hospitals have implemented kangaroo care. Due to COVID-19, the Regional breastfeeding coordinators were unable to provide community wide education, breastfeeding training, breastfeeding education, and technical support to hospitals.

WIC participants may receive electric, single user, and manual breast pumps to support breastfeeding duration. Over 100 health professionals completed the education modules reinforcing breastfeeding promotion, education, and three-step counseling. Approximately 150 individuals completed an online breastfeeding module, released in 2017, targeting childcare providers.

The Breastfeeding Peer Counselor Program helps promote breastfeeding. The program has paraprofessionals who were previous WIC participants and have successfully breastfed at least one infant. These peer counselors provide basic breastfeeding information and encouragement to WIC pregnant and breastfeeding mothers. Currently, 28 LHD WIC agencies, covering 72 counties, have a Breastfeeding Peer Counselor Program.

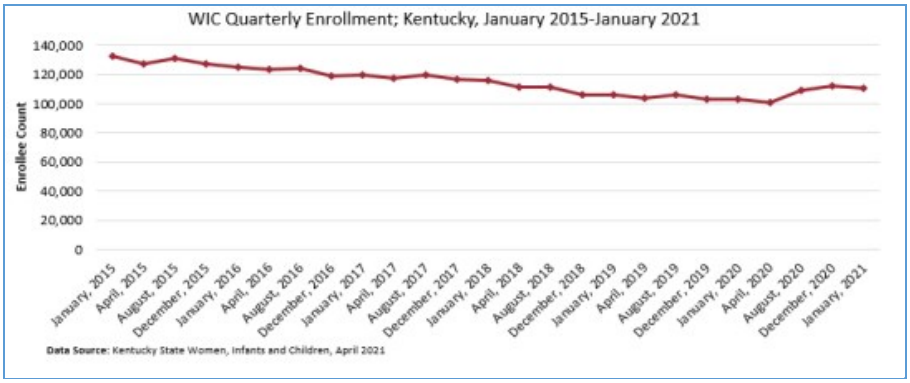
The data from the MCH nutrition branch indicate that hospitals are striving to support breastfeeding and provide education at the time of birth. However, there is a need to overcome barriers to providing support post hospital discharge. Concerns include low numbers of referral of new breastfeeding mothers to support groups, lactation specialists, or other resources to improve breastfeeding duration rates. There may be a lag time between discharge and the first WIC visit, so that a mother has already stopped breastfeeding before the first WIC visit. Also, there appears to be little consistency among hospitals in the rooming in protocols. Mothers may also experience a lack of support from other family members at home.

Nutrition Services plans to develop additional trainings on the new USDA WIC curriculum. When working with hospitals, they have requested that the state program assist with leading another initiative to complete additional steps and improve hospital practice and policy in support of breastfeeding.

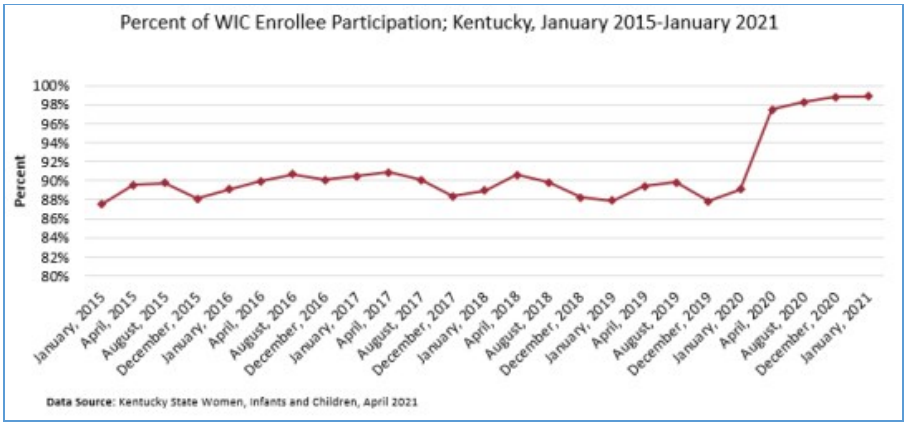
Nutrition Activities

Many LHDs provide Medical Nutrition Therapy (MNT) services or nutrition counseling provided by registered dietitians and certified nutritionists on specific medical conditions and chronic diseases. With COVID-19, MNT visits dropped during 2020 and there was no group MNT education provided. There were 906 MNT visits done during 2020 with 904 of the visits being initial visits. Due to pandemic restrictions, only 2 follow-up MNT visits were conducted. The top five reasons for MNT visits included: obesity, Type 2 Diabetes, overweight, children plotting above 85% for BMI and underweight.

Since 2015, the KY WIC program enrollment percentage has remained relatively flat, decreasing only about 10,000 enrollees during that 5-year period. Prior to the COVID-19 pandemic enrollment count was approximately 120,000.



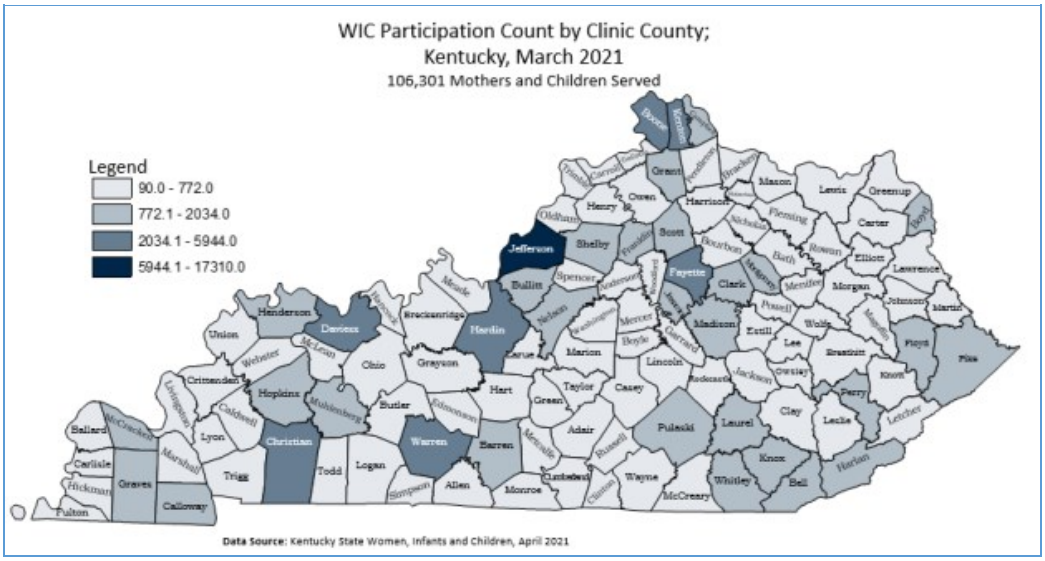
Enrollment in WIC services significantly increased during the COVID-19 pandemic. This was due, in part, to improvements in access such as the use of telehealth services extended care capabilities to individuals who need services due to the economic downturn.



The KY WIC Program offers the WIC Farmer's Market Program (WIC-FMNP) in multiple areas across the state. WIC Participants, 5 months and older, may receive $30 dollars in WIC-FMNP coupons to spend on KY grown produce at their local farmer's market. This program is available in 92 counties. Due to COVID-19, there was a decrease in the number of FMNP coupons redeemed and in the number of farmers and families who participated in the program in 2020.

KY WIC enrollment are relatively distributed evenly geographically, with the largest numbers of enrollees residing in

the Louisville-Metro area. Other larger populated cities such as Lexington, Owensboro and Bowling Green have the next greatest number of enrollees. Rural counties, in Southeast KY have a high number of enrollees, where need is greater due to a more depressed economy. With the poverty level of most rural eastern Kentucky counties, the WIC program works closely with LHDs for ongoing WIC promotion and enrollment.



Louisville Metro Healthy Start

For more than two decades, Louisville Metro Healthy Start has invested in the health and wellbeing of West Louisville families by working with them to reduce perinatal health disparities, including infant mortality, via home visitation, case management and resource referrals for pregnant and postpartum women, fathers, and infants. Supports are designed to meet the needs of women across all stages of parenting: from preconception to pregnancy to postpartum, between pregnancies, and during a child's first 18 months of life.

The Louisville Metro Healthy Start program has many strengths that support the mother/baby dyad, as well as fathers/families. These include:

- Support from 10 years of Community Advisory Council members, including current and former Healthy Start mothers and fathers;
- Home visiting teams are supported by registered nurses;
- Focus beyond just mother and child to include services for father and family;
- Breastfeeding initiation rate for Healthy Start Mothers is at 66%;
- 90% of participants have developed a Reproductive Life Plan (RLP);
- 80% of women and 99% child participants have health insurance; and
- 77% abstained from cigarette smoking during pregnancy.

Ensuring access to health care and well-woman visits, connecting parents to health insurance and medical homes, and removing barriers to education and employment help mitigate risk factors and enhance protective factors that improve the health of women, children and their families. The Louisville Metro Healthy Start services and resources include:

- Regular home visits by a Resource Worker utilizing interventions such as Beginning Guide curriculum;

- Wellness services, including family planning, Doulas, Cribs for Kids, nutrition services such as WIC, preventative screenings to identify early pregnancy complications, and mental health and other health screenings with appropriate referrals;
- Family Engagement services, including GED classes, Parent Leadership Group, monthly events, transportation to healthcare appointments and Neighborhood Place service centers;
- Maternal mental health education and group support provided by an African American LCSW with expansive experience in trauma-informed counseling and group work;
- Community Engagement Opportunities include the Community Action Network, Healthy Babies Louisville collective impact project, and the Community Advisory Council.

Louisville Metro Healthy Start offers specifically tailored supports during both preconception and inter-conception phases of participants' reproductive life. During the preconception period, for example, home visitors discuss RLPs, provide an overview of birth control/contraception options, and maintain dialogue about reducing health risks from tobacco, alcohol, and substance use. Some 20 Healthy Start women enrolled in "Project Preconception Care," or the Gabby System, developed by the Medical Center at Boston University and Northeastern University. Developed with and for young Black and African American women, Gabby guides participants through discussions designed to equip them with information and skills to maximize their health before they choose to get pregnant.

Inter-conception health is monitored among high-risk women, including chronic disease management and supportive, culturally sensitive RLP, all tracked using HRSA screening tools at each life stage; Prenatal, Preconception, Postpartum, and Inter-conception and Parenting.

All Healthy Start participants benefit from regular screenings for depression and anxiety using the Healthy Start screening tools and the evidence-based Edinburgh PDS. These take place during the preconception, prenatal, postpartum, and inter-conception and parenting periods at 6 months, 12 months, and 18 months. Over the last year, Healthy Start has increased its focus on mental health with the hiring of a Certified Social Worker and contracting with a Licensed Clinical Social Worker. Together they have served over 187 participants and hosted monthly community conversations on topics ranging from healthy eating to mental health.

Increasing focus on family and fatherhood has been a major priority for the Healthy Start team this year. Two African American men lead this work with a Coordinator, and a Resource Worker both dedicated to work with fathers. During the year, they have served more than 50 fathers and hosted monthly conversations on topics such as relationships, custody, and mental health.

The Louisville Metro Healthy Start has had challenges/barriers in the past five years. These include maintaining medical coverage, engaging women to seek prenatal care in the first trimester and retaining Healthy Start Clients. These are described in detail below.

Maintaining medical coverage is a challenge faced by many pregnant women both nationally and in KY. During 2020, Healthy Start saw a decline in health insurance coverage and in the number of mothers with a medical home due to the pandemic. In an effort to address this issue, Healthy Start staff worked to establish stronger partnerships with medical providers to allow for seamless connections to medical homes. In addition, for clients with no insurance, the home visitor assists in insurance enrollment.

Healthy Start plays a significant role in ensuring that women understand the importance of medical care, especially early prenatal care. They educate participants about the eligibility determination process for Medicaid and work with them to remove barriers, such as a lack of childcare and transportation. Staff are knowledgeable about community resources and linking program participants to different health and social services in the community. Healthy Start supervisors survey participants and Healthy Babies Louisville partners to identify and address experiences of

discrimination and bias in health care and to ensure the availability of trauma-informed and culturally sensitive prenatal, birthing, and postpartum care. Additionally, Healthy Start is increasing preconception services, to equip more women with knowledge and tools to plan pregnancies, be healthy before pregnancies, and seek medical care within the first trimester.

The most significant barrier to the retention of clients is the Healthy Start participant's perception of unmet needs based on the following: the home visitor may have not met participant's expectations; program content and/or curriculum was not interesting or engaging to the participant; or the participant did not want visits after the infant was born. In addition, retention is negatively impacted by precarious housing and/or homelessness experienced by participants. To resolve this, the program works to meet participant needs such as: flexibility in scheduling, curriculum that address topics of interest for the participant, and more center-based opportunities for Healthy Start staff to meet with parents and children outside of the home.

Healthy Start benefits from two community partnerships, both of which involve women and men who participate in Louisville Metro Healthy Start. To prioritize participant voices, Louisville Metro Healthy Start hosts monthly meetings of the Community Advisory Council (CAC), comprised of current and former Healthy Start participants. The goal of this council is to create a space where Healthy Start families feel empowered and have a voice for the community. Over the years, the Committee has helped to develop outreach and recruitment plans, expand social media, and reflect strengths and assets of their neighborhoods. Participants have built helpful social connections through their work improving the program. CAC members also attend Healthy Babies Louisville (HBL) meetings and serve on program and policy work groups.

HBL is Healthy Start's collective impact project focused on reducing disparities in perinatal outcomes through multi-sector partnerships. HBL has a robust membership inclusive of Healthy Start participants, community members, health and social service providers, and academics, who work on policy and practice changes supporting maternal mental health, doula advocacy, and paid parental leave. Much of this work has shifted to virtual as well during the pandemic. The community conversations led by Healthy Start's mental health provider/LCSW were derived from the priorities set forth by the HBL network. Many of the panels consisted of HBL members. Working with the department's MCH Coordinator, Healthy Start has restarted HBL using a virtual platform, grown the number of participants from organizations supporting families of color and community members.

Work with HBL partners will be enhanced and informed by ongoing collaborations with Title V MCH, the March of Dimes, and the Department for Public Health/Maternal and Child Health Division's Social Determinants of Health Committee.

During 2020-21, the Title V-MCH team has worked with Healthy Start to build a community-wide response to reduce disparities in perinatal health outcomes, improve maternal health outcomes, and reduce infant and child mortality. Toward this end, Healthy Start reinstated the Healthy Babies Louisville (HBL) coalition. HBL uses a Collective Impact Framework, premised on the belief that no single policy, government department, organization or program can tackle or solve the increasingly complex social problems we face as a society. With the reintroduction of HBL, the focus is on the importance of community and working closely with the grassroot organizations, community members and families to achieve the goal of bettering maternal and child health outcomes in Jefferson County. The idea of "transformative change" is utilized to ensure that Title V-MCH initiatives and projects address maternal child health issues and barriers both comprehensively and holistically.

Healthy Start has worked to extend the reach of their mental health services, currently serving Healthy Start families only, to include the general public. The Community Healing Sessions will be open to birthing people and families beyond Healthy Start, starting in spring 2021. This series of healing sessions is guided by a team of mental health professionals to help birthing people ease pain, stress, trauma and grief they are currently experiencing and/or have experienced in the past. Sessions address mental health topics such as the superwoman complex, parent guilt, building a village, substance use and recovery among several other topics.

The Cribs for Kids Safe Sleep Program is an infant mortality prevention initiative that have provided pack n' play cribs to Healthy Start parents as well as other families in the community, birthing hospitals and physician offices to distribute to patients and clients who are in need. This initiative enables the promotion of safe sleep environments for infants and help educate parents and families on the dangers of co-sleeping and bedsharing, which are popular cultural practices.

Social Determinants of Health CoIIN

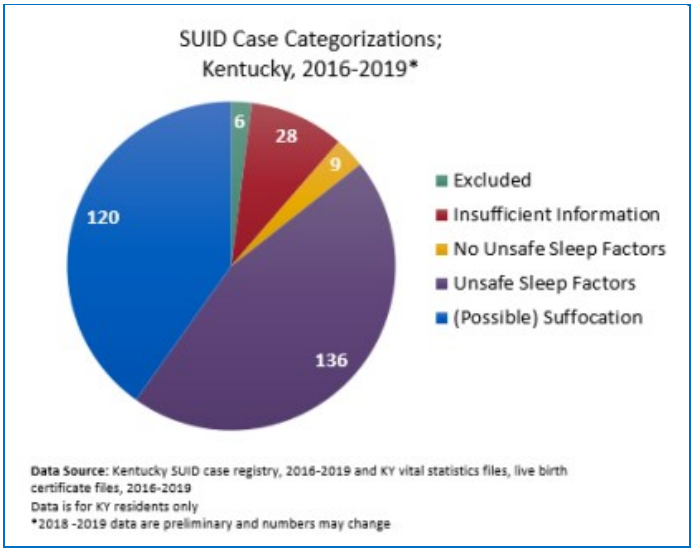
Louisville Metro Healthy Start is a participant in the IM CoIIN for social determinants of health (SDoH), and the work of the KY team is to drive reductions in infant mortality by updating the Administrative Practice Reference (APR) to recommend addressing SDoH to improve health equity. Team members have made two presentations to IM CoIIN leaders, and have been active participants in monthly webinars and learning events about equity, systemic racism, and policy work. Team accomplishments include hosting five presentation/discussions about implicit bias, taping the presentation and posting it on KY TRAIN, and ensuring that the State MCH Conference has multiple sessions about social determinants of health and equity. The 2020 KY Perinatal Association-MCH Conference included a presentation to describe the tools that Louisville Metro Healthy Start uses to address SDoH and empower health care leaders from across the state to do the same. With pandemic restrictions, and the loss of the longstanding MOD maternal and child health leader, the SDoH MCH team was not able to meet as frequently. During the course of 2020, the work of this team joined with the larger CHFS Cabinet work to promote various trainings related to equity and racism and providing review of educational materials and handouts used in the "Just BREATHHE" campaign for CHFS employees. This campaign acronym "BREATHHE" stands for the mission of "**B**ringing **R**enewed **E**nergy and **A**ction **T**o **H**ealth and **H**ealth **E**quity".

MIECHV & HANDS

In 2020-21 families served through the Maternal Infant and Early Childhood Home Visitation (MIECHV) grant continue to show improvements in maternal and newborn health, school readiness and achievement, increased screening for domestic violence and referrals for victims of domestic violence, family economic self-sufficiency, referrals for other community resources, reductions in mother and child visits to the emergency room, and incidence of child injuries requiring medical attention. The Health Access Nurturing Development Services, or HANDS program, which is part of MIECHV overall, and which provides HANDS' critical funding, continued to improve infant health outcome and reduce infant mortality in the families served. Additionally, HANDS continued to promote delivering a healthy baby by encouraging a healthy lifestyle and follow-up with prenatal providers. After birth, parenting education continues to support raising a healthy child in safe, healthy environments.

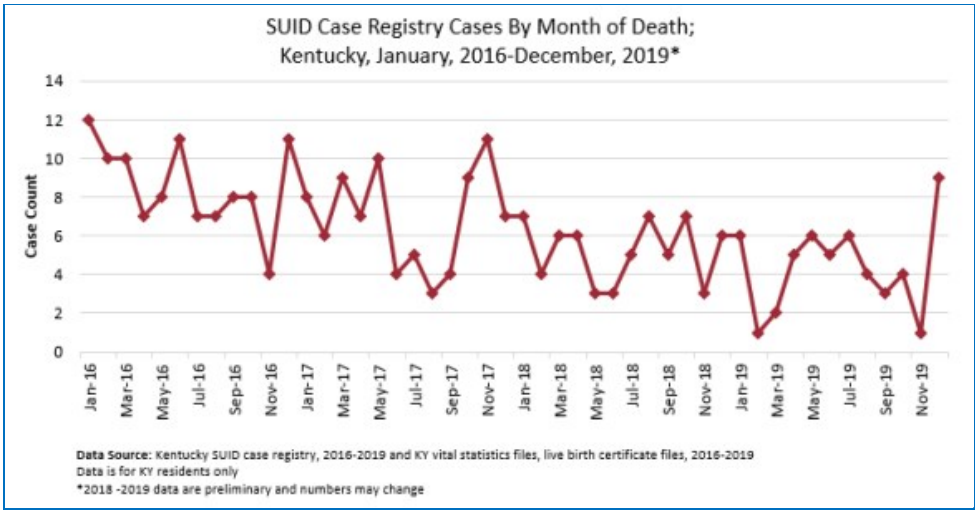
Safe Sleep Surveillance Annual Report

KY continues to focus on assuring safe sleep activities and review of cases meeting definition for the Sudden Unexpected Infant Death (SUID) case registry. KY chose to target *NPM # 5: Percent of infants placed to sleep on their backs*. From 2016-2019, 136 cases were reported as having been due to unsafe sleep factors.



SUID Case Registry work in KY has continued to enhance the capacity for local teams to conduct SUID case reviews; development and distribution of death scene investigation resources; data dissemination; and intentional, collaborative prevention efforts.

As shown in the following chart, sudden unexpected infant deaths appear to be trending down since the initiation of the SUID case registry. However, to determine if this result is related to the safe sleep campaign, data will need to be reviewed for a minimum of 5 years after the campaign's implementation. As shown, there are periods of increased SUID death noted in the cooler Kentucky month of November. The SUID team developed an educational handout promoting safe sleep care of the infant in cooler weather.



Data and interventions from community partners are shared with the state SUID review team at the quarterly meetings and the CFR stakeholder meeting; and they are shared annually as part of the MCH updates during the MCH conference. MCH continues to support raising awareness and provision of education across the state.

Safe Sleep Campaign/Initiative

Beginning in 2015, KY began planning actions to reduce the SUID deaths with a media campaign. Plans for the

campaign were time limited. However, because of the success and continued use and promotion by LHDs and others, the campaign is ongoing.
As recognized from parent survey data completed for the campaign, “D” for danger plays a vital role in addressing the safety risks that impact infant deaths from sleep deprivation, distraction, and impairment from substance to assuring the safe sleep environment for the infant. For this reason, promotion for the ABCDs of Safe Sleep are:

- **A** is for Alone: Stay close, sleep apart
- **B** is for Back: Babies should sleep on their backs at night and for naps
- **C** is for Crib: Babies should sleep in a clean, clear crib
- **D** is for Danger: Parents need to be aware and not impaired when they care for their babies

Ongoing supports from the Safe Sleep Initiative for LHDs, hospitals, and community partners include educational materials. One valuable lesson learned during the campaign was the need to refresh materials to assure ongoing engagement.
Additional educational materials are in development for use during car seat checks, EMS runs, and KY State Police waiting areas and for distribution by community partners. All materials were translated into multiple languages and have been shared with other states for use. Safe sleep magnets, crib cards, door hangers, and diaper bag tags are mailed to birthing hospitals across the state as free giveaways for new mothers. Prior to Covid-19 restrictions, the ABCDs were printed on tote bags and other infant/child safety materials were placed inside for use at fairs or when providing education or outreach to mothers, fathers, or other infant caregivers. In November 2020 multiple safe sleep materials were distributed statewide for distribution by local birthing facilities.

Ongoing discussions at local reviews center on prevention strategies, at some birthing facilities, the local coroner and community partners have purchased onesie imprinted on the back with “If you see this flip me over”. Others have imprinted the onesie with “I sleep Alone” to promote parts of the ABCDs of safe sleep.

During the campaign, MCH established a Safe Sleep KY Facebook page, website page, and email box. This page has remained active with a health program administrator monitoring all sites and responding with best practice information and promotional updates about safe sleep. More information can be found on the Kentucky Safe Sleep website at www.safesleepky.com

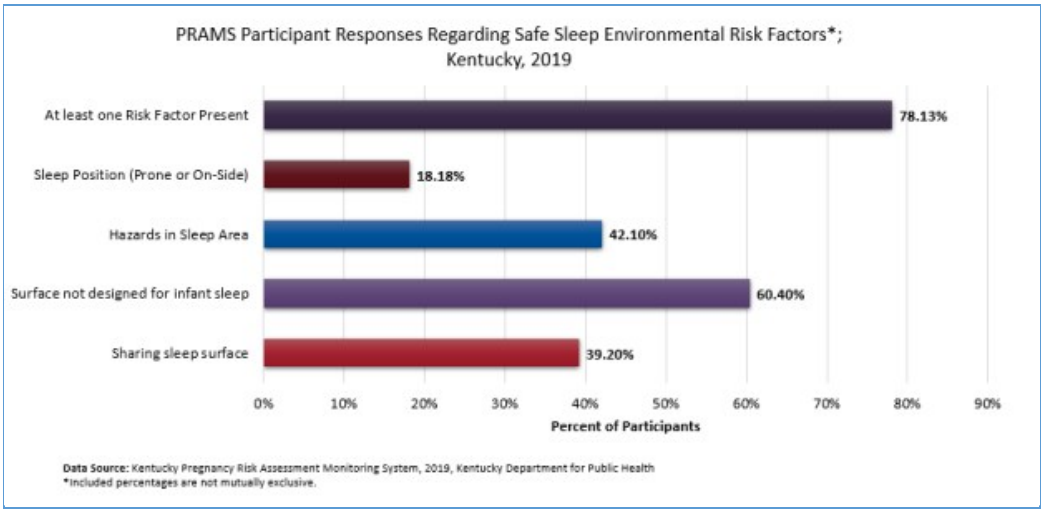
KY Pregnancy Risk Assessment Monitoring System (PRAMS)

The Kentucky Pregnancy Risk Assessment Monitoring System (PRAMS) grant collects information on infant sleep practices as part of their standard survey questions. KY received funding through a cooperative agreement to become a CDC PRAMS state in May 2016. PRAMS is a population-based random survey of women who have recently had a live birth. PRAMS data collects information on maternal attitudes and experiences before, during, and shortly after pregnancy and serves to fill gaps in existing MCH data sources. KY has entered into the fourth year of a five-year cooperative agreement for PRAMS.

PRAMS is the primary data source for informing prevention activities for NPM #5 and is critical for the monitoring and tracking of progress toward safe sleep practices among the general public. Additionally, data from the PRAMS opioid supplement, conducted in 2018, and the call back survey provided valuable information in understanding the risk factors associated with substance use during pregnancy. This year, 78% of PRAMS respondents indicated there were at least one risk factor present that could hinder safe sleep. The following graph shows the comparison between sleep practices of the general population taken from the PRAMS data to those of the SUID cases taken from case review. The comparison shows that 18% of mothers surveyed reported placing their infant to sleep on their side or stomach. More than 60% of mothers surveyed by PRAMS reported placing their infant to sleep on a surface

that wasn't designed for infant sleep. Hazards in the sleep environment, most often blankets, were the highest risk factor present in infant sleep for both PRAMS data and in SUID cases. Additional PRAMS response data include:

- 96% of mothers remember having a healthcare worker recommend placing their infant on their back for sleep.
- 83% of mothers reported following this recommendation.



KY PRAMS continues to face budgetary challenges for sustainment of the survey. The Division of the CDC that funds the state-level PRAMS programs received a funding reduction by Congress. Therefore, all CDC funded PRAMS states received a 10% reduction in funds for year two of the grant. KY, along with the other PRAMS funded states, had to reduce its budget by 10% for grant year two. It is unknown at this time whether funding cuts will continue in the future. In addition, due to these budget cuts, contracted staff at the CDC serving as state project officers became part of a workforce reduction. States served by these project officers were re-assigned to non-contracted staff for program management and technical assistance. KY recently began working with the newly re-assigned project officer. To continue the highly effective way KY PRAMS is functioning, PRAMS funding is augmented by Title V funds.

Safe Sleep Culture and SDoH

The question remains, "why would parents choose unsafe sleep behaviors that do not follow the recommendations from their provider?" Information collected on the PRAMS survey suggest that many parents place their infants to sleep on their stomach as an attempt to remedy gas and other stomach ailments, with comments like "don't think I am a bad mom, he just sleeps better on his stomach". Appalachian culture relies heavily on familial connections to tradition, quilting, and honoring the maker of the baby quilt, who is quite often a grandmother or an aunt of the infant. Following the childrearing example previously set by grandparents or other family members certainly plays a part in the decision to co-sleep as well as placement of the infant for sleep. When asked about the reason to follow these practices, statements are common like, "My mother put all of her children to sleep on their stomachs and we are just fine."

Social Determinants of Health such as poverty, lack of safe sleep education, lack of a crib, substance use by provider or in the home, birth to a teenage mother, and other systems barriers contributed to SUID risk in KY. To address culture, SDoH, and other factors, MCH had to take a multi-pronged approach to the campaign.

Other areas of concern for SUID deaths are while traveling, when parents are away from their normal sleeping arrangements, or may not have portable cribs. Many LHDs partnered with local hotels/motels to place safe sleep

materials in the cribs available for loan at these establishments, and to place safe sleep messaging on the back of the hotel door. Whitley County has asked the staff at these establishments to specifically ask the question, “Do you have a baby traveling with you today? Would you like a crib delivered to your room and set up by our staff?” as part of the initial registration process.

MCH Evidence Informed Strategies at LHDs

Title V funding supports evidence informed strategies specific to addressing infant mortality. To receive Title V allocations, LHDs are required to choose at least one infant mortality strategy and are encouraged to be creative with the packages to adapt and fit them to their local communities.

Evidence Informed Strategies chosen by LHDs:

- Safe to Sleep for Community Partners: 23
- Safe to Sleep for Child Care Providers: 18
- Prevention of Abusive Head Trauma Package: 29
- Cribs for Kids for Community Partners: 21
- All Safe Sleep Packages: 4

The Cribs for Kids package requires the LHD to find a match with a local community stakeholder to purchase an equal number of cribs. This past year, and as a result of COVID-19, MCH and LHD staff had to quickly adjust the way cribs were distributed to either picked up at a central location or be dropped off at the client’s home. This shift in distribution impacted the one-on-one contact with mothers, their babies, and family members.

Kentucky Perinatal Quality Committee (KyPQC)

Work begun in the initial year of the KyPQC, among the Neo and OB Workgroups, will continue in the upcoming year. The virtual KyPQC 2020 Fall Annual Meeting was a two-day educational and networking event that supported engagement with the KyPQC and collaboration within the perinatal care space. During this annual meeting, national and local experts spoke on substance use and management of NAS; including CDC’s Dr. Wanda Barfield who presented “Neonatal Opioid Withdrawal Syndrome and Health Equity.” Dr. Barfield described state level initiatives and highlighted social determinants of health that impact neonatal withdrawal syndrome. Nearly two hundred were in attendance on one or both days of this event, with a majority of birthing hospitals represented.

The KPQC working to review the data on NAS and look at any gaps in information known. KY has a robust surveillance system that meets statute. This work will hopefully help inform best practices for improving hospital plans of safe care with a warm handoff to the pediatrician or other providers.

The Neonatal (Neo) Workgroup of the KyPQC began working to review the data on NAS and look at any gaps in information known. In KY, NAS is a reportable condition and DPH houses a robust NAS surveillance system that meets statute. This workgroup focus is on standardizing protocols and treatment management of infants diagnosed with NAS across the state of Kentucky. The Neo Workgroup developed a NAS Reporting Baseline Survey to understand what influenced reporting practice in KY. Based survey results, the Neo Workgroup decided the first initiative is to decrease the percentage of birthing hospitals under-reporting or not reporting NAS cases. Concerns, as stated by the birthing hospitals, was largely related to obtaining necessary details of the NAS case, as these details were often documented in two different records (mother’s medical record and infant’s medical record). Because of this barrier, data reported to the state NAS registry could potentially be inconsistently reported. The Neo Workgroup in consultation with MCH began development of guidance and training for standardizing NAS reporting among birthing hospitals on how to submit related data. The Neo Workgroup developed a Key Driver Diagram that

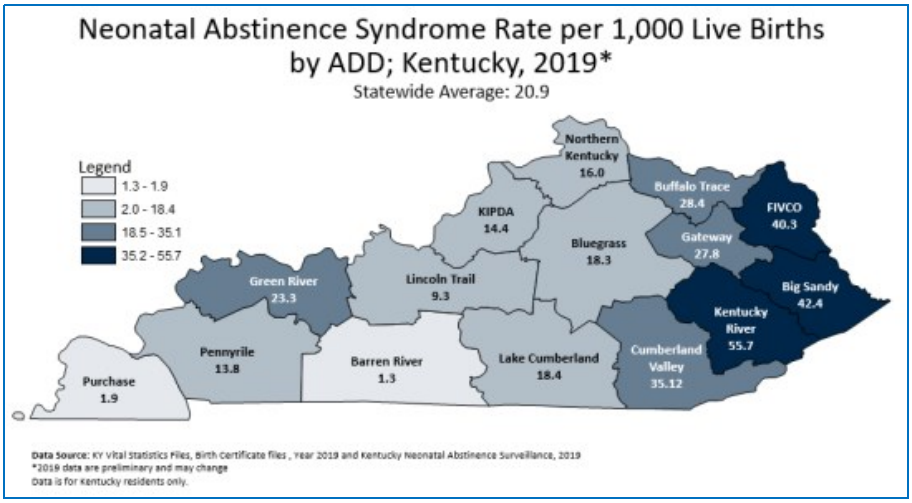
details the drivers and interventions for this first initiative.

Ongoing initiatives of the Neo Workgroup is to develop future guidance regarding standardization of treatment and management of infants diagnosed with NAS as defined in the ACOG Maternal Safety Bundles.

Neonatal Abstinence Syndrome (NAS)

In KY, data from hospital discharge records indicate the number of cases of NAS has increased nearly 20-fold in the last decade (46 in 2001 compared to 907 in 2017). Mandatory reporting of NAS to MCH was instituted in July 2014. Annual reporting for NAS began in 2015 and has continued since (see attachment).

Per the KY NAS registry, in 2019 the rate of NAS was 20.9/1,000 live births. This rate is much higher than nationally reported rates. Rates are highest in the Appalachian or eastern area of the state with some areas reaching nearly 56 cases per 1,000 live births.



Mothers of infants tend to have lower levels of education, be unmarried, and have more children, which may suggest lower socioeconomic stats, a lack of social support, or reduced access to services. Approximately 65% of cases in the registry used more than one type of substance during pregnancy.

KY is at the center of an injection drug epidemic that has brought with it the highest HCV infection rate in the country. Hepatitis C was reported in about 36% of this population.

Infants with NAS are twice as likely to have a low birth weight and three times as likely to be admitted to a neonatal intensive care unit. Tobacco and alcohol use co-occur with substance use at higher rates compared with the rest of the population, which could further affect the health and development of these infants. Infants with NAS had a longer delivery hospitalization: 13.4 days as compared to 3.8 days for infants without NAS.

About 85% of infants with NAS were referred to the Department for Community Based Services, and 76% of those cases were accepted. Data from other KY programs indicates that NAS is a risk factor for abusive head trauma and unsafe sleep. Further studies are needed on maltreatment and mortality among NAS cases.

To prevent NAS, the KY Department for Public Health recommends continuing to promote prenatal care; promoting enrollment in MAT programs; implementing a plan of safe care including educating parents and medical/childcare providers on safe sleep and abusive head trauma; modeling safe sleep practices in hospitals; enrollment in services such as WIC and home visiting; and improving access to long-acting reversible contraception. This past year, both HEART & HANDS, to programs that grew out of KY's plan of safe care, in the face the COVID-19 pandemic,

continued to work in an effort to address NAS in KY.

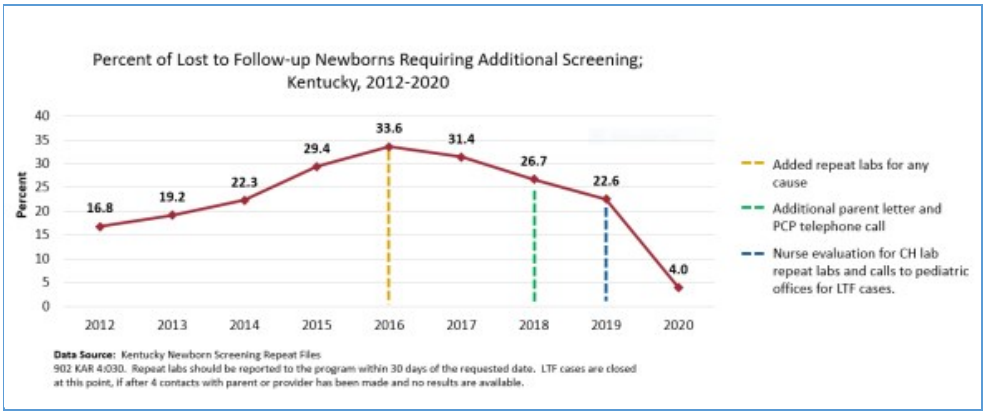
MCH contracted with Mountain Comprehensive Community Mental Health Center to have consistent Peer Support Specialists on staff. Staff continued to meet on Zoom due to the pandemic and meeting for a shorter time due to being online. MCH purchased an iPad to keep at the local hospital (Highlands ARH Regional Medical Center) to complete intakes with women who have delivered and are interested in the HEART Program as well as continued to work on increasing referrals. Additionally, MCH is in the process of advertising for a new program coordinator position.

The widespread nature of the substance abuse epidemic in KY is challenging with. COVID-19 has exacerbated the problem by most estimations. When focusing efforts on treatment options for pregnant and parenting women, the need far outweighs capacity. From a data standpoint, there are challenges to obtain accurate numbers using administrative data sources. Another significant concern is that some babies with NAS may be discharged from the hospital before onset of symptoms, resulting in a potentially high-risk situation for the infant. NAS has been identified as a risk factor for infant deaths, especially for sudden unexpected infant deaths with unsafe sleep practices as well as pediatric abusive head trauma. These findings highlight the critical need for a comprehensive plan of safe care that assures a safe environment after discharge from the birthing hospital.

Newborn Screening:

Newborn Screening (NBS) is a mandated service provided by the state of KY. Parents have ability to 'opt-out' and refuse screening. NBS rates for both metabolic/genetic blood spot screening and critical congenital heart defect (CCHD) screening are completed for 98% or greater of KY newborns annually. Beginning in 2017, the Division of Lab Services (DLS) contracted with a private courier to collect blood spot specimens across the state and deliver them to the lab. Previously, DLS utilized the US mail and Fed-Ex services for shipment of specimen. This created a delay in the ability to timely respond to some disorders and increasing risk of death for newborns with critical disorders. By using the courier service, DLS has successfully improved timeliness for receiving, processing, and reporting results out on specimens.

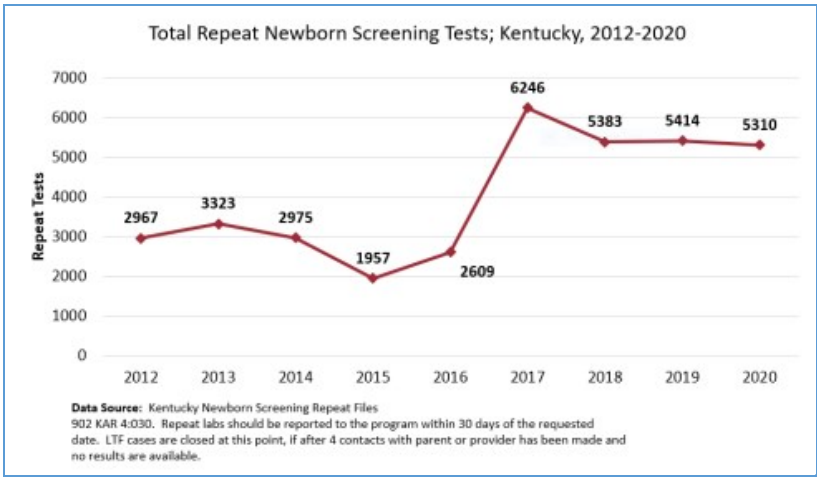
MCH houses the Short-term NBS follow-up program. This team assures timely notification to the university referral centers for early evaluation and diagnosis. This team completes follow-up and notification to parents and providers for any specimens requiring additional labs or repeat specimens. Rates for lost to follow-up for repeat labs was impacted by an inability to locate provider and lack of provider notification of case closure to the state, despite being required in regulation.



To address the rising rate of lost to follow-up; changes were made in the follow-up procedures. In 2019, these changes resulted in a large decrease in cases lost to follow-up for lab specimens requiring additional labs for final determination of referral needs.

NBS follow-up cases rose with the additional of other disorders to the state metabolic panel. Likewise, the number of cases that did not meet referral criteria, needing additional lab determination also rose at an exponential level.

In the course of the past 18 months, NBS follow-up was successful in reducing lost to follow-up rates for both repeat lab specimens and in keeping the For those infants identified, the referral lost to follow-up rate at 0.01%.



In 2020, there were several challenges that NBS confronted as a result of COVID-19. State emergency plans were inclusive of continuity of NBS follow-up. These plans did not have protocols in place for remote work of staff. Program staff and leadership quickly met, and developed new communication processes, and utilization of the electronic reporting, and records management to ensure ongoing timely referral and follow-up while allowing staff to work remotely.

Hearing loss is the most common birth defect, occurring at a rate of three in every 1,000 children. The OCSHCN administers newborn hearing screening program. The Early Hearing Detection and Intervention (EHDI) screening surveillance is located at the OCSHCN. The goal of KY's newborn hearing screening program is to identify congenital hearing loss in children by 3 months of age and assure early intervention by 6 months of age. In KY, 98.3% of newborns receive a screening prior to discharge from the hospital. This rate is slightly above the national average of 98%.

This program provides supports for birthing hospitals to:

- Establish protocols for testing, reporting, and training
- Set standards for screening based upon national best practice standards of care
- Provide quality assurance consults from audiologists

Family supports include:

- Care coordination for tracking and follow-up for infants referred after screening
- Audiology consultation to help locate diagnostic, medical management, hearing aid assessment, and funding services and linkage to early intervention services
- Direct audiology services at 11 OCSHCN regional offices
- Connections to parent support groups

Perinatal/Infant Health - Application Year

After completion of the 2020 needs assessment, KY continues the plan to reduce infant mortality with a focus on improving protective factors for breast feeding and for promotion of safe sleep activities. The following NPMs will continue for the next grant cycle:

- *NPM # 4: A) Percent of infants who are ever breastfed, B) Percent of infants breastfed exclusively through six months*
- *NPM # 5: Percent of infants placed to sleep on their backs*.

Infant Mortality:

MCH has participated in a variety of infant mortality CoIINs to develop strategies for reducing mortality. With the data known, MCH will continue to work with local hospitals, LHDs, and community partners to promote best practice initiatives. MCH is committed to reducing infant mortality from prematurity, birth defects, child abuse and neglect, as well as promoting safe sleep initiatives, breast feeding, and reduction of exposure to tobacco or other substances.

Breastfeeding:

Federally available data for KY show improvements in the percent of mothers initiating breastfeeding; however, recent information showed a dip in duration of breastfeeding at six months of age. KY will continue to build upon the work and efforts of the Nutrition Services Branch to promote the 10 steps to successful breastfeeding. Efforts to increase breastfeeding initiation and duration rates in the upcoming year will focus on the following activities:

- Supporting Regional Breastfeeding Coordinators to promote and support breastfeeding through public outreach, community events, health services planning, and organization of continuing education opportunities
- Providing breastfeeding education to WIC health professionals using the updated USDA required breastfeeding training
- Promoting the 10 Steps to Successful Breastfeeding with birthing hospitals while providing technical assistance as needed
- Providing breastfeeding education to pregnant and breastfeeding women through education materials and community events
- Promoting the WIC Breastfeeding Peer Counselor Program to WIC clients
- Offering breastfeeding education to health professionals and hospitals through conferences and trainings

Breastfeeding education materials and training (in-person and online) will be provided to LHD health professional staff, Regional Breastfeeding Coordinators, Breastfeeding Peer Counselors/Supervisors, birthing facility staff, and lactation specialists. The goals of the training are to increase breastfeeding knowledge of staff and of pregnant or breastfeeding women. By training in advance of delivery, pregnant women will be more prepared for breastfeeding best practices upon admission for the delivery.

Online education modules and educational materials on breastfeeding and nutrition will be developed for LHD staff training. Collaboration with the MCH Obesity Team and Partnership for a FIT KY will support the dissemination of educational materials to promote breastfeeding and nutrition through participation in health fairs and conferences. Likewise, other MCH programs promote this topic at local events as well as cross promote prevention activities related to childhood injury prevention, lead poisoning, and the linkage for prenatal services.

The MCH Nutrition Branch will continue supporting pregnant women and new parents of infants with nutritional education, WIC services per federal guidelines, and promotion of the WIC Farmer's Market Program.

Healthy Start

In the next year, MCH and the Louisville Metro Healthy Start Program will continue to engage in efforts to make state and local systems level changes to improve the health of the population in Jefferson County. Healthy Start continues to organize plans to promote health equity, provide support and education to the women in Jefferson County with targeted outreach in Louisville with Louisville's Stigma Intervention Project to provide a platform for women, who used substances during pregnancy, to share their experience with birthing hospitals. This partnership has been a vital opportunity for MCH and Healthy Start to make a vital impact on the vulnerable and diverse population of Jefferson County.

Social Determinants of Health

Ongoing participation in the Social Determinants of Health (SDOH) IM CoIIN has resulted in practice changes that recognize health equity as a function of the access to social factors that create good health. In addition to adding verbiage about the importance of social determinants to KDPH guidance documents for local health departments, KDPH has infused equity-focused trainings into Maternal and Child Health conferences and workshops. The March of Dimes' "How Biased Am I" trainings were integrated into five regional MCH events, and the presentation was recorded for posting on KY TRAIN. Presentations at the 2018 and 2019 Kentucky MCH Conferences addressed SDoH from both rural and urban perspectives. Additionally, Title V MCH Needs Assessment questions asked responders to identify social factors in their communities that have the greatest influence on maternal and child health outcomes.

CoIIN team collaborations with Louisville Metro's Healthy Start Program and the March of Dimes have strengthened working relationships and led to new equity-focused work such as Louisville's Stigma Intervention Project, which shares the requests for perinatal care improvements from women who used substances during pregnancy with birthing hospitals. Learnings from Louisville Metro Healthy Start's history of responding to the social determinants through both home visits and collective impact work will be presented at the virtual 2020 Kentucky Perinatal Association – Maternal and Child Health Conference.

Safe Sleep

The *NPM # 5: Percent of infants placed to sleep on their backs* and other safe sleep initiatives will continue to be a structural part of Title V work to reduce infant mortality. The Health Program Administrator will promote safe sleep on Facebook feed for local community partners and health departments. The program will continue to review all sudden unexpected infant deaths, collect and evaluate data on the sleep environments, and share the data with local teams to assist with prevention planning. A safe sleep assessment tool has been developed and will be shared with local health departments and other home visitors for use when discussing safe sleep with families. Trainings will be held for childcare providers, home visitors, and other community partners on the ABCDs of safe sleep with a focus on how to assess safe sleep and provide safe sleep education during the Covid-19 pandemic. Prevent Child Abuse KY, the KY Hospital Association, and KDPH collaborated to create a comprehensive education video on safe sleep and AHT for new mothers to view prior to hospital discharge. The KDPH, KSPAN, KPRIC, and Northern KY Health Department plan to continue providing the high school PAHT and safe sleep curriculum. Lake Cumberland District Health Department plans to address this training in the high schools serving 10 KY counties.

Kentucky plans include improving rates of doll re-enactments for SUID deaths, and provision of ongoing education for law enforcement for all child fatality reviews. This involves continued Title V support for purchase of doll re-enactment kits, and provision of education with DCBS, local law enforcement, coroners, deputy coroners or other first responders for securing the scene

Neonatal Abstinence Syndrome and Plan of Safe Care

Current work to address *SPM #1: Reduce by 5% the rate of neonatal abstinence syndrome among Kentucky resident live births* will continue. Although that goal was achieved as the rate decreased 26% from 2017 to 2018 (22.35 per 1,000 to 16.5 per 1,000), preliminary numbers for 2019 indicate that there is not a downward trend. For that reason, the existing SPM will continue until a 5% reduction in rate is sustained over multiple years.

MCH has an annual meeting and other regional programs planned for 2021, which have been changed to virtual learning opportunities available for the following year. These trainings will be promoted to schools of nursing, LHDs, and birthing hospitals. MCH continues to plan to replicate the HEART Program in other counties as Covid-19 restrictions and communities will allow.

MIECHV/HANDS

The Maternal Infant and Early Childhood Home Visitation/HANDS program will continue efforts to address infant outcomes by providing prenatal education, promoting a healthy lifestyle, and encouraging prenatal follow-up with ongoing education after childbirth. MIECHV/HANDS will continue to screen families for a variety of concerns and refer to community providers and resources.

PRAMS

KY will continue with the PRAMS survey as described in the annual report. KY will continue to analyze and distribute the results annually. Topic specific reports have also been developed on breastfeeding, oral health, smoking and drug use, ACEs, and safe sleep. Because KY PRAMS survey addresses other areas of MCH population health, the data provides very pertinent information about the needs of the MCH population in KY. PRAMS could prove to be insightful for programming for the perinatal population in terms of mental health, care, and safe sleep outcomes. PRAMS data will continue to be shared at the annual MCH conference and regional conferences across the state.

MCH Evidence Informed Strategies at LHDs or Packages

KY plans to continue to offer MCH Evidence Informed Strategies through the MCH packages as described. The packages offered include Safe Sleep for Child Care Providers, Safe Sleep for Community Partners, Prevention of Abusive Head Trauma, and Cribs for Kids for Community Partners. Additionally, MCH has begun meeting with the Tobacco Cessation Program to develop a new strategy targeting pregnant woman and reduce the exposure of the infant in utero.

KPQC

As mentioned in previous sections, baseline surveys to assess hospital policy and protocols in regard to the care and treatment of women and infants affected by substance use disorder. From these surveys webinars were developed and disseminated; and results are being used to tailor the first quality improvement initiatives of the KyPQC. Development of education and guidance to standardize NAS reporting practices among KY birthing hospitals is in the current workflow with MCH/KyPQC.

Newborn Screening

Newborn screening began a data management change to incorporate the definition of case resolution as defined by the Association of Public Health Laboratories. These standards require ongoing review of best practice data sets

as determined by the specialty provider in the various newborn screening disorders. Once completed, these will be incorporated in the current NBS case management system.

MCH Evidence Informed Strategies at LHDs or Packages

KY plans to continue to offer MCH Evidence Informed Strategies through the MCH packages as described. The packages offered include Safe Sleep for Child Care Providers, Safe Sleep for community Partners, Prevention of Abusive Head Trauma, and Cribs for Kids for Community Partners.

HANDS and MIECHV

The home visitation program will continue efforts to address infant outcomes by providing prenatal education promoting a healthy lifestyle and encouraging prenatal follow-up with ongoing education after birth of the child. MIECHV will continue to screen families for a variety of concerns and refer to community providers and resources.

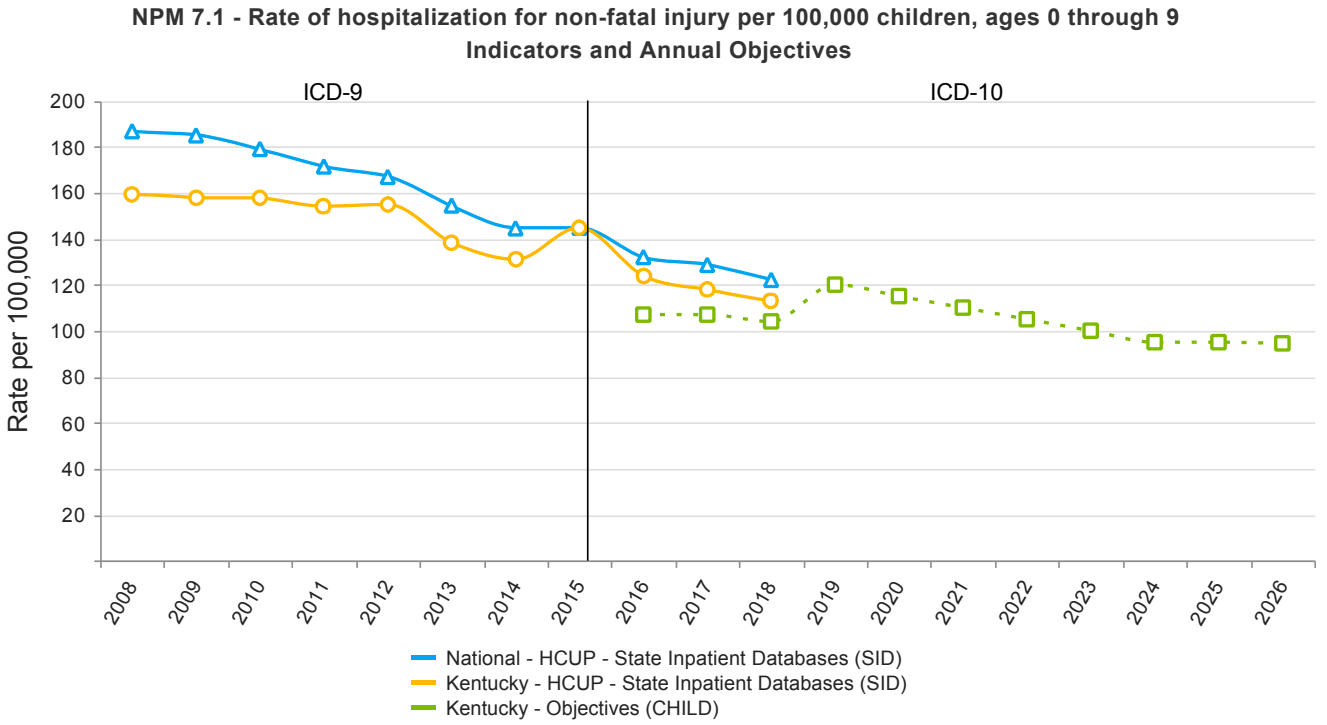
Child Health

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 2 - Rate of severe maternal morbidity per 10,000 delivery hospitalizations	SID-2018	75.2	NPM 14.2
NOM 3 - Maternal mortality rate per 100,000 live births	NVSS-2015_2019	29.7	NPM 14.2
NOM 4 - Percent of low birth weight deliveries (<2,500 grams)	NVSS-2019	8.7 %	NPM 14.2
NOM 5 - Percent of preterm births (<37 weeks)	NVSS-2019	11.3 %	NPM 14.2
NOM 6 - Percent of early term births (37, 38 weeks)	NVSS-2019	31.3 %	NPM 14.2
NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths	NVSS-2018	6.0	NPM 14.2
NOM 9.1 - Infant mortality rate per 1,000 live births	NVSS-2018	6.0	NPM 14.2
NOM 9.2 - Neonatal mortality rate per 1,000 live births	NVSS-2018	3.7	NPM 14.2
NOM 9.3 - Post neonatal mortality rate per 1,000 live births	NVSS-2018	2.3	NPM 14.2
NOM 9.4 - Preterm-related mortality rate per 100,000 live births	NVSS-2018	152.1	NPM 14.2
NOM 9.5 - Sudden Unexpected Infant Death (SUID) rate per 100,000 live births	NVSS-2018	111.3	NPM 14.2
NOM 14 - Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year	NSCH-2018_2019	10.6 %	NPM 13.2
NOM 15 - Child Mortality rate, ages 1 through 9, per 100,000	NVSS-2019	19.0	NPM 7.1
NOM 16.1 - Adolescent mortality rate ages 10 through 19, per 100,000	NVSS-2019	37.7	NPM 7.1
NOM 16.2 - Adolescent motor vehicle mortality rate, ages 15 through 19, per 100,000	NVSS-2017_2019	16.6	NPM 7.1
NOM 16.3 - Adolescent suicide rate, ages 15 through 19, per 100,000	NVSS-2017_2019	12.1	NPM 7.1

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 17.2 - Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system	NSCH-2018_2019	18.7 %	NPM 13.2
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	NSCH-2018_2019	90.6 %	NPM 8.1 NPM 13.2 NPM 14.2
NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)	NSCH-2018_2019	23.8 %	NPM 8.1
NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)	WIC-2018	16.3 %	NPM 8.1
NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)	YRBSS-2019	18.4 %	NPM 8.1

National Performance Measures



Note: ICD-10-CM beginning in 2016; previously ICD-9-CM with 2015 representing January - September

Federally Available Data					
Data Source: HCUP - State Inpatient Databases (SID)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	107	107	104	120	115
Annual Indicator	108.4	145.0	123.8	117.7	113.2
Numerator	606	605	687	652	625
Denominator	558,942	417,308	555,089	553,947	552,138
Data Source	SID-CHILD	SID-CHILD	SID-CHILD	SID-CHILD	SID-CHILD
Data Source Year	2014	2015	2016	2017	2018

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	110.0	105.0	100.0	95.0	95.0	94.5

Evidence-Based or –Informed Strategy Measures

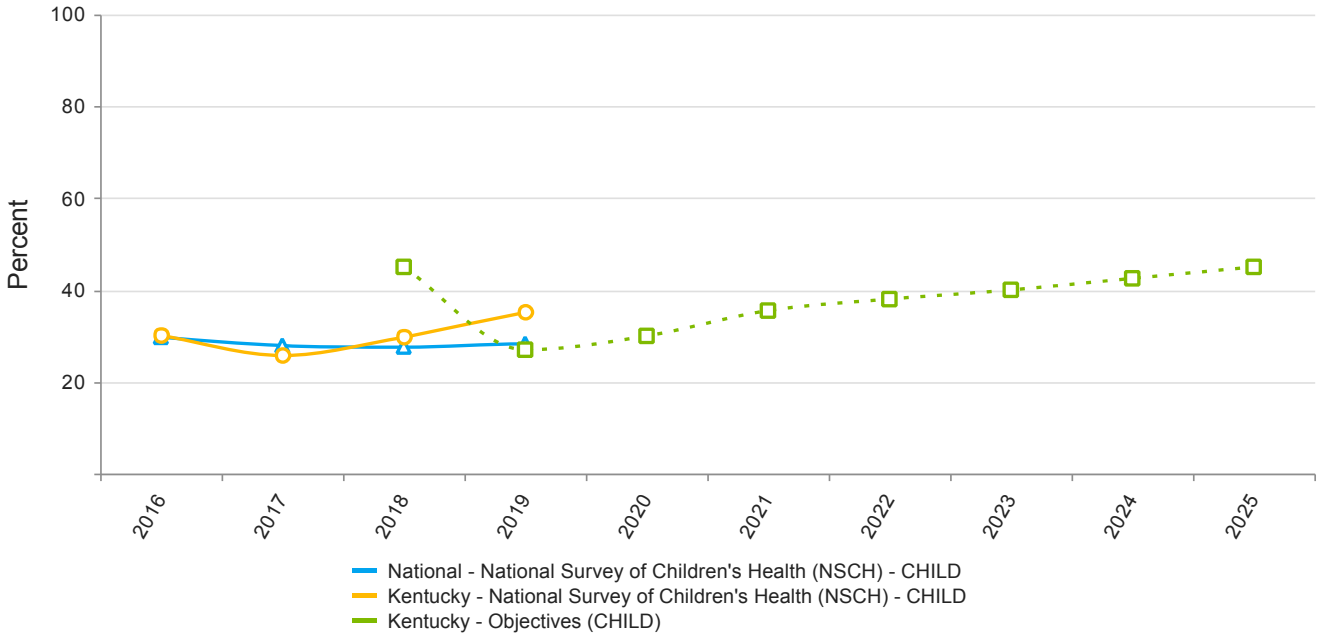
ESM 7.1.1 - Number of community members receiving training or technical assistance about preventable child injuries or death and promoting injury prevention activities including child maltreatment, child passenger, gun, water, fire, pedestrian, ATV, or more.

Measure Status:	Active

State Provided Data		
	2019	2020
Annual Objective		
Annual Indicator		96,859
Numerator		
Denominator		
Data Source		RedCap No. 201-Child Fatality Review Activities
Data Source Year		2020
Provisional or Final ?		Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	97,000.0	98,000.0	99,000.0	100,000.0	101,000.0	102,000.0

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					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			45	27	30
Annual Indicator		30.2	25.8	29.9	35.2
Numerator		90,306	77,802	93,727	118,650
Denominator		299,110	301,378	313,513	337,387
Data Source		NSCH-CHILD	NSCH-CHILD	NSCH-CHILD	NSCH-CHILD
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	35.5	38.0	40.0	42.5	45.0	45.0

Evidence-Based or –Informed Strategy Measures

ESM 8.1.1 - Number of early care and education professionals or providers completing training modules on nutrition, physical activity, or other obesity related opportunities.

Measure Status:	Active

State Provided Data				
	2017	2018	2019	2020
Annual Objective	200	2,200	2,300	2,300
Annual Indicator	2,122	2,394	48	0
Numerator				
Denominator				
Data Source	UK HDI	UK HDI	KY PQI training data	KY PQI training data
Data Source Year	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	2,400.0	2,450.0	2,500.0	2,550.0	2,600.0	2,600.0

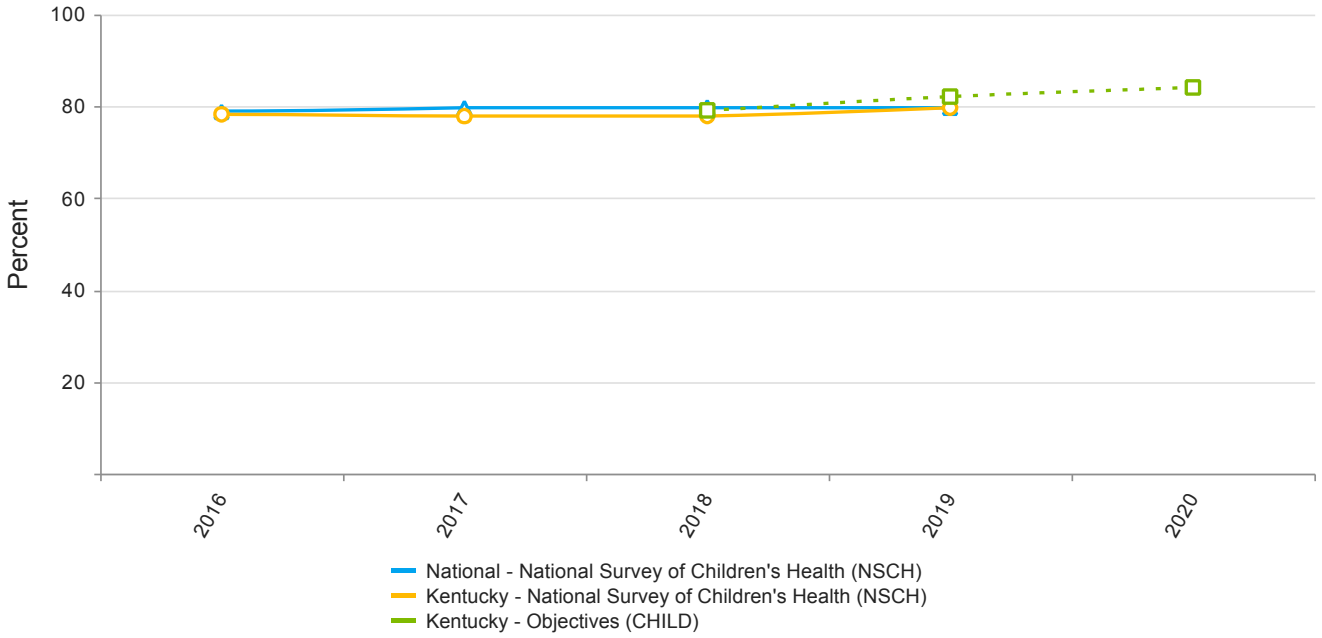
State Action Plan Table

State Action Plan Table (Kentucky) - Child Health - Entry 1	
Priority Need	
Reduction of child injury rates with focus on preventable child injuries from child abuse and neglect, motor vehicle collisions, and other child injuries	
NPM	
NPM 7.1 - Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9	
Objectives	
Decrease by 5% the rate of emergency room visits among children ages 0-19 years by September 30, 2025.	
Strategies	
• Adopt community educational opportunities, such as smoke alarm installations, water safety, etc.	
Provide injury prevention education for families participating in home visiting programs.	
• Increase the number of car seats that are installed and used appropriately and increase the number of CPS technicians in rural areas.	
Provide oversight and regulation of innovative programs such as comprehensive home safety assessments.	
Conduct outreach, education campaigns, and trainings in school-based settings.	
ESMs	**Status**
ESM 7.1.1 - Number of community members receiving training or technical assistance about preventable child injuries or death and promoting injury prevention activities including child maltreatment, child passenger, gun, water, fire, pedestrian, ATV, or more.	Active
NOMs	
NOM 15 - Child Mortality rate, ages 1 through 9, per 100,000	
NOM 16.1 - Adolescent mortality rate ages 10 through 19, per 100,000	
NOM 16.2 - Adolescent motor vehicle mortality rate, ages 15 through 19, per 100,000	
NOM 16.3 - Adolescent suicide rate, ages 15 through 19, per 100,000	

State Action Plan Table (Kentucky) - Child Health - Entry 2	
Priority Need	
Reduce overweight and obesity among children, and adolescents	
NPM	
NPM 8.1 - Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day	
Objectives	
Reduce by 5% the percentage of 6-17 year olds reported in the National Survey of Children's Health (NSCH) who are obese by September 30, 2025.	
Strategies	
• Develop support package and materials for technical assistance providers to increase capacity and consistency of TA provided.	
• Increase the number of collaborative partners for physical activity training within the school system.	
• Increase the number of schools with personnel trained in physical activity programs, such as Comprehensive School Physical Program (CSPAP), Integrating Classroom Physical Activity and recess trainings.	
• Infrastructure and Environmental Supports for Physical Activity: Promote the development and use of infrastructure that facilitates physical activity (e.g., walking trails, sidewalks, playgrounds, parks).	
• Maintain and develop additional online training modules that support ECE professionals in health best practices.	
• Promotion of nutrition and physical activity with Women, Infant and Children (WIC) recipients.	
• MCH remains committed to ongoing successful strategies/initiatives.	
ESMs	**Status**
ESM 8.1.1 - Number of early care and education professionals or providers completing training modules on nutrition, physical activity, or other obesity related opportunities.	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)	

2016-2020: National Performance Measures

2016-2020: NPM 13.2 - Percent of children, ages 1 through 17, who had a preventive dental visit in the past year
Indicators and Annual Objectives



2016-2020: NPM 13.2 - Child Health

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			79	82	84
Annual Indicator		78.3	77.6	77.9	79.6
Numerator		746,012	735,981	742,477	752,166
Denominator		952,247	949,011	953,367	944,977
Data Source		NSCH	NSCH	NSCH	NSCH
Data Source Year		2016	2016_2017	2017_2018	2018_2019

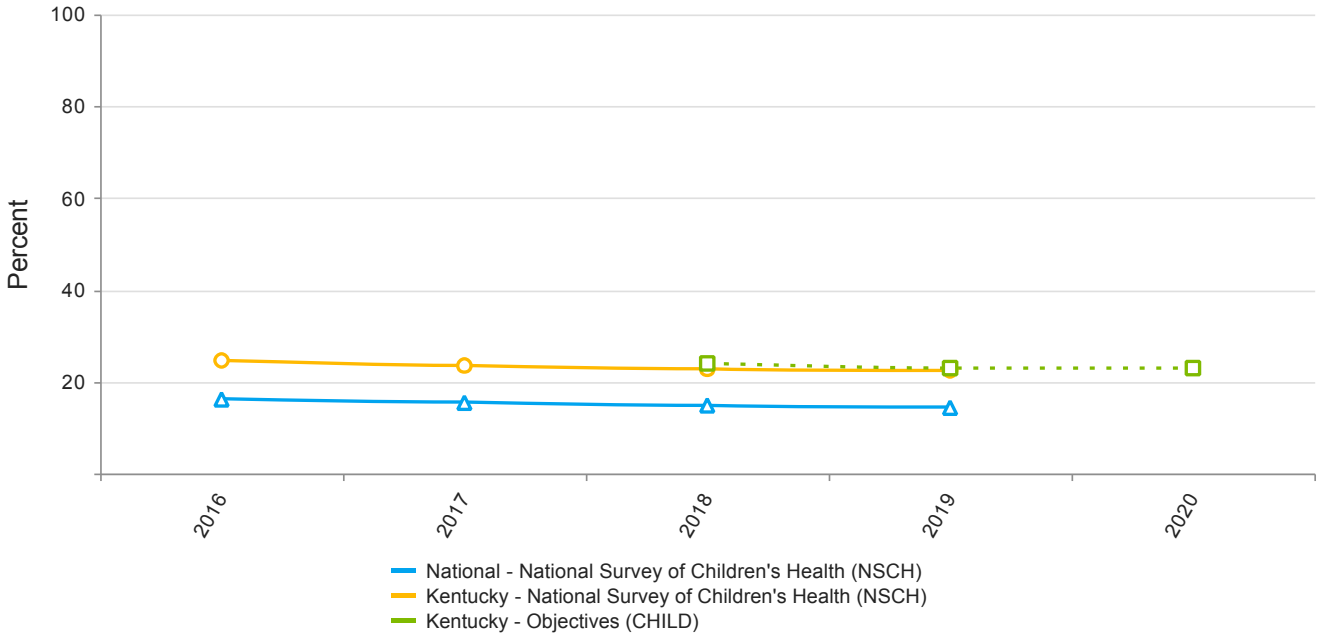
Historical NSCH data that was pre-populated under the 2016 Annual Report Year is no longer displayed, since it cannot be compared to the new NSCH survey data under the 2017 Annual Report Year.

2016-2020: Evidence-Based or –Informed Strategy Measures

2016-2020: ESM 13.2.1 - Fluoride varnish applications for children in local health departments

Measure Status:				**Active**	
State Provided Data					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			28,500	18,500	19,000
Annual Indicator	15,580	28,000	18,123	18,123	9,517
Numerator					
Denominator					
Data Source	CDP data system	CDP data system	CDP data system	CDP data system	Catalyst - Package Reports
Data Source Year	2016	2017	2018	2018	2020
Provisional or Final ?	Final	Final	Final	Final	Final

2016-2020: NPM 14.2 - Percent of children, ages 0 through 17, who live in households where someone smokes Indicators and Annual Objectives



2016-2020: NPM 14.2 - Child Health

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			24	23	23
Annual Indicator		24.6	23.4	22.7	22.6
Numerator		244,610	233,551	225,873	221,987
Denominator		992,768	998,969	995,888	981,065
Data Source		NSCH	NSCH	NSCH	NSCH
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

2016-2020: Evidence-Based or –Informed Strategy Measures

2016-2020: ESM 14.2.1 - Implementation of 100% Tobacco-free School Policies

Measure Status:				**Active**	
State Provided Data					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective		39	42	44	46
Annual Indicator	37	40.5	42.8	96	96
Numerator	64	70	74	166	166
Denominator	173	173	173	173	173
Data Source	KY Tobacco program	KY Tobacco Program	KY Tobacco Program	KY Tobacco Program	KY Healthy Schools Team
Data Source Year	2016	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Final	Final	Final

Primary and Preventive Services for Children

The role of Title V, through Local Health Departments (LHDs), has been to provide safety net services and assure all children have access to well child, nutrition, and immunization services. Direct preventive well child health services identify growth and development issues according to the standards recommended by the American Academy of Pediatrics (AAP). Assuring well child exams and immunizations has been a hallmark activity for MCH Title V. During the 2020 needs assessment, this remained a priority with much discussion about early childhood development and mental health and addressing mental/behavioral health of adolescents.

During 2020, LHDs reach for performing well child exams was limited by pandemic restrictions. Initially in the pandemic, public health heard of many reports that parents were not taking their children in for routine well child exams. Child immunization rates across the state fell.

The School Health Program promotes access to preventive health services for school-aged children and adolescents and improves access to health information at critical times for influencing health behaviors. In 2020, identification of students with missing exams, or immunizations was not a priority as the school nurse workforce became pressed into COVID-19 mitigation planning and contact tracing for those schools that were open and not virtual.

In Kentucky, the school nurse workforce in public schools is at a ratio of 1 nurse/100,000 students. Many districts have no school nurse coverage, some rely upon contract agency temporary nurse staffing, and only about 15/171 districts have coverage provided through contractual agreement with the local health department. Depending on the local arrangement with LHDs, nursing services may include preventive health services, education, emergency care, referrals, and management of acute and chronic conditions in a school setting. The function of the DPH school nurse program was quickly overwhelmed with the numerous questions and need for rapid policy review and update. To meet that need, MCH contracted for a part time 40-year veteran school nurse consultant. This nurse and the CFHI nurse manager, collaborated with KDE nurse consultant and leadership to develop recommendations for management, mitigation, and contact tracing. In multiple shared meetings, the MCH nursing leaders were able to influence and add recommendations for immunization surveillance, well child exam surveillance and linkage to best practice mental health trainings developed by the BHDID for schools.

During 2020 legislative session, a bill was passed allowing stock albuterol to be allowed to be kept in schools and administered by non-licensed school personnel as per guidance of the school nurse program. MCH school nurse and manager developed a protocol for distribution in school inclusive of recognition of signs/symptoms of an acute asthma attack, use of a stock inhaler as prescribed by a licensed provider, and emergency management on school grounds. This policy was incorporated in the DPH Core Service Guidelines and presented to school staff and nurses at the Kentucky School Nurse conference, Superintendent meetings, and District Health Coordinators trainings. During these training events, MCH school health further stressed importance of immunization and well child surveillance, and any changing information on COVID-19 management in the school environment.

The LHD continues to be a source for linking children to care in a medical home with community partners. While still supporting basic safety net services, the Title V program is focusing more on population-based activities such as prevention of child injury, increasing physical activity, promoting a nutritious diet, and decreasing exposure to tobacco smoke.

Challenges will need to be addressed as LHDs move from a primary provider of direct services to population health

services. Beginning in March of 2020, DPH convened a task force to research potential ways to meet the well child exam need within the current public health transformation model. This task force continues evaluating potential options.

Immunizations:

Annually, The KY Immunization Program promotes vaccine administration during well child exams and by local providers when deficits are noted. They work closely with KDE to assure children are up to date prior to entry in childcare or school. Statewide, compliance rates for vaccine administration were above 90% for all kindergarten vaccines. Per the KY Annual School Immunization Survey Report for School 2018-2019 (Division of Epidemiology and Health Planning, 2020):

- The KY Immunization Program strives to meet the Healthy People 2020 objectives of 95% or greater for each of the following vaccines: four or more DTaP, three or more polio, three or more HepB, two MMR, two varicella, and 85% or greater for HepA in kindergarteners. During the 2018-2019 survey, 48 (40.8%) of KY's 62 counties met this standard. 85.1% reported >90% of kindergarten certificates on file were current.
- For 7th grade students, 41 counties (39.1%) met the Healthy People 2020 objectives for each antigen, (80%or greater with Tdap/Td booster and MenACWY, 85% or greater for HepA, 90% or greater for varicella, and 95% or greater for HepB and MMR).

The KY Immunization Registry (KYIR) developed media messages to promote routine well childcare and immunizations. KYIR developed an agreement with Kentucky Hospital Information Exchange (KHIE) for shared immunization data. The goal of this partnership is for any KYIR data to be universally available for the provider at the time of service. School nurses are given read only access to the KYIR. MCH/DPH convened meetings with KDE to determine what data sharing opportunities would be available in connecting immunization records submitted to the school to the KYIR. These conversations are ongoing as both parties research FERPA rules related to records in the school environment.

In the past year, the KY Immunization program developed pivotal community relationships for distribution of COVID-19 vaccines to education staff, pregnant women and once available adolescents. These traveling vaccination clinics, pharmacy partners, and university partners were rapidly mobilized to reach vulnerable areas of KY.

As described, the KY Immunization Program has many standardized processes to assure high rates continue as reported. The challenges for immunizations continue to be limited workforce and maintaining rates in current pandemic environments.

Injury Prevention/Child Maltreatment

Injury is the leading cause of death among KY children over the age of one and was a priority for children in our statewide needs assessment. In particular, child maltreatment was the highest priority. Child passenger safety and teen driving were also concerns raised by the participating groups.

The NPM KY has selected for this domain is *NPM #7: Rate of hospitalization for non-fatal injury per 100,000 children ages 0-9 and adolescents ages 10-19*.

State inpatient hospital data shows a decline in the rate of hospitalizations from non-fatal injury in 2008 from 159.4/100,00 to 113.2/100,000 children from ages birth to age 9 in 2018. While this improvement has steadily improved, MCH continues to be vigilant in collaborations to prevent child injury. Injury prevention partners include the Kentucky State Highway Department, local coroner offices, LHDs, hospitals, and Safe Kids KY. Many initiatives at

the local level are specifically developed to target ongoing safety concerns specific to that community from prevention of cliff diving, bicycle trails on local roadways, safe fishing spaces at local waterways, boating/water safety, bicycle safety, safe walking paths for local school bus stops and more.

KY continues to strive to reduce circumstances of Pediatric Abusive Head Trauma (PAHT). Filtering the data to the level to specifically identify children with PAHT continues to be difficult as hospital claims data does not reliably have coding for child abuse or PAHT. The 2019 goal was to compare claims data with medical record review. Secondary to workforce capacity, MCH continues to be unable to make this comparison with the university forensic pediatric programs. Despite this circumstance, MCH has been deeply committed to continuing education and promotion of best practice to reduce PAHT. MCH will continue to work on projects with KSPAN, the Division of Pediatric Forensic Medicine at the University of Louisville, Prevent Child Abuse KY, the KY AAP, and LHDs on developing materials for specific groups of providers.

KY House Bill 285, passed in 2010, requires training for foster parents, health care workers, child protection officials, day care employees, and others who work with children, so they can recognize and help prevent PAHT. The web-based training modules have been available for nurses and other community providers, since 2011. In 2019, the course was updated and added to KY TRAIN for further review. During the pandemic closures, local schools of nursing utilized the TRAIN offering for nursing students as part of the changes quickly made to nursing curriculum.

Under the guidance of Dr. Melissa Curry with the Division of Pediatric Forensic Medicine at the University of Louisville and in collaboration with Prevent Child Abuse of KY, Kentucky Violence and Injury Prevention Program (KVIPP), KSPAN, KY AAP, MCH, and the Northern KY District HD developed a high school curriculum to educate high school students about AHT and a safe sleep environment, Keeping Infants Safe. This curriculum enhances the KY House Bill 285, as the law encourages KY high schools to include a segment during a student's final year of study concentrating on prevention of PAHT. The curriculum has a pre-test, to determine the knowledge base of the student, and a post-test, for administration later in the school year to determine retention of materials. The curriculum includes lecture, and interactive materials/visuals. This pilot program held a train the trainer course for three independent high schools in Northern KY. During the 2020-2021 school year, two district health departments had plans for presentation of this curriculum in multiple high schools during the spring physical education sessions. Unfortunately, all KY schools were closed secondary to the pandemic response and these courses were cancelled as schools diverted to virtual courses or other distant learning work. With COVID 19 many of these activities were delayed or cancelled. As COVID 19 restrictions are relaxed and schools can return to normal operations KIPRC, MCH and other KSPAN partners plan to resume efforts to promote the High School curriculum in high schools.

The curriculum was adapted for use with drug treatment centers to at-risk expecting mothers by KVIPP. Classes were provided by KIPRC at drug treatment centers in Fayette County in late 2019 with additional classes planned. These classes at drug treatment centers were scheduled into March of 2020 but with COVID 19 these scheduled classes were cancelled. Once COVID 19 restrictions began to be relaxed KIPRC plans to resume this activity of providing classes at drug treatment centers for at-risk females who are either pregnant or have children. KIPRC support from MCH and other KSPAN partners is essential for these classes to resume for at risk and expecting mothers in drug treatment centers. The cost for these joint collaborations is minimal. Title V funding was used for training supplies and education materials placed in a lending program at the LHD for use by area high schools. Additionally, KVIPP is working with Council for State and Territorial Epidemiologists exploratory indicator work group to establish child abuse and neglect definition and recommendation for use with population-based hospital discharge data.

The PAHT video developed by MCH, Prevent Child Abuse of KY, and WellCare MCO continues to be a primary resource for birthing hospitals. Most play this on the hospital's education channel and provide bedside discussion

and written materials to the new parents prior to discharge. LHDs engage with families through clinic visits, and HANDS home visitation by providing Period of Purple Crying materials and video. 32 LHDs engaged in this package in 2020 reaching 574 families. LHD staff engaged the community in Nurturing Fathers classes at local detention centers, spoke at “Mommy & Me” classes, parents’ day out classes, parent classes at local childcare centers, community centers, and faith-based opportunities.

The strength of MCH to reduce PAHT lies in the collaboration and communication between state departments and community partners to maintain this as a primary mission for reduction. The challenges for understanding the full scope of PAHT continues to be a reliable method to have consistent data fitting the case identification definition with the various data systems, as it is not clearly coded or recorded in multiple systems differently and not coded in a manner to provide reliable data.

Child Fatality and Near Fatality External Review Panel

The Child Fatality and Near Fatality External Review Panel was created and established in 2012 by KY Revised Statute 620.055 for the purpose of conducting comprehensive reviews of child fatalities and near fatalities suspected to be the result of abuse or neglect. The Panel is a twenty-member multidisciplinary team of professionals, including representatives from the medical, social services, mental health, legal, and law enforcement communities, as well as others who work with and on behalf of KY's children. The MCH Title V Director and the MCH Nurse Manager for the Child and Family Health Improvement (CFHI) Branch attend the Child Fatality/Near Fatality External Panel Review meetings. The Nurse Manager reviews cases that are to be discussed by the External Panel for a final determination of the cause of death or injury, systems issues, preventable problems, and recommendations for prevention. Local cases in which suspected abuse/neglect could be part of the final determination are referred to the External Panel through the MCH CFR Nurse Coordinators. During local review, if suspicion of abuse/neglect are discussed, the referral is made by the local panel through the MCH CFR Nurse Coordinators.

MCH actively collaborates with the Department of Child Protective Services (DCBS) to provide safe sleep education, materials, and information learned from child death reviews. DCBS is essential with HEART, participation on local and state review panels, and it participates as a presenter at MCH annual and regional meetings.

In 2019, the Department for Community Based Services (DCBS) partnered with Collaborative Safety to develop a new internal review process known as the Culture of Safety, System Safety Review (SSR). The SSR process uses safety science to guide the analysis of critical incidents and the response to areas identified for improvement. The process focuses on understanding the complex nature of child welfare work and the factors that influence decision-making and practice in real-time. It moves away from the simplistic approach, which has a tendency to assess blame and results in the application of “quick fixes” that fail to address the underlying issues. Particular attention is given to history occurring within the 24 months prior to the fatal/near fatal incident. The analyst presents the cases to the multi-disciplinary team (MDT) to determine if a further analysis is needed to identify systematic themes or trends.

Upon selection for further analysis, the System Safety Analyst will identify DCBS personnel, and others who may have been involved in the decision making of the agency’s previous involvement, to participate in human factors debriefing. Human factors debriefing provides staff with the opportunity to share their experiences related to the critical incident and/or historical cases. At this time, the reviewer explores the decisions and interactions with the child and family. The analyst compiles the information gathered, with the findings from the initial case review, and provides this information to the Regional Mapping Team for analysis of systematic influences that may be affecting decision-making. The analyst evaluates the information gathered from the Regional Mapping Team using the System Safety Scoring Tool. Data from this tool is collected and used to identify underlying systematic themes. Aggregate data is presented during the MDT data review in order to develop the components that will be presented to the

Safety Action Group (SAG).

The MCH CFHI Nurse Manager is an active member at these System Safety Review Multi-Disciplinary meetings.

Recently the External Panel formed subgroups to look at recommendations and to evaluate possible legislative changes for requirement of toxicology screens at the time of a child death, or other measures for further understanding case details, or for development of prevention materials. These subcommittee meetings have been impactful in understanding the many discipline, laws, and best practice strategies available and in identifying areas of potential education.

2020 work completed by the External Panel included:

- Panel members presented their overdose/ingestion data at the quarterly PILLS (Prescribing Information for Law Enforcement and Licensure Boards) meeting. The board consists of representatives from healthcare regulatory boards (Board of Medical Licensure, Nursing, Pharmacy, etc.) and law enforcement agencies (KSP, DEA, KYOAG, LMPD, etc.). The committee was very engaged and interested in partnering with the panel to distribute prevention information to providers through newsletters and other forms of communication.
- To better understand the full scope of unintentional drug ingestions and firearms injuries, the Panel has been able to partner with the Kentucky Poison Control Center and the Kentucky Injury Prevention and Research Center to access additional data which demonstrated Panel cases are a subset of a larger preventable causes of injury and death.
- The Panel partnered with the Kentucky Safety and Prevention Alignment Network (KSPAN), a statewide network of agencies and individuals focused on injury prevention, to address prevention of unintentional pediatric injuries due to access to firearms and pharmaceuticals in the home. The goals of this effort include enhanced data sharing among partner agencies, promotion of public awareness practices, and implementation of prevention strategies.
- Panel members have worked internally within their own agencies and in partnership with other governmental and NGOs to increase public awareness of critical prevention messages such as recognition of the TEN—4 Bruising Rule, the need to report child abuse, etc.
- Panel members met with representatives from the Kentucky Attorney General's Office to discuss how they can collaborate and ensure the protection and safety of children across the Commonwealth. (Child Fatality and Near Fatality External Review Panel, 2021)

In the External Panel report they note that substance use/abuse is the most prevalent risk factor in cases and was identified in 48.9% of cases. They identified systems improvements would be to expand Family Drug Court systems statewide. Currently this practice exists in only one jurisdiction. Additional recommendations were related to ongoing work for plans of safe care, increasing MAT provider intervention, and regulatory mandates regarding collaborative services for pregnant mothers, and compliance for Medicaid funding be tied to MAT services. Additionally, the External Panel recommends drug testing protocols be required at the time of the fatal/near fatal event.

Child Fatality Review

Prior to the pandemic, the Title V MCH Program made strides in improving the quality and timeliness of data in our Public Health Child Fatality Review Program to better inform our injury prevention strategies. MCH is the lead for this program, which was established in 1996 by statute. The program supports and encourages reviews of child deaths by local multidisciplinary teams to assist the coroner in determining an accurate manner and cause for each child

death.

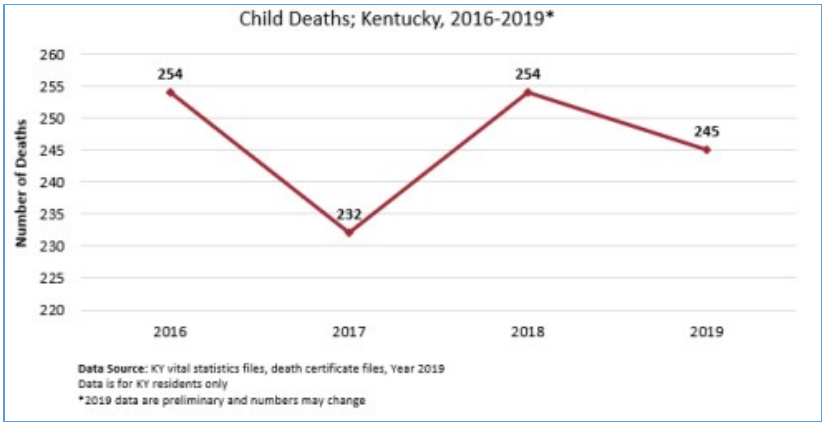
MCH provides Title V funds to 120 LHDs to support local CFR review teams and to implement evidence informed strategies in alignment with state priorities. Title V funding allocations for LHDs supports local CFR team meetings, implementation of injury prevention/community interventions, and reimbursement for training costs to certify Child Passenger Safety (CPS) technicians if no CPS technicians are available to that community.

Beginning in February 2018, MCH began evaluating and improving program structure for the CFR program. During this evaluation, the CFR nurse found:

- Coroner turnover and LHD CFR coordinator turnover greatly impacted the timeframe of review, knowledge of review, and reporting requirement knowledge
- 78 counties reported the death on forms to the state MCH program but did not conduct formal child death reviews.
    - Today, 103 counties have active local multidisciplinary CFR teams.

The CFR nurse consultants collaborate with KIPRIC, DBHDID suicide coordinator, KY Chief Medical Examiner, and KDPH to conduct intensive training with local coroners at the KY New Coroner Training, Coroners Convention, and LHDs at sites across the state. During 2020, the pandemic negatively impacted the depth of detail for reviews and the number of counties hosting reviews. Ongoing technical support was provided by state level staff to identify cases and collect many case details. Coroners collectively voiced concern of virtual reviews and refused to conduct a review for any cases in litigation virtually. As restrictions lesson, CFR nurses and the CFHI Nurse Manager has been traveling statewide to rebuild and support local review. It is anticipated 2020 cases will not be closed at the same level of timeliness as in 2019. Workforce capacity at coroner office and LHD also impacts the success of these reviews.

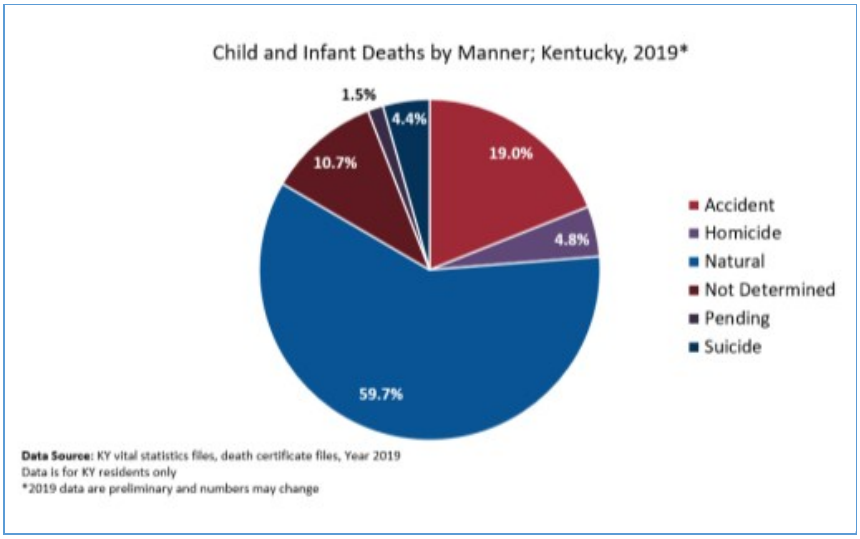
During 2020, CFR grappled with a way to collect case details impacted by the pandemic restrictions. At each review the nurses inquired about stay-at-home changes the family or community may have had that could be considered a risk factor. At one review of the death of the 4 teenagers, the local pediatrician clearly stated COVID stay-at-home as a risk factor noting the death occurred in adolescents who were fishing at the local dam on a school night. They were from families who normally would not have permitted them to be out on that day if school had been in session the following day. Other case discussions revolved around alternate caregivers at home while parents worked remotely such as older siblings, mental health concerns of the adolescents missing school and peer to peer interaction, and lack of childcare resources.



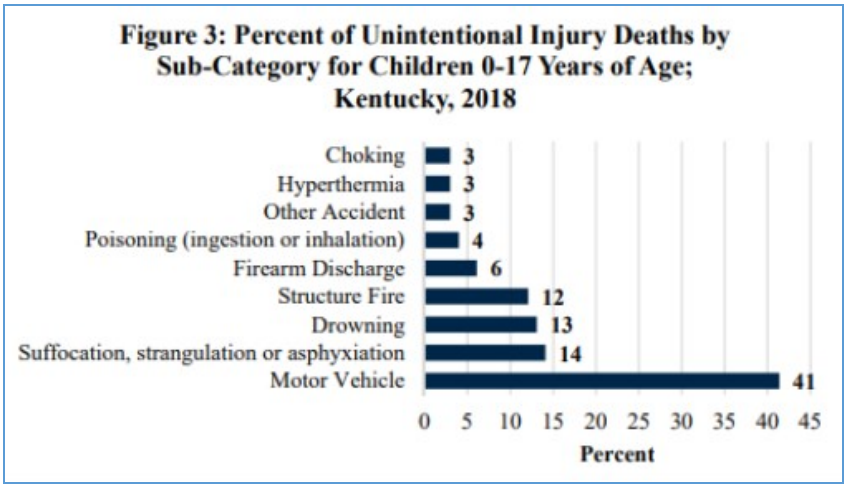
Trends in preventable child death in Kentucky has remained somewhat stagnant with rates of preventable deaths in Kentucky between 254 in 2016 to 245 in 2019.

Prevention of these deaths remains with developing an understanding of the manner of death, and community or familial influences, decisions, or understanding of risk factors. In Kentucky, most child deaths (59.7%) are related to natural causes of birth defects, prematurity, and other childhood congenital or genetic diagnosis.

Prevention for these resides with primary care for early identification, treatment, and ongoing follow-up.



MCH focuses efforts of the child injury prevention program on the other manners of accidental/unintentional injury, suicide, and homicide deaths. As noted in the annual CFR report, and demonstrated in the graph below, the bulk of child deaths continues to be related to child passenger safety. Alarmingly the second subcategory was related to Suffocation, strangulation, and asphyxiation for which 82% of cases are infants, and 18% are children 1-17 years of age.



Efforts made locally specifically are targeting SUID, suicide and improving mental health access, screening and evaluation, and promotion activities to reduce accidents. The CFR best practice initiative allows LHDs to develop and review child death cases and to use MCH Title V block grant funds for preventive efforts designed to address local resources, culture, and collaborate with local child injury influencers/champions such as the local pediatrician, faith base leaders, school leaders, and more.

Additional data are available in the CFR report included as an upload with this report.

LHDs collaborate with the child fatality and injury prevention team and Safe Kids KY to promote best practice injury prevention messaging and activities. One activity has been to develop TRAIN webinars with nursing contact hours for

promotion to schools, childcares, and other community partners. Currently MCH hosts 7 TRAIN webinars related to injury prevention, child abuse/neglect, and addressing mental health in children.

With the improved CFR processes, the teams are using lessons learned from review to promote prevention activities in their communities. This has led to community prevention plans that included safety prevention campaigns for safe pedestrian walkways for children to bus stops, safe sleep campaigns, gun safety and storage campaigns, and smoke alarm programs in which smoke alarms are purchased via local grants and installed by the local fire department. In 2020, lockboxes for medications to reduce accidental ingestion was a large part of many workplans. Accidental ingestions and subsequent care at a local hospital is on the rise. From death reviews, concerns have been noted about the number of children with Clonidine, Suboxone, opioid, benzodiazepine or other substances in toxicology screens when these near fatalities are treated in the local emergency room.

Many rural LHDs and MCH contract with the KY Injury Prevention Research Center (KIPRC) at the University of KY, the bona fide agent for injury prevention for the KDPH. KIPRC applies for and coordinates the CDC Injury and Violence Prevention Cooperative Agreement for KY.

Title V funds the Pediatric Injury Prevention Program at KIPRC, which includes a pediatrician with expertise in injury prevention and child death reviews. This pediatrician provides technical assistance and training to child-serving agencies including LHDs, health professionals, local CFR teams, and community partners across the state on injury prevention activities and resources. In addition, she serves as the state Safe Kids Coordinator, facilitating the training and sustainability of a rural child passenger safety workforce.

MCH partners on prevention activities with KIPRC's KY Violence and Injury Prevention Program (KVIPP) and the statewide injury coalition, the KY Safety and Prevention Alignment Network (KSPAN). KSPAN is a network of public and private organizations and individuals that are dedicated to promoting safety and preventing injuries throughout the Commonwealth of KY. KSPAN is specifically working to improve the state's capacity to conduct injury prevention and control activities across a wide range of injury causes and types and risk factors to increase the reach, efficiency, and effectiveness of existing prevention efforts through greater coordination and alignment of resources. KSPAN published the KY Strategic Plan for Violence and Injury Prevention 2017-2021 which has several injury and violence prevention focus areas, nine which align with the KY Violence and Injury Prevention Plan). Emphasis areas include, but are not limited to:

- Motor Vehicle, Child Passenger, and Teen Driver Safety
- Prevention of Impaired Driving
- Pedestrian and Bicycle Safety
- Prevention of Drug Overdose
- Fall Prevention for Older Adults
- Residential Fire Safety and Prevention
- Child Maltreatment Prevention (e.g., Abusive Head Trauma, Safe Sleep Promotion, and Adverse Childhood Experiences)
- Sexual Violence Prevention
- Child Home Safety (unintentional adolescent injuries)
- Kentucky Safe Communities Network
- Occupational Safety and Health (Total Worker Health and Safety)

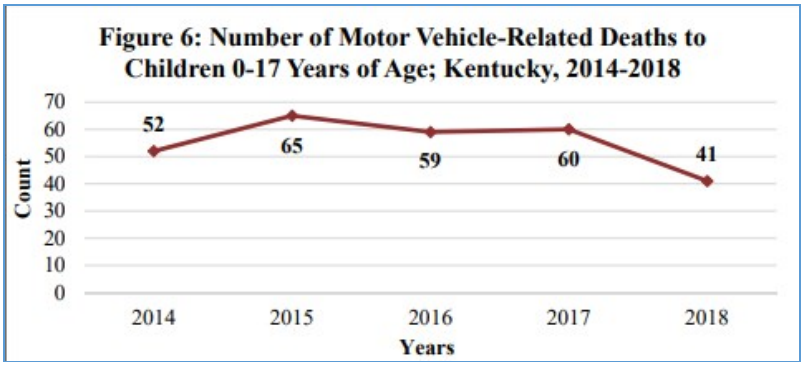
KSPAN is in the process of updating the KY Strategic Plan for Violence and Injury Prevention 2022 -2026. During this update additional topics will be included in the strategic plan, addressing adverse childhood experiences and

suicide prevention.
This partnership has deep impact in the community with an ability and scope as a recognized leader to advocate and educate for injury prevention.

In addition, MCH works with KSPAN and KIPRC work to promote and support the Safe Communities America accreditation of KY Safe Community coalitions. Currently Marion and Mason Counties are going through the process of becoming accredited Safe Communities. This enhances the MCH capacity to disseminate best practice injury prevention programming.

Child Passenger Safety:

Rates of motor vehicle related deaths continues to decrease in Kentucky. Multiple legislative safety measures instituted in the past 20 years have made significant impact. In 2007, Kentucky instituted the graduated driving license law to curb teen driving accidents. For drivers age 16 or 17 years, the law requires an intermediary period of six months restricting driving from midnight to 6 AM and restricting driving to only one unrelated passenger under the age of 20. The second change in 2010 required parents to use booster seats for children. This law had some deficiencies related to best practice for child passenger safety and in 2015, MCH along with Safe Kids partners, UK Pediatrics, KY AAP chapter and more were successful in getting a revised booster seat law in place. KY improved its booster seat bill to meet national recommendations, increasing the height requirement to 57 inches and the age requirement to 8 years. In 2012, these same partners were successful in getting a cell phone ban legislated. All of these measures have resulted in a decline in motor vehicle collision deaths from 80 children annually (2007) to 41 in 2018.



MCH Title V Block Grant funding is available for local health departments to support training for a staff member to become a certified car seat installer and educator for the caregivers on correct fit and installation of car seats. This person is able to provide community education regarding the correct age and size appropriate child safety seat and child passenger safety, including “Look Before Locking.”

The Child Passenger Safety work completed for KY MCH injury prevention program is reliant local community supports. Many LHDs partner with organizations for donation of cribs and car seats as many parents will come to a car seat fitting station without a child seat in the car. Additionally, the Child Passenger Safety work is challenged by turnover of technicians in the community, re-education of local program staff, and limited resources for purchasing child seats. In 2020, local fitting stations remained open for families. LHDs and fire stations were creative in education at the 6 foot or greater distance and verbal instructions for families.

Teen Driver Safety

In 2018, MCH joined other KSPAN members in promoting the implementation of an evidence-based program for Teen Driver Safety called Checkpoints™. Checkpoints educates Parents/Teens on GDL requirements and about risks teens face when they first start driving on their own. Funding for Checkpoints is available for new eligible counties to implement Checkpoints and new ways have been developed during this time of COVID to deliver the Checkpoints training to parents/teens over the internet using Zoom. Due to this partnership with KSPAN and funding made available through the KY Office of Highway Safety communities are eligible to receive up to $500 for completing the application and providing a letter of commitment from the school where Checkpoints will be targeted. Upon successful completion of a Checkpoints class the community/school would be eligible to receive an additional $750 for a total budget of $1250 for each new school to use in implementing the program. Funding availability is limited and has been targeted using epidemiology of at-fault teen motor vehicle crashes in Kentucky developed by KIPRC available at https://kspan.egnyte.com/dl/UuOqjSFTea. It is through our continued partnership with KSPAN that we will be able to leverage limited resources to provide continued support to communities to implement the Checkpoints program for teen driver safety.

Primary Prevention Home – Visiting

The Kentucky HANDS model is one of nineteen MIECHV approved implementation models. HANDS is KY's statewide home visiting program for overburdened parents. The supportive phrase often used and imbedded in this program is "Every parent needs a second pair of HANDS". KY HANDS is one of the oldest home visitation programs in the nation. Goals of the program include healthy pregnancies and births and for children to live in healthy/safe homes. Home visitors emphasize child safety checklists for appropriate ages; healthy child growth and child development, child abuse prevention; and family self-sufficiency. Family self-sufficiency includes goal setting, resource development, positive parenting, and even anger management, so that families are less likely to use harsh discipline or have violence in the home.

Like many other MCH programs/initiatives, COVID-19 impact on the ability to reach the public stopped for a period of time while program processes were updated to include virtual visits and education opportunities. While HANDS formal evaluations have not been conducted, local HANDS staff have provided ongoing input to state leadership about the barriers and work done to overcome these throughout 2020. Currently HANDS has an ongoing project to update the data system to meet program needs.

Early Childhood Obesity Prevention

Obesity remains a significant public health issue in KY. As made evident during the Covid-19 pandemic health risks associated with long term overweight issues and the impact on child development, obesity data remain concerning. Obesity reduction goals focus on education of healthy nutrition and activity beginning in early childhood to build healthy behaviors and promote these behaviors throughout the lifespan. Activities include training for caregivers in environments in which children spend large portions of their day and consume many of their daily meals.

In the more recent years, MCH has promoted the 5-2-1-0 public awareness:

- Five: Eat five or more servings of fruits and vegetables daily
- Two: Limit screen time to no more than two hours daily
- One: Be physically active at least one hour daily
- Zero: Do not drink sweetened beverage

While this messaging continues, the priority has shifted to education on the use of GoNAPSACC in the ECE setting. Go NAPSACC works with childcare providers to improve the health of young children through practices, policies, and environments that instill habits supporting lifelong health and well-being. We offer modules on key topics like

healthy eating, physical activity, and oral health. KDPH received funding to support the GoNAPSACC work on a statewide level.

Prior to COVID workforce demands, childcare health consultants (CCHCs) provided information and education for the campaign and other measures for obesity prevention through face-to-face visits, consultation, newsletters, and outreach to local childcare centers across the state. KDPH supports CCHCs in their work to promote wellness in caregivers working in ECE. This wellness opportunity is another aspect of the health environment. In 2020, CCHCs were not able to develop and provide obesity/nutrition training for childcares. They were able to address technical assistance requests and ongoing education related to COVID mitigation in childcares.

In FY2020, the Healthy People, Active Communities Package was selected by 24 LHDs. Work in this package continues to be innovative and relies heavily upon community engagement to promote engagement of adoption of healthy behaviors for nutrition and activity. LHDs participated in local health coalitions, performed walkability studies of their communities for planning purposes of walking paths, and implemented media campaigns and other physical activity plans.

In KY, young children are cared for in many settings including Head Start, public preschool, regulated childcare, and in out of school time programs. Each setting has different strategies and goals to address the child's needs and support the family such as:

- School readiness.
- Wrap-around services with more intentional health screenings.
- Support parent employment or ability to attend school.
- Extended service before and after school to provide additional support for education and wellness opportunities.

Additionally, the various childcare settings have different state agencies governing them and different regulations may apply to the various settings. Any effort to improve the health environments of young children in care in KY requires intentional collaboration between agencies and solidifying strategies that align with the goals for these agencies.

Currently, KY has licensed childcare centers that mirror the minimum nutrition practices set by the Child and Adult Care Food Program (CACFP) and limit screen time for children based on national benchmarks. Although these guidelines ensure basic needs are met, KY's children deserve more.

While research links optimal nutrition and physical activity with brain development and long-term health outcomes, these behaviors are not a consistent value among early care professionals, agencies, or technical assistance providers. KY has made progress increasing awareness of the impact and importance of health behaviors in young children through the 5-2-1-0 campaign, social media/blogs, and the Nemours Early Care and Education Learning Collaboratives. Additionally, OST and 21st Century programs have provided training on HEPA standards in OST settings. Studies show that healthy, active children learn better, perform better academically and experience fewer behavioral problems. But many children are not getting the healthy food and physical activity they need each day. Afterschool and summer learning programs are well positioned to be key partners in a comprehensive effort to help children grow up healthy.

The State Physical Activity and Nutrition (SPAN) program at the state level continues to support web trainings about:

- Staff and Child Wellness in the ECE setting.
- Go NAPSACC.

- Farmers Market and Nutrition Access.
- Creating a Supportive Environment for Breastfeeding in Childcare.
- Nurturing Healthy Eaters in Early Childhood Education.
- Safe Routes.

The strengths of this program are based upon the ability to engage early childhood caregivers to promote healthy behaviors at the youngest ages. Turnover at the program level make awareness and education on the importance of child health a continuing challenge.

Obesity and overweight remain a significant public health problem in KY. While very little data exists on young children, CDC obesity data for children 2-5 years is 13.9% as compared to the national average of 9.4% (Centers for Disease Control and Prevention, 2018). Obesity data remain concerning due to the health risks associated with long term overweight and obesity and the impact on child development.

KY Strengthening Families Initiative

In a more socio-ecologic, preventive approach to injury prevention, specifically child maltreatment prevention, MCH Title V is leading the KY Strengthening Families (KYSF) initiative in collaboration with the Governor's Office of Early Childhood. KY's initial focus is children prenatal through five years and their families and follows a collective impact model, similar to the CDC "Safe, Stable, and Nurturing Environments" work. KY is an affiliate of the national Strengthening Families Network, which is a research-based framework of protective factors for child maltreatment prevention. KY's initiative is somewhat unique, in that KY developed a cross-sector, cross-agency, public-private framework so that families will be supported in strength-based environments no matter what systems or child-serving agencies they access within their community. It is an intentional approach to systems change and common messaging among all child-serving agencies to respond to the science of toxic stress and early brain development. MCH is raising awareness of ACEs and toxic stress and is laying the groundwork for why Strengthening Families and building protective factors are critical to children's health and well-being.

KYSF workforce had many transitions. As of midyear 2020, this program has one opening. In the past year, this team (with the new parent/family representative) has begun planning for the parent advisory council and supported training for HEART engagement and evaluation plans.

Help Me Grow Developmental Screening

Although KY did not choose the NPM for developmental screening, MCH worked with the KY Chapter of the AAP to implement "Help Me Grow," an evidence-based, national program model for promoting developmental screening. The KY Help Me Grow model has been implemented in a limited capacity in KY secondary to lack of MCH funding and workforce resources. Help Me Grow KY (HMGKY) continues to work with four pediatric practices, two childcare centers, and one local health department.

Metro United Way's Ages and Stages Program has become an affiliate of HMGKY and assistance has been provided to the pediatric expansion program.

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centers, and one local health department.
Metro United Way's Ages and Stages Program has become an affiliate of HMGKY and I have been assisting them with the pediatric expansion program.

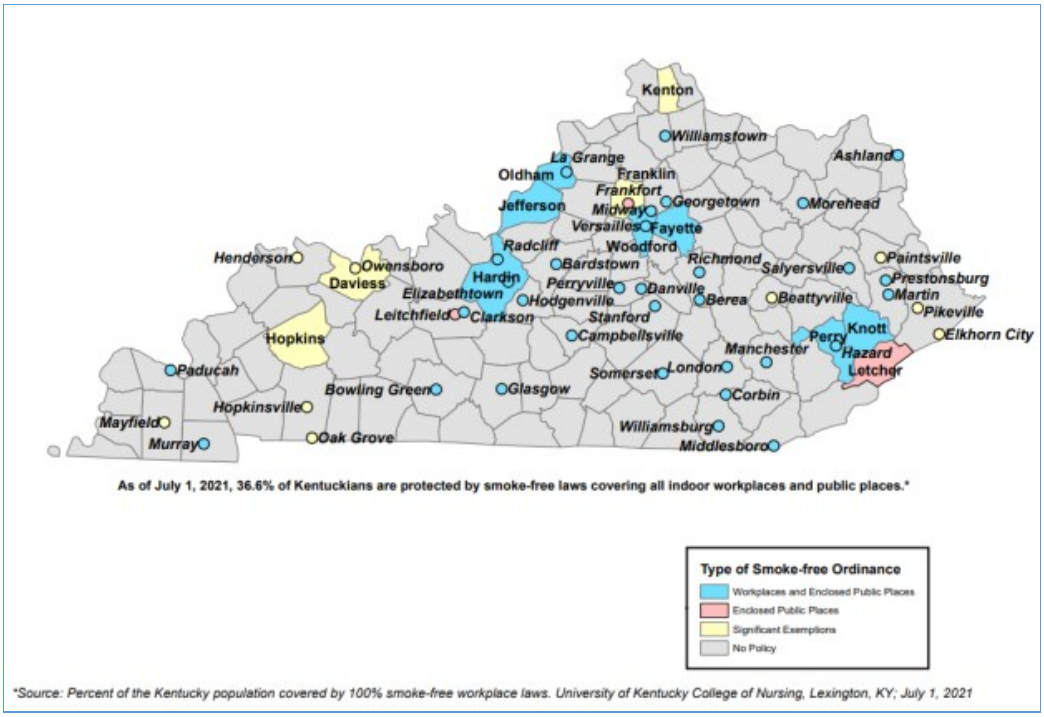
Tobacco Use

Broad goals for tobacco cessation and prevention are to prevent initiation of tobacco use among youth and young adults, promote tobacco use cessation among youth and adults, eliminate exposure to secondhand smoke, and identify and eliminate tobacco-related disparities. Efforts are targeted to *NPM 14.2) Percent of children, ages 0 through 17, who live in households where someone smokes.* Specific strategies to achieve these goals include:

- Increasing the use of smoking cessation therapy
- Supporting tobacco-free schools, campuses, and communities

The Tobacco Prevention and Cessation Program was part of a CHFS reorganization moving it to the Division of Prevention and Quality Improvement in December 2018. Ongoing collaboration and efforts continue regardless of reorganization as both divisions mutually work toward reduction of tobacco use.

A statewide 100% Tobacco Free School (TFS) bill was signed into law in 2019. This new law will prohibit the use of tobacco products by students, school personnel and visitors in schools, school vehicles, properties, and activities beginning in school year 2020-21. Several cities have strengthened their already existent partial smoke-free laws in 2018. For the past few years, smoke-free law protected 32.7% of Kentuckians. With local changes, this has improved to 34.7% of Kentuckians protected.



In FY20, eight LHDs chose the MCH Evidence Informed Strategy, 100% TFS for their community. Local health departments provide assistance to local Boards of Education in passing and implementing 100% TFS. The package supports collaboration with appropriate student groups and distribution of survey results and information

about policies to key stakeholders.

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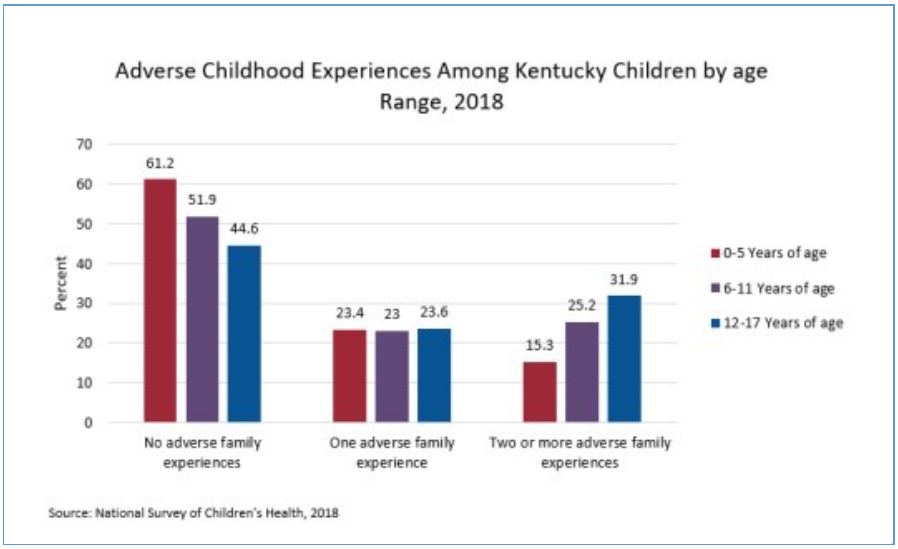
Smoke-Free Child Care Centers

One LHD piloted a program for tobacco-free childcare centers, which encourages childcare centers to pass policies prohibiting tobacco use on center property and requires caregivers to remove smoke-residue when returning to work after a break by removing a smoking jacket/shirt, washing hands, and rinsing mouths. In the 2017-2018 fiscal year, two additional LHDs have decided to encourage smoke-free childcare centers in their community as well. LHDs create signage for the centers, provide technical assistance on policy change, and create mass media to increase community demand for smoke-free facilities. As of this time, 30 childcare centers are known to have smoke-free policies.

Adverse Childhood Experiences

Recent data released for KY has shown KY children and families have higher ACEs scores than seen nationally. Per the ACEs study, the higher the ACEs score is, the greater the risk for poor health outcomes later in life. Some ACEs information shown here is from the 2018 National Survey of Children's Health as it relates to children in KY.

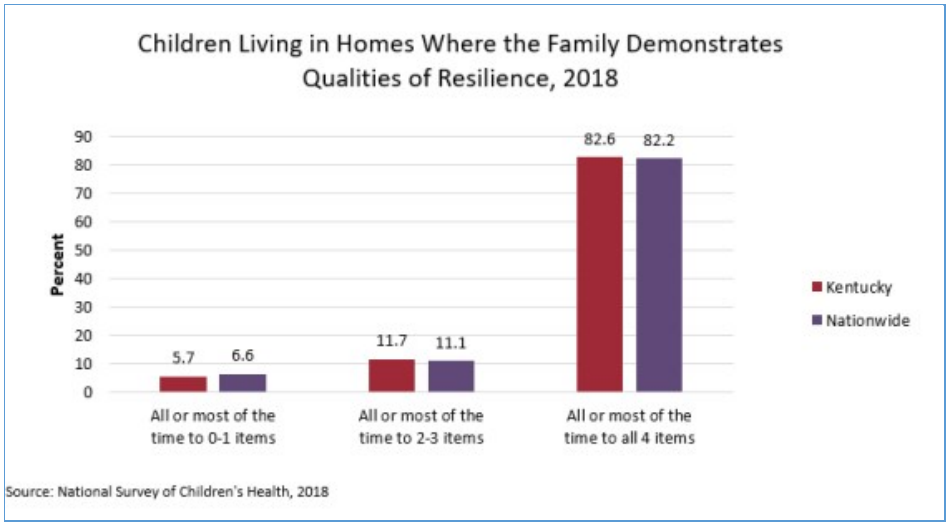


Children in KY (15.3%) as young as 0-5 years report two or more adverse family experiences. This percentage increases with age to 31.9% of children 12-17 reporting adverse family experiences. These rates for KY are under in-depth review as suicide rates for children as young as 10 years of life are rising, and more children have been

placed in outside home care secondary to NAS, abuse, and neglect. Comparatively, over 80 percent of children have reports of living in homes demonstrating positive resilience responses, to all or most of the time, to all four items on the survey.

MCH in partnership with its many partners (KIPRC, KSPAN, and Ky FaceIT Bluegrass) have during this time of COVID 19 worked together to provide practical information to caregivers and parents to support children as they navigate public health emergencies, focusing on calling for help, organizing one on one connections, noticing triggers that indicate children may need more help, and taking time to talk as a family. Through the Child Home Safety KSPAN Committee, firearm locks and medication boxes are being distributed by partners to Kentucky families, supported by KVIPP funding (KIPRC).

Inherent, in the KYSF cross-agency approach for integrating protective factors into systems, are a number of challenges as each agency has its own constraints and specific purposes. Evaluation of this cross-agency, multi-layered effort is also challenging, as measures and measurement are quite different across agencies and depend on whether agency outcomes, front-line staff changes in behavior, or outcomes for families are measured.



Childhood Lead Poisoning Prevention Program:

During this reporting period, the KY Childhood Lead Poisoning Prevention Program undertook a needs assessment that identified barriers encountered by local health departments when dealing with lead poisoning cases. The main issue identified was a lack of adequate training and guidance for health department staff about childhood lead poisoning causes and appropriate interventions. Each of KY's 120 counties are responsible for handling case management of any child under 6 years of age who has a confirmed blood lead level greater than or equal to 5µg/dL. This comes out to around 150 local health department environmentalists and nurses across the state who require a comprehensive understanding of childhood lead exposures. To address this barrier, the KY Childhood Lead Poisoning Program is working toward conducting a series of trainings across the state. These trainings will cover every aspect of lead from what it is and where it comes from to how they can help families control and mitigate known exposures. In addition, all materials, including educational materials, are in the process of being reformatted based on local health department feedback obtained through this needs assessment.

Oral Health:

While this NPM #13 was retired last year, work completed by the KY Oral Health Program (KOHP) promotes

improved health outcomes across the lifespan.

Per KY Department for Medicaid Services (DMS), the proportion of KY children with Medicaid who accessed at least one dental service in 2019 was

- 36% under the age of 6
- 54% between ages 6 and 14
- 50% between ages of 15 and 18 (2019 CMS 416 Report)

This same report shows that while 43% of all eligible received a preventive service, it revealed a significant lack of these services for those under 6 years old at only 32%.
Fourteen percent of Medicaid patients 6-9 received a molar sealant, and only 10% of those between 10-14 had a sealant placed. The KOHP houses programs dedicated to improving oral health for all Kentuckians.

Community Fluoridation Program:

The Community Fluoridation Program works with municipal and private water systems to assure compliance with KY's statewide law that requires fluoridation at optimal levels to reduce decay rates in the state. KY continues to have the highest rate of municipal system customers having optimally fluoridated water than any other state in the country.

Fluoride Varnish Program:

Fluoride varnish and the application of dental sealants are preventive health strategies used to improve outcomes for children residing in areas of the state lacking access to pediatric dentists and Medicaid providers. To improve access to care, LHD public health registered hygiene programs or LHD contracted dentists screen, place sealants or treat patients in these areas. This program assures linkage to a dental home in the community for any higher-level dental needs. The target audience for this outreach is children that do not have a payment source for sealants and are under 300% FPL.

Ongoing training in dental development and disease prevention is provided to public health nurses throughout the state annually to assure competence with assessment and treatment. The cost of fluoride varnish and treatment is a reimbursable service through Medicaid. Since inception of the program, fluoride varnish has been recognized as a primary oral health preventive service. KOHP provides fluoride varnish education for interested primary care providers, or pediatricians, and encourages them to perform an oral health screening with application of fluoride varnish during well child exams if the child is not seen/followed by an oral health provider. For the 2020 year, trainings were put on hold due to the restrictions in place for the Coronavirus Pandemic.

The MCH fluoride varnish package had many LHDs opt to provide outreach activities, train RNs to establish school-based varnish clinics, and perform quality assurance for fluoride varnish and education activities Due to the pandemic, local health departments shifted their focus to pandemic response responsibilities and activities, reducing many clinical services to almost zero; almost no varnishes were performed due to this shift.

KRS 156.160 requires all children entering public school to have a dental assessment. The training provided by KOHP ensures nurses are prepared to complete this screening. In collaboration with KOHP, KDE adopted the *Smiles for Life Curriculum* training for school district nurses to complete prior to performing these dental assessments. Despite a requirement for screening, less than 50% of children entering school report a dental assessment. (Source: KY Oral Health Coalition meeting: June 2021)

Public Health Dental Hygiene Program:

To improve access to care in rural and underserved areas of KY, KRS 313.040 established a special licensure category for public health registered dental hygienists (RDH) expanding the scope of preventive dental work performed by the RDH without requiring the presence of a dentist on site. This expanded scope allows the public

health RDH to provide preventive dental services to healthy children who may be at high risk for dental disease. KY has nine public health RDH teams serving underserved areas providing a comprehensive range of primary preventive services with a clinical focus on the placement of sealants on erupting molars and linkage to a permanent oral health home. Since program inception in 2014, these programs have an 83% success rate of referral to comprehensive dental treatment to these high-risk patients.

Primary and Preventive Services for Children

The role of Title V for the next fiscal year is to continue providing primary supports to LHDs. The well child program is being reviewed for usage and planning developed to address the best way to support this gap filling service in future years. MCH plans to continue to provide public health, school nurse trainings to this with best practice updates. The KDPH School Health nurse consultant will work with KDPH departments to address immunization promotional activities, pandemic response guidance/messaging, and/or assist KDE with coordinated school health activities. Much of current year planning and response has been around addressing COVID-19 plans to keep children safe in school and community while promoting well child, immunizations, and education.

While most LHDs no longer provide direct school nurse services, MCH is planning on mechanisms to support continued training for a qualified pediatric workforce in the schools. The school nurse consultant is fundamental for direct communication with local school boards to assure there is no loss of communication for public health initiatives, activities, and outbreak protection information. MCH will continue collaborations with the immunization program to enhance and promote immunization messaging.

Ongoing support to the ELC Grant staff for testing in school sites, contact tracing, and technical support is ongoing.

Injury Prevention/Child Maltreatment

KY plans to continue ongoing partnerships for education and prevention activities. The MCH package for PAHT is ongoing. Web training for PAHT and child abuse/neglect identification and reporting courses continue on KYTRAIN. Promotion of the course will continue to include KY schools of nursing, childcare/early education staff, and LHDs, and through the KBN. In the coming months, MCH has plans for development of asthma management of children in the community and school setting to be made available on KY TRAIN. This course is being offered to school nurses and district health coordinators during the fall conference in collaboration with KDE in September 2021.

MCH will continue to support LHDs collaborating with detention centers to provide the Strengthening Fathers/Family Curriculum. MCH plans to develop an early childhood package to focus upon ACEs awareness and interventions.

Child passenger safety supports will continue. KY is planning a strategic meeting with KIPRC and the University of Kentucky to develop short and long-term goals for this program and partnership to discuss ongoing activities with Safe Kids, KY Transportation Cabinet, Child Passenger Safety leaders, and other national or local partners. UK Safe Kids Chapter is supporting trainings statewide, and available for technical support as requested by the state program. This contractual partnership has created an ability to expand safety messaging and technical support to car seat technicians from subject matter experts

Child Fatality Review

Since 2017, CFR has had significant growth in developing review teams and began focusing on maturing the quality of the local review teams prior to the pandemic. This program was severely impacted with the loss of the veteran CFR nurses and SUID coordinator accepting promotional opportunities elsewhere in state government. With the impact of COVID, the quarterly coroner and CFR team member trainings were delayed until new staff are fully onboarded. The CFR team will continue to support local comprehensive and multidisciplinary reviews with assessment of community needs for prevention efforts. KY is committed to establishing prevention efforts to reduce deaths related to preventable causes: child passenger safety, SUID, birth defects, MVCs, suicide, and more.

CFR plans to continue prevention efforts to distribute evidence-based injury prevention materials/toolkits for family serving agencies. With Prevent Child Abuse Kentucky and the KSPAN Committee on Child Maltreatment, we will work on expanding community-based prevention strategies for PAHT and continue to provide prevention training and materials. This program will continue local and national collaborations to promote safe sleep initiatives.

To address hospitalizations from MVCs, the CFR program, in partnership with KPRIC and KSPAN, will promote rural motor vehicle crash prevention, sustain the existing certified child passenger safety (CPS) technicians in those areas, and help rural health departments organize networks of local/regional CPS technicians who can work together. The CFR program continues to support Safe Kids Chapters and assist them in injury prevention efforts including providing education and technical assistance. Local health department CFR Coordinators and CPS Technicians will continue to initiate and maintain dissemination efforts for new AAP/Safe Kids/National Highway Traffic Safety Administration recommendations for rear facing until age 2 and booster seats until reaching adult height. The CFR nurse consultant will continue to build on current successes with strengthening the quality of child death review locally and guidance for prevention efforts.

The work of the Child Safety Learning Collaborative will continue focus of improving screening, and intervention for children.

KYSF

Cross-agency work to build protective factors and strengthen families continues.
MCH staff will continue to work with partners toward implementing trauma-informed practices to address toxic stress. Under the guidance of the State Interagency Advisory Council (SIAC) for Children with Emotional Disorders, the Trauma Informed Steering Committee will continue to work through the SIAC to assess lessons learned, cultivate existing partnerships from this initiative and forum participants, and evaluate current implementation and future strategic planning. This Steering Committee is facilitated by the DBHDID, collaborating with MCH staff. One goal for the upcoming year is to revise the DBHDID Trauma Informed Care training to include the same foundational content on early childhood brain development, the ACE Study, toxic stress, and protective factors. The Help Me Grow developmental screening project with KY AAP continues to test and revise the initial pilot project with the hope to expand to other areas of the state.

Childhood Obesity Prevention

In the upcoming year, KY will continue focus on *NPM #8: Percent of children ages 6-11 and adolescents 12-17 who are physically active at least 60 minutes per day*. In order to address this performance measure, KY will work to reenergize education efforts with with early childhood programs to increase the number of children establishing healthy behaviors in physical activity and nutrition. KY will continue to support and promote initiatives that range from education regarding nutrition and physical activity during well child exams, through LHD MCH best practice strategies, to establish healthier communities and use of the Whole School, Whole Community, and Whole Child model promoted by the KDPH and KDE CSH Program.

The KDPH Obesity program collaborates with Coordinated School Health located at both MCH and KDE to reach children over the age of 5 in the school setting. As well, the program will collaborate with the KY Transportation Cabinet to work on improving active transportation and developing pedestrian and biking plans.

Behaviors established in early childhood carry into childhood and adolescence. Three primary strategies include:

- Increasing access to training for Early Care Professionals

- Increasing capacity and quantity of Technical Assistance Providers
- Increasing the number of Early Care And Education (ECE) Programs that develop environmental change and policies related to health and wellness

Ongoing technical assistance is needed to support Early Care Professionals in developing best practice methods, programs, and strategies that are customized to fit their specific environment. The CCHC plans to collaborate with other agencies to develop materials and guidance related to health practices for integration across agencies to ensure consistent messaging across agencies.

Oral Health

KY families historically have not placed value in oral health treatment or evaluations. This has created a challenge when planning activities to improve oral health outcomes for children or other populations. Goals established in the 2017 KY Strategic Plan for Oral Health include:

- Promote oral health literacy
- Address the SDoH barriers such as consumption of sugar-sweetened beverages at very young ages, transportation, dental cost, long wait times, access to care, and oral health insurance coverage critical to effecting change
- Assure screening and referral to an oral home is a goal set in the 2017 KY Strategic Plan for Oral Health
- Surveillance of oral health data
- Expand the scope and geography of practice for the public health RDH
- Improve dentist access in underserved areas of KY

These goals and initiatives remain part of the focused plans for 2022.

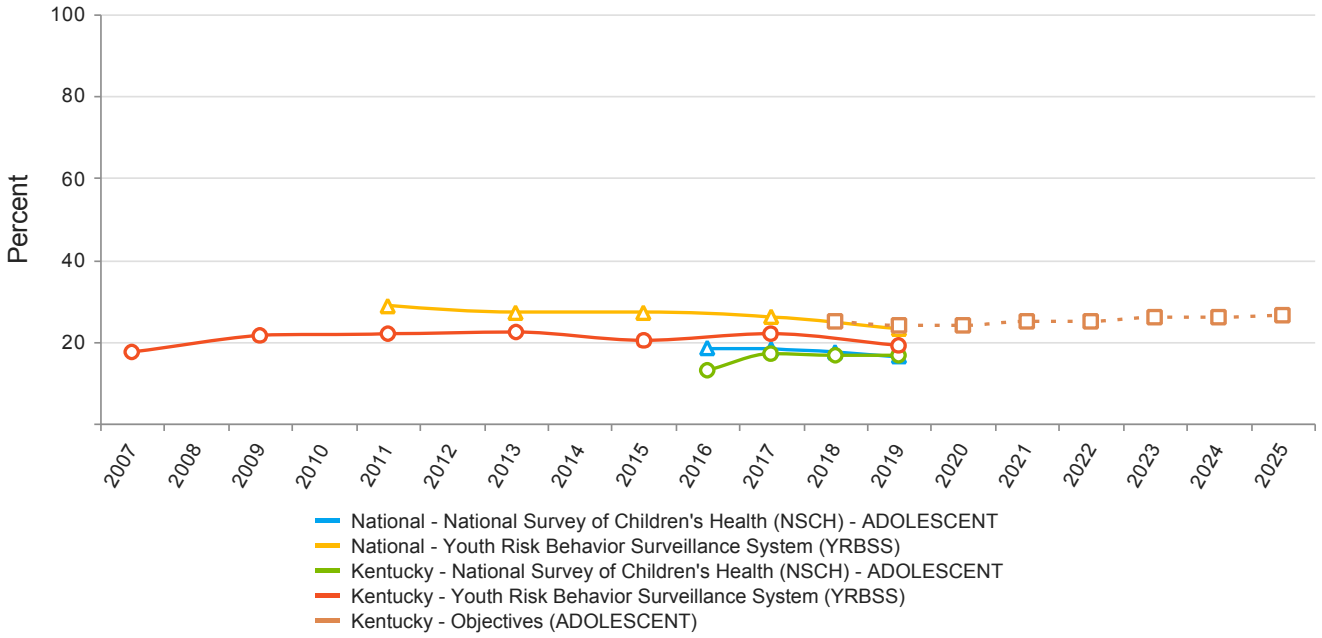
Adolescent Health

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 2 - Rate of severe maternal morbidity per 10,000 delivery hospitalizations	SID-2018	75.2	NPM 14.2
NOM 3 - Maternal mortality rate per 100,000 live births	NVSS-2015_2019	29.7	NPM 14.2
NOM 4 - Percent of low birth weight deliveries (<2,500 grams)	NVSS-2019	8.7 %	NPM 14.2
NOM 5 - Percent of preterm births (<37 weeks)	NVSS-2019	11.3 %	NPM 14.2
NOM 6 - Percent of early term births (37, 38 weeks)	NVSS-2019	31.3 %	NPM 14.2
NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths	NVSS-2018	6.0	NPM 14.2
NOM 9.1 - Infant mortality rate per 1,000 live births	NVSS-2018	6.0	NPM 14.2
NOM 9.2 - Neonatal mortality rate per 1,000 live births	NVSS-2018	3.7	NPM 14.2
NOM 9.3 - Post neonatal mortality rate per 1,000 live births	NVSS-2018	2.3	NPM 14.2
NOM 9.4 - Preterm-related mortality rate per 100,000 live births	NVSS-2018	152.1	NPM 14.2
NOM 9.5 - Sudden Unexpected Infant Death (SUID) rate per 100,000 live births	NVSS-2018	111.3	NPM 14.2
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	NSCH-2018_2019	90.6 %	NPM 8.2 NPM 14.2
NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)	NSCH-2018_2019	23.8 %	NPM 8.2
NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)	WIC-2018	16.3 %	NPM 8.2
NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)	YRBSS-2019	18.4 %	NPM 8.2

National Performance Measures

NPM 8.2 - Percent of adolescents, ages 12 through 17 who are physically active at least 60 minutes per day
Indicators and Annual Objectives



Federally Available Data					
Data Source: Youth Risk Behavior Surveillance System (YRBSS)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	23	24	25	24	24
Annual Indicator	20.2	20.2	22.0	22.0	19.0
Numerator	37,629	37,629	41,447	41,447	36,170
Denominator	186,195	186,195	188,822	188,822	190,170
Data Source	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT
Data Source Year	2015	2015	2017	2017	2019

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - ADOLESCENT					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			25	24	24
Annual Indicator		13.1	17.2	16.8	16.7
Numerator		44,811	58,697	59,999	56,927
Denominator		342,824	341,755	356,304	341,236
Data Source		NSCH-ADOLESCENT	NSCH-ADOLESCENT	NSCH-ADOLESCENT	NSCH-ADOLESCENT
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	25.0	25.0	26.0	26.0	26.5	26.5

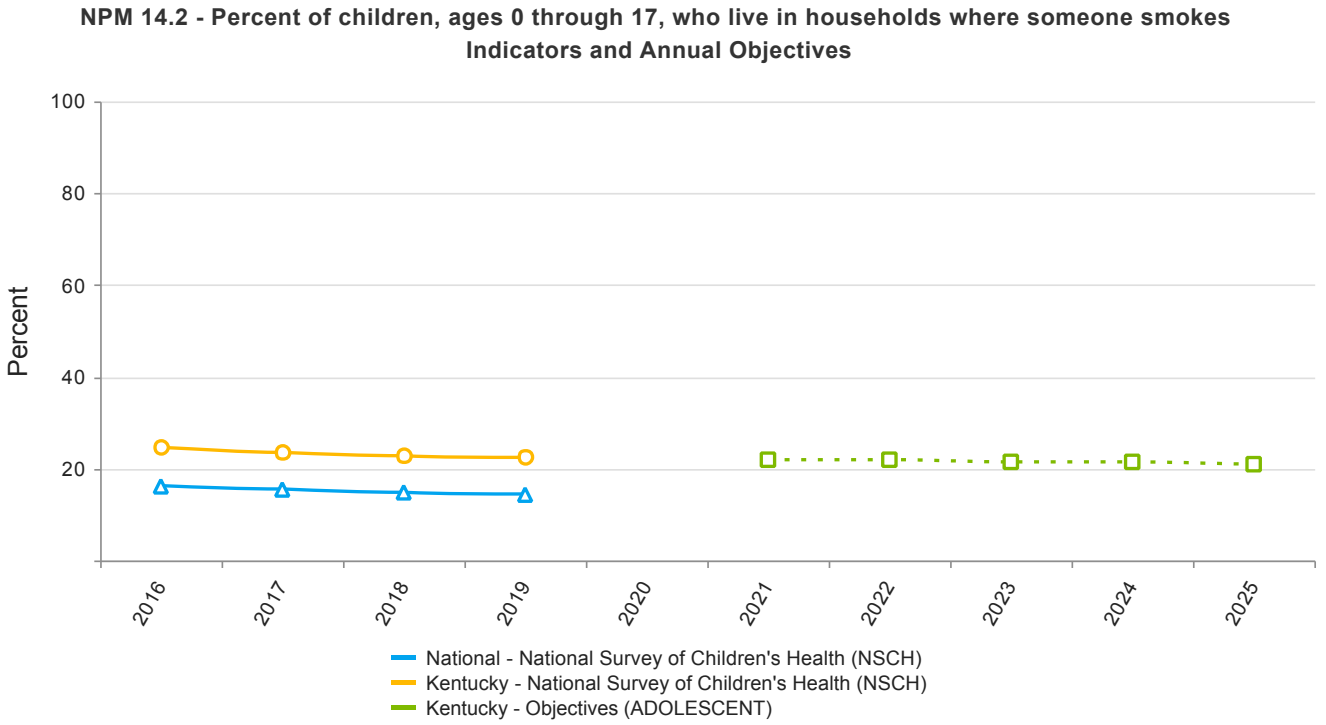
Evidence-Based or –Informed Strategy Measures

ESM 8.2.1 - Number of districts receiving training or technical assistance for strategies to create a healthy school nutrition environment, or evaluation of recess and multi-component education policies.

Measure Status:	Active

State Provided Data				
	2017	2018	2019	2020
Annual Objective			80	100
Annual Indicator			50	171
Numerator				
Denominator				
Data Source			KY Healthy Schools	KY Healthy Schools
Data Source Year			2019	2020
Provisional or Final ?			Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	120.0	140.0	160.0	171.0	171.0	171.0



NPM 14.2 - Adolescent Health

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			24	23	
Annual Indicator		24.6	23.4	22.7	22.6
Numerator		244,610	233,551	225,873	221,987
Denominator		992,768	998,969	995,888	981,065
Data Source		NSCH	NSCH	NSCH	NSCH
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	22.0	22.0	21.5	21.5	21.0	21.0

Evidence-Based or –Informed Strategy Measures

ESM 14.2.1 - Increase by 5% the number of Kentuckians covered by comprehensive smoke-free policies by 2026. Baseline: 32.7% (2017) Data Source: DPH and Kentucky Center for Smoke-Free Policy

Measure Status:	Active

State Provided Data		
	2019	2020
Annual Objective		
Annual Indicator		36.6
Numerator		
Denominator		
Data Source		UK College of Nursing Center for Smoke Free Policy
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	40.0	42.0	44.0	46.0	48.0	48.0

State Performance Measures

SPM 6 - Reduce by 5% the number of child and adolescent deaths categorized as suicide by 2025.

Measure Status:	Active

State Provided Data		
	2019	2020
Annual Objective		
Annual Indicator	4.4	4.7
Numerator	26	25
Denominator	594	527
Data Source	Office of Vital Statistics death certificate files	Office of Vital Statistics death certificate files
Data Source Year	2017	2018
Provisional or Final ?	Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	4.7	4.5	4.3	4.1	4.0	3.8

SPM 7 - Adverse Childhood Experiences

Measure Status:	Active

State Provided Data	
	2020
Annual Objective	
Annual Indicator	8.7
Numerator	480,000
Denominator	5,544,000
Data Source	KYBRFSS
Data Source Year	2020
Provisional or Final ?	Final

Annual Objectives					
	2022	2023	2024	2025	2026
Annual Objective	11.4	11.2	10.8	10.6	10.4

State Action Plan Table

State Action Plan Table (Kentucky) - Adolescent Health - Entry 1	
Priority Need	
Reduce overweight and obesity among children, and adolescents	
NPM	
NPM 8.2 - Percent of adolescents, ages 12 through 17 who are physically active at least 60 minutes per day	
Objectives	
Increase by 20% the proportion of Kentucky schools that have implemented a school wellness policy and a comprehensive school physical activity program by 2025	
Strategies	
• Develop support package and materials for technical assistance providers to increase capacity and consistency of TA provided.	
• Increase the number of collaborative partners for physical activity training within the school system. (long term)	
• Increase the number of schools with personnel trained in physical activity programs, such as Comprehensive School Physical Program (CSPAP), Integrating Classroom Physical Activity and recess trainings.	
• Infrastructure and Environmental Supports for Physical Activity: Promote the development and use of infrastructure that facilitates physical activity (e.g., walking trails, sidewalks, playgrounds, parks).	
• Maintain and develop additional online training modules that support ECE professionals in health best practices.	
ESMs	**Status**
ESM 8.2.1 - Number of districts receiving training or technical assistance for strategies to create a healthy school nutrition environment, or evaluation of recess and multi-component education policies.	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 (Kentucky) - Adolescent Health - Entry 2

Priority Need

Improve mental health and behavioral health outcomes among adolescents.

NPM

NPM 14.2 - Percent of children, ages 0 through 17, who live in households where someone smokes

Objectives

Reduce by 2% the proportion of children and adolescents who live in a household with someone who smokes based on the National Survey of Children's Health by 2025. o Baseline: 32.7% (2017) Target: 50% (2020) Data Source: DPH and Kentucky Center for Smoke-Free Policy

Strategies

• Support the 100% Tobacco-Free Schools Evidence Informed Strategy by assisting the schools with implementing this policy.

• Collaborate with stakeholders to increase the number of local communities with smoke/vaping-free laws and ordinances.

• Home Visits + Education Materials + Telephone Counseling: Provide in-person counseling via home visits + educational materials + telephone counseling to reduce child exposure to secondhand/vaping smoke in the home.

• School-based Counseling + Education Materials: Provide in-person counseling in a school setting + educational materials to reduce child exposure to secondhand smoke/vaping in the home.

• Smoking Policies/Bans/Legislation: Support policies/legislation to establish smoking/vaping bans in homes, cars, and other family spaces.

ESMs	Status
ESM 14.2.1 - Increase by 5% the number of Kentuckians covered by comprehensive smoke-free policies by 2026. Baseline: 32.7% (2017) Data Source: DPH and Kentucky Center for Smoke-Free Policy	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 (Kentucky) - Adolescent Health - Entry 3

Priority Need

Improve mental health and behavioral health outcomes among adolescents.

SPM

SPM 6 - Reduce by 5% the number of child and adolescent deaths categorized as suicide by 2025.

Objectives

Reduce by 5% child and adolescent deaths categorized as suicide by 2025

Strategies

- Develop data surveillance for emergency department visits including self harm
- Research process for implementation of Zero Suicide program
- Identify clinical systems already implementing Zero Suicide
- Align Zero Suicide implementation to health care quality standards

Modify current evidence informed strategy (MCH Package) for inclusion of Zero Suicide Program guidelines

Develop TRAIN Modules for mental/behavioral health of adolescents for distribution to school, social work, hospital, PCPs, nurses and others

State Action Plan Table (Kentucky) - Adolescent Health - Entry 4

Priority Need

Improve mental health and behavioral health outcomes among adolescents.

SPM

SPM 7 - Adverse Childhood Experiences

Objectives

By 2026, reduce by 1% the number of Kentucky residents children/adolescents reporting 5 or more adverse childhood experiences with the KYBRFSS

Strategies

• Adopt community educational opportunities, such as webinars, presentations on ACES awareness and resilience strategies. • Partner with parent groups and KYSF work to improve outreach and education • School-Based Interventions: Conduct outreach, education campaigns, and trainings in school-based settings.

Primary and Preventive Services

Primary and preventive clinical services safeguard the health and wellness of all children and adolescents. LHDs have multiple programs targeting adolescents across KY. Adolescents are less likely to visit LHDs for annual preventive care, because more have established pediatric medical homes and insurance coverage and the growth of retail-based clinics providing sports and camp physicals.

Immunizations are among the primary and preventive services accessed by youth at LHDs. The KY Immunization Program distributes vaccines to LHDs, and private providers enrolled in the federal Vaccines for Children Program. Family planning is another health service accessed by adolescents at LHDs. Services to adolescents for contraception, pregnancy, or childbirth can be accessed without parental consent per KRS 214.185. These visits may include diagnosis and treatment of sexually transmitted diseases or other conditions.

Obesity

Adolescent obesity is a priority for the adolescent health population domain identified from the 2015 Needs Assessment and continues to this day. To address this need, KY has chosen *NPM # 8: Percent of children ages 6-11 and adolescents ages 12-17 who are physically active at least 60 minutes per day*. According to the State Obesity Report, KY ranks 6th in obesity with 18.4% of high school students considered obese. This draws a keen focus to the issue of teen obesity. (Robert Wood Johnson Foundation, 2019).

Data from the 2019 KY Youth Risk Behavioral Surveillance System (YRBSS) has continued reporting youth activity level is below the national average. Physical activity continues to be a focus for all programs with less than half of high school students reporting exercise for greater than 60 minutes, 5 days per week.

The percentage of high school students who are obese increased from 16.5% in 2011 to 18.4% in 2019 (KY YRBSS). When the data was reviewed by gender, high school males were more likely to be obese than female high school students. The 2019 data also shown students in grades 11 and 12 were more likely to be obese than grades 9 and 10. Amidst all high school ages, Black high school students were more likely to be obese at 22%.

To reach all populations, KY must address obesity concerns from all levels. Strategies must begin at birth with breastfeeding promotion. Early childhood should lay the framework to establish healthy behaviors related to nutrition and activity. For the school age and adolescent population, the Whole School, Whole Community, and Whole Child (WSCC) model provides a wrap-a-round framework to continue encouraging this population to make healthy choices.

With the MCH Evidence Informed Strategy focusing on increasing physical activity and creating an overall healthier climate in school and community settings, local health departments have succeeded in providing outreach and supplemental health education to students in their local school districts. As previously mentioned in the Child Health Annual Report, LHDs that participated in Healthy People, Active Communities are also working to promote full community engagement with activity and nutrition.

MCH's evidence informed strategy, Healthy People Active Communities Package, promotes healthy eating and physical activity safe and easily accessible. The strategy supports policies that make environmental changes that are sustainable within communities. In addition, this package serves to increase community partnerships with various local organizations and community members. Together, the LHD, community organizations, and community members

will define the issue, address the barriers to meeting the evidence-based healthy behaviors, and engage possible solutions. In 2019 LHDs (27) reached 31,304 community members including local residents. Some of this work involved stakeholders addressing safety in crosswalks for walking paths in urban areas, development of walking paths in the community, implementation of health education in the school system, development of farm to table initiatives, cooking classes.

To increase access to physical activity, LHDs collaborated with several communities that have a pedestrian plan. A Community Physical Activity Committee has representation from the Federal Highway Administration, Foundation for a Healthy KY, KY Association for Economic Development, KDPH, KDE, KY Office of Adventure Tourism, KIPRC, KSPAN, KY Office of the Americans with Disabilities Act, KY Rails to Trails Council, KY State Parks, KY Transportation Cabinet, KY Youth Advocates, National Park Service, and UK Cooperative Extension. Committee and local stakeholders identified assets, needs, and barriers through interviews and surveys of stakeholders and community members.

The KDPH State Physical Activity and Nutrition (SPAN) branch and their state partners provide the training and technical assistance on access to healthy foods and physical activity, as well as resources, including community engagement, Early Care and Education.

Local health departments continued successful programming in FY19 and FY20. Their work and partnerships supported providing access to healthy foods through Farmers Market Vouchers, walking trail and program promotion, promotion of Diabetes Prevention Program, and outdoor literacy programs for children. Although the majority of health department personnel were overwhelmed with Covid-19 response, they continued providing support to communities through virtual programming, community care packages, and an increased use of social media.

Coordinated School Health (CSH):

One program that is significantly involved with physical activity strategies in KY is the CSH program headed by the KY Healthy Schools Team (HST). This program is an effort funded by the CDC's 1801 Improving Student Health and Academic Achievement through Nutrition, Physical Activity, and the Management of Chronic Conditions in Schools. The funding cycle will support this work through a five-year funding cycle ending in 2023. This funding cycle awarded to KY's Department of Education (KDE) continues the work already established in prior school health funding. As a requirement of this funding, KDE has allocated a percentage of awarded funds to continue their partnership and collaborative school health efforts with the KDPH. These funds will be housed in MCH and continue to partially fund the KDPH Coordinated School Health Program Administrator.

This funding cycle focuses on collaboration with nine priority school districts to assess their school health environment and implementation of the Whole School Whole Community Whole Child model (WSCC). The work of the KY HST is a major vehicle in schools and communities across the state, to address obesity and the overall well-being of youth. The WSCC model integrates the components of CSH and the Whole Child tenets of the Association for Supervision and Curriculum Development (ASCD) Whole Child approach to strengthen a unified and collaborative approach to learning and health. The WSCC model includes the following ten components: health education, physical education/physical activity, nutrition environment and services, health services, counseling/psychological and social services, social and emotional climate, physical environment, employee wellness, family engagement, and community involvement. KY's goal through using this model is to address the whole child through integration of preventive best practices to ensure a successful health and academic journey. KDE and KDPH work collaboratively to provide guidance to school districts and community partners to incorporate opportunities for students to create a healthier environment in which to live, play, and learn.

The work of the HST focuses on four specific components to improve the health of students including assisting schools with implementation of physical activity opportunities and quality physical education, nutritious foods, out of school time, and management of chronic conditions. The out of school time component is a major focus of the school health program. This content forged a stronger relationship between the HST, KDE's 21st Century Program, and KY Out of School Alliance (KYOSA)provided an opportunity to offer professional development to a new population of out of school time providers on Healthy Eating and Physical Activity (HEPA) standards. In 2019, professional development was provided to 112 OST professionals representing 25% of KY's districts. In 2020, the Covid-19 pandemic delayed implementation of additional professional development. However professional development has resumed for this population as of the Summer, 2021.

Kentucky's HST continues to face the challenge of not prioritizing student health in the school setting. Physical education is no longer included in the state's curriculum accountability system resulting in a lack of support for implementation of quality PE. To address this barrier, KY HST works closely with their state's School Health and Physical Education Association, KYSHAPE, to provide tools for advocacy efforts at the school district level. Nationwide research is growing and shows additional research around the correlation between healthier children and higher academic performance. However, there is inconsistency in this message. In recent years, there have been a decrease surrounding physical activity (PA) opportunities. Simultaneously, schools have been enhancing nutrition settings for students. In addition to academic success, research shows benefits of PA in overall wellness including mental health. Additionally, the KY HST works closely with KDE's Coordinator for Comprehensive School Counseling and the Department for Behavioral Health Disorders and Intellectual Disabilities (BHDID). Both entities participate on the KBE School Health Subcommittee also known as the WSCC committee. For KY school districts, addressing student mental health is a growing concern as they familiarize themselves with the importance of addressing adverse childhood experiences (ACEs) and the long-term effect of exposure to trauma. The increased focus on adolescent mental health also stems from social isolation of students during the Covid-19 pandemic.

Family Thrive

The Adolescent Health Program within DWH collaborates with MCH, the Department for Behavioral Health, Developmental and Intellectual Disabilities (DBHDID), and many other state and community agencies to promote Family Thrive. Family Thrive, consisting of two components, Strengthening Families and Youth Thrive, is a framework that can be used in any setting or program to achieve positive outcomes by mitigating risk and enhancing healthy development and well-being of children and youth. The Adolescent Health Program and the coordinator for the TAYLRD Grant in BHDID co-lead the Youth Thrive initiative of Family Thrive framework in Kentucky. The vision of Kentucky Youth Thrive is to increase the likelihood that ALL youth, including those in systems, are supported in ways that advance healthy development and well-being and reduce the impact of negative life experiences. This is done by promoting five protective factors through all adolescent programming. These protective factors include:

- Youth Resilience: Youth bounce back when life gives them challenges
- Social Connection: Youth have genuine healthy and supportive connections with others
- Knowledge of Adolescent Development: Youth understand the science of their development
- Concrete Support in Times of Need: Youth find resources and support in their community that helps them
- Cognitive and Social-Emotional Competence: Youth know how to communicate their thoughts and feelings effectively

Suicide

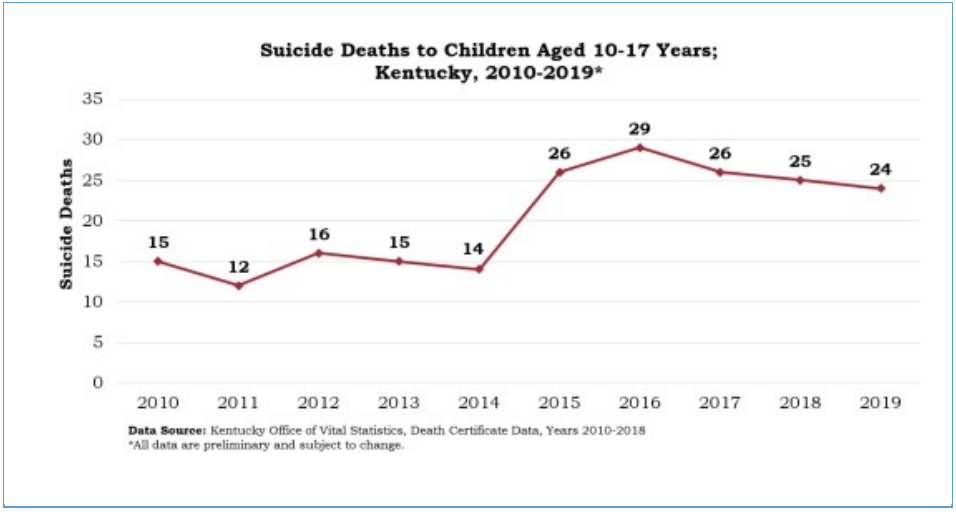
In KY, suicide is the second leading cause of injury-related death among those 10-24 years of age, and the numbers

are increasing. The number of childhood suicides nearly doubled from 2012 with 16 teen suicides to 29 reported in preliminary 2016. For 2019, most suicide deaths occurred in western KY. However, in previous years, there was no pattern to geographical distribution of child suicide deaths. KY has seen multiple children die from suicide as young as age 10. The line graph below shows the rising rate of suicide deaths peaking in 2016. Most suicide deaths are in teenagers who are 14 years old or older. However, KY has experienced some child suicides as young as age 10.

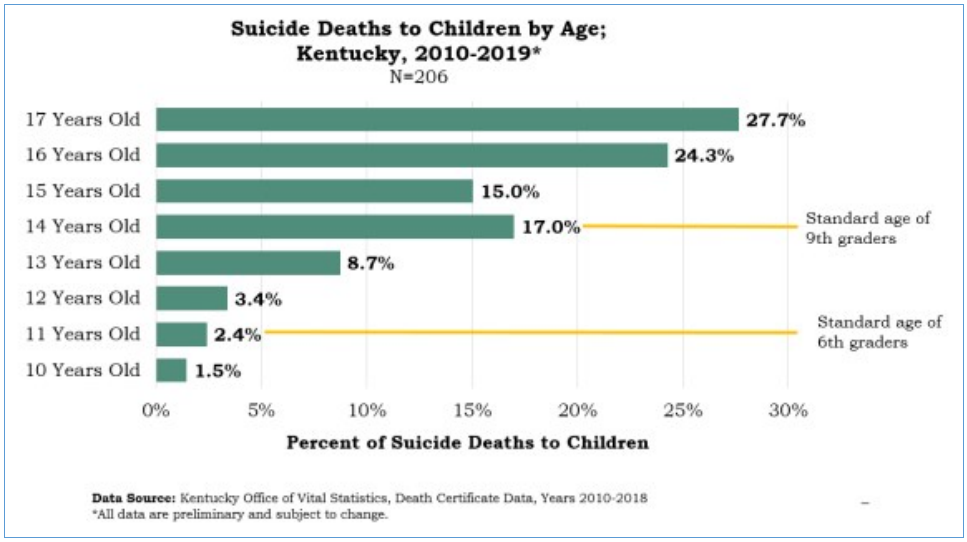
In KY, suicide is the third leading cause of injury-related death among those 10-24 years of age, and the numbers are increasing. The number of childhood suicides nearly doubled from 2012 with 16 teen suicides to 25 reported in preliminary 2018 data.

Preliminary information for 2019 suggest the number of teen suicides could reach 30 or higher. Over half of childhood suicides involve the use of a firearm and is most prevalent among children 10-14 years of age. White children die at a disproportionate rate due to suicide (2.8/100,000) compared to black children (0.9 per 100,000).

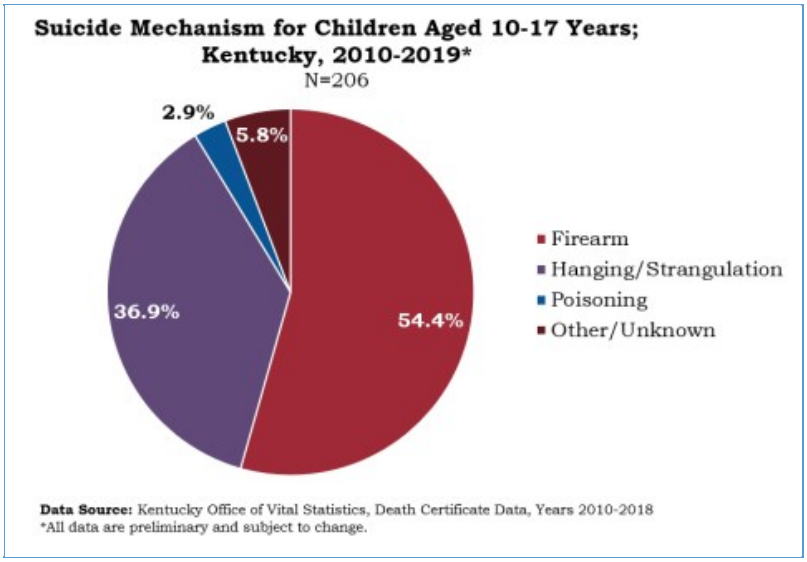
The line graph below shows the rising rate of suicide deaths peaking in 2016. Preliminary 2020 cases reported to the suicide program are likely to exceed the 2016 rate.

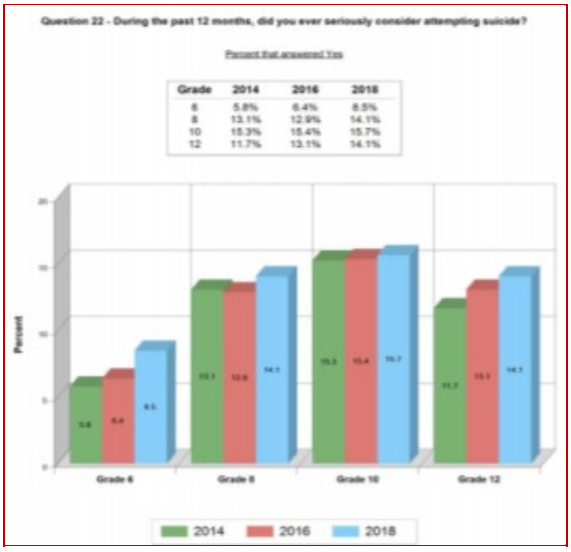


Most suicide deaths are in teenagers who are 14 years old or older. However, KY has experienced some child suicides as young as age 10.



Most mechanisms for child suicides in KY are primarily from firearms and are followed by hanging or strangulation.





The 2018 survey completed with students in grades 6,8,10, and 12. The KIP Survey is conducted bi-annually, on even numbered years, and has changed from the original intent of determining use of alcohol, tobacco, and other drugs to surveying students about handguns, bullying, dating violence, suicide, and mental health (KIP Survey, KY Dept. of Behavioral Health). This report has been delayed secondary to COVID-19. Plans for the 2021 report include additional survey questions to assess how student feel they were impacted by the COVID-19 pandemic. (https://reacheval.com/projects/kentucky-incentives-for-prevention-kip-survey/).

Per this report, while KY youth report bullying and cyberbullying has slightly declined, rates remain higher than national rates. Suicidal ideation and reported suicide attempts were decreasing prior to 2009 but has been increasing since that time in all grades. There was a significant increase among 6th grade respondents reporting they have seriously considered attempting suicide.

Both ideation and attempts have increased for the middle school-age. According to KY's 2019 Youth Risk Behavior Survey the percentage of middle school students who ever seriously thought about killing themselves had significant increase from 15.0% to 22.4% (2013-2019). This warrants a review of the existing evidence-based suicide prevention programs being utilized in addiction to opportunities to address the social and emotional school environment. In 2014, the KY Youth Bullying Prevention Task Force was established by Executive Order to address bullying in schools and recommend practices/policies to provide safer, harassment-free schools.

In 2019, MCH and DBHDID continued collaborative efforts using the Sources of Strength Curriculum as an integrative piece of outreach and prevention supported at the local level. Training programs across the state have been conducted with local school districts to promote peer-led youth resiliency programs. Sources of Strength continued virtually during the pandemic and technical assistance and training was available from their home office. This program has also extended their reach to elementary students. Traditionally the program has offered services only at the Middle School and High School levels.

The Kentucky Violence and Injury Prevention Program (KVIPP) staff produced "Self-Harm Related Emergency Department Visits and Hospitalizations among Kentucky Adolescents 10-19 Years old, September 1, 2015-August 31, 2018" and presented this to the suicide data and surveillance committee at KDPH in 2019; team at KDPH in 2019. KVIPP produced Self-Harm Injury Morbidities and Mortalities characteristics and by counties, January 1, 2016 to September 30, 2019 among Kentucky Residents and presented to the State Epidemiological Outcomes Workgroup meeting at CHFS, as well as Kentucky Adolescent Self-Harm Injury Morbidities and Mortalities characteristics and by counties, January 1, 2016 to September 30, 2019. Additionally, the current State Injury and Violence Prevention Plan is being updated with a strategy specific to Suicide and Self-Harm Prevention.

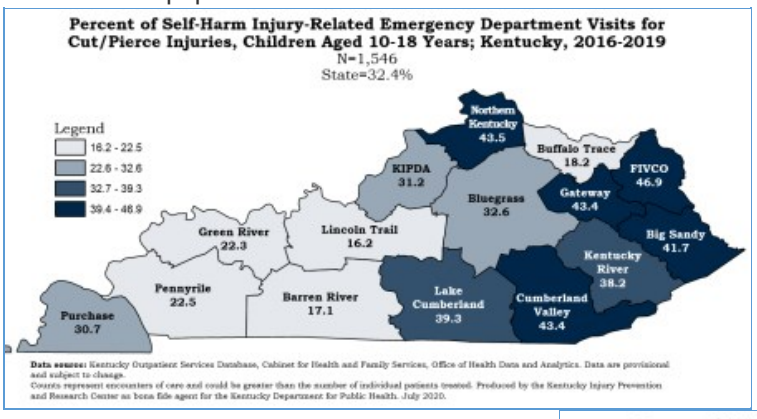
In Spring 2020, the Division of Maternal and Child Health was accepted as a participant in the Child Safety Learning Collaborative (CSLC) focused on Suicide and Self Harm Prevention, along with seven other states. This work in addition to the Child Fatality Review program has established a closer working partnership with BHDID's state Suicide Prevention Coordinator. This coordinator assists our CSLC with expertise in suicide prevention and trends and is also currently participating in a Suicide Prevention State Infrastructure Community of Practice (CoP). Participating states in the CoP are working toward the following goals: gain a deeper understanding of SPRC's state Suicide Prevention Recommendations, identify KY's infrastructure strengths and needs, and engage the state's

team in activities to advance specific elements of the state's infrastructure.

As part of the CSLC, data was evaluated for self-harm and suicide. MCH, KIPRIC and BHDID and the university forensic pediatricians meet with other CHFS programs to review data sets for both child and young adult to determine potential trends and patterns that could lead to stronger prevention measures. The data is varied geographically across the state with trends. The suicide coordinator in BHDID, also has been instrumentally in helping MCH to design surveys to understand the type of practice available statewide for adolescent mental health and the comfort level of providers in screening for suicide and development of interventions beyond resource and referral.

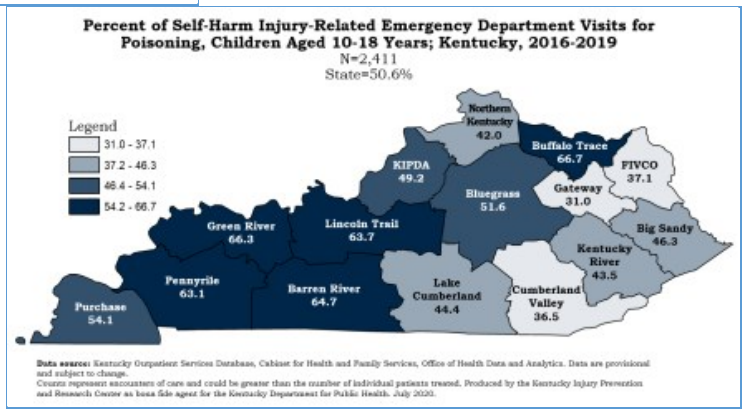
The CSLC reviewed multiple resources of screening and plans for evaluation of health and behavioral health systems. From this review, the KY CSLC opted to utilize the Zero Suicide framework. This model allows a health or behavioral health system to assess their organization structure, protocols and policies related to suicide screening and care and transform and fill any gaps found. Building upon a culture of support for providers and systems, the Zero Suicide framework by created a toolkit embracing core values that suicide can be eliminated by improving service access and quality, sets aggressive goals to eliminate suicide attempts, organized service delivery and adopts evident based clinical practices throughout the health care system of care. Continuing work is ongoing in a pilot project with Hopkins County. From this pilot, MCH anticipates 4 trainings to be developed with two live courses Question, Persuade, Refer (QPR) and 2 webinar based trainings.

From a geographical standpoint, self-harm injury-related emergency room visits by county showed higher rates in rural KY than in population dense areas.

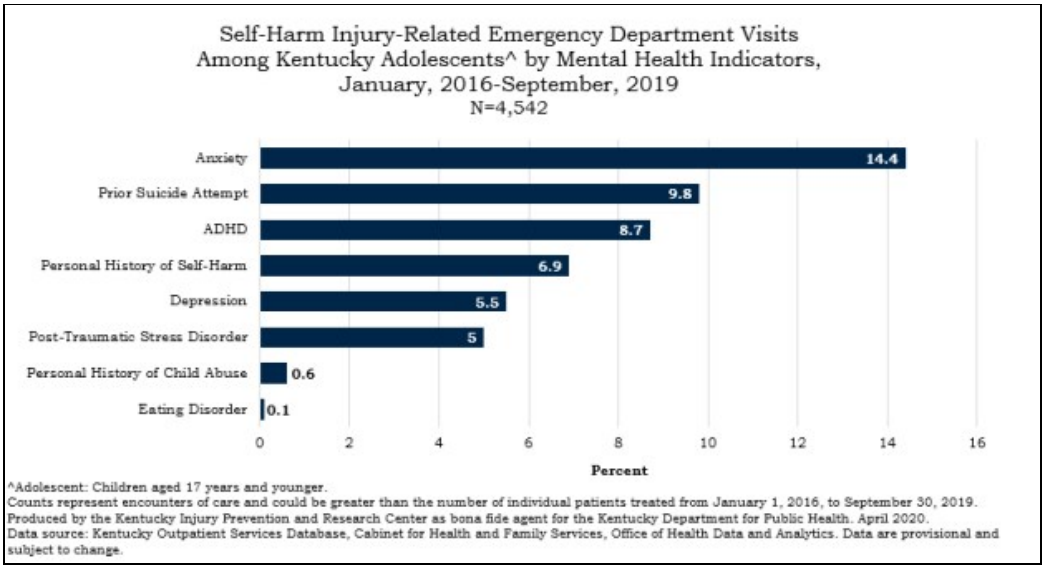


Self-Harm from for cutting or piercing injuries were more likely in eastern Kentucky.

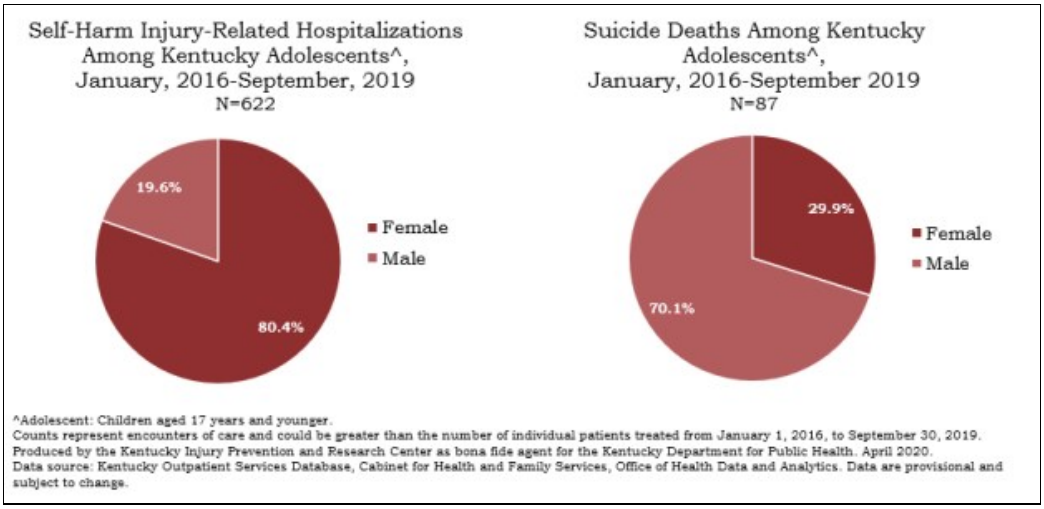
Poisoning attempts were more likely to seek Emergency care in the western part of Kentucky.



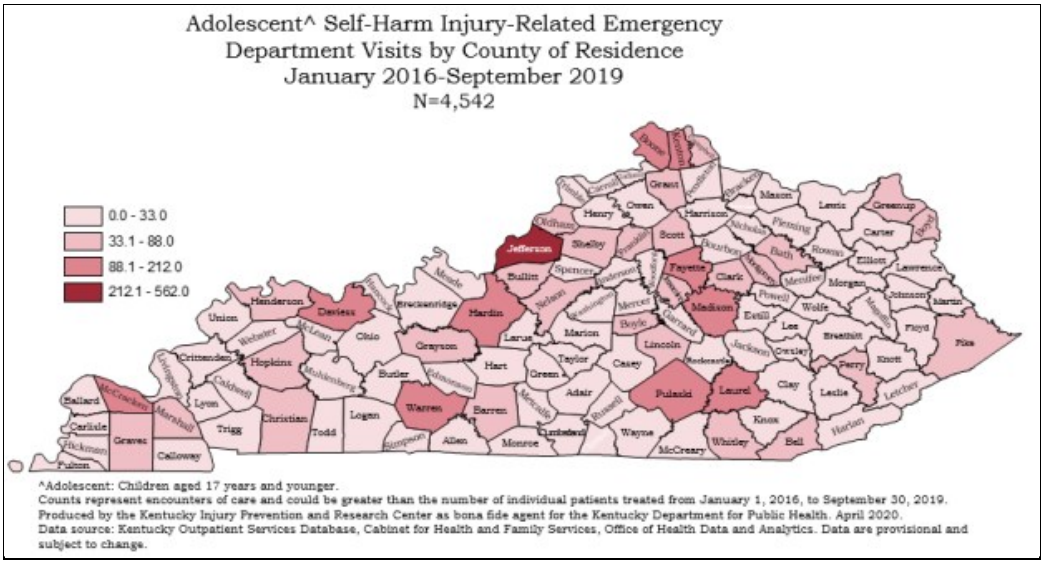
Anxiety was the highest reason for self-harm related emergency visits.



Particularly of interest is the comparison by gender for self-harm and suicide deaths, with females being more likely to have self-harm injury-related hospitalizations, and males being more likely to die from suicide.



Twenty-two local health departments have selected the Bullying and Suicide Prevention package for the upcoming 20-21 fiscal year. This number has increased as the climate of mental health issues has increased in our adolescent population. This package provides opportunity for collaboration with school districts and communities to share resources and support for mental health wellness. In FY 2020, this package continued to support program implementation in local school districts. With this package, programs such as the Beautiful Minds Project in collaboration with University of KY Adolescent Health and Sources of Strength were provided to two school districts. Beautiful Minds supports on-site mental health screenings and, when possible, counseling on-site. In the previous fiscal year, 30 children were provided behavioral evaluations, 107 received behavior treatments in school, 474 made visits for behavior treatment, 12 students were referred to outside providers/ specialists, and 3 students were identified as at risk for suicide.



The long-term impact of COVID-19 on adolescent mental health, self-harm and suicide is still yet to be seen. Both the KIP and YRBSS surveys are planning to resume in the 2020-21 school year, which should give us a better indication of the effect, at least preliminarily, the past year has had on the adolescent population in KY.

Teen Driving

MCH addresses teen driver deaths through collaborative efforts with KIPRC. LHDs had opportunity to implement strategies through a Teen Driving CFR Package.

Teen drivers represent 4% of Kentucky drivers (including learner's permits). In the 2019 Kentucky Traffic Collision Facts report published per KRS 189.635 by the Kentucky State Police, 19,729 collisions involved teen drivers. Of these, 42 of 1,004 fatal collisions involved teen drivers. Alarmingly, 233 teenage drivers were involved in alcohol related collisions. In comparison with previous years alcohol related collisions decreased slightly from the previous year.

As part of child fatality and injury prevention, many health departments completed child passenger safety plans including car seat checks, the Checkpoints™ Program, and the graduated licensure program. LHDs have been innovative in creating distracted driver videos, working with local high schools to provide education, and working with local police and first responders.

The KY Violence and Injury Prevention Program (KVIPP), supported by CDC Cooperative Agreement Number U17 CE924846, collaborates with the KY Office of Highway Safety (KOHS), Traffic Safety Education Foundation, KIPRC, KY Safety Prevention Alignment Network (KSPAN), and KDPH to address teen motor vehicle safety education. The Checkpoints™ Program is an evidence-based, parent-oriented teen driving intervention, originally developed by Dr. Bruce Simons-Morton of the National Institute of Child Health & Human Development, an agency of the US Department of Health & Human Services, is being implemented statewide in KY. The program continues to be updated and revised, including new video clips provided by the Traffic Safety Education Foundation to emphasis key points in the training. Kentucky Checkpoints™ educational materials are designed to reflect KY's Graduate Driver Licensing Program requirements and to include current KY injury data.

The Checkpoints™ Program provides parents and teens with information about:

- Risks teens face when first licensed (e.g., facts and myths about teen driving safety)

- KY's Graduated Driver Licensing requirements
- Ways to improve the safety of the teen driver
- Ways to effectively communicate with teens about safe driving (video content)
- How to set Interactive Parent-Teen Driving Agreements that are customizable to the respective parent and teen, establishing clear guidelines, expectations, and consequences for their teens' early driving and adaption as the teen progresses.

Checkpoints™ is continuing from 2020 into 2021, with an implementation goal of 20 counties with 35 high schools. The Covid-19 pandemic impacted implementation as priorities for schools shifted to virus protection and safety. In 2020 changes and updates were made to Checkpoints to allow for virtual training of Checkpoints. The use of Redcap (online assessment tool) was a definite advantage for use in the updated Checkpoints protocol for online training delivery. Redcap enabled participants to use their smart phones, tablets, and computers to complete the pre and post-tests as well as the course evaluation sheets.

In addition, KVIPP is providing training and curriculum across the state to law enforcement officers on traffic safety checkpoints (traffic stops). The relevant components of the training to adolescent health are educating officers on the identification of impaired driving, human trafficking, improper restraint use (passenger safety), and any other obvious violations.

When reviewing areas of teen driver collisions, it was anticipated the higher population density would be a factor. KVIPP also prepared a heat map of KY roadways to determine if any specific roadways or type of roadway had higher rates. Population density and travel (particularly in Central KY, between urban Lexington and Louisville) showed higher rates of teen collisions.

Adolescent/Teen Pregnancy

MCH works closely with the Department of Education on many adolescent health endeavors. These include education and outreach for many topics including teen pregnancy.

MCH collaborates with the Adolescent Health Programs located currently within the Division of Womens Health. One shared initiative involves working within the school health program to address teen pregnancy prevention. The adolescent health program provides Teen Pregnancy Prevention, the University of Kentucky Young Parents' Program, and the coordinates with schools to promote the Family Planning Program.

KDPH has been awarded grants to educate young people on both abstinence and contraception to prevent pregnancy and sexually transmitted infections. These programs primarily target youth ages 10-19 who are homeless, in foster care, live in rural areas or in geographic areas with high teen birth rates, or come from racial or ethnic minority groups. These projects replicate effective, evidence-based program models that have been proven to teach the optimal health behavior of delaying sexual activity, increasing condom or contraceptive use for sexually active youth, reducing pregnancy and STIs among youth, and providing tools and resources to prevent engagement in other risky behaviors through holistic, trauma-informed, and positive youth development approaches. These programs are grounded in the need to help youth achieve optimal health by providing them with information and resources to help them make healthy decisions for themselves.

As more Kentuckians are vaccinated against COVID-19 and vaccinations are becoming available for younger age groups, MCH Adolescent Health is hopeful the current school year will be more productive.

Adolescent Health - Application Year

For the coming year, MCH anticipates COVID-19 will continue to create barriers for all domains in how, by whom, and where interventions can be impactful. For the adolescent population, this concern is greater as they are less likely to be in environments normally reached by LHD staff beyond the school system. MCH will continue to support access for primary and preventive clinical services to safeguard the health and wellness of all children and adolescents. Referral and linkage to primary medical homes for immunizations and well child exams will continue. It is anticipated LHDs, FQHCs and look-alike providers will continue family planning services. Services to adolescents for contraception, pregnancy, or childbirth can be accessed without parental consent per KRS 214.185. Diagnosis and treatment of sexually transmitted diseases or other conditions will continue to be provided.

Obesity

Programming to improve activity and reduce adolescent obesity will continue to address the priority topic for the adolescent health population domain from the 2015 Needs Assessment. KY will continue to promote children and adolescents being physically active at least 60 minutes per day. One of the main objectives to be addressed is to increase the proportion of schools in KY that have implemented a school wellness policy and a Comprehensive School Physical Activity Program (CSPAP) by September 30, 2020. In order to accomplish these objectives, strategies will include training and technical assistance for school staff, district trainings on local school wellness policies, evidence informed strategies for Coordinated School Health (CSH) and Healthy Families/Healthy Communities and increasing the number of Farm to School programs and Farmers' Markets.

Coordinated School Health

In the upcoming year, the KY Healthy Schools Team (HST) housed in the KY Department of Education and KY Department for Public Health will continue addressing obesity in the adolescent population. These efforts are a combination of working directly with local education agencies and communities.

In the upcoming year, KY will continue focus on *NPM #8: Percent of children ages 6-11 and adolescents 12-17 who are physically active at least 60 minutes per day*. To address this performance measure, KY will focus on work with early childhood programs to increase the number of children establishing healthy behaviors in physical activity and nutrition. KY will continue to support and promote initiatives that utilizing the Whole School, Whole Community, and Whole Child model promoted by the KDPH and the Kentucky HST (formerly Coordinated School Health Program).

LHDs will be provided resources and technical assistance electronically and virtually in the upcoming year. Due to Covid-19, most fall in-person trainings are canceled; however, this has given health department staff more opportunities to participate in virtual trainings offered by a variety of adolescent health stakeholders at the state and national level.

The KDPH Obesity Program collaborates with the KY HST at both MCH and KDE to reach school-age children both in the school and community setting. This program works with the KY Transportation Cabinet to improve community health initiatives, including active transportation and developing pedestrian and biking plans.

Suicide

Work initiated in 2019 with the new Suicide SPM continues. KY will absolutely continue targeted work to research best practice methods to reduce the rising rate of child/teen suicides. KY will continue to work toward identifying strategies to capture information about suicides and to obtain more timely notification of these deaths. We anticipate

outreach to more school districts to promote implementation of the peer-led youth resiliency program by the end of the 2020-2021 school year. Technical assistance and training resources will be provided for the delivery of gatekeeper trainings such as Question, Persuade, and Refer (QPR) and Applied Suicide Intervention Skills Training (ASIST) to community-level organizations.

MCH will continue the Bullying and Suicide Prevention Package. For this package, the LHD will serve as a key partner in the implementation of school-wide bullying and suicide prevention programs in elementary, middle, and/or high schools in their service area. The LHD will assess selected schools and their social/emotional climate to determine what age-appropriate prevention program will be most effective and engaging for students. These efforts will include prevention outreach and education on the topic of bullying. This support will provide expansion of outreach services and community partnerships that already exist in selected schools.

MCH will continue the partnership with BHDID to address the increasing adolescent suicide rate to provide training and technical assistance to LHDs. The KDPH Senior Deputy Commissioner and MCH's HST/CSH Program Administrator work alongside state education stakeholders on the KY Board of Education's Health Subcommittee to address practice and policy recommendations to reduce health disparities in students and increase overall academic success for schools in the state of KY.

Child Safety Learning Collaborative

In February 2020, KY joined the Child Safety Learning Collaborative with a targeted effort to address child and adolescent suicide. This work has collaborative partners from the University of Kentucky, BHDID, LHDs, CFR, KIPRC, KDE, and MCH HST/CSH. The PDSA has begun with a deep dive review of suicide attempts as provided by KIPRC and understanding from local reviews, the community responses, and knowledge learned during review. Additionally, KY has embarked on the Zero Suicide initiative with a goal of incorporating the Zero Suicide Framework into the policies and processes of the significant behavioral health care provision systems in the state. Community mental health centers, emergency rooms, and private providers are part of the effort. MCH will continue ongoing evaluation of the pilot program initiated in Hopkinsville and initiate strategic best practice defined change as needed.

Child Home Safety KSPAN Committee

MCH is part of a working KSPAN committee addressing Child Home Safety. The group is focused on prevention for unintentional ingestion of pharmaceuticals/illicit drugs and firearm-related injuries. We have been working to gather multiple data sources from population-based datasets and other agency records – using aggregated data – to further understand the unintentional home injury burden and inform intervention and prevention planning. The Committee has begun development of an action plan for distribution of firearm locks and medication lock boxes, purchased with KVIPP funding, to families across the state. The incorporation of these will help to decrease risk factors regarding adverse childhood experiences, child maltreatment, and suicides, as we distribute educational messaging with these devices to help make the home safer for kids and those at-risk for intentional self-harm injury.

Tobacco Free Schools

Previously Tobacco Free Schools was addressed in the crosscutting section. Plans for the upcoming school year will include policy review and technical support for districts to comply with the new legislation for school year 2020-21. Beginning with next year's application this will be addressed in the adolescent section and work will be ongoing. The HST/CSH Program Administrator meets quarterly with partners to address effective strategies to promote the

benefits of tobacco free schools. In 2017, the KDE Commissioner disseminated a letter to all superintendents addressing their support for policies. This was the first year the KY School Boards Association signed the letter to further encourage superintendents to pass tobacco free school district policies. As of June 2018, there were 69 districts that passed a Tobacco Free School Policy, which covers 708 schools and 55% of KY's students.

Teen Driving

Along with activities related to teen driving, KY will also be working on *NPM #7: Rate of hospitalization for non-fatal injury per 100,000 children ages 0-9 and adolescents ages 10-19*.

Strategies continue to be evaluated and adjustments made to the implementation of the Checkpoints™ program.

KY offers encourages local Child Fatality Review teams to strategize prevention efforts related to teen driving. The objective is to make sure that every teen comes home safely through parent and teen knowledge of graduated drivers licensing and the risks of inexperience, speed, excessive passengers, no seat belt usage, rural roads, and all types of distraction and impairment.

Activities that can be completed as part of this strategy are to establish a Checkpoints™ educational platform utilizing Zoom to educate parents and teens on the risks new drivers face, requirements of Kentucky's Graduated Driver license law, and strategies to reduce the risk of injury and death.

Activities that can be completed as part of this strategy are to establish a Checkpoints™ website and to revise Checkpoints™ materials to be specific for KY.

Adolescent Health

MCH is working with the Division of Womens Health and the leadership of DPH to strategically align the work of the MCH Adolescent Health program with the Women's Health program. During the next fiscal year, there are plans for DPH to reorganize the Adolescent Health program to MCH. MCH will become the leader and will direct the adolescent health initiatives.

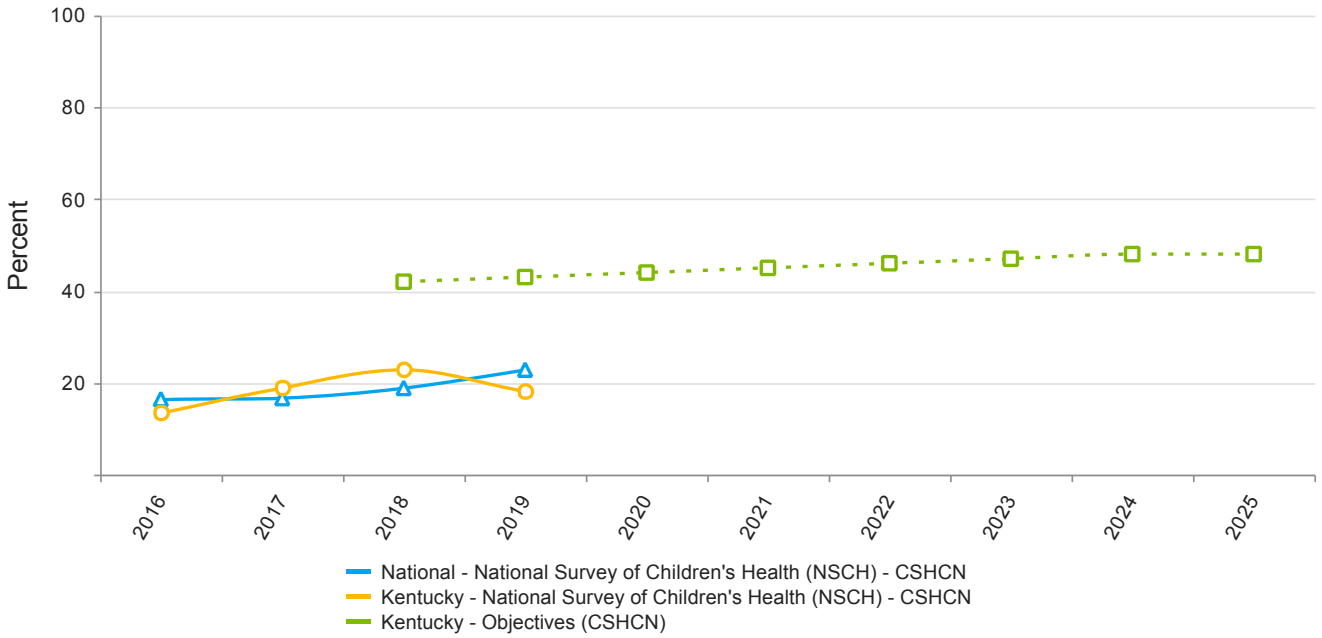
Children with Special Health Care Needs

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 17.2 - Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system	NSCH-2018_2019	18.7 %	NPM 12

National Performance Measures

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					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			42	43	44
Annual Indicator		13.6	19.0	22.8	18.0
Numerator		16,553	20,062	23,909	19,911
Denominator		122,086	105,479	104,686	110,904
Data Source		NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	45.0	46.0	47.0	48.0	48.0	48.0

Evidence-Based or –Informed Strategy Measures

ESM 12.1 - Employ Health Care Transitions (HCT) Process Measurement tool towards assessing progress on implementation of Six Core Elements of Health Care Transitions statewide

Measure Status:	Active

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective		85	86	87	95
Annual Indicator	84	94	94	100	100
Numerator	84	94	94	100	100
Denominator	100	100	100	100	100
Data Source	HCT Process Measurement Tool	HCT Process Measurement Tool	HCT Process Measurement Tool	HCT Process Measurement Tool	HCT Process Measurement Tool
Data Source Year	2016	2017	2018	2019	2020
Provisional or Final ?	Provisional	Provisional	Provisional	Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	96.0	97.0	98.0	99.0	100.0	100.0

State Performance Measures

SPM 3 - Percent of OCSHCN Access to Care Plan components completed

Measure Status:	Active

State Provided Data	2016	2017	2018	2019	2020
Annual Objective		90	100	100	100
Annual Indicator	81.3	90.7	94.7	94.7	98.7
Numerator	61	68	71	71	74
Denominator	75	75	75	75	75
Data Source	CCSHCN Access to Care Plan	CCSHCN Access to Care Plan	OCSHCN Access to Care Plan	OCSHCN Access to Care Paln	OCSHCN Access to Care Plan
Data Source Year	2019	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Provisional	Final	Provisional

Annual Objectives	2021	2022	2023	2024	2025	2026
Annual Objective	100.0	100.0	100.0	100.0	100.0	100.0

SPM 4 - Percent of OCSHCN Data Action Plan components completed

Measure Status:	Active

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective		60	75	90	100
Annual Indicator	53.3	65.6	75.6	86.7	83.3
Numerator	48	59	68	78	75
Denominator	90	90	90	90	90
Data Source	CCSHCN Data Action Plan	CCSHCN Data Action Plan	OCSHCN Data Action Plan	OCSHCN Data Action Plan	OCSHCN Data Action Plan
Data Source Year	2016	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Provisional	Final	Provisional

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	100.0	100.0	100.0	100.0	100.0	100.0

SPM 5 - Percent of children ages 0 through 17 who are adequately insured

Measure Status:	Active

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective		78	81	82	83
Annual Indicator	77.9	80.5	82	63.1	70.3
Numerator	1,401		185,968	140,000	174,020
Denominator	1,798		226,859	222,000	247,651
Data Source	NSCH	NSCH indicator 3.4	NSCH indicator 3.4	NSCH indicator 3.4	NSCH indicator 3.4
Data Source Year	2011-12	2016	2016	2017	2018
Provisional or Final ?	Final	Final	Provisional	Provisional	Provisional

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	84.0	85.0	86.0	87.0	87.0	87.0

State Action Plan Table

State Action Plan Table (Kentucky) - Children with Special Health Care Needs - Entry 1	
Priority Need	
Transition services for CYSHCN and transition education for all children	
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	
Expand the number of the total CYSHCN population that successfully transitions from a pediatric provider to an adult provider. Previous years measurements as according to the HCT tool only included the patients enrolled in services with the OCSHCN.	
Strategies	
• Survey pediatricians on their transitions awareness and processes to inform education efforts for pediatricians and CYSHCN	
• Identify challenges for transition using the HCT tool by community providers	
• Based on survey results, develop and provide education regarding successful transition process and use of HCT tool for evaluation of transition outcomes	
• Repeat survey evaluation	
ESMs	**Status**
ESM 12.1 - Employ Health Care Transitions (HCT) Process Measurement tool towards assessing progress on implementation of Six Core Elements of Health Care Transitions statewide	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 (Kentucky) - Children with Special Health Care Needs - Entry 2

Priority Need

Access to Care and Services for CSHCN

SPM

SPM 3 - Percent of OCSHCN Access to Care Plan components completed

Objectives

Increase access to care and services for Kentucky's CYSHCN population

Strategies

Initiate or continue access to medical and specialty care efforts as per OCSHCN Access to Care Plan

Ensure availability of provider networks as per the OCSHCN Access to Care Plan

Promote awareness and provide education to CYSHCN and their families on accessing support systems.

State Action Plan Table (Kentucky) - Children with Special Health Care Needs - Entry 3

Priority Need

Data Capacity for CSHCN

SPM

SPM 4 - Percent of OCSHCN Data Action Plan components completed

Objectives

Achieve implementation of OCSHCN Data Action Plan with measurable improvement annually based upon the prior years actions and evaluation.

Strategies

Complete annual review of action plans for progress

Develop action steps to address deficits to successful implementation

Solicit input from OCSHCN staff on what types data will assist them to educate CYSHCN and their families.

State Action Plan Table (Kentucky) - Children with Special Health Care Needs - Entry 4

Priority Need

Adequate Insurance for CSHCN

SPM

SPM 5 - Percent of children ages 0 through 17 who are adequately insured

Objectives

By 2025, achieve an annual increase in families of CYSHCN reporting that the youth has adequate insurance to cover needed services (CYSHCN Outcome #3) as measured by National Survey of Children's Health (supplemented internally with OCSHCN data to capture subset of OCSHCN affiliated CYSHCN families).

Strategies

Educate and improve awareness among CYSHCN and their families regarding obtain adequate insurance.

III.E.2.c. (5) CSHCN Annual Report

KY's Office for Children with Special Health Care Needs (OCSHCN) has leveraged technical assistance and partnerships to strengthen and better integrate the overall system of care for KY's CYSHCN population. OCSHCN staff continues to receive guidance from the University of Missouri Show-Me ECHO project for OCSHCN's ECHO autism program as well as from Boston University's CoIIN project to Advance the Care of Children with CMC Needs.

OCSHCN submits the following updates organized around the six MCHB core outcomes for children and youth with special health care needs:

MCHB Core Outcome #1: Families are partners in shared decision-making for child's optimal health

From the start of this five-year period, OCSHCN obtained data from the 2009/10 National Survey of Children's Health (NSCH) that showed that 73.6% of KY's families successfully achieved Core Outcome #1. The nationwide figure was 70.3%, giving KY a rank of 17th nationally. As discussed in the FY17 annual report, after a 6-year run, OCSHCN discontinued its "comment card" initiative. Since FY17, a revised clinic survey using survey software has been used. As reported in the prior 5-year block grant cycle, the comment cards found a 98% or higher rating on satisfaction and partnership. The new survey asks 35 questions, all except two of the questions correspond to questions on the MCH 3.0 NSCH survey. Those two questions ask about the level of satisfaction with the care received and doctor seen at the OCSHCN clinic. A randomly selected 20% of the clinic population receives the survey, with each person surveyed only once in a two-year period. With the 2018-2019 NSCH, the survey had shifted but KY was slightly above the national percentage for Indicator 4:14 (Did this child have a family who partnered in shared decision-making for the child's optimal health?) Kentucky, 20.5% compared to 20.1% nationally.

A challenge for OCSHCN had been to obtain meaningful stakeholder involvement at a policy level and we made significant process on this issue in FY20. OCSHCN Parent Advisory Council (PAC) and a Youth Advisory Council (YAC) are avenues for family participation and work has been done to strengthen both. The goal is for families to be involved in the policies that affect them. In FY20 OCSHCN discussed with the YAC better communication during COVID19 and talked to the PAC about using telehealth and what their experience was. Just about every parent had some experience and provided useful input, most of their experience was positive.

Support parents counsel families about available services and resources. As we looked at supporting and counseling families during COVID we looked at what mechanism was best for parents during OCSHCN's shutdown of clinical services. Asking if email, calling, or mailing was the best form, realizing that some have limited mail access. We held events for families during COVID about acquiring resources, using our information officer and our F2F representative to find out what additional assistance was needed, in the process we found that help with obtaining prescriptions was a frequent issue. Often when a family starts talking with a support parent, they realize they have had some of the same experiences. Once the families get more comfortable talking to the support parent, they often reveal other needs they have. To the extent possible, F2F matches families with a support parent within the state. In cases involving particularly rare conditions, an instate support parent may not be available. In those instances, OCSHCN/F2F staff contact other state parent to parent programs to find a suitable match. Those organizations include such organizations as the AAP Home Care Board, Family Voices, and KY Council for Persons with Developmental Disabilities along with the University of KY Human Development Institute. Title V investment in KY includes coordination of the F2F Health Information Centers program, a critical initiative addressing the needs of the CYSHCN population. OCSHCN social workers and F2F staff serve as certified application counselors for the

state's health benefits exchange. The application counselors are part of a network of individuals trained to provide information and assistance with enrollment issues.

F2F continues to work with the PAC, YAC, Children with Medical Complexity Collaborative Improvement and Innovation Network (CoIIN), and the EHDI Advisory Board.

Family to Family – Count of Families and Professionals Served

Outreach Type	Families	Professionals
One-to-One Assistance	969	633
Partnering in Decision Making	2505	5660
Accessing a Medical Home	566	1053
Transitions	817	851

In FY20 F2F has worked with 3706 families and worked with professionals over 4522 times on navigating systems and accessing community services. F2F has 30 categories it focuses on such as home care, respite care, social determinants of health, etc.

F2F conducted outreach involving CoIIN, resource fairs, back to school events, Community Collaboration for Children, and other events with community partners. F2F attended IEP's and 504 meetings with families. F2F conducts a support group in collaboration with schools called the Care Giver Support Group. F2F supports a support group tailored to the Hispanic population (Crianza Con Carino), a care givers support group, and the Family Wisdom Learning Collaborative. F2F has worked with more than 228 grandparents through the caregiver's support group, providing them the support they need to raise their grandchildren as an aging person.

Another area in which input was provided from families was with our Virtual Care Team Conferences. Due to the difficultly of reaching providers the VCTC was streamlined so conferences were held with only 1 or 2 people instead of the more typical of 4-5. Another problem that was realized in part due to VCTC was that many providers didn't realize the problems patients were having in acquiring medication and in getting referrals.

OCSHCN has a toll-free number, and a comment line that is available for families. Relevant calls are forwarded to F2F staff. OCSHCN/F2F staff also directly surveys families to assess family satisfaction with F2F services. F2F offers a lending library, with a wide array of materials that families can access. OCSHCN/F2F staff work in partnership with families to support their decisions making regarding health care and individualized treatments. The nursing care coordination and multi-professional team approach continues onsite, and support parents are present at the MDA Clinic at the University of Louisville (UofL) and at an autism clinic located in rural southeast KY.

Care coordinators also attended expanded Cerebral Palsy and Autism clinics, and care coordinators and dietitian has assisted at the offsite Spina Bifida partnership clinic. To assist with overcoming any barriers and assuring successful transition to adulthood, OCSHCN's transitions administrator follows up personally with patients who are soon to age out of the program.

MCHB Core Outcome #2: CSHCN who receive coordinated, ongoing, comprehensive care within a medical home

According the 2019 National Survey of Children's Health, the percent of CYSHCN age birth-17 who have a medical home in KY is the same as the national average of 42.4%. OCSHCN supports the concept of a medical home that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective. While there are few true certified medical homes available in KY, OCSHCN provides many resources and supports to existing providers in the community. This includes not only employing a team approach, care coordination, and parent support, but also advancing the concept with patients and providers alike whenever possible, and partnering to assure that medical home efforts link with other efforts.

Case management services are offered to families who have children with an OCSHCN eligible diagnosis. Enrollment in an OCSHCN's clinical program is not required to receive case management. Through case management, an OCSHCN registered nurse works with a family to create the care plan that is right for the child and family. The plan includes the recommendations of physicians and other professionals and respects the needs of the child and family. This service meets the family's comprehensive health needs through communication and available resources to promote high quality, cost effective services for the child or youth. Medical home training is a component of new support parent training. F2F assisted 969 families toward the medical home outcome and 633 professionals in FY20. Due to COVID, in FY20 nurse administrators and OCSHCN contracted physicians triaged patients in terms of last appointment, who was a new patient whose first visit due to COVID was via telehealth (which isn't consider optimal), and patients most in need. At the time when COVID started OCSHCN had just started to incorporate diagnosis of autism via telehealth due to one of OCSHCN's providers being recently certified to do so. The provider was able work with a fellow provider and allowed OCSHCN to perform more diagnosis via telehealth due to COVID.

MCHB Core Outcome #4: CSHCN who are screened early and continuously for special health care needs

OCSHCN specialty clinics serve CYSHCN, at different developmental stages, from birth to 21 years of age. OCSHCN's Early Hearing Detection and Intervention (EHDI) surveillance program reaches the entire population of KY newborns to ensure early hearing screenings and follow-up. OCSHCN has a developmental screening program that is available to any child in KY from birth to 5 years of age. OCSHCN and F2F staff assist CYSHCN and their families through KY's early intervention system, as well as referrals to other assistance programs, such as a home visitation program through KY Health Access Nurturing Development Services. KY's hospitals have maintained a rate of 97% of infants screened for hearing loss prior to hospital discharge. The EHDI program assists birthing hospitals in scheduling infants who do not pass the screening for follow-up prior to discharge. This approach has improved parent compliance and results in more timely diagnosis of hearing loss.

The availability of Auditory Brainstem Response (ABR) screening devices in OCSHCN offices increased in FY20 with one additional district office being furnished with ABR screening equipment and with some of the devices being mobile. During the pandemic, one of the units was moved from KY's second largest city of Lexington to Elizabethtown, KY to assist with meeting the population's acute pandemic related needs.

Infants are scheduled for diagnostic evaluations in OCSHCN offices when a need is indicated by the ABR equipment. This reduces the impact of false positive referrals from hospitals that do not provide outpatient rescreens. To further reduce loss-to-follow up, the University of KY (UK) has partnered with OCSHCN's EHDI and has been awarded a National Institute of Health (NIH) grant to research the use of patient navigators for families in which newborns did not pass their hospital hearing screen. Navigators assist families in the process of obtaining proper follow-up testing and enrolling in intervention services as needed.

In FY20, the Kentucky Child Hearing Immunization and Laboratory Data (KYCHILD), was integrated into the existing Kentucky Online Gateway (KOG) and audiology staff assisted with technical issues related to the transition. EHDI staff successfully applied for the renewal of grants from both HRSA and the CDC, both are for 4-year cycles. In

March, in response to the COVID-19 pandemic and its impact on newborn hearing screening, the community audiologists on the EHDI Advisory Board along with the EHDI Health Program Administrator, OCSHCN Medical Director, and OCSHCN Speech and Hearing Regional Coordinator, began meeting on a weekly basis. The community audiologists included the director of the newborn hearing screening program at U of L Hospital, Chief of Audiology at UK, Director of Audiology at Open Arm's Children's Health and the Audiology Department Director at the Hearing and Speech Center in Lexington, KY. These meetings were focused on ways to mitigate the impacts of COVID-19 on newborn hearing screens and loss to follow-up. The EHDI program was fortunate to add multiple new members to the EHDI Advisory Board in FY20. The new members included an individual with dual sensory loss who also serves within the Office of Special Education and Early Learning, the state coordinator for the KY Deaf/Blind Project at UK, and KY's AAP Chapters Champion Stephen Church, MD, FAAP. These new members all add to the diversity of discussion, provide unique perspectives on reaching both the deaf and hard of hearing population and their providers, and also supply data to the EHDI program.

Due to work done in FY20, OCSHCN will have 2 employees sitting on the KY Deaf/Blind Project (DBP) board in FY21. OCSHCN staff arranged for the DBP State Coordinator to present to the EHDI Advisory Board and OCSHCN Audiologists. The presentation was also recorded and made available to all OCSHCN staff. EHDI and audiology staff attended meetings within the KY Department of Public Health's New Board Screening's KY Birth Surveillance (KBS) meetings and served on the KBS advisory committee. In March of 2020, OCSHCN EHDI and audiology staff attended the national EHDI conference.

OCSHCN also collaborated with UK's College of Medicine on a Family Check-Up research study through their Communities Harnessing and eMpowering Parenting Strengths (CHAMPS) project for the deaf and hard of hearing. The project is focused on building better support for families with kids who are deaf and hard of hearing and use hearing devices to determine the effectiveness of increased positive parenting strategies on lowering levels of disruptive behavior, improving compliance with hearing aid/cochlear implant use, and improving language development outcomes among deaf and hard of hearing preschoolers. In FY20, Dr. Christina Studts who was the lead on the project moved from UK to the University of Colorado-Denver School of Medicines Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS), where the OCSHCN Speech and Hearing Administrator has continued to work with Dr. Studts.

To address concerns that infants and toddlers diagnosed with minimal or unilateral hearing loss do not qualify for First Steps services, based on established risk criteria, EHDI collaborates with The Home of the Innocents to provide intervention services for those children. The needed services are provided through tele-health technology with an experienced teacher of the deaf and hard of hearing. The EHDI program expanded the Early Childhood Hearing Outreach (ECHO) in KY that distributed Otoacoustic Emissions (OAE) equipment to Part C (First Steps) point of entry staff and provides training in service delivery and EHDI reporting procedures. OCSHCN district offices receive direct referrals from First Steps for any child at risk of hearing loss who cannot be screened or who fails the screening provided by First Steps. In FY20, 1,403 children were seen at OCSHCN offices for hearing evaluations and follow up. OCSHCN staff in district offices have been tasked with providing staff training and, when warranted, hearing screening services at Head Start and Early Head Start programs throughout the state. To ensure proper follow up occurs; the audiology program policy at OCSHCN has been amended to allow any child "failing" a hearing screening provided at any facility (health department, physician office, school, pre-school, etc.) to be scheduled for diagnostic testing at OCSHCN district office at no out of pocket cost to the family. A total of 587 children were referred to this audiology program in FY20. OCSHCN partnered with Hands & Voices to host a retreat for families with children ages birth to 3 that have recently been diagnosed with hearing loss. An OCSHCN staff audiologist serves on the Board of Directors of the KY Chapter of Hands and Voices. In partnership with Hands and Voices, OCSHCN's EHDI program has continued to sponsor the Guide by Your Side (GBYS) program, using specially trained parents of children who are deaf or hard of hearing to work as guides for parents just learning of their child's hearing loss or who have older children and are in need of the unique support provided by parent guides. For most of

FY20, through a MOA with the KY Commission on the Deaf and Hard of Hearing (KCDHH), OCSHCN recruited "Communication Role Models", who were matched with a family of a newly identified infant. The goal was to assist families in exploring different communication options and to obtain information enabling them to select the best method. A video was created in which each family described their journey through hearing loss and discussed their experiences with their chosen communication method(s). This collaboration ended in March of 2020. KCDHH has collaborated with OCSHCN to implement sessions of sign language classes across the state. In order to increase opportunities for children and families to engage in culturally sensitive recreational activities, the EHDI program collaborated with the University of Louisville's (UofL) School of Audiology's summer camp program. The camp serves deaf and hard of hearing children and their siblings.

OCSHCN continues to provide Autism Spectrum Disorder clinics, which it initiated in 2014. The clinics are open in areas of the state where services were not readily available in order to fill gaps in services. In 2018, nurses received training on administering the ASQ-3, and ASQ-SE and in FY18 screenings were conducted in two of OCSHCN regional clinics. In FY20 two of OCSHCN offices in Morehead and Somerset had autism diagnostic clinics while 3 other clinics in Bowling Green, Paducah, and Owensboro have medical Autism clinics. As mentioned in Core Outcome 2 OCSHCN used a new autism screening method by using a provider who was certified to diagnoses autism via telehealth, which was very useful during the pandemic.

During the reporting period, OCSHCN continued to serve as a Part C Early Intervention Point of Entry for the 7-county area including Louisville, the state's largest city. The point of entry is the largest in the state in terms of population served. The intended goal is to reach and serve more children with developmental disabilities, including CYSHCN who have previously been unaffiliated with the agency. The partnership ensures improved coordination of services, and children needing continued services as they transition out of Early Intervention Services may be directed to care. Approximately 213 referrals per month were made to the point of entry with approximately 3,768 children being served in the fiscal year. The COVID-19 global pandemic negatively impacted First Steps services. First Steps continued to take referrals throughout the pandemic but there was a period when interventions/services were not occurring due to the pandemic. First Steps worked to meet family's need's during this time by initiating tele-intervention services. First Steps currently is offering face to face services and has maintained a tele-intervention option as well.

The 2017 KY Health Issues Poll found that 91% of KY adults found that childhood obesity was a problem, with 56% identified it as a serious problem. Towards the goal of reducing obesity in the CYSHCN population, OCSHCN's formal Healthy Weight Plan (developed and initiated during the prior needs assessment cycle and incorporated into agency practice and operations) addresses prevention, identification/assessment, and intervention/treatment among the CYSHCN population – a group who often find it more difficult to control weight and remain healthy. Many barriers exist; lack of time during clinic appointments, family lack of readiness to make changes, or families not accepting that overweight/obesity is a legitimate concern; families who are more concerned with their children's special health care need(s) than they are about the risks of overweight or obesity. OCSHCN makes gentle efforts to overcome these barriers and works with others to advance solutions to community concerns beyond the scope of the agency. OCSHCN shares the 5-2-1-0 message with families and promotes healthy eating and physical activity in the community. During the reporting period, OCSHCN staff continued participation in the 5-2-1-0 initiative for OCSHCN direct service enrollees and families. During the reporting period that involved COVID, OCSHCN staff provided families information on dealing with food insecurity, access to healthy food, budget friendly recipes, and ways to stay active at home. OCSHCN participates in the Early Care and Education Healthy Eating and Physical Activity Committee of the Partnership for a Fit KY. The purpose of this committee is to improve access to healthy foods and beverage, screen time limits, physical activity and breastfeeding in early care and education settings. OCSHCN's participation in the programs continued in FY20 with monthly virtual meetings and periodic webinars. An OCSHCN nutritionist was there to represent OCSHCN and CYSHCN.

OCSHCN's leadership and early intervention system point of entry staff joined the Healthy Babies Louisville partnership in 2017, a collective of 25 organizations working to ensure that all babies born in Louisville Metro see their first birthday and beyond. Each organization implements practices and/or policies that impact women, men,

children, and families across all stages of childbearing years. These evidence-based initiatives focus on making change at the individual, community, and policy levels with special attention on serving our neighbors with the greatest risk in underserved areas. In FY20, OCSHCN's practices included:

- Pre-screened for Medicaid/KCHIP eligibility and assisting with application as necessary; assisting Cystic Fibrosis patients and their families to access coverage through PSI, along with insurance case management and premium assistance.
- Helped families understand the provider lists given to them by their insurance/Medicaid provider.
- Distributed folic acid supplements to women of child-bearing age.
- Ensured that eligible parents can access care for their infant's special needs through OCSHCN clinics, case management, and/or care coordination.
- Provided support and services to children aged birth to 3 years who have a developmental delay, or a medical condition that is known to cause a developmental delay, through First Steps early intervention services.
- Educated parents of newborns with/or at risk for hearing loss about 1-3-6: screening by one month, diagnosis by three months, early intervention by 6 months.

MCHB Core Outcome #5: CSHCN who can easily access community-based services

A range of activities continue under SPM #3, in accordance with the access to care and services priority. A wide variety of initiatives are underway, especially with regard to reaching those CYSHCN not enrolled in clinical services. For FY20 there were only two goals that scored 2 out of 3 on the 3-point scale with all 23 other goals having been accomplished. The expansion of telehealth and autism services mentioned earlier in the section moved 2 of the goals from 2 to 3.

Access to Care Plan Scorecard

Fiscal Year	Points/75	Goal	Result
2016	61	-	81.3%
2017	68	90%	90.7%
2018	71	100%	94.6%
2019	71	100%	94.6%
2020	73	100%	98.6%

Elements that were fully implemented,

2. Enhance clinics for Autism Spectrum Disorder (ASD), by increasing enrollment and offering additional services

3. Decrease wait time by improving OCSHCN clinic flow

6. Ensure insurance coverage as per strategies identified in SPM #5, such as serving as navigators and administering premium assistance programs

7. Education of pediatric residents regarding CYSHCN and maternal and child health in Kentucky

8. Funding of University of Louisville pediatric neurology resident

9. Increase university partnerships with providers to serve disciplines outside OCSHCN medical eligibility through hybrid clinic model

10. Continue provision of hearing screening training to First Steps early intervention points of entry

11. Continue to provide gap-filling and direct care services

12. Continued OCSHCN participation in health information exchange

13. In-service training to provide quality ASD services

14. Studying feasibility of increasing regional ASD assessment centers within OCSHCN offices

15. Partnering with DCBS to offer Foster Care Support programs to assure services for medically fragile youth in foster care as well as population in or at risk of placement outside the home

16. Developing and implementing a transitions component to the Hemophilia & Sickle Cell programs, in addition to other transitions efforts in conjunction with NPM #12

18. Replicating the Una Mano Amiga program (non-English speaking support group) outside of the Louisville area

19. Continuing efforts toward reducing “loss to follow-up” by referring those at risk to qualified audiology assessment centers

20. Continuing EHDI partnership initiative with Early Start and Head Start

21. Administering F2F program to assist with navigation of services

22. Care coordination and enabling services such as social work, therapies, etc.

23. Use of social media to alert families of CYSHCN to services, events, resources, etc.

24. Implementation of mini-grant program to fund projects which develop comprehensive systems of care and support among health care and other child services

25. Provide ASD screening services for families and providers to increase availability of services statewide

OCSHCN targeted outreach to educate communities and providers about services provided through OCSHCN and set out to determine why in-person appointments were missed more than the telehealth appointments that expanded at the start of COVID.

A directory of OCSHCN services and providers is made available on the agency’s website and will be updated in FY21. This document details partnerships in addition to available gap-filling direct care services, and details which services are available in which geographic areas. Care coordination continued in and outside of specialty medical clinics. Registered nurses partner with the family to develop a care plan incorporating an assessment of patient and family needs, therapist evaluations, and physician recommendation. Nurses often work with the school system and help with special accommodations at home. OCSHCN continues to provide F2F and social work system navigation and resource brokering assistance. Through the initiation of OCSHCN-sponsored autism clinics and collaborative screenings, the waitlist for diagnostic and treatment has been shortened. As indicated on an individual basis, telemedicine follow-up may occur for these families (as with those enrolled in OCSHCN neurology clinics) - an evidence-informed strategy improving access to care where there is a significant proximity to provider problem. OCSHCN uses a process – the standard practice is to coordinate among multiple disciplines, agreeing on a plan of care for and with each family. Ensuring communication among multiple providers is considered a vital part of the patient care experience, as are cutting down on wait time, improving clinic efficiency and remaining respectful of a family’s time. OCSHCN staff presented a workshop at the Spring 2016 AMCHP conference, entitled “Enhancing ASD Treatment Through Collaborative Partnerships: Co-Locating Medical Care with Behavioral Health.” This experiential presentation described innovative evidence-based practices such as visual storyboard scheduling, shared family experience, clinic flow outcomes, and provided a tool kit for other states. The presentation was

repeated at the KY System of Care Academy – sponsored by the Department of Behavioral Health and Developmental and Intellectual Disabilities – in June 2017. In June of 2018, OCSHCN was an exhibitor at the System of Care Academy. OCSHCN presented an overview of services and our population-based approach to care at the Fall 2017 KY Rural Health Association Annual Conference and the KY Primary care annual conference. Clinics have been redesigned as well; for example, the Louisville Cerebral Palsy clinic has become more comprehensive – children can be seen annually by the neurologist, physical medicine and rehabilitation specialist, orthopedic surgeon and pulmonologist thereby addressing all the child's needs in one visit. Children also see a nurse care coordinator, social worker, dietitian, F2F support parent and therapists as needed. Representatives for orthotics are present should new braces or wheelchair adjustments be needed. The patients leave clinic with a care plan developed by the entire team and a care coordinator available to help navigate the health care system. In addition to those specialty clinics mentioned above, OCSHCN continues to provide services for qualifying conditions such as cleft lip and palate, craniofacial anomalies, cystic fibrosis, ophthalmology, cardiology, hemophilia, neurology, orthopedics, otology, and therapy and audiology services.

Better technology in the form of automatic opt-in text message reminders for clinic and non-clinic appointments was utilized from November 2016 through August 2019. In FY21 OCSHCN is working on contracting with a new provider to send text and email appointment reminder to families.

Following intentional changes designed to improve clinic flow (and the implementation of teleneurology), wait time complaints have been cut by over half since the beginning of the comment card system in 2010. OCSHCN uses contract help for audiology in busier offices to keep up with tests for patients without having them arrive so much earlier than the physicians. When pre-check indicates a heavier than usual clinic volume, contract Speech-Language Pathologists are used as well, especially for craniofacial anomalies clinic.

While OCSHCN continues to provide traditional gap-filling direct services – where waitlists exist, where services are not otherwise available, or a need for multi-disciplinary clinics exists, the agency uses its infrastructure to advance access to care in partnership with existing providers when possible. For example, the urology clinics are provided through the University of KY (UK) in two regions (Morehead and Elizabethtown), NICU graduate clinics through UK are planned in three (Hazard, Morehead, Somerset), and a University of Louisville (UofL). OCSHCN sponsored assessment for developmental disabilities in clinics located in Bowling Green, Morehead, Somerset, Lexington, Owensboro, and Paducah, with the potential to serve 90-100 patients per year). A genetics clinic through UofL operates in Paducah, Bowling Green, and Owensboro, and a similar genetics initiative has been the subject of discussion with the UK as well though progress was stopped at the start of the pandemic. In some clinics, only OCSHCN facilities are used; in others, OCSHCN may enhance care through staffing care coordinators, social workers, or support parents. The "hybrid clinic" model of collaborating with community and state partners not only augments care, but also limits duplication and fragmentation of services.

OCSHCN partially funds a social worker working with the University of Louisville Sickle Cell program in the area of transitions. Data from the program was presented as a poster at the 2018 AMCHP conference and may be found online as poster presentation PA7 at 'eventscribe.com/2018/AMCHP/' OCSHCN funds the state's Hemophilia pediatric programs which occur at the UofL and the UK. Both programs incorporate the Medical and Scientific Advisory Council (MASAC) transition guidelines into clinic visits and documentation at the patient's yearly check-up. All providers and team members cover appropriate transition issues per the life stages. The exact MASAC guidelines were inserted into UK's electronic medical record and is used as a checklist for the comprehensive clinic visits.

OCSHCN participates in the Kentucky Health Information Exchange (KHIE). KHIE is a means to share patients' medical information electronically between all healthcare providers participating in the exchange. The exchange reduces duplicate services, improves quality of patient care, and makes the information more readily available versus faxing, mailing, or using the telephone. Patients are able to opt-out of sending their data to the exchange if

they chose.

The Special Needs Access Project (SNAP) reimburses up to $15,000.00 for novel projects that demonstrate an innovative process for the delivery of health care or related services and result in health and health services improvements for children and youth with special health care needs (CYSHCN) that reside in Kentucky. This project was implemented in 2015 and continues today. OCSHCN has received eight (8) proposals. Four of the eight were accepted and would more be in FY21. OCSHCN has funded an ABA therapist, and nurse, in the past and in FY20 provided a developmental specialist for two therapeutic riding programs – one in Paducah (Western KY) and the other in Lexington (Central KY). Both programs are for medically complex children and youth. OCSHCN provides funding for the KIDS Center for nutritional services and a monthly feeding clinic, and ORCHID House a therapeutic day center for kids, where OCSHCN covers a portion of an RN care coordinator's salary. OCSHCN also support Easter Seals Lexington therapeutic horse-riding program. Two of the programs were placed on hold secondary to the pandemic.

Another underserved population, those with Limited English Proficiency, is served through the Una Mano Amiga (UMA) Spanish-speaking support groups (1340 individuals attended during FY20, including 582 adults and 758 children. Due to COVID La Casita started virtual meetings in March of FY20. UMA's connection to the Latino community in Louisville is extensive, and meeting topics are geared toward expressed need. Identified needs include topics in the areas of advocacy (e.g. initiating meaningful summer programs), emotional support (e.g. crisis intervention, dealing with stress and exhaustion), outreach (e.g. educating teachers and interpreters, as well as reaching other Latino families), and education (e.g. documentation such as what educational records to keep). Hospitality services beyond support groups are offered to CYSHCN families by La Casita. Due to the pandemic, support meetings were held virtually.

Another program, Un Abrazo Amigo (UAA) began serving CYSHCN families for Spanish speakers in the Lexington area in January 2017. Planning initiated with Janeth Ceballos Osorio, MD, who is with the UK General Pediatrics in August 2018. The first support group meeting under Dr. Ceballos's guidance was in October 2018. Sessions continue each month and are currently held virtually.

Louisville Urban League deploys community health navigators who conduct in-home assessments and identify residents' top areas of need and connect them with resources (such as OCSHCN). Assistance and follow up occurs as part of the "It Starts with Me!" program (lul.org.health.iswm). Initiated in 2016, the program goes door-to-door and is completely free. The concept of "It Starts with Me!" is that there are many services, initiatives, and organizations doing good work, but they may not be reaching many of the residents who need them. The program aims to be the missing connector, and volunteers are equipped with information regarding OCSHCN services. OCSHCN worked with the Urban League and suggested a set of questions to add to their assessment regarding CYSHCN with the hope to identify issues that would benefit from a referral to a CYSHCN service provider.

As a strategy for improving access, OCSHCN provides education to both providers and the public on issue related to CYSHCN. Building on prior outreach and publicity efforts, (pediatric grand rounds presentations, presentations at state conferences, social media efforts, health fairs, "birthday bags" in state NICUs as needed), ongoing education has been provided to upper-level pediatric residents in Louisville.

In FY20 OCSHCN began having providers address staff to inform them of the most up-to-date information for different topics of interest. This started with a visit from Boston University staff that OCSHCN work with through the CollN Grant. That experience led to the expansion of the addresses to all staff by providers, nutritionist, and other experts.

OCSHCN's Facebook page has 2073 "likes" and 2014 "followers". The agency posts 3-5 days per week. The posts cover topics that include health related awareness months, child and youth safety, health tips, and events for CYSHCN and/or their family. As a response to COVID videos were posted such as "Let's Be Health" campaign

videos by our medical director. The goal of the Let's Be Healthy videos was to take food commonly used in free meal program and turn them into easy, healthy snacks, and meals for both parents and children. The videos were created with the idea in mind that parental nutrition is important to the child. These videos are shared on OCSHCN Facebook page. F2F reaches many additional families through handouts, listserv postings, trainings, and the F2F Facebook page.

MCHB Core Outcome #6: CSHCN youth receive services needed for transition to adulthood

KY's score on the prior transitions NPM based on services provided in the areas of health care transition, as well as preparation for independence, education, and skills needed for a career has reached 100% in FY20, for OCSHCN patients. OCSHCN believes that the Got Transition Health Care Transition "Process Measurement Tool for Transitioning Youth to Adult Health Care Providers", has provided an appropriate scoring method to assess progress in implementing the Six Core Elements. In FY21 an update to the scoring model will be undertaken due to both reaching 100% and the 2020 needs assessment. In 2020 needs assessment OCSHCN chose to expand its transitions services to a population-based model for all children in the state.

The 2018-2019 the NSCH survey of YSHCN 12-17 successfully achieving the transitions outcome scored KY at 18.0% as compared to 22.9% nationally. The following scores were the results calculated for FY20 from OCSHCN's clinic survey. The results are the percent of Yes to No and do not include blank or 'Don't Know' responses.

Survey Questions	Percent Responding Yes
Has your child's doctor or other health care provider (e.g. nurses or social workers) actively worked with your child to: Think about a plan for the future? (for example, discussing future plans about education, work, relationships, and development of independent living skills)?	91%
Has your child's doctor or other health care provider (e.g. nurses or social workers) actively worked with your child to: Make positive choices about your child's health? (for example, by eating healthy, getting regular exercise, not using tobacco, alcohol, or other drugs or delaying sexual activity)?	94%
Has your doctor or other health care provider (e.g. nurses or social workers) actively worked with you to: Gain skills to manage your health and health care? (for example, by understanding current health needs, knowing what to do in a medical emergency, or taking medications you might need)?	97%
Has your doctor or other health care provider (e.g. nurses or social workers) actively worked with you to: Understand the changes in health care that happen at 18? (for example, by understanding changes in privacy, consent, access to information, or decision-making)?	75%

It is important to note that the scores above are for the children and youth that have been seen in OCSHCN clinics when they are aging out. Most have been enrolled at OCSHCN for several years and have answered transitions questions (including about finding an adult healthcare provider) for several years leading up to their aging out.

OCSHCN/F2F staff continued with their established activities, which included face to face planning discussions (for the part of year prior to COVID) with OCSHCN families and administering the Transition Readiness Assessment Checklist. The checklist documents what developmentally appropriate skills have been achieved, are in progress, or are a part of future expectations. OCSHCN conducts random statewide chart audits to verify that transitions services are discussed with CYSHCN and their families.

OCSHCN/F2F transfer of care planning activities began as a pilot project through the D-70 State Implementation Grant. Since then transfer of care planning has become an established part of OCSHCN statewide processes. In each of OCSHCN's 11 regions, OCSHCN has identified adult health care providers who are willing to take CYSHCN into their practice. To assist with the transfer, OCSHCN conducts preparation assurance activities, which include providing a portable medical summary. The OCSHCN Transition Administrator conducts regular follow-up calls to aged-out youth. Of the 33 patients/families reached in FY20, 32 responded they had an adult health care provider for a successful transitions rate of 97%.

OCSHCN and F2F staff provided information via face-to-face discussions, fact sheets, and guides to youth transitioning to an adult provider and those ageing out of OCSHCN programs. Some of the topics included were:

- Existing Transition Services
- Guardianships
- Transitioning from High School to College
- Medical Homes
- Medicaid
- Social Security Income
- Supported Employment Options
- Vocational Rehabilitation

In FY20, OCSHCN and F2F staff attended meeting and reached individuals in person before COVID and virtually after. Before COVID physical locations included middle schools and high schools, OCSHCN clinics, conferences, provider offices, and a variety of relevant special events. School events and some others were continued virtually after COVID. Have developed more relationship with school special ed directors developed in part due to IEP meetings. In addition to the individual and clinical level, OCSHCN also remains involved in the KY Interagency Transition Council for Persons with Disabilities.

OCSHCN staff participated in Kentucky's Regional Interagency Transition Teams (RITT) meetings and RITT personnel are in contact with the nurse administrator at the nearest OCSHCN regional office. The transitions coordinator for OCSHCN regularly attends the Jefferson County RITT, which is the largest in the state while the family-to-family director attends the Green River Regional Educational Cooperative (GREC) RITT.

III.E.2.c CSHCN Application Year

As the 97-year-old agency's evolution continues, OCSHCN looks forward to continuing to collaborate with peer agencies in a way that will enhance population-based care for KY's children and youth with special health care needs, particularly in the area of access. OCSHCN continues to leverage technical assistance resources to strengthen and better integrate the overall system of care for KY CYSHCN.

While OCSHCN will strive to enhance the support provided to the KY's CYSHCN population, the realities of COVID-19 continue to reshape our efforts in ways both known and unknown. OCSHCN had just begun to ease its COVID-19 restriction when the delta variant of the virus came to the fore. As we continue through the pandemic, OCSHCN is committed to finding ways to adapt and enhance the care provided. OCSHCN has been conducting surveys on how well our population receives our telehealth services and the results have been robust and largely positive.

In conjunction with the strategies listed on the preliminary action plan table, OCSHCN submits the following updates:

MCHB Core Outcome #1: Families are partners in shared decision-making for child's optimal health

As part of last year's 5-year needs assessment, stakeholders' ideas were collected to inform decision making. In the coming year, OCSHCN will be expanding its shared decision-making by working with non-OCSHCN pediatric providers and patients.

OCSHCN will continue to collaborate with several agencies to work heavily with the Hispanic population and will continue to offer training to parents to support/mentor other Hispanic families by becoming Support Parents.

OCSHCN will continue asking for input from the Parent Advisory Council (PAC) and the Youth Advisory Council (YAC), which each meet separately on a quarterly basis. In FY20 all meetings with the PAC and YAC were held via Zoom Video Communications which has assisted with overcoming the obstacle of travel for the members. Zoom is also used to work with the complex care medical teams. In FY20 OCSHCN made advancements on the diversity of the YAC in PAC and we will continue to do so in the coming year. One of the diversifications was to have a parent of a child with hearing issues on the PAC and to have a person with down syndrome on the YAC. OCSHCN plans to continue to monitor and pursue opportunities for diversification of input in the coming year. Outreach to parents and youth to serve on the YAC or PAC will continue.

Families are the head of the team and determine what early interventions their child will receive through OCSHCN's First Steps Point of Entry for the KIPDA region after hearing recommendations from services coordinators and providers.

As OCSHCN personnel, providers, and families have become more familiar with tele-technology due to COVID-19 OCSHCN has more easily handled the increased reliance on video communication. In the coming year OCSHCN staff will continue to survey patients on our tele-technology and adapt to serve patients and families well even after the pandemic.

OCSHCN's transitions administrator will continue to follow up with families of aged-out CYSHCN to assist with overcoming barriers, conducting quality assurance regarding transitions efforts, and gauging how much families understand. OCSHCN has expanded the criteria for calling the aged-out patients so that we call patients who have not been seen in an OCSHCN clinic in the last two years. OCSHCN goal since the 2020 needs assessment has expanded to the wider population as opposed to just those enrolled in OCSHCN by providing instruction and education to adolescents irrespective of having a special health care need. OCSHCN will also be incorporating non-clinical audiology patients into its transition services as a way to reach even more of the CYSHCN population.

MCHB Core Outcome #2: CSHCN who receive coordinated, ongoing, comprehensive care within a medical home

OCSHCN staff will continue to advocate for the concept of a medical home and provide support to existing providers in communities. OCSHCN is participating in the CoIIN Grant on Children with Medical Complexity and although the program will end in the coming year OCSHCN is looking to apply for a 5th year to look at other program improvements. One of the goals of the CoIIN grant is to increase the number of families reporting having a medical home. In its own direct services, the use of nursing care plans supports the measurement of individual outcomes and interventions through care coordination. OCSHCN has received positive feedback from the CoIIN team and has the second highest patient population count among all the states working in the grant. In addition, the University of Kentucky's infant complex care team will continue to collaborate with OCSHCN as part of the CoIIN grant will continue to enable OCSHCN to reach even more of the CYSHCN population. The expansion of transitions services from only focusing on OCSHCN clinic patient to all adolescents in the state, with or without special health care needs, will assist all adolescents in the state to receive appropriate care into adulthood.

MCHB Core Outcome #3: CSHCN have consistent and adequate public or private insurance

OCSHCN remains committed to enrolling families in one-on-one education or application assistance. OCSHCN front-line staff and support parents will continue participation with Kentucky's Health Benefits Exchange (Kynect), Healthcare.gov, and other trusted resources. Kentucky re-launched its Kynect portal for Kentuckians to access health plans and has expanded to include benefits and resources. OCSHCN "kynectors" will receive continued education on the Kynect portal and the available health coverage, benefits, and resources and will continue to provide assistance to patient and families in navigating the system.

MCHB Core Outcome #4: CSHCN who are screened early and continuously for special health care needs

OCSHCN has been working to improve services to youth with autism and staff continue to meet with and develop plans in accordance with the University of Missouri's ECHO Autisms Collaboration project. OCSHCN is developing an ECHO Autism program with a wealth of Pediatric Autism Specialist to offer education, resources and referral information to pediatricians throughout the state of Kentucky. This will provide improved access to services in the care of children with Autism. In the coming year the new service in FY20 of doing remote autism assessment will continue to expand and ECHO autism provider meetings will begin.

OCSHCN's dietitians and other clinical staff will continue to administer the agency's Healthy Weight Plan, focusing on how to collect healthy weight data with an ever-changing population, possibly initiating chart reviews of individual longer-term patients to determine whether the agency's processes positively or negatively affect outcomes in any way, and will continue to collaborate with the Partnership for a Fit Kentucky and coalitions locally and statewide

OCSHCN audiology is committed to supporting and promoting periodic hearing screenings throughout childhood. The EHDI program will continue to use and develop as needed it's "Risk Factor Fact Sheet" which is disseminated to physicians when an infant on their caseload is identified as having a risk factor for late onset or progressive hearing loss. The fact sheet includes pertinent information regarding appropriate follow up protocols that should be initiated. As part of OCSHCN audiology services loaner audiometers are made available to school systems for use in their hearing conservation programs. Our outreach to Head Start and Early Head Start Programs, previously limited to service delivery and staff training has been supplemented by making loaner Otoacoustic Emissions (OAE) test equipment available to agencies whose own equipment is malfunctioning. By policy OCSHCN makes diagnostic audiologic follow up (in the event of a "failed" hearing screening) available at no cost to the family through any one of OCSHCN regional offices.

MCHB Core Outcome #5: CSHCN who can easily access community-based services

As described in the Detail Sheet (Form 10-B) for SPM #3, OCSHCN will work on its new Access to Care Plan (see attached documents) over the next year. The Access to Care Plan has been revised this year based on the 5-year needs assessment. OCSHCN is working towards more integrated and coordinated care, and increased access, considering well-planned telemedicine expansion informed in part by the recent expansion of telehealth due to COVID-19, replication of the Spanish-speaking support group programs outside of the Louisville pilot area and subsequent Lexington program, and administration of the F2F, care coordination, and social work programs to assist with navigation of services. The hybrid clinic model put into place and modified due to the pandemic will continue to develop.

In the coming year, OCSHCN will have a new initiative called the telehealth lending library in which the equipment needed for telehealth will be loaned to families. With the delivery will be instructional videos on telehealth and some items they can keep.

Continuous education of both OCSHCN contracted and some non-contracted medical providers occurs through the OCSHCN Medical Director, implementation of the ECHO Autism project, and expansion of our video library postings.

OCSHCN is working with the state's two Hemophilia Treatment Centers to provide more flexibility and support for operations. To further the goal of collecting better data, OCSHCN will explore how to refine the non-clinical data tool to more effectively measure the numbers of non-OCSHCN enrolled CYSHCN who may receive enabling or public health services through partnerships.

OCSHCN's Executive Director chairs Kentucky's State Interagency Council for Services and Supports to Children and Transition Aged Youth that focuses on improving the systems of care for those with behavioral health needs.

MCHB Core Outcome #6: CSHCN youth receive services needed for transition to adulthood

Transitions continues to be a priority need. OCSHCN intends to ensure conformity with Got Transition and AAP guidelines/best practices as described in the State Action Plan Table. OCSHCN will begin with surveying

pediatricians on their transition's awareness and processes. Results will inform OCSHCN's education efforts.

F2F will continue to work with the Midwest Genetics Collaborative on updating videos and other materials on understanding Genetic Telehealth Medicine done in previous years. OCSHCN will continue working with families and professionals to understand the importance of transition for children with special needs.

OCSHCN works with Regional Interagency Transition Teams ("RITTs") that are based off the 9 Special Ed Co-op districts across the state, (that were designed to help agencies collaborate better at the regional level to support youth). F2F and OCSHCN staff will continue to participate in the Regional Interagency Transition Teams to collaborate with schools with planning for transition activities, such as local transition fairs.

OCSHCN staff will continue to utilize the transition checklist to work with patients and their families on transition issues to assist patients to plan for transitioning to adulthood. As appropriate staff communicate/collaborate with community service providers (Vocational Rehabilitation, the Department of Community Based Services, Behavioral Health, and others) in order to connect patients/families with services/resources to assist them with transitioning to adulthood to the optimum ability of the patient. As appropriate OCSHCN staff attend community resource fairs to give information to families.

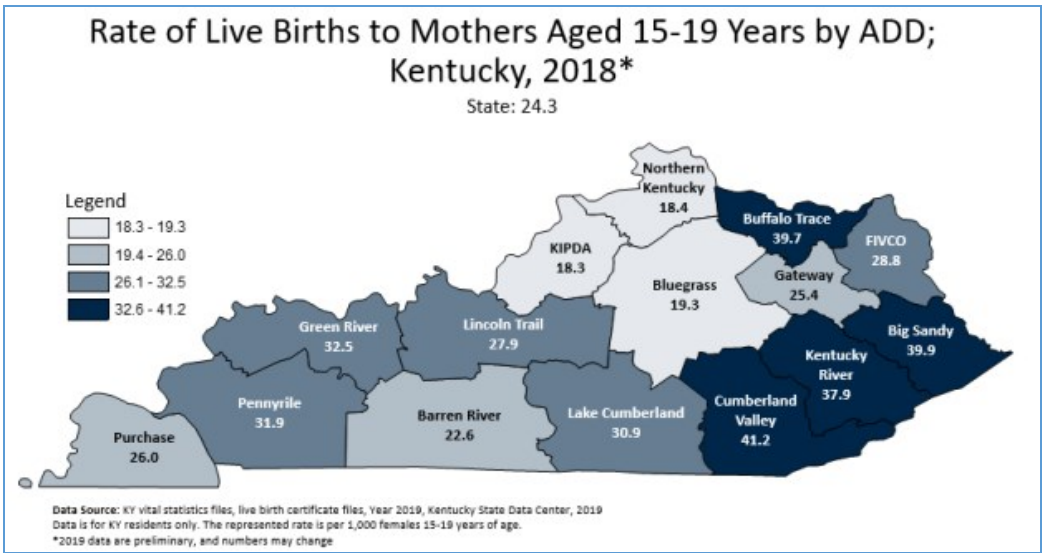
OCSHCN partially funds a social work position at the UofL Sickle Cell and Hemophilia pediatric program to ensure their successful transition to adult providers.

The Transition Administrator will continue to complete transition checklist audits twice a year to verify that OCSHCN staff are continuing to provide transitions services. In the coming year the physician's referral list that OCSHCN uses will receive a thorough review and update to facilitate staff helping a wider population of adolescents in transitioning to adult health care providers.

Primary and Preventive Services/Family Planning

Primary and preventive clinical services safeguard the health and wellness of all children and adolescents. LHDs have multiple programs targeting adolescents across KY. Adolescents are less likely to visit LHDs for annual preventive care, because more have established pediatric medical homes and insurance coverage and the growth of retail-based clinics providing sports and camp physicals.

Immunizations are among the primary and preventive services accessed by youth at LHDs. The KY Immunization Program distributes vaccines to LHDs, and private providers enrolled in the federal Vaccines for Children Program. Family planning is another health service accessed by adolescents at LHDs. Services to adolescents for contraception, pregnancy, or childbirth can be accessed without parental consent per KRS 214.185. These visits may include diagnosis and treatment of sexually transmitted diseases or other conditions.



MCH collaborates with the Division of Women's Health and their adolescent health programs such as Teen Pregnancy Prevention, the University of Kentucky Young Parents' Program, and the Family Planning Program. The Adolescent Health Program receives federal funding to prevent teen pregnancy and promote positive youth development through the Abstinence Education Grant Program (AEGP) and the Personal Responsibility Education Program (PREP) Grant.

The AEGP funds 34 sub-awardees who provide age-appropriate abstinence education to students in grades 5-8 in accordance with the KDE program of studies for sexual health education. Approximately 24,000 students and 3,500 parents of teenagers are educated each year with AEGP funding. The PREP Grant funds 23 sub-awardees to provide personal responsibility education with "ready for adult subjects" to middle and high school students. PREP targets disengaged youth at high risk for poor decision-making about health behaviors, academic failure, and poor adulthood outcomes. Approximately 7,000 students participate in PREP each year.

KDPH has been awarded grants through the Federal Youth Services Bureau to educate young people on both abstinence and contraception to prevent pregnancy and sexually transmitted infections. These programs, the Sexual Risk Avoidance Education (SRAE) grant and the Personal Responsibility Education Program (PREP) grant, primarily target youth ages 10-19 who are homeless, in foster care, live in rural areas or in geographic areas with

high teen birth rates, or come from racial or ethnic minority groups. These projects replicate effective, evidence-based program models that have been proven to teach the optimal health behavior of delaying sexual activity, increasing condom or contraceptive use for sexually active youth, reducing pregnancy and STIs among youth, and providing tools and resources to prevent engagement in other risky behaviors through holistic, trauma-informed, and positive youth development approaches. These programs are grounded in the need to help youth achieve optimal health by providing them with information and resources to help them make healthy decisions for themselves.

As with most Adolescent Education programs in the US this year, Kentucky had barriers during 2020 reaching and educating youth during the COVID-19 pandemic. Even with implementation of virtual programs when schools closed to in-person learning, access to students in many areas proved to be insurmountable as schools prioritized educational course work for various subjects leaving little to no time for additional curricula opportunities. Between lack of broadband internet in our rural counties, concerns about student privacy outside of school, and reluctancy to allow sexual education into the home where younger siblings might be exposed to content inappropriate to their age and developmental level, many school systems declined SRAE and PREP programming during this school year. Some students who would have participated, as their school allowed, could not because of either sparse internet service in their area or too many individuals in the home using the same internet service as other school-age siblings and parents working from home. Despite these constraints, over 1300 students in 24 counties received SRAE and PREP curriculum education from 17 healthcare and LHD providers in the state.

As more Kentuckians are vaccinated against COVID-19 and vaccinations are becoming available for younger age groups, MCH Adolescent Health is hopeful the current school year will be more productive. Plans for training new educators are in place and there are currently 53 grantee organizations ready to return to educating youth in more than half of Kentucky's 120 counties. Should the need arise to switch temporarily to virtual instruction again, instructors now have the experience to do so much more readily in the future, and thanks to our curriculum developers they have new online tools and lessons for assistance. The state of Kentucky is making a concerted effort to expand broadband internet services and school systems are working to equip students with the technology, hardware, and software necessary should we experience another year like this one.

Obesity

Adolescent obesity is a priority for the adolescent health population domain identified from the 2015 Needs Assessment and continues to this day. To address this need, KY has chosen *NPM # 8: Percent of children ages 6-11 and adolescents ages 12-17 who are physically active at least 60 minutes per day*. According to the State Obesity Report, KY ranks 6th in obesity with 18.4% of high school students considered obese. This draws a keen focus to the issue of teen obesity. (Robert Wood Johnson Foundation, 2019).

Data from the 2019 KY Youth Risk Behavioral Surveillance System (YRBSS) has continued reporting youth activity level is below the national average. Physical activity continues to be a focus for all programs with less than half of high school students reporting exercise for greater than 60 minutes, 5 days per week.

The percentage of high school students who are obese increased from 16.5% in 2011 to 18.4% in 2019 (KY YRBSS). When the data was reviewed by gender, high school males were more likely to be obese than female high school students. The 2019 data also shown students in grades 11 and 12 were more likely to be obese than grades 9 and 10. Amidst all high school ages, Black high school students were more likely to be obese at 22%.

To reach all populations, KY must address obesity concerns from all levels. Strategies must begin at birth with breastfeeding promotion. Early childhood should lay the framework to establish healthy behaviors related to nutrition

and activity. For the school age and adolescent population, the Whole School, Whole Community, and Whole Child (WSCC) model provides a wrap-a-round framework to continue encouraging this population to make healthy choices.

With the MCH Evidence Informed Strategy focusing on increasing physical activity and creating an overall healthier climate in school and community settings, local health departments have succeeded in providing outreach and supplemental health education to students in their local school districts. As previously mentioned in the Child Health Annual Report, LHDs that participated in Healthy People, Active Communities are also working to promote full community engagement with activity and nutrition.

MCH's evidence informed strategy, Healthy People Active Communities Package, promotes healthy eating and physical activity safe and easily accessible. The strategy supports policies that make environmental changes that are sustainable within communities. In addition, this package serves to increase community partnerships with various local organizations and community members. Together, the LHD, community organizations, and community members will define the issue, address the barriers to meeting the evidence-based healthy behaviors, and engage possible solutions. In 2019 LHDs (27) reached 31,304 community members including local residents. Some of this work involved stakeholders addressing safety in crosswalks for walking paths in urban areas, development of walking paths in the community, implementation of health education in the school system, development of farm to table initiatives, cooking classes.

To increase access to physical activity, LHDs collaborated with several communities that have a pedestrian plan. A Community Physical Activity Committee has representation from the Federal Highway Administration, Foundation for a Healthy KY, KY Association for Economic Development, KDPH, KDE, KY Office of Adventure Tourism, KIPRC, KSPAN, KY Office of the Americans with Disabilities Act, KY Rails to Trails Council, KY State Parks, KY Transportation Cabinet, KY Youth Advocates, National Park Service, and UK Cooperative Extension. Committee and local stakeholders identified assets, needs, and barriers through interviews and surveys of stakeholders and community members.

The KDPH State Physical Activity and Nutrition (SPAN) branch and their state partners provide the training and technical assistance on access to healthy foods and physical activity, as well as resources, including community engagement, Early Care and Education.

Local health departments continued successful programming in FY19 and FY20. Their work and partnerships supported providing access to healthy foods through Farmers Market Vouchers, walking trail and program promotion, promotion of Diabetes Prevention Program, and outdoor literacy programs for children. Although the majority of health department personnel were overwhelmed with Covid-19 response, they continued providing support to communities through virtual programming, community care packages, and an increased use of social media.

Coordinated School Health (CSH):

One program that is significantly involved with physical activity strategies in KY is the CSH program headed by the KY Healthy Schools Team (HST). This program is an effort funded by the CDC's 1801 Improving Student Health and Academic Achievement through Nutrition, Physical Activity, and the Management of Chronic Conditions in Schools. The funding cycle will support this work through a five-year funding cycle ending in 2023. This funding cycle awarded to KY's Department of Education (KDE) continues the work already established in prior school health funding. As a requirement of this funding, KDE has allocated a percentage of awarded funds to continue their partnership and collaborative school health efforts with the KDPH. These funds will be housed in MCH and continue to partially fund

the KDPH Coordinated School Health Program Administrator.

This funding cycle focuses on collaboration with nine priority school districts to assess their school health environment and implementation of the Whole School Whole Community Whole Child model (WSCC). The work of the KY HST is a major vehicle in schools and communities across the state, to address obesity and the overall well-being of youth. The WSCC model integrates the components of CSH and the Whole Child tenets of the Association for Supervision and Curriculum Development (ASCD) Whole Child approach to strengthen a unified and collaborative approach to learning and health. The WSCC model includes the following ten components: health education, physical education/physical activity, nutrition environment and services, health services, counseling/psychological and social services, social and emotional climate, physical environment, employee wellness, family engagement, and community involvement. KY's goal through using this model is to address the whole child through integration of preventive best practices to ensure a successful health and academic journey. KDE and KDPH work collaboratively to provide guidance to school districts and community partners to incorporate opportunities for students to create a healthier environment in which to live, play, and learn.

The work of the HST focuses on four specific components to improve the health of students including assisting schools with implementation of physical activity opportunities and quality physical education, nutritious foods, out of school time, and management of chronic conditions. The out of school time component is a major focus of the school health program. This content forged a stronger relationship between the HST, KDE's 21st Century Program, and KY Out of School Alliance (KYOSA)provided an opportunity to offer professional development to a new population of out of school time providers on Healthy Eating and Physical Activity (HEPA) standards. In 2019, professional development was provided to 112 OST professionals representing 25% of KY's districts. In 2020, the Covid-19 pandemic delayed implementation of additional professional development. However professional development has resumed for this population as of the Summer, 2021.

Kentucky's HST continues to face the challenge of not prioritizing student health in the school setting. Physical education is no longer included in the state's curriculum accountability system resulting in a lack of support for implementation of quality PE. To address this barrier, KY HST works closely with their state's School Health and Physical Education Association, KYSHAPE, to provide tools for advocacy efforts at the school district level. Nationwide research is growing and shows additional research around the correlation between healthier children and higher academic performance. However, there is inconsistency in this message. In recent years, there have been a decrease surrounding physical activity (PA) opportunities. Simultaneously, schools have been enhancing nutrition settings for students. In addition to academic success, research shows benefits of PA in overall wellness including mental health. Additionally, the KY HST works closely with KDE's Coordinator for Comprehensive School Counseling and the Department for Behavioral Health Disorders and Intellectual Disabilities (BHDID). Both entities participate on the KBE School Health Subcommittee also known as the WSCC committee. For KY school districts, addressing student mental health is a growing concern as they familiarize themselves with the importance of addressing adverse childhood experiences (ACEs) and the long-term effect of exposure to trauma. The increased focus on adolescent mental health also stems from social isolation of students during the Covid-19 pandemic.

Family Thrive

The Adolescent Health Program within DWH collaborates with MCH, the Department for Behavioral Health, Developmental and Intellectual Disabilities (DBHDID), and many other state and community agencies to promote Family Thrive. Family Thrive, consisting of two components, Strengthening Families and Youth Thrive, is a framework that can be used in any setting or program to achieve positive outcomes by mitigating risk and enhancing healthy development and well-being of children and youth. The Adolescent Health Program and the coordinator for the

TAYLRD Grant in BHDID co-lead the Youth Thrive initiative of Family Thrive framework in Kentucky. The vision of Kentucky Youth Thrive is to increase the likelihood that ALL youth, including those in systems, are supported in ways that advance healthy development and well-being and reduce the impact of negative life experiences. This is done by promoting five protective factors through all adolescent programming. These protective factors include:

- Youth Resilience: Youth bounce back when life gives them challenges
- Social Connection: Youth have genuine healthy and supportive connections with others
- Knowledge of Adolescent Development: Youth understand the science of their development
- Concrete Support in Times of Need: Youth find resources and support in their community that helps them
- Cognitive and Social-Emotional Competence: Youth know how to communicate their thoughts and feelings effectively

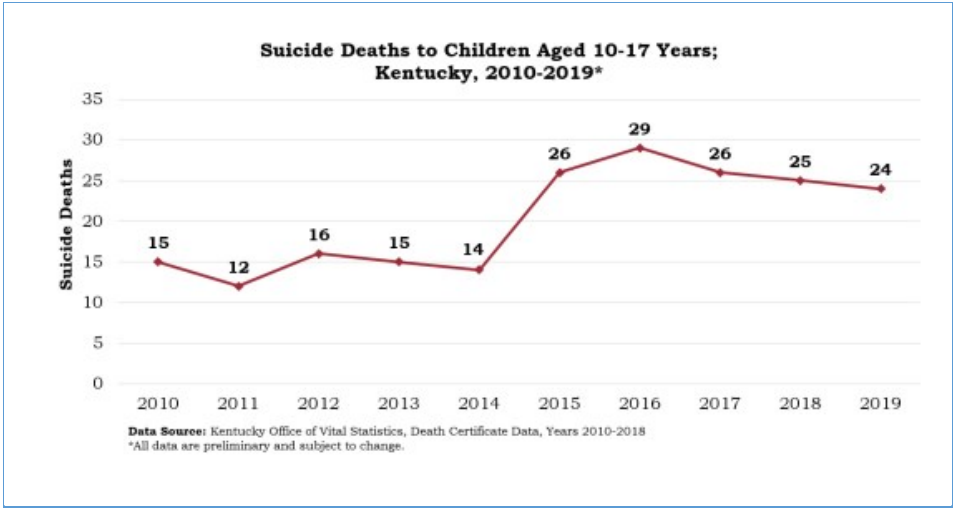
Suicide

In KY, suicide is the second leading cause of injury-related death among those 10-24 years of age, and the numbers are increasing. The number of childhood suicides nearly doubled from 2012 with 16 teen suicides to 29 reported in preliminary 2016. For 2019, most suicide deaths occurred in western KY. However, in previous years, there was no pattern to geographical distribution of child suicide deaths. KY has seen multiple children die from suicide as young as age 10. The line graph below shows the rising rate of suicide deaths peaking in 2016. Most suicide deaths are in teenagers who are 14 years old or older. However, KY has experienced some child suicides as young as age 10.

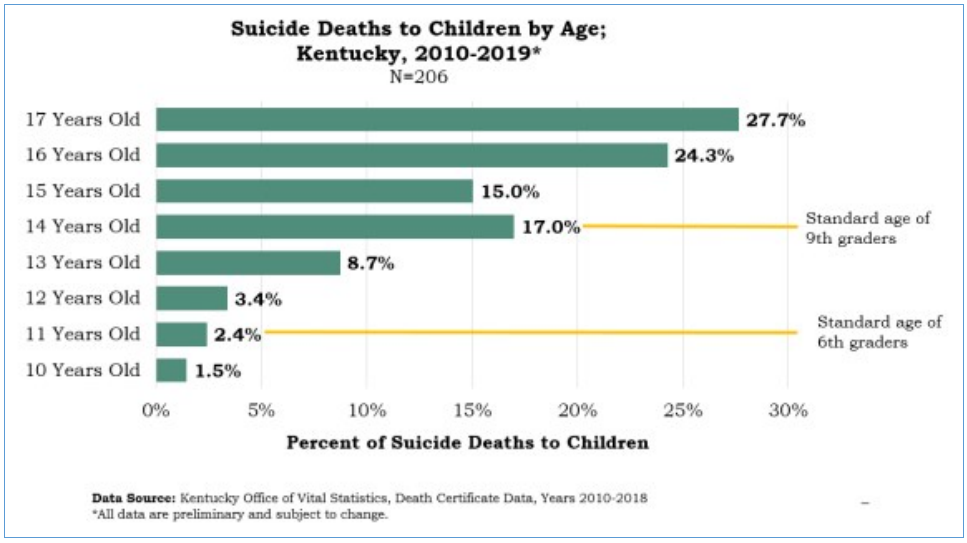
In KY, suicide is the third leading cause of injury-related death among those 10-24 years of age, and the numbers are increasing. The number of childhood suicides nearly doubled from 2012 with 16 teen suicides to 25 reported in preliminary 2018 data.

Preliminary information for 2019 suggest the number of teen suicides could reach 30 or higher. Over half of childhood suicides involve the use of a firearm and is most prevalent among children 10-14 years of age. White children die at a disproportionate rate due to suicide (2.8/100,000) compared to black children (0.9 per 100,000).

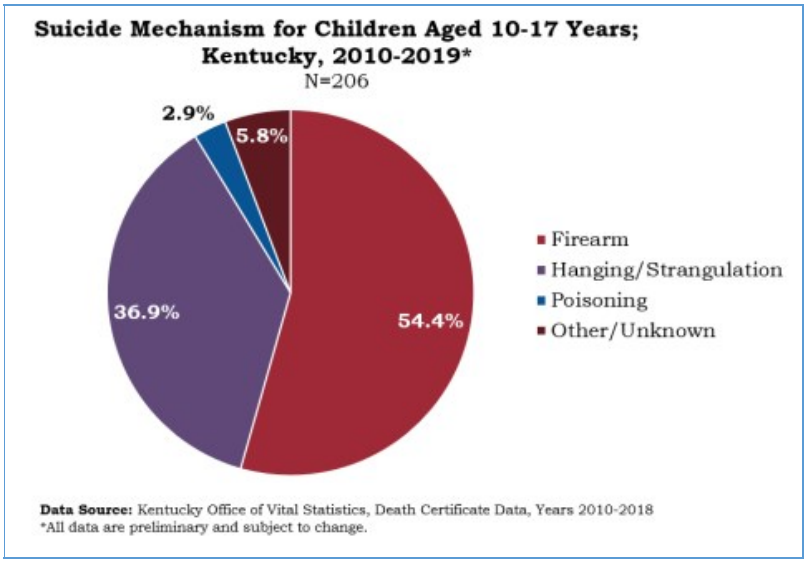
The line graph below shows the rising rate of suicide deaths peaking in 2016. Preliminary 2020 cases reported to the suicide program are likely to exceed the 2016 rate.

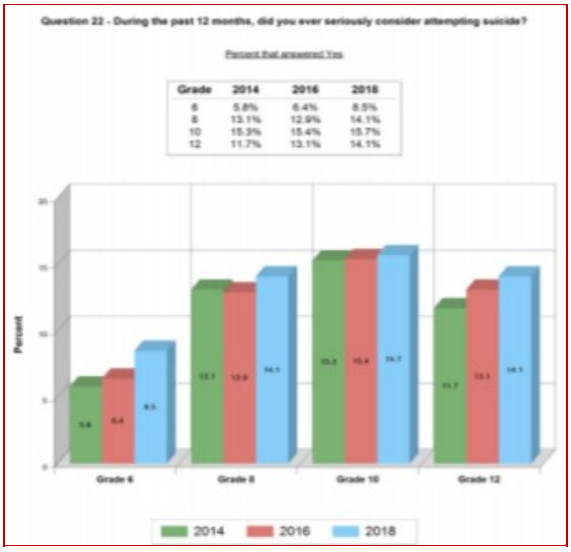


Most suicide deaths are in teenagers who are 14 years old or older. However, KY has experienced some child suicides as young as age 10.



Most mechanisms for child suicides in KY are primarily from firearms and are followed by hanging or strangulation.





The 2018 survey completed with students in grades 6,8,10, and 12. The KIP Survey is conducted bi-annually, on even numbered years, and has changed from the original intent of determining use of alcohol, tobacco, and other drugs to surveying students about handguns, bullying, dating violence, suicide, and mental health (KIP Survey, KY Dept. of Behavioral Health). This report has been delayed secondary to COVID-19. Plans for the 2021 report include additional survey questions to assess how student feel they were impacted by the COVID-19 pandemic. (https://reacheval.com/projects/kentucky-incentives-for-prevention-kip-survey/).

Per this report, while KY youth report bullying and cyberbullying has slightly declined, rates remain higher than national rates. Suicidal ideation and reported suicide attempts were decreasing prior to 2009 but has been increasing since that time in all grades. There was a significant increase among 6th grade respondents reporting they have seriously considered attempting suicide.

Both ideation and attempts have increased for the middle school-age. According to KY's 2019 Youth Risk Behavior Survey the percentage of middle school students who ever seriously thought about killing themselves had significant increase from 15.0% to 22.4% (2013-2019). This warrants a review of the existing evidence-based suicide prevention programs being utilized in addiction to opportunities to address the social and emotional school environment. In 2014, the KY Youth Bullying Prevention Task Force was established by Executive Order to address bullying in schools and recommend practices/policies to provide safer, harassment-free schools.

In 2019, MCH and DBHDID continued collaborative efforts using the Sources of Strength Curriculum as an integrative piece of outreach and prevention supported at the local level. Training programs across the state have been conducted with local school districts to promote peer-led youth resiliency programs. Sources of Strength continued virtually during the pandemic and technical assistance and training was available from their home office. This program has also extended their reach to elementary students. Traditionally the program has offered services only at the Middle School and High School levels.

The Kentucky Violence and Injury Prevention Program (KVIPP) staff produced "Self-Harm Related Emergency Department Visits and Hospitalizations among Kentucky Adolescents 10-19 Years old, September 1, 2015-August 31, 2018" and presented this to the suicide data and surveillance committee at KDPH in 2019; team at KDPH in 2019. KVIPP produced Self-Harm Injury Morbidities and Mortalities characteristics and by counties, January 1, 2016 to September 30, 2019 among Kentucky Residents and presented to the State Epidemiological Outcomes Workgroup meeting at CHFS, as well as Kentucky Adolescent Self-Harm Injury Morbidities and Mortalities characteristics and by counties, January 1, 2016 to September 30, 2019. Additionally, the current State Injury and Violence Prevention Plan is being updated with a strategy specific to Suicide and Self-Harm Prevention.

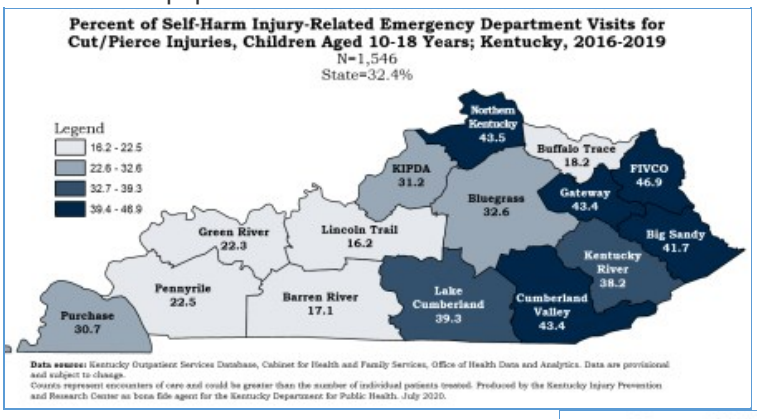
In Spring 2020, the Division of Maternal and Child Health was accepted as a participant in the Child Safety Learning Collaborative (CSLC) focused on Suicide and Self Harm Prevention, along with seven other states. This work in addition to the Child Fatality Review program has established a closer working partnership with BHDID's state Suicide Prevention Coordinator. This coordinator assists our CSLC with expertise in suicide prevention and trends and is also currently participating in a Suicide Prevention State Infrastructure Community of Practice (CoP). Participating states in the CoP are working toward the following goals: gain a deeper understanding of SPRC's state Suicide Prevention Recommendations, identify KY's infrastructure strengths and needs, and engage the state's

team in activities to advance specific elements of the state's infrastructure.

As part of the CSLC, data was evaluated for self-harm and suicide. MCH, KIPRIC and BHDID and the university forensic pediatricians meet with other CHFS programs to review data sets for both child and young adult to determine potential trends and patterns that could lead to stronger prevention measures. The data is varied geographically across the state with trends. The suicide coordinator in BHDID, also has been instrumentally in helping MCH to design surveys to understand the type of practice available statewide for adolescent mental health and the comfort level of providers in screening for suicide and development of interventions beyond resource and referral.

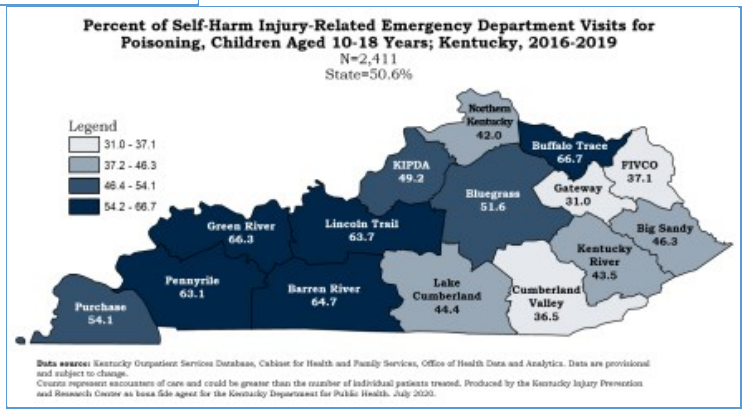
The CSLC reviewed multiple resources of screening and plans for evaluation of health and behavioral health systems. From this review, the KY CSLC opted to utilize the Zero Suicide framework. This model allows a health or behavioral health system to assess their organization structure, protocols and policies related to suicide screening and care and transform and fill any gaps found. Building upon a culture of support for providers and systems, the Zero Suicide framework by created a toolkit embracing core values that suicide can be eliminated by improving service access and quality, sets aggressive goals to eliminate suicide attempts, organized service delivery and adopts evident based clinical practices throughout the health care system of care. Continuing work is ongoing in a pilot project with Hopkins County. From this pilot, MCH anticipates 4 trainings to be developed with two live courses Question, Persuade, Refer (QPR) and 2 webinar based trainings.

From a geographical standpoint, self-harm injury-related emergency room visits by county showed higher rates in rural KY than in population dense areas.

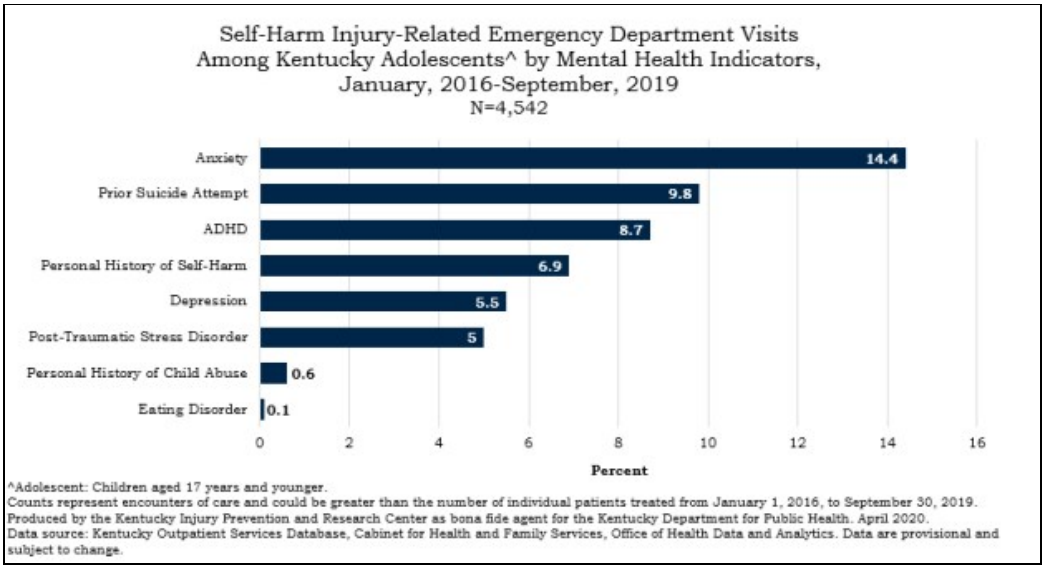


Self-Harm from for cutting or piercing injuries were more likely in eastern Kentucky.

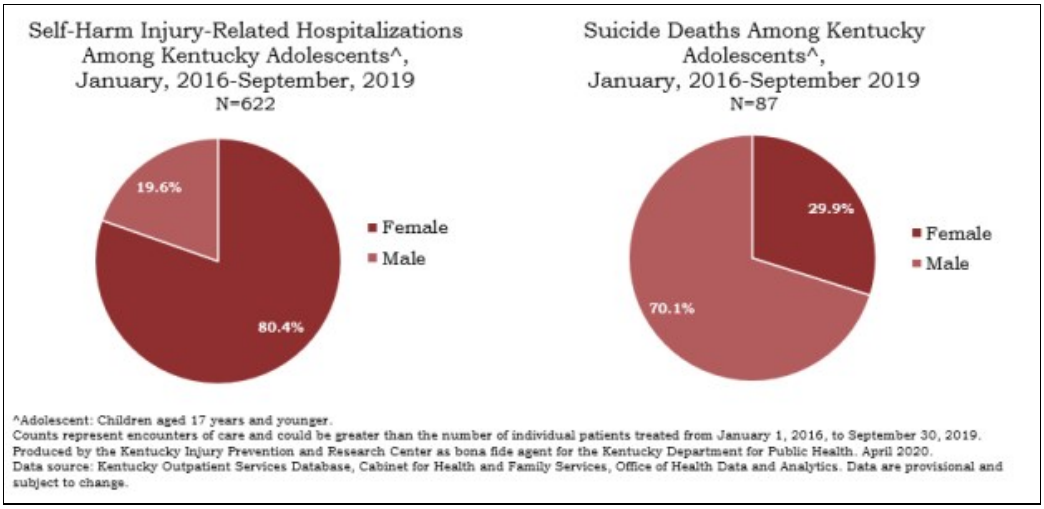
Poisoning attempts were more likely to seek Emergency care in the western part of Kentucky.



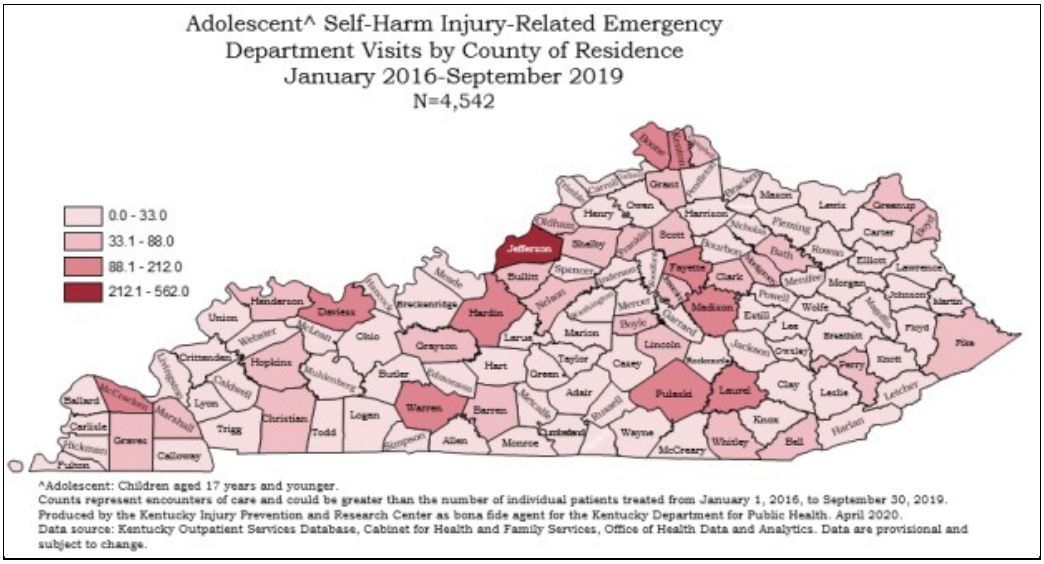
Anxiety was the highest reason for self-harm related emergency visits.



Particularly of interest is the comparison by gender for self-harm and suicide deaths, with females being more likely to have self-harm injury-related hospitalizations, and males being more likely to die from suicide.



Twenty-two local health departments have selected the Bullying and Suicide Prevention package for the upcoming 20-21 fiscal year. This number has increased as the climate of mental health issues has increased in our adolescent population. This package provides opportunity for collaboration with school districts and communities to share resources and support for mental health wellness. In FY 2020, this package continued to support program implementation in local school districts. With this package, programs such as the Beautiful Minds Project in collaboration with University of KY Adolescent Health and Sources of Strength were provided to two school districts. Beautiful Minds supports on-site mental health screenings and, when possible, counseling on-site. In the previous fiscal year, 30 children were provided behavioral evaluations, 107 received behavior treatments in school, 474 made visits for behavior treatment, 12 students were referred to outside providers/ specialists, and 3 students were identified as at risk for suicide.



The long-term impact of COVID-19 on adolescent mental health, self-harm and suicide is still yet to be seen. Both the KIP and YRBSS surveys are planning to resume in the 2020-21 school year, which should give us a better indication of the effect, at least preliminarily, the past year has had on the adolescent population in KY.

Teen Driving

MCH addresses teen driver deaths through collaborative efforts with KIPRC. LHDs had opportunity to implement strategies through a Teen Driving CFR Package.

Teen drivers represent 4% of Kentucky drivers (including learner's permits). In the 2019 Kentucky Traffic Collision Facts report published per KRS 189.635 by the Kentucky State Police, 19,729 collisions involved teen drivers. Of these, 42 of 1,004 fatal collisions involved teen drivers. Alarmingly, 233 teenage drivers were involved in alcohol related collisions. In comparison with previous years alcohol related collisions decreased slightly from the previous year.

As part of child fatality and injury prevention, many health departments completed child passenger safety plans including car seat checks, the Checkpoints™ Program, and the graduated licensure program. LHDs have been innovative in creating distracted driver videos, working with local high schools to provide education, and working with local police and first responders.

The KY Violence and Injury Prevention Program (KVIPP), supported by CDC Cooperative Agreement Number U17 CE924846, collaborates with the KY Office of Highway Safety (KOHS), Traffic Safety Education Foundation, KIPRC, KY Safety Prevention Alignment Network (KSPAN), and KDPH to address teen motor vehicle safety education. The Checkpoints™ Program is an evidence-based, parent-oriented teen driving intervention, originally developed by Dr. Bruce Simons-Morton of the National Institute of Child Health & Human Development, an agency of the US Department of Health & Human Services, is being implemented statewide in KY. The program continues to be updated and revised, including new video clips provided by the Traffic Safety Education Foundation to emphasis key points in the training. Kentucky Checkpoints™ educational materials are designed to reflect KY's Graduate Driver Licensing Program requirements and to include current KY injury data.

The Checkpoints™ Program provides parents and teens with information about:

- Risks teens face when first licensed (e.g., facts and myths about teen driving safety)

- KY's Graduated Driver Licensing requirements
- Ways to improve the safety of the teen driver
- Ways to effectively communicate with teens about safe driving (video content)
- How to set Interactive Parent-Teen Driving Agreements that are customizable to the respective parent and teen, establishing clear guidelines, expectations, and consequences for their teens' early driving and adaption as the teen progresses.

Checkpoints™ is continuing from 2020 into 2021, with an implementation goal of 20 counties with 35 high schools. The Covid-19 pandemic impacted implementation as priorities for schools shifted to virus protection and safety. In 2020 changes and updates were made to Checkpoints to allow for virtual training of Checkpoints. The use of Redcap (online assessment tool) was a definite advantage for use in the updated Checkpoints protocol for online training delivery. Redcap enabled participants to use their smart phones, tablets, and computers to complete the pre and post-tests as well as the course evaluation sheets.

In addition, KVIPP is providing training and curriculum across the state to law enforcement officers on traffic safety checkpoints (traffic stops). The relevant components of the training to adolescent health are educating officers on the identification of impaired driving, human trafficking, improper restraint use (passenger safety), and any other obvious violations.

When reviewing areas of teen driver collisions, it was anticipated the higher population density would be a factor. KVIPP also prepared a heat map of KY roadways to determine if any specific roadways or type of roadway had higher rates. Population density and travel (particularly in Central KY, between urban Lexington and Louisville) showed higher rates of teen collisions.

Cross-Cutting/Systems Building - Application Year

The cross-cutting domain allowed KY to focus on critical issues that affect individuals across the entire course of their life. Further, from the life course perspective, there are critical periods from before birth and throughout the entire life span that influence the health of individuals. Topics and the current application year plans are discussed in the documents for each individual domain.

III.F. Public Input

In 2020, COVID-19 pandemic dramatically impacted public input. Despite this MCH programs were effective in meeting the needs of clients, LHDs, and other stakeholders.

Although most, if not all of MCH meetings, focus groups and other discussions were virtual, MCH continues to seek input and feedback from attendees across the state for areas of success, improvement, and for guidance of needs from the local level. MCH has been able to identify emerging concerns statewide and those specific to some local areas. This input informed program change, surveillance, and actions. The strength of MCH has long lay with the warm and productive relationships held with a multitude of partners in women's health, child services, hospitals staff and providers. In 2020, these relationships became vital as workflow, processes and communications were rapidly diverted to email, and virtual meeting platforms. Understanding how to facilitate a live meeting virtually became a soon learned skill. Engagement of stakeholders at all levels of knowledge on platforms was a quickly assessed effort to reach in areas of Kentucky where in person meetings or consultations were not possible. Surveys were a vital resource for quick information gathering.

Consumers continue to have the greatest insight regarding the needs of the MCH population. Patients and families identified a need to streamline enrollment processes and requested expansion of services when possible. For the home visitation, services were expanded to first time fathers. For nutrition services, LHDs have accommodated families with their WIC visits on same day appointments inclusive of other LHD services. Consumers' concerns and input highlighted areas of educational opportunities such as safe sleep, breast feeding, and care of school aged children with behavioral disorders, diabetes, or tobacco use. WIC, HANDS, and First Steps developed many protocols to address visits outside of the home and adapted the program expectations to meet families/parents in virtual platforms. The growing pains of the providers to "teach" skills virtually became a large part of the First Steps and HANDS training for their workforce. Adaptation and review of federal mandates was constant and is ongoing.

In a previous year, OCSHCN received a comment from a staff member that the CYSHCN portion of the needs assessment document was too complicated in its language, so an "at-a-glance" summary with more images and simplified language was prepared to "get to the point" quicker. A document was created that featured 10 Facts about MCH (attached) as a springboard for further conversation. This document has been adopted and continues to be updated and utilized. OCSHCN attempted to strike a balance between readability for families with busy lives while still containing enough substance to summarize the block grant partnership activities, system of care, and state priorities accurately. We use focused 1-page strategy sheets for the CYSHCN priorities in order to educate stakeholders. During presentations, more emphasis was placed on the priorities and plans than the process itself.

No activities were completed via public hearings, as historically these have not been successful for gaining public input in KY. Activities to solicit public input were conducted via web posting, advisory council review, social media, electronic distribution lists, and outreach to specific stakeholders. These activities are summarized below along with plans for continued input following submission of the application and annual report.

Web Posting/Social Media

MCH posts the entire annual report and application on its website annually. In addition, MCH uses the website to solicit public input on priority topics and activities throughout the year. Requests for comment appeared on local health department social media pages and the CHFS Face Book page. Questions received by the CHFS or DPH webpages are forwarded to MCH for review and response. Throughout the year, DPH has a mechanism for the general public to inform or seek information from specific programs. During the posting of the current application executive summary, no comments were received.

Advisory Council Review

As advisory councils meet, the goals for MCH are reviewed specific to that program. Throughout 2020, MCH focused on program evaluation and logic planning to improve outcomes. These plans were shared with various councils for input throughout the year.

Other Use of Media

MCH uses electronic distribution lists as a mechanism to distribute information and obtain information from stakeholders for specific issues, such as the stakeholder survey for the needs assessment. MCH continues to use distribution lists of stakeholders to promote evidence informed strategies and best practices that may improve the services and resources that are available to all MCH consumers. Throughout the year, MCH and OCSCHN survey parents, families, staff, LHDs, and stakeholders as part of program review. These surveys are designed to inform program efforts, determine awareness of needs or concerns, or provide reports and surveillance of quantitative data. Neither MCH nor OCSHN can continue quality programming in a silo. This results in multi-directional dialogues to inform, include, and integrate stakeholders, consumers, and families in improving MCH programs and health outcomes.

Throughout the year, MCH and OCSCHN survey parents, families, staff, LHDs, and stakeholders as part of program review. These surveys are designed to inform program efforts, determine awareness of needs or concerns, or provide reporting/surveillance of quantitative data. Neither MCH nor OCSHN can continue quality programming in a silo. This results in multi-directional dialogues to inform, include, and integrate stakeholders, consumers, and families in improving MCH programs and health outcomes.

OCSHCN is a user of surveys. Randomly chosen visitors to clinics are asked to voluntarily and anonymously complete a survey. Only 58 of OCSHCN primary clinic survey were received during the reporting period (a substantial reduction over previous years due to COVID) about the direct services experience as well as with regard to aspects of the system of care available in communities. In FY20 OCSHCN also created modified, and used, several new surveys dealing with assessing our telehealth services during the pandemic. According to OCSHCN Outreach Inventory Survey even with the pandemic OCSHCN staff still recorded almost 600 outreach events with most being through tele-communications due to the pandemic. OCSHCN continues its efforts to expand data gathering to non-enrolled CYSHCN. All families may reach OCSHCN at any time via the website, through social media, or on the “800” hotline phone number. OCSHCN also maintains a listing of individuals who have expressed interest in hearing more about the agency’s regulatory filings through state government’s “Reg Watch” email list. OCSHCN alerts the members of this distribution list when administrative regulations are in the process of promulgation and solicits comments during the public input period.

III.G. Technical Assistance

KY continues to participate in multiple opportunities for technical assistance from federal stakeholders such as the CDC, HRSA, AMCHP, Title V, Child Safety Collaborative, Medicaid Innovation Accelerator Program, and more. MCH also sought local and state expertise for guiding program plans to address needs, activities, and outcome evaluation.

Prior to the COVID-19 pandemic, KY had support provided from the National Center for Fatality Review and Prevention for the child fatality review process in the selection of data metrics for developing surveillance details on the coroner's report. The SUID program received support from the CDC grant project officer on refining case definitions during committee reviews. MCH has participated in the SDoH CoIIN with specific focus on training and engagement at the local level on implicit bias and raising the awareness of SDoH. Currently, MCH participates in a Medicaid Innovation Accelerator Program reviewing data analytics for maternal morbidity. KY receives ongoing technical support for WIC, home visitation, and the Early Intervention Services (Part C) programs.

KY MCH and OCSHCN have historically provided support for each other to assure technical supports for both areas meet the needs of all children. OCSHCN has provided input and educational opportunities for COVID-19 response with school reopening questions and addressing educational concerns regarding children with special health care needs.

For the 2020-2025 grant cycle, KY will continue to take advantage of opportunities available from all resources. As KY works to restructure the well child program, KY will seek input from many resources to assure the content of training and best practices are reflected across the program guides and DPH guidance documents. KY is also planning to continue the federal support from Family Voices as it creates a parent advisory council. KY plans to continue to address SDoH, an initiative that begun during the CoIIN with continued team meetings and activities. KY has discussed this plan with the federal project officer for ongoing support. And KY plans to continue the ongoing technical support with the CDC maternal mortality program.

In past years, OCSHCN has received technical assistance through various entities included the MCH Workforce Development Center. OCSHCN relies on expertise from National Centers and AMCHP, as well as other TA providers, and will not hesitate to take advantage of any further opportunities that become available or are recommended. Communication involving technical assistance were curtailed within the fiscal year due to the pandemic.

IV. Title V-Medicaid IAA/MOU

The Title V-Medicaid IAA/MOU is uploaded as a PDF file to this section - IV. Title V Medicaid IAA_MOU.pdf

V. Supporting Documents

The following supporting documents have been provided to supplement the narrative discussion.

Supporting Document #01 - MCH Attachments.pdf

Supporting Document #02 - NASReport.pdf

Supporting Document #03 - CFRAnnualReport.pdf

Supporting Document #04 - MMRAnnualReport.pdf

VI. Organizational Chart

The Organizational Chart is uploaded as a PDF file to this section - Org Charts-KY DPH_MCH_OCSHCN.pdf

VII. Appendix

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Form 2
MCH Budget/Expenditure Details

State: Kentucky

	FY 22 Application Budgeted	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	$ 11,257,105	
A. Preventive and Primary Care for Children	$ 4,499,943	(39.9%)
B. Children with Special Health Care Needs	$ 3,535,857	(31.4%)
C. Title V Administrative Costs	$ 1,125,710	(10%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	$ 9,161,510	
3. STATE MCH FUNDS (Item 18c of SF-424)	$ 70,609,373	
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)	$ 58,257,638	
7. TOTAL STATE MATCH (Lines 3 through 6)	$ 128,867,011	
A. Your State's FY 1989 Maintenance of Effort Amount $ 22,552,700		
8. FEDERAL-STATE TITLE V BLOCK GRANT PARTNERSHIP SUBTOTAL (Total lines 1 and 7)	$ 140,124,116	
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)	$ 131,468,670	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	$ 271,592,786	

OTHER FEDERAL FUNDS	FY 22 Application Budgeted
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Pregnancy Risk Assessment Monitoring System (PRAMS)	$ 160,020
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > State and Local Healthy Homes and Childhood Lead Poisoning Prevention Programs (CLPPPs)	$ 979,000
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Early Hearing Detection and Intervention (EHDI) State Programs	$ 235,000
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Family Professional Partnership/CSHCN	$ 96,750
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Formula Grants	$ 7,943,309
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > State Systems Development Initiative (SSDI)	$ 100,000
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)	$ 34,108,320
US Department of Agriculture (USDA) > Food and Nutrition Services > The Loving Support Peer Counseling Program (Breastfeeding)	$ 1,282,726
US Department of Education > Office of Special Education Programs > Early Identification and Intervention for Infants and Toddlers with Disabilities (Part C of IDEA)	$ 2,759,297
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Sudden Unexpected Infant Death (SUID) Case Registry Program	$ 80,900
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Early Hearing Detection and Intervention (EHDI) State Programs	$ 160,000
US Department of Agriculture (USDA) > Food and Nutrition Services > WIC Infrastructure Grant Fund	$ 256,423
US Department of Agriculture (USDA) > Food and Nutrition Services > WIC Food	$ 74,993,943
US Department of Agriculture (USDA) > Food and Nutrition Services > WIC Farmers' Market Program	$ 215,418
US Department of Agriculture (USDA) > Food and Nutrition Services > WIC Management Information System Project	$ 210,467

OTHER FEDERAL FUNDS	FY 22 Application Budgeted
US Department of Agriculture (USDA) > Food and Nutrition Services > WIC Electronic Benefits Transfer Project	$ 140,311
US Department of Agriculture (USDA) > Food and Nutrition Services > WIC ARPA Funds	$ 7,746,786

	FY 20 Annual Report Budgeted		FY 20 Annual Report Expended	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	$ 11,100,869		$ 8,348,724	
A. Preventive and Primary Care for Children	$ 3,791,378	(34.2%)	$ 2,525,643	(30.2%)
B. Children with Special Health Care Needs	$ 3,874,203	(34.9%)	$ 4,403,625	(52.7%)
C. Title V Administrative Costs	$ 380,000	(3.4%)	$ 243,280	(3%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	$ 8,045,581		$ 7,172,548	
3. STATE MCH FUNDS (Item 18c of SF-424)	$ 28,300,100		$ 70,609,373	
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)	$ 27,995,100		$ 58,257,638	
7. TOTAL STATE MATCH (Lines 3 through 6)	$ 56,295,200		$ 128,867,011	
A. Your State's FY 1989 Maintenance of Effort Amount $ 22,552,700				
8. FEDERAL-STATE TITLE V BLOCK GRANT PARTNERSHIP SUBTOTAL (Total lines 1 and 7)	$ 67,396,069		$ 137,215,735	
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)	$ 124,259,349		$ 115,584,598	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	$ 191,655,418		$ 252,800,333	

OTHER FEDERAL FUNDS	FY 20 Annual Report Budgeted	FY 20 Annual Report Expended
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)	$ 600,750	$ 500,312
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) Formula Grants	$ 7,019,433	$ 4,760,221
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > State Systems Development Initiative (SSDI)	$ 100,000	$ 100,000
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)	$ 107,719,250	$ 101,156,637
US Department of Education > Office of Special Education Programs > Early Identification and Intervention for Infants and Toddlers with Disabilities (Part C of IDEA)	$ 6,082,500	$ 6,142,293
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Sudden Unexpected Infant Death (SUID) Case Registry Program	$ 80,900	$ 80,900
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Pregnancy Risk Assessment Monitoring System (PRAMS)	$ 153,417	$ 225,940
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Birth Defects Tracking Systems	$ 210,000	$ 210,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Zika Surveillance Systems Grant Program	$ 0	$ 0
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Tobacco Control Programs	$ 1,138,751	$ 1,421,724
Department of Health and Human Services (DHHS) > Other > Increasing Quit NOW KY Reach and Sustainability thru Media	$ 666,810	$ 972,431
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Family to Family Health Information Centers	$ 91,717	$ 6,325

OTHER FEDERAL FUNDS	FY 20 Annual Report Budgeted	FY 20 Annual Report Expended
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Kentucky Infants Sound Start	$ 250,000	$ 6,165
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Maintenance and Enhancement of Early Hearing Detection and Intervention Information System	$ 145,821	$ 1,650

Form Notes for Form 2:

None

Field Level Notes for Form 2:

1.	**Field Name:**	**1. FEDERAL ALLOCATION**
	Fiscal Year:	**2022**
	Column Name:	**Application Budgeted**
	Field Note: From Award ID: B0440136 (10/01/2020 to 09/30/2022)	
2.	**Field Name:**	**Federal Allocation, C. Title V Administrative Costs**
	Fiscal Year:	**2022**
	Column Name:	**Application Budgeted**
	Field Note: The agency typically expends far less than the 10% for administrative charges to executing the grant. A good portion of these expenses are allocated to the state match funds. However, the agency does always budget for the maximum allowable.	
3.	**Field Name:**	**1.FEDERAL ALLOCATION**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**
	Field Note: COVID pandemic substantially impacted the MCH work in the local communities. The agency expects to fully expense the grant during the period of availability.	
4.	**Field Name:**	**Federal Allocation, A. Preventive and Primary Care for Children:**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**
	Field Note: COVID pandemic substantially impacted the MCH work in the local communities. The agency expects to fully expense the grant during the period of availability.	
5.	**Field Name:**	**Federal Allocation, B. Children with Special Health Care Needs:**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**

	Field Note: COVID pandemic substantially impacted the MCH work in the local communities. However, the OCSHCN was not similarly affected due, in part, to their ability to provide direct service. Rather population health efforts were substantially affected. The agency expects to fully expense the grant during the period of availability.	
6.	**Field Name:**	**Federal Allocation, C. Title V Administrative Costs:**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**
	Field Note: The agency met the vast majority of its administrative costs through the state match.	
7.	**Field Name:**	**3. STATE MCH FUNDS**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**
	Field Note: Due to COVID pandemic, the agency saw increases in its funding. The largest increase was in its service provision through Medicaid.	
8.	**Field Name:**	**6. PROGRAM INCOME**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**
	Field Note: The agency saw increases in its Medicaid need and services particularly in its home visiting and Part C services. Likewise, these were realized in our program expenses as the agency saw revenue from Medicaid, but subsequent payment to outside providers of services.	
9.	**Field Name:**	**Other Federal Funds, US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**
	Field Note: Inclusive of all WIC grants, 0116, 0117, 0119, 0249, and 0254.	
10.	**Field Name:**	**Other Federal Funds, Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Zika Surveillance Systems Grant Program**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**

	Field Note: No longer an active grant.	
11.	**Field Name:**	**Other Federal Funds, Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Tobacco Control Programs**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**
	Field Note: No longer under "the control of the Title V program coordinator."	
12.	**Field Name:**	**Other Federal Funds, Department of Health and Human Services (DHHS) > Other > Increasing Quit NOW KY Reach and Sustainability thru Media**
	Fiscal Year:	**2020**
	Column Name:	**Annual Report Expended**
	Field Note: No longer under "the control of the Title V Program Coordinator."	

Data Alerts: None

Form 3a
Budget and Expenditure Details by Types of Individuals Served

State: Kentucky

I. TYPES OF INDIVIDUALS SERVED

IA. Federal MCH Block Grant	FY 22 Application Budgeted	FY 20 Annual Report Expended
1. Pregnant Women	$ 871,263	$ 489,006
2. Infants < 1 year	$ 1,224,332	$ 687,170
3. Children 1 through 21 Years	$ 4,499,943	$ 2,525,643
4. CSHCN	$ 3,535,857	$ 4,403,625
5. All Others	$ 0	$ 0
Federal Total of Individuals Served	$ 10,131,395	$ 8,105,444

IB. Non-Federal MCH Block Grant	FY 22 Application Budgeted	FY 20 Annual Report Expended
1. Pregnant Women	$ 1,561,625	$ 1,561,625
2. Infants < 1 year	$ 3,846,253	$ 3,846,253
3. Children 1 through 21 Years	$ 60,033,072	$ 60,033,072
4. CSHCN	$ 5,168,423	$ 5,168,423
5. All Others	$ 0	$ 0
Non-Federal Total of Individuals Served	$ 70,609,373	$ 70,609,373
Federal State MCH Block Grant Partnership Total	$ 80,740,768	$ 78,714,817

Form Notes for Form 3a:

None

Field Level Notes for Form 3a:

None

Data Alerts: None

Form 3b
Budget and Expenditure Details by Types of Services

State: Kentucky

II. TYPES OF SERVICES

IIA. Federal MCH Block Grant	FY 22 Application Budgeted	FY 20 Annual Report Expended
1. Direct Services	$ 1,904,701	$ 1,412,603
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	$ 0	$ 0
C. Services for CSHCN	$ 1,904,701	$ 1,412,603
2. Enabling Services	$ 4,721,950	$ 3,501,989
3. Public Health Services and Systems	$ 4,630,454	$ 3,434,132
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		$ 19,641
Physician/Office Services		$ 1,282,756
Hospital Charges (Includes Inpatient and Outpatient Services)		$ 23,874
Dental Care (Does Not Include Orthodontic Services)		$ 42,801
Durable Medical Equipment and Supplies		$ 3,324
Laboratory Services		$ 3,182
Other		
orthodontia		$ 37,025
Direct Services Line 4 Expended Total		$ 1,412,603
Federal Total	$ 11,257,105	$ 8,348,724

IIB. Non-Federal MCH Block Grant	FY 22 Application Budgeted	FY 20 Annual Report Expended
1. Direct Services	$ 1,227,438	$ 1,227,437
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	$ 0	$ 0
C. Services for CSHCN	$ 1,227,438	$ 1,227,437
2. Enabling Services	$ 5,434,273	$ 5,434,273
3. Public Health Services and Systems	$ 63,947,662	$ 63,947,662
4. Select the types of Non-Federally-supported "Direct Services", as reported in II.B.1. Provide the total amount of Non-Federal MCH Block Grant funds expended for each type of reported service		
Pharmacy		$ 16,091
Physician/Office Services		$ 1,176,973
Hospital Charges (Includes Inpatient and Outpatient Services)		$ 15,571
Dental Care (Does Not Include Orthodontic Services)		$ 13,480
Durable Medical Equipment and Supplies		$ 3,210
Laboratory Services		$ 2,087
Other		
orthodontia		$ 25
Direct Services Line 4 Expended Total		$ 1,227,437
Non-Federal Total	$ 70,609,373	$ 70,609,372

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: Kentucky

Total Births by Occurrence: 49,591 **Data Source Year: 2020**

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	49,056 (98.9%)	2,512	180	180 (100.0%)

Program Name(s)				
3-Hydroxy-3-Methyglutaric Aciduria	3-Methylcrotonyl-Coa Carboxylase Deficiency	Argininosuccinic Aciduria	Biotinidase Deficiency	Carnitine Uptake Defect/Carnitine Transport Defect
Citrullinemia, Type I	Classic Galactosemia	Classic Phenylketonuria	Congenital Adrenal Hyperplasia	Critical Congenital Heart Disease
Cystic Fibrosis	Glutaric Acidemia Type I	Glycogen Storage Disease Type II (Pompe)	Holocarboxylase Synthase Deficiency	Homocystinuria
Isovaleric Acidemia	Long-Chain L-3 Hydroxyacyl-Coa Dehydrogenase Deficiency	Maple Syrup Urine Disease	Medium-Chain Acyl-Coa Dehydrogenase Deficiency	Methylmalonic Acidemia (Cobalamin Disorders)
Methylmalonic Acidemia (Methylmalonyl-Coa Mutase)	Mucopolysaccharidosis Type 1	Primary Congenital Hypothyroidism	Propionic Acidemia	S, ßeta-Thalassemia
S,C Disease	S,S Disease (Sickle Cell Anemia)	Severe Combined Immunodeficiences	Spinal Muscular Atrophy Due To Homozygous Deletion Of Exon 7 In SMN1	ß-Ketothiolase Deficiency
Trifunctional Protein Deficiency	Tyrosinemia, Type I	Very Long-Chain Acyl-Coa Dehydrogenase Deficiency	X-Linked Adrenoleukodystrophy	

2. Other Newborn Screening Tests

None

3. Screening Programs for Older Children & Women

None

4. Long-Term Follow-Up

At the state level, long term follow-up is not completed. NBS metabolic and CCHD cases are closed at state level once confirmatory diagnosis is reached and linkage is complete to local community specialists.

Form Notes for Form 4:

None

Field Level Notes for Form 4:

1.	**Field Name:**	**Total Births by Occurrence**
	Fiscal Year:	**2020**
	Column Name:	**Total Births by Occurrence Notes**
	Field Note: Total deliveries in Kentucky	
2.	**Field Name:**	**Data Source Year**
	Fiscal Year:	**2020**
	Column Name:	**Data Source Year Notes**
	Field Note: 2020 Live Births by Occurrence per OVS	
3.	**Field Name:**	**Core RUSP Conditions - Total Number Receiving At Least One Screen**
	Fiscal Year:	**2020**
	Column Name:	**Core RUSP Conditions**
	Field Note: Data Source: Division of Lab Services Total counts for all newborns for whom an initial specimen was received.	
4.	**Field Name:**	**Core RUSP Conditions - Total Number of Out-of-Range Results**
	Fiscal Year:	**2020**
	Column Name:	**Core RUSP Conditions**
	Field Note: Data Source: NBS Case Management System reports: Referrals, Repeats and Non Labs Report pulled 7/12/201 for total referred blood spot panel results and Comprehensive CCHD report inclusive of all newborns referred for echocardiogram evaluation.	
5.	**Field Name:**	**Core RUSP Conditions - Total Number Confirmed Cases**
	Fiscal Year:	**2020**
	Column Name:	**Core RUSP Conditions**

	Field Note: Data Source: NBS Case Management System reports: Referrals, Repeats and Non Labs Report pulled 7/12/201 for total referred blood spot panel results with "Definite" diagnosis and Comprehensive CCHD report inclusive of all newborns referred for echocardiogram evaluation who received a confirmed diagnosis of a primary/secondary lesion(s).	
6.	**Field Name:**	**Core RUSP Conditions - Total Number Referred For Treatment**
	Fiscal Year:	**2020**
	Column Name:	**Core RUSP Conditions**
	Field Note: Kentucky NBS program provides short term follow-up only until confirmatory diagnosis is made, with linkage to care. All cases identified with positive diagnosis are referred to the appropriate specialist for ongoing long term care.	

Data Alerts: None

Form 5
Count of Individuals Served by Title V & Total Percentage of Populations Served by Title V

State: Kentucky

Annual Report Year 2020

Form 5a – Count of Individuals Served by Title V (Direct & Enabling Services Only)

		Primary Source of Coverage				
Types Of Individuals Served	(A) Title V Total Served	(B) Title XIX %	(C) Title XXI %	(D) Private / Other %	(E) None %	(F) Unknown %
1. Pregnant Women	222	26.1	0.0	5.9	67.6	0.4
2. Infants < 1 Year of Age	4,589	78.9	0.0	1.3	18.9	0.9
3. Children 1 through 21 Years of Age	67,114	64.1	0.0	7.0	28.8	0.1
3a. Children with Special Health Care Needs 0 through 21 years of age^	5,554	74.9	0.0	17.6	7.5	0.0
4. Others	10,232	47.5	0.0	10.8	40.9	0.8
Total	82,157					

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	53,069	No	51,677	34.9	18,035	222
2. Infants < 1 Year of Age	50,874	No	49,591	98.9	49,045	4,589
3. Children 1 through 21 Years of Age	1,184,054	Yes	1,184,054	17.3	204,841	67,114
3a. Children with Special Health Care Needs 0 through 21 years of age^	282,083	Yes	282,083	79.6	224,538	5,554
4. Others	3,230,465	No	2,774,050	36.3	1,006,980	10,232

^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:	**2020**
	Field Note: Data Source: CDP Report #2641 unduplicated patient counts of pregnant women from 01/01/2020 to 12/31/2020	
2.	**Field Name:**	**Infants Less Than One YearTotal Served**
	Fiscal Year:	**2020**
	Field Note: Data Source: CDP Report #2641 unduplicated patient counts of infants served by LHDs less than 1 year of age from 01/01/2020 to 12/31/2020	
3.	**Field Name:**	**Children 1 through 21 Years of Age**
	Fiscal Year:	**2020**
	Field Note: Data Source: CDP Report #2641 unduplicated patient counts of children 1-21 served by LHDs from 01/01/2020 to 12/31/2020. This total does not reflect the counts or percentages of individuals served on line 3a.	
4.	**Field Name:**	**Children with Special Health Care Needs 0 through 21 Years of Age**
	Fiscal Year:	**2020**
	Field Note: For Form 5a, Column (A) is the total is actually 79,032 as served through direct and enabling services by OCSHCN, or other affiliated partnership programs with OCSHCN. However, insurance status on the full79,032 is not available to OCSHCN. Therefore the total count in column A is only those served with known insurance information in OCSHCN data files. Columns (B) – (F) are percentage based on individuals with insurance information reported within OCSHCN clinics which is 5,554 patients.	
5.	**Field Name:**	**Others**
	Fiscal Year:	**2020**
	Field Note: Data Source: CDP Report #2641 unduplicated patient counts of anyone receiving over age of 22 years receiving service in dental, family planning, school health, and medical nutrition therapy from 01/01/2020 to 12/31/2020	

Field Level Notes for Form 5b:

1.	**Field Name:**	**Pregnant Women**
	Fiscal Year:	**2020**
	Field Note: Total population served by Title V is 18,049. This is Kentucky resident live births regardless of where the infant was born Denominator is 51,677	
2.	**Field Name:**	**InfantsLess Than One Year**
	Fiscal Year:	**2020**
	Field Note: NBS DLS LIMs initial specimen count as numerator. Denominator is KY Occurrence Births for Calendar year 2020	
3.	**Field Name:**	**Children 1 Through 21 Years of Age**
	Fiscal Year:	**2020**
	Field Note: Numerator counts are inclusive of 5A CDP counts and state FY20 Catalyst Title V package counts for children 1-21 and state FY20 MCH package counts specific to CSCHCN. Denominator is Reference data as supplied via TVIS	
4.	**Field Name:**	**Children with Special Health Care Needs 0 through 21 Years of Age**
	Fiscal Year:	**2020**
	Field Note: OCSCHN provided numerator data. Denominator using reference data as supplied by TVIS system.	
5.	**Field Name:**	**Others**
	Fiscal Year:	**2020**
	Field Note: Numerator include CDP counts as on 5A and state FY20 Catalyst package counts. Denominator US Census Bureau Population Estimates 2019/ Kentucky ages 22-70 years of age for KEntucky.	

Data Alerts: None

Form 6
Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX

State: Kentucky

Annual Report Year 2020

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	49,591	37,014	5,044	3,338	61	235	323	0	3,576
Title V Served	1	0	0	1	0	0	0	0	0
Eligible for Title XIX	25,653	17,073	3,490	1,384	17	353	43	0	3,293
2. Total Infants in State	52,511	40,281	4,896	3,755	75	879	55	0	2,570
Title V Served	47,661	35,282	7,490	3,752	123	801	102	0	111
Eligible for Title XIX	33,626	17,411	3,635	1,712	15	313	51	0	10,489

Form Notes for Form 6:

None

Field Level Notes for Form 6:

None

Form 7
State MCH Toll-Free Telephone Line and Other Appropriate Methods Data

State: Kentucky

A. State MCH Toll-Free Telephone Lines	2022 Application Year	2020 Annual Report Year
1. State MCH Toll-Free "Hotline" Telephone Number	(800) 462-6122	(800) 462-6122
2. State MCH Toll-Free "Hotline" Name	Kentucky Maternal and Child Health Hotline	Kentucky Maternal and Child Health Hotline
3. Name of Contact Person for State MCH "Hotline"	Janice Bright	Janice Bright
4. Contact Person's Telephone Number	(502) 564-2154 x4405	(502) 564-2154 x4405
5. Number of Calls Received on the State MCH "Hotline"		5,366

B. Other Appropriate Methods	2022 Application Year	2020 Annual Report Year
1. Other Toll-Free "Hotline" Names	OCSHCN	OCSHCN (Central plus regional offices)
2. Number of Calls on Other Toll-Free "Hotlines"		3,955
3. State Title V Program Website Address	https://chfs.ky.gov/agencies/dph/dmch/Pages/default.aspx	https://chfs.ky.gov/agencies/dph/dmch/Pages/default.aspx
4. Number of Hits to the State Title V Program Website		95,607
5. State Title V Social Media Websites	http://www.safesleepky.com/; https://www.facebook.com/SafeSleep/	www.safesleepky.com; www.facebook.com/safesleepky
6. Number of Hits to the State Title V Program Social Media Websites		53,220

Form Notes for Form 7:

None

Form 8
State MCH and CSHCN Directors Contact Information

State: Kentucky

1. Title V Maternal and Child Health (MCH) Director	
Name	Dr. Henrietta Bada
Title	MCH Division & Title V Director
Address 1	275 East Main St.,
Address 2	HS2WA
City/State/Zip	Frankfort / KY / 40621
Telephone	(502) 564-2154
Extension	4392
Email	henrietta.bada@ky.gov

2. Title V Children with Special Health Care Needs (CSHCN) Director	
Name	Ivanora (Ivy) Alexander
Title	Executive Director, Office for Children with Special Health Care Needs
Address 1	310 Whittington Parkway
Address 2	Ste. #200
City/State/Zip	Louisville / KY / 40222
Telephone	(502) 429-4430
Extension	2065
Email	Ivy.Alexander@ky.gov

3. State Family or Youth Leader (Optional)	
Name	Karen McCracken
Title	Parent Consultant MCH
Address 1	275 East Main St.
Address 2	HS2WC
City/State/Zip	Frankfort / KY / 40621
Telephone	(502) 564-3756
Extension	4397
Email	karen.mccracken@ky.gov

Form Notes for Form 8:

None

Form 9
List of MCH Priority Needs

State: Kentucky

Application Year 2022

No.	Priority Need	Priority Need Type (New, Revised or Continued Priority Need for this five-year reporting period)
1.	Reduce maternal morbidity and mortality rates in Kentucky	Continued
2.	Reduce Infant Mortality Rate	Continued
3.	Reduction of child injury rates with focus on preventable child injuries from child abuse and neglect, motor vehicle collisions, and other child injuries	Continued
4.	Reduce overweight and obesity among children, and adolescents	Continued
5.	Improve mental health and behavioral health outcomes among adolescents.	Continued
6.	Reduce outcomes related to substance use disorder for pregnant women and reduce the number of Neonatal Abstinence Syndrome Cases	Continued
7.	Transition services for CYSHCN and transition education for all children	Continued
8.	Access to Care and Services for CSHCN	Continued
9.	Adequate Insurance for CSHCN	Continued
10.	Data Capacity for CSHCN	Continued

Form Notes for Form 9:

None

Field Level Notes for Form 9:

Field Name:

Priority Need 1

Field Note:
Kentucky continues to have higher rates of maternal mortality than national rates. An established MMRC from 2018 continues to review cases for cause, categorization and to inform prevention measures. Morbidity is being discussed with the newly established (2019, fall) Kentucky Perinatal Quality Collaborative

Field Name:

Priority Need 2

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment

Field Name:

Priority Need 3

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment

Field Name:

Priority Need 4

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment

Field Name:

Priority Need 5

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment. Language of need revised to be inclusive of all substance use (opioids, tobacco products, vaping). Identified on the 2020 Needs Assessment.

Field Name:

Priority Need 6

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment

Field Name:

Priority Need 7

Field Note:
Language inclusive of the total child population with population target focus for children with special health care needs. Identified on the 2020 needs assessment.

Field Name:

Priority Need 8

Field Note:
Is a continuing priority 2020 need. Actively being revised.

Field Name:

Priority Need 10

Field Note:
Continues to be a priority need for OCSHCN as identified in the 2020 Needs Assessment. Currently being revised.

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.	Reduce maternal morbidity and mortality rates in Kentucky	Continued
2.	Reduce Infant Mortality Rate	Continued
3.	Reduction of child injury rates with focus on preventable child injuries from child abuse and neglect, motor vehicle collisions, and other child injuries	Continued
4.	Reduce overweight and obesity among children, and adolescents	Continued
5.	Reduce outcomes related to Substance Use Disorder (to include tobacco products and vaping) for adolescents	Revised
6.	Reduce outcomes related to substance use disorder for pregnant women and reduce the number of Neonatal Abstinence Syndrome Cases	Continued
7.	Transition services for CYSHCN and transition education for all children	Revised
8.	Access to Care and Services for CSHCN	Continued
9.	Adequate Insurance for CSHCN	Continued
10.	Data Capacity for CSHCN	Continued

Form Notes for Form 9:

None

Field Level Notes for Form 9:

Field Name:

Priority Need 1

Field Note:
Kentucky continues to have higher rates of maternal mortality than national rates. An established MMRC from 2018 continues to review cases for cause, categorization and to inform prevention measures. Morbidity is being discussed with the newly established (2019, fall) Kentucky Perinatal Quality Collaborative

Field Name:

Priority Need 2

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment

Field Name:

Priority Need 3

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment

Field Name:

Priority Need 4

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment

Field Name:

Priority Need 5

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment. Language of need revised to be inclusive of all substance use (opioids, tobacco products, vaping). Identified on the 2020 Needs Assessment.

Field Name:

Priority Need 6

Field Note:
Rates continue to be higher than national measures. Identified as an ongoing need for the 2020 Needs Assessment

Field Name:

Priority Need 7

Field Note:
Language inclusive of the total child population with population target focus for children with special health care needs. Identified on the 2020 needs assessment.

Field Name:

Priority Need 8

Field Note:
Is a continuing priority 2020 need. Actively being revised.

Field Name:

Priority Need 10

Field Note:
Continues to be a priority need for OCSHCN as identified in the 2020 Needs Assessment. Currently being revised.

Form 10
National Outcome Measures (NOMs)

State: Kentucky

Form Notes for Form 10 NPMs, NOMs, SPMs, SOMs, and ESMs.

None

NOM 1 - Percent of pregnant women who receive prenatal care beginning in the first trimester

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2019	78.9 %	0.2 %	40,317	51,106
2018	78.9 %	0.2 %	40,347	51,111
2017	78.8 %	0.2 %	41,237	52,301
2016	79.0 %	0.2 %	42,142	53,367
2015	78.8 %	0.2 %	42,580	54,032
2014	78.6 %	0.2 %	42,872	54,513
2013	75.8 %	0.2 %	40,711	53,732
2012	75.6 %	0.2 %	40,509	53,595
2011	75.3 %	0.2 %	39,973	53,069
2010	73.7 %	0.2 %	39,324	53,370
2009	71.8 %	0.2 %	39,743	55,321

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**
2018	75.2	3.8	386	51,347
2017	65.8	3.6	345	52,452
2016	65.2	3.5	344	52,767
2015	71.0	4.3	277	39,041
2014	67.0	3.6	350	52,265
2013	75.7	3.8	392	51,778
2012	69.7	3.7	362	51,914
2011	71.8	3.8	370	51,536
2010	88.1	4.1	463	52,574
2009	84.4	4.0	456	54,046
2008	70.0	3.6	378	53,968

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
2015_2019	29.7	3.3	81	273,163
2014_2018	24.3	3.0	67	276,264

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
2019	8.7 %	0.1 %	4,642	53,062
2018	8.9 %	0.1 %	4,782	53,918
2017	8.8 %	0.1 %	4,831	54,746
2016	9.1 %	0.1 %	5,042	55,441
2015	8.7 %	0.1 %	4,846	55,966
2014	8.8 %	0.1 %	4,922	56,158
2013	8.7 %	0.1 %	4,845	55,674
2012	8.7 %	0.1 %	4,823	55,752
2011	9.1 %	0.1 %	5,040	55,350
2010	9.0 %	0.1 %	5,044	55,762
2009	8.9 %	0.1 %	5,141	57,537

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
2019	11.3 %	0.1 %	5,993	53,049
2018	11.3 %	0.1 %	6,109	53,901
2017	11.1 %	0.1 %	6,092	54,733
2016	11.4 %	0.1 %	6,322	55,430
2015	10.8 %	0.1 %	6,026	55,948
2014	10.7 %	0.1 %	6,033	56,153
2013	11.0 %	0.1 %	6,149	55,653
2012	11.0 %	0.1 %	6,151	55,730
2011	11.3 %	0.1 %	6,226	55,328
2010	11.7 %	0.1 %	6,521	55,757
2009	11.6 %	0.1 %	6,648	57,488

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
2019	31.3 %	0.2 %	16,601	53,049
2018	29.9 %	0.2 %	16,111	53,901
2017	29.1 %	0.2 %	15,908	54,733
2016	28.3 %	0.2 %	15,688	55,430
2015	27.6 %	0.2 %	15,454	55,948
2014	28.0 %	0.2 %	15,748	56,153
2013	28.2 %	0.2 %	15,692	55,653
2012	30.5 %	0.2 %	16,993	55,730
2011	30.7 %	0.2 %	17,007	55,328
2010	32.1 %	0.2 %	17,888	55,757
2009	34.3 %	0.2 %	19,728	57,488

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
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	3.0 %			
2016/Q4-2017/Q3	3.0 %			
2016/Q3-2017/Q2	3.0 %			
2016/Q2-2017/Q1	3.0 %			
2016/Q1-2016/Q4	3.0 %			
2015/Q4-2016/Q3	3.0 %			
2015/Q3-2016/Q2	4.0 %			
2015/Q2-2016/Q1	4.0 %			
2015/Q1-2015/Q4	5.0 %			
2014/Q4-2015/Q3	6.0 %			
2014/Q3-2015/Q2	6.0 %			
2014/Q2-2015/Q1	7.0 %			
2014/Q1-2014/Q4	8.0 %			
2013/Q4-2014/Q3	8.0 %			
2013/Q3-2014/Q2	8.0 %			
2013/Q2-2014/Q1	9.0 %			

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
2018	6.0	0.3	326	54,080
2017	6.8	0.4	373	54,942
2016	6.3	0.3	350	55,623
2015	6.5	0.3	366	56,152
2014	6.7	0.4	378	56,353
2013	6.7	0.4	376	55,884
2012	7.2	0.4	402	55,955
2011	5.9	0.3	326	55,527
2010	5.6	0.3	313	55,960
2009	6.0	0.3	346	57,732

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
2018	6.0	0.3	326	53,922
2017	6.6	0.4	361	54,752
2016	6.8	0.4	376	55,449
2015	6.7	0.4	375	55,971
2014	7.1	0.4	400	56,170
2013	6.4	0.3	356	55,686
2012	7.2	0.4	401	55,758
2011	6.4	0.3	356	55,370
2010	6.8	0.4	380	55,784
2009	6.8	0.4	393	57,551

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
2018	3.7	0.3	202	53,922
2017	4.1	0.3	225	54,752
2016	3.9	0.3	214	55,449
2015	4.1	0.3	227	55,971
2014	4.3	0.3	242	56,170
2013	3.9	0.3	219	55,686
2012	4.7	0.3	263	55,758
2011	4.0	0.3	219	55,370
2010	3.4	0.3	187	55,784
2009	3.7	0.3	215	57,551

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**
2018	2.3	0.2	124	53,922
2017	2.5	0.2	136	54,752
2016	2.9	0.2	162	55,449
2015	2.6	0.2	148	55,971
2014	2.8	0.2	158	56,170
2013	2.5	0.2	137	55,686
2012	2.5	0.2	138	55,758
2011	2.5	0.2	137	55,370
2010	3.5	0.3	193	55,784
2009	3.1	0.2	178	57,551

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
2018	152.1	16.8	82	53,922
2017	171.7	17.7	94	54,752
2016	178.5	18.0	99	55,449
2015	178.7	17.9	100	55,971
2014	185.2	18.2	104	56,170
2013	150.8	16.5	84	55,686
2012	247.5	21.1	138	55,758
2011	175.2	17.8	97	55,370
2010	166.7	17.3	93	55,784
2009	196.3	18.5	113	57,551

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
2018	111.3	14.4	60	53,922
2017	144.3	16.3	79	54,752
2016	176.7	17.9	98	55,449
2015	153.7	16.6	86	55,971
2014	170.9	17.5	96	56,170
2013	147.3	16.3	82	55,686
2012	123.7	14.9	69	55,758
2011	139.1	15.9	77	55,370
2010	164.9	17.2	92	55,784
2009	144.2	15.8	83	57,551

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

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

State Provided Data	
	2020
Annual Indicator	0.0
Numerator	
Denominator	
Data Source	N/A
Data Source Year	2020

NOM 10 - Notes:

Kentucky birth certificate does not include data regarding alcohol use in pregnancy. In 2020, there was no surveillance systems to collect this data.

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
2018	23.1	0.7	1,193	51,573
2017	23.9	0.7	1,268	52,961
2016	23.1	0.7	1,218	52,746
2015	22.7	0.8	898	39,524
2014	21.3	0.6	1,125	52,851
2013	15.6	0.6	817	52,518
2012	12.7	0.5	668	52,403
2011	10.9	0.5	564	51,913
2010	8.1	0.4	410	50,733
2009	6.7	0.4	348	51,709
2008	4.8	0.3	231	48,237

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
2018_2019	10.6 %	1.2 %	99,767	940,174
2017_2018	10.6 %	1.5 %	100,585	945,336
2016_2017	11.2 %	1.5 %	105,415	944,334
2016	12.4 %	1.9 %	118,487	953,696

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**
2019	19.0	2.0	94	495,873
2018	21.1	2.1	105	498,581
2017	19.2	2.0	96	499,310
2016	21.6	2.1	108	500,279
2015	21.3	2.1	107	501,802
2014	20.5	2.0	103	503,138
2013	18.4	1.9	93	505,102
2012	22.0	2.1	112	508,169
2011	23.7	2.2	120	507,072
2010	23.7	2.2	121	510,066
2009	23.3	2.1	118	507,081

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
2019	37.7	2.6	215	569,907
2018	37.9	2.6	217	572,893
2017	41.6	2.7	238	571,816
2016	45.3	2.8	258	569,804
2015	39.3	2.6	223	566,864
2014	34.0	2.5	193	567,845
2013	31.2	2.3	177	567,768
2012	39.4	2.6	224	568,657
2011	33.5	2.4	193	575,565
2010	40.1	2.6	233	580,949
2009	39.7	2.6	231	581,176

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
2017_2019	16.6	1.4	143	860,482
2016_2018	19.1	1.5	165	862,525
2015_2017	18.9	1.5	163	860,763
2014_2016	16.9	1.4	145	857,393
2013_2015	15.4	1.3	131	852,073
2012_2014	17.7	1.4	150	849,564
2011_2013	17.1	1.4	146	855,059
2010_2012	18.5	1.5	161	869,224
2009_2011	18.9	1.5	167	883,934
2008_2010	21.8	1.6	195	892,781
2007_2009	25.5	1.7	227	891,367

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
2017_2019	12.1	1.2	104	860,482
2016_2018	13.1	1.2	113	862,525
2015_2017	13.4	1.3	115	860,763
2014_2016	11.9	1.2	102	857,393
2013_2015	10.8	1.1	92	852,073
2012_2014	9.5	1.1	81	849,564
2011_2013	9.9	1.1	85	855,059
2010_2012	8.9	1.0	77	869,224
2009_2011	8.4	1.0	74	883,934
2008_2010	8.5	1.0	76	892,781
2007_2009	9.6	1.0	86	891,367

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
2018_2019	22.8 %	1.5 %	229,054	1,006,554
2017_2018	24.3 %	1.7 %	245,001	1,009,755
2016_2017	24.4 %	1.7 %	246,315	1,008,623
2016	25.4 %	2.0 %	255,861	1,008,041

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
2018_2019	18.7 %	2.5 %	42,824	229,054
2017_2018	18.2 %	2.7 %	44,508	245,001
2016_2017	17.3 %	2.7 %	42,540	246,315
2016	16.1 %	3.1 %	41,113	255,861

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
2018_2019	2.6 %	0.5 %	21,540	823,610
2017_2018	2.6 %	0.6 %	21,848	842,246
2016_2017	2.4 %	0.6 %	19,893	835,558
2016	2.8 %	0.7 %	22,712	822,628

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
2018_2019	11.6 %	1.3 %	95,090	817,203
2017_2018	12.5 %	1.5 %	104,497	837,307
2016_2017	12.4 %	1.5 %	103,637	833,635
2016	11.9 %	1.6 %	97,844	819,440

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
2018_2019	47.4 %	4.8 %	66,379	140,100
2017_2018	44.5 %	5.7 %	64,948	146,115
2016_2017	43.7 %	5.5 %	62,763	143,710
2016	47.9 %	6.0 %	72,660	151,800

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
2018_2019	90.6 %	1.1 %	911,098	1,005,454
2017_2018	90.4 %	1.2 %	909,387	1,005,976
2016_2017	90.4 %	1.2 %	907,167	1,003,340
2016	89.2 %	1.6 %	896,130	1,005,033

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% points, >1.2 times the estimate, or that is inestimable and should be interpreted with caution

NOM 19 - Notes:

None

Data Alerts: None

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

Data Source: WIC

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2018	16.3 %	0.2 %	5,631	34,628
2016	15.9 %	0.2 %	6,112	38,361
2014	13.3 %	0.2 %	5,886	44,355
2012	13.5 %	0.2 %	5,877	43,422
2010	18.2 %	0.2 %	8,345	45,761
2008	16.9 %	0.2 %	7,993	47,225

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	18.4 %	1.4 %	33,533	182,300
2017	20.2 %	1.5 %	37,214	184,217
2015	18.5 %	1.1 %	33,420	180,827
2013	18.0 %	1.2 %	32,409	180,047
2011	16.5 %	1.2 %	28,137	170,998
2009	17.4 %	1.3 %	32,775	188,798
2007	15.4 %	0.8 %	26,191	169,772
2005	15.4 %	0.7 %	25,073	162,510

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
2018_2019	23.8 %	2.4 %	104,815	440,461
2017_2018	20.8 %	2.7 %	93,661	451,110
2016_2017	19.3 %	2.5 %	82,920	428,583
2016	19.6 %	2.5 %	81,412	414,415

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	4.1 %	0.3 %	40,968	1,000,197
2018	3.4 %	0.3 %	33,762	1,007,040
2017	4.0 %	0.5 %	40,657	1,012,847
2016	3.2 %	0.3 %	32,400	1,011,308
2015	4.4 %	0.4 %	44,050	1,009,275
2014	4.3 %	0.3 %	43,166	1,014,030
2013	5.9 %	0.4 %	59,952	1,011,219
2012	5.9 %	0.5 %	60,230	1,015,554
2011	5.9 %	0.5 %	59,790	1,021,874
2010	5.8 %	0.4 %	59,114	1,017,772
2009	5.9 %	0.4 %	59,762	1,017,979

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
2016	77.8 %	4.3 %	43,000	55,000
2015	68.4 %	4.1 %	38,000	55,000
2014	69.7 %	4.1 %	38,000	55,000
2013	69.9 %	3.9 %	39,000	55,000
2012	68.7 %	4.0 %	38,000	55,000
2011	68.8 %	4.4 %	38,000	55,000

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
2019_2020	59.7 %	1.7 %	566,942	949,651
2018_2019	64.8 %	2.2 %	609,963	941,592
2017_2018	55.3 %	2.1 %	526,392	952,131
2016_2017	50.3 %	2.0 %	474,509	944,297
2015_2016	51.7 %	1.9 %	487,389	942,908
2014_2015	51.2 %	1.9 %	489,436	956,116
2013_2014	54.0 %	2.1 %	514,249	951,632
2012_2013	59.0 %	2.7 %	571,430	969,106
2011_2012	48.9 %	2.4 %	464,496	950,390
2010_2011	51.3 %	3.2 %	492,630	960,293
2009_2010	42.6 %	2.4 %	387,505	909,635

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
2019	74.4 %	3.0 %	211,214	283,757
2018	56.9 %	3.5 %	161,105	283,347
2017	49.6 %	3.1 %	140,918	284,359
2016	48.0 %	3.3 %	136,857	284,856
2015	45.8 %	3.2 %	130,606	285,204

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
2019	89.2 %	2.1 %	253,196	283,757
2018	84.9 %	2.6 %	240,523	283,347
2017	86.4 %	2.1 %	245,618	284,359
2016	89.0 %	1.9 %	253,491	284,856
2015	84.0 %	2.4 %	239,625	285,204
2014	85.5 %	2.5 %	244,646	286,295
2013	84.4 %	2.6 %	240,214	284,527
2012	80.0 %	2.9 %	227,714	284,736
2011	70.0 %	3.1 %	199,606	285,351
2010	53.1 %	3.2 %	151,024	284,473
2009	37.5 %	2.8 %	106,384	284,013

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
2019	90.6 %	2.0 %	256,968	283,757
2018	84.4 %	2.7 %	239,089	283,347
2017	83.3 %	2.3 %	236,933	284,359
2016	85.9 %	2.1 %	244,608	284,856
2015	79.0 %	2.7 %	225,212	285,204
2014	78.2 %	2.9 %	223,796	286,295
2013	71.2 %	3.2 %	202,449	284,527
2012	62.9 %	3.5 %	179,159	284,736
2011	55.0 %	3.4 %	156,902	285,351
2010	44.8 %	3.2 %	127,534	284,473
2009	36.3 %	2.7 %	103,104	284,013

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
2019	24.9	0.4	3,464	139,306
2018	27.3	0.4	3,816	139,727
2017	29.0	0.5	4,060	140,011
2016	30.9	0.5	4,331	140,311
2015	32.2	0.5	4,503	139,704
2014	35.2	0.5	4,877	138,484
2013	39.1	0.5	5,410	138,365
2012	41.1	0.6	5,689	138,362
2011	43.4	0.6	6,111	140,881
2010	46.4	0.6	6,684	144,190
2009	49.7	0.6	7,208	144,977

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
2019	13.9 %	1.6 %	6,138	44,080
2018	14.0 %	1.7 %	6,755	48,286
2017	14.0 %	1.7 %	6,815	48,564

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
2018_2019	1.8 %	0.5 %	18,106	1,004,099
2017_2018	2.3 %	0.9 %	23,179	1,008,461
2016_2017	2.8 %	0.9 %	28,171	1,007,959
2016	2.5 %	0.8 %	24,785	1,008,041

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: Kentucky

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)		
	2019	**2020**
Annual Objective		
Annual Indicator	70.8	75.2
Numerator	520,595	556,691
Denominator	735,403	740,672
Data Source	BRFSS	BRFSS
Data Source Year	2018	2019

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	75.2	76.0	77.0	78.0	79.0	80.2

Field Level Notes for Form 10 NPMs:

None

NPM 4A - Percent of infants who are ever breastfed

Federally Available Data					
Data Source: National Immunization Survey (NIS)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	68	68.5	69	74	78
Annual Indicator	66.9	74.9	73.9	76.7	72.6
Numerator	32,863	39,855	36,330	36,027	38,301
Denominator	49,132	53,240	49,132	46,956	52,779
Data Source	NIS	NIS	NIS	NIS	NIS
Data Source Year	2013	2014	2015	2016	2017

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	79.0	80.0	81.0	82.0	83.0	83.0

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)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	18	19.5	20	22	26
Annual Indicator	19.0	18.5	21.1	25.8	23.0
Numerator	9,175	9,330	9,877	11,614	11,906
Denominator	48,213	50,546	46,742	44,939	51,775
Data Source	NIS	NIS	NIS	NIS	NIS
Data Source Year	2013	2014	2015	2016	2017

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	26.5	27.0	27.5	28.0	28.5	28.5

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)			
	2018	**2019**	**2020**
Annual Objective	73	85	86
Annual Indicator	83.9	85.5	83.0
Numerator	40,180	40,711	36,727
Denominator	47,882	47,599	44,229
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2018	2019

State Provided Data					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	72	72	73	85	86
Annual Indicator	71.4	71.4			
Numerator					
Denominator					
Data Source	KY PRAMS pilot project	KY PRAMS Pilot Project			
Data Source Year	2010/2011	2010/2011			
Provisional or Final ?	Final	Final			

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	87.0	88.0	89.0	90.0	90.5	90.5

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**

Field Note:
Data for this indicator is reported from the KY PRAMS pilot project conducted in 2010/2011. KY was recently awarded funding through the CDC to become a PRAMS state and has begun data collection for calendar year 2017 and therefore will have data next year for this indicator.
Numerator and denominator data are not available.

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

Federally Available Data			
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)			
	2018	**2019**	**2020**
Annual Objective		35.5	37.5
Annual Indicator	35.3	37.3	40.8
Numerator	16,040	16,812	17,094
Denominator	45,490	45,109	41,943
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2018	2019

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	38.0	38.5	39.5	40.0	40.5	40.5

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
No state data is available for this part of the indicator.

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

Federally Available Data			
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)			
	2018	**2019**	**2020**
Annual Objective		46.5	50.5
Annual Indicator	45.9	50.0	52.0
Numerator	20,900	22,301	21,974
Denominator	45,561	44,602	42,245
Data Source	PRAMS	PRAMS	PRAMS
Data Source Year	2017	2018	2019

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	51.0	51.5	52.0	52.5	53.0	53.0

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**

Field Note:
No state data is available for this part of the project.

NPM 7.1 - Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9

Federally Available Data					
Data Source: HCUP - State Inpatient Databases (SID)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	107	107	104	120	115
Annual Indicator	108.4	145.0	123.8	117.7	113.2
Numerator	606	605	687	652	625
Denominator	558,942	417,308	555,089	553,947	552,138
Data Source	SID-CHILD	SID-CHILD	SID-CHILD	SID-CHILD	SID-CHILD
Data Source Year	2014	2015	2016	2017	2018

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	110.0	105.0	100.0	95.0	95.0	94.5

Field Level Notes for Form 10 NPMs:

None

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					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			45	27	30
Annual Indicator		30.2	25.8	29.9	35.2
Numerator		90,306	77,802	93,727	118,650
Denominator		299,110	301,378	313,513	337,387
Data Source		NSCH-CHILD	NSCH-CHILD	NSCH-CHILD	NSCH-CHILD
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	35.5	38.0	40.0	42.5	45.0	45.0

Field Level Notes for Form 10 NPMs:

1. **Field Name:** **2021**

   Column Name: **Annual Objective**

   Field Note:
   While the 2020 goal exceeded the annual objective, it is unknown if COVID stay-at-home restrictions falsely elevated the results.

NPM 8.2 - Percent of adolescents, ages 12 through 17 who are physically active at least 60 minutes per day

Federally Available Data					
Data Source: Youth Risk Behavior Surveillance System (YRBSS)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	23	24	25	24	24
Annual Indicator	20.2	20.2	22.0	22.0	19.0
Numerator	37,629	37,629	41,447	41,447	36,170
Denominator	186,195	186,195	188,822	188,822	190,170
Data Source	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT
Data Source Year	2015	2015	2017	2017	2019

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH) - ADOLESCENT					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			25	24	24
Annual Indicator		13.1	17.2	16.8	16.7
Numerator		44,811	58,697	59,999	56,927
Denominator		342,824	341,755	356,304	341,236
Data Source		NSCH-ADOLESCENT	NSCH-ADOLESCENT	NSCH-ADOLESCENT	NSCH-ADOLESCENT
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	25.0	25.0	26.0	26.0	26.5	26.5

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2021**
	Column Name:	**Annual Objective**

Field Note:
It is unknown whether or not COVID stay-at-home restrictions had an impact on this data set.

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					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			42	43	44
Annual Indicator		13.6	19.0	22.8	18.0
Numerator		16,553	20,062	23,909	19,911
Denominator		122,086	105,479	104,686	110,904
Data Source		NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN	NSCH-CSHCN
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	45.0	46.0	47.0	48.0	48.0	48.0

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)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			24	23	
Annual Indicator		24.6	23.4	22.7	22.6
Numerator		244,610	233,551	225,873	221,987
Denominator		992,768	998,969	995,888	981,065
Data Source		NSCH	NSCH	NSCH	NSCH
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Annual Objectives						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Annual Objective	22.0	22.0	21.5	21.5	21.0	21.0

Field Level Notes for Form 10 NPMs:

None

Form 10
National Performance Measures (NPMs) (2016-2020 Needs Assessment Cycle)

State: Kentucky

2016-2020: NPM 2 - Percent of cesarean deliveries among low-risk first births

Federally Available Data					
Data Source: National Vital Statistics System (NVSS)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective	28	27	26	27.5	27
Annual Indicator	27.4	27.2	28.3	27.8	26.8
Numerator	5,018	4,819	4,907	4,752	4,484
Denominator	18,321	17,748	17,321	17,108	16,740
Data Source	NVSS	NVSS	NVSS	NVSS	NVSS
Data Source Year	2015	2016	2017	2018	2019

Field Level Notes for Form 10 NPMs:

None

2016-2020: NPM 13.2 - Percent of children, ages 1 through 17, who had a preventive dental visit in the past year - Child Health

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			79	82	84
Annual Indicator		78.3	77.6	77.9	79.6
Numerator		746,012	735,981	742,477	752,166
Denominator		952,247	949,011	953,367	944,977
Data Source		NSCH	NSCH	NSCH	NSCH
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Field Level Notes for Form 10 NPMs:

None

2016-2020: NPM 14.2 - Percent of children, ages 0 through 17, who live in households where someone smokes - Child Health

Federally Available Data					
Data Source: National Survey of Children's Health (NSCH)					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			24	23	23
Annual Indicator		24.6	23.4	22.7	22.6
Numerator		244,610	233,551	225,873	221,987
Denominator		992,768	998,969	995,888	981,065
Data Source		NSCH	NSCH	NSCH	NSCH
Data Source Year		2016	2016_2017	2017_2018	2018_2019

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

Field Level Notes for Form 10 NPMs:

None

Form 10
State Performance Measures (SPMs)

State: Kentucky

SPM 1 - Reduce by 5% the rate of neonatal abstinence syndrome among Kentucky resident live births

Measure Status:	Active

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective		23.8	22.5	22	21.5
Annual Indicator	24.3	22	16.8	21.3	22.6
Numerator	1,354	1,114	907	1,102	1,202
Denominator	55,714	50,716	53,923	51,629	53,069
Data Source	KY NAS registry and live birth cert files	KY NAS registry and live birth cert files	KY NAS registry/OVS Live Birth Records	KY NAS registry/OVS Live Birth Records	KY NAS registry/OVS Live Birth Records
Data Source Year	2015	2017	2017	2018	2019
Provisional or Final ?	Final	Provisional	Provisional	Provisional	Provisional

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	21.0	20.5	20.0	19.5	19.0	18.5

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**
	Field Note: The 2017 NAS registry data is still preliminary as edit checks are still being completed on cases to ensure accuracy and complete reporting. It is anticipated this process will be complete by early Aug and an updated final number available at that time. Until then, the data reported is considered preliminary and numbers may change. The numerator was updated for 2017 7.2.19 to align with more accurate counts.	
2.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: 2018 NAS data analysis is not complete. Annual indicator and Numerator are reflective of preliminary 2017 data counts.	
3.	**Field Name:**	**2019**
	Column Name:	**State Provided Data**
	Field Note: Annual objectives left at current value as preliminary data from 2019/2020 appears the rate is again increasing.	

SPM 2 - Reduce by 10% the number of maternal deaths of Kentucky residents associated with substance use disorder by 2025

Measure Status:	Active

State Provided Data			
	2018	2019	2020
Annual Objective			51.5
Annual Indicator	53.5	51.3	50.7
Numerator	23	39	35
Denominator	43	76	69
Data Source	Office of Vital Statistics death certificate files	Office of Vital Statistics death certificate files	Office of Vital Statistics death certificate files
Data Source Year	2017	2018	2019
Provisional or Final ?	Provisional	Provisional	Provisional

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	49.5	47.0	45.5	44.5	43.5	42.5

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: drug overdose for females between 15-55 within one year of age. Data from OVS with drug overdose defined by the ICD10 Code X40-X49	
2.	**Field Name:**	**2019**
	Column Name:	**State Provided Data**
	Field Note: drug overdose for females between 15-55 within one year of age. Data from OVS with drug overdose defined by the ICD10 Code X40-X49	

SPM 3 - Percent of OCSHCN Access to Care Plan components completed

Measure Status:	Active

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective		90	100	100	100
Annual Indicator	81.3	90.7	94.7	94.7	98.7
Numerator	61	68	71	71	74
Denominator	75	75	75	75	75
Data Source	CCSHCN Access to Care Plan	CCSHCN Access to Care Plan	OCSHCN Access to Care Plan	OCSHCN Access to Care Paln	OCSHCN Access to Care Plan
Data Source Year	2019	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Provisional	Final	Provisional

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	100.0	100.0	100.0	100.0	100.0	100.0

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**
	Field Note: CCSHCN Access to Care Plan score sheet attached in Supporting Documents: CYSHCN (#1)	
2.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**
	Field Note: CCSHCN Access to Care Plan score sheet attached in Supporting Documents: CYSHCN (#1)	
3.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: OCSHCN Access to Care Plan score sheet attached in Supporting Documents.	

SPM 4 - Percent of OCSHCN Data Action Plan components completed

Measure Status:	Active

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective		60	75	90	100
Annual Indicator	53.3	65.6	75.6	86.7	83.3
Numerator	48	59	68	78	75
Denominator	90	90	90	90	90
Data Source	CCSHCN Data Action Plan	CCSHCN Data Action Plan	OCSHCN Data Action Plan	OCSHCN Data Action Plan	OCSHCN Data Action Plan
Data Source Year	2016	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Provisional	Final	Provisional

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	100.0	100.0	100.0	100.0	100.0	100.0

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**
	Field Note: CCSHCN Data Action Plan score sheet attached in Supporting Documents: CYSHCN (#2)	
2.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**
	Field Note: CCSHCN Data Action Plan score sheet attached in Supporting Documents: CYSHCN (#2)	

SPM 5 - Percent of children ages 0 through 17 who are adequately insured

Measure Status:	Active

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective		78	81	82	83
Annual Indicator	77.9	80.5	82	63.1	70.3
Numerator	1,401		185,968	140,000	174,020
Denominator	1,798		226,859	222,000	247,651
Data Source	NSCH	NSCH indicator 3.4	NSCH indicator 3.4	NSCH indicator 3.4	NSCH indicator 3.4
Data Source Year	2011-12	2016	2016	2017	2018
Provisional or Final ?	Final	Final	Provisional	Provisional	Provisional

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	84.0	85.0	86.0	87.0	87.0	87.0

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**
	Field Note: Same metric as National Performance Measure #15: Percent of children who are adequately insured Survey Items: K3Q20; K3Q22; K3Q21A; K3Q21B	
2.	**Field Name:**	**2017**
	Column Name:	**State Provided Data**
	Field Note: Data is from the 2016 National Survey of Children's Health indicator 3.4. Percent of kids aged 0-17 who are adequately insured.	
3.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: Data comes from 2017 National Survey of Children's Health Indicator 3.4: Adequacy of current insurance for CYSHCN. Total pop est. is (185,968 + 40,891) which equals 226,859. The 185,968 had adequate insurance.	

SPM 6 - Reduce by 5% the number of child and adolescent deaths categorized as suicide by 2025.

Measure Status:	Active

State Provided Data		
	2019	2020
Annual Objective		
Annual Indicator	4.4	4.7
Numerator	26	25
Denominator	594	527
Data Source	Office of Vital Statistics death certificate files	Office of Vital Statistics death certificate files
Data Source Year	2017	2018
Provisional or Final ?	Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	4.7	4.5	4.3	4.1	4.0	3.8

Field Level Notes for Form 10 SPMs:

None

SPM 7 - Adverse Childhood Experiences

Measure Status:	Active

State Provided Data	
	2020
Annual Objective	
Annual Indicator	8.7
Numerator	480,000
Denominator	5,544,000
Data Source	KYBRFSS
Data Source Year	2020
Provisional or Final ?	Final

Annual Objectives					
	2022	2023	2024	2025	2026
Annual Objective	11.4	11.2	10.8	10.6	10.4

Field Level Notes for Form 10 SPMs:

None

Form 10
Evidence-Based or –Informed Strategy Measures (ESMs)

State: Kentucky

ESM 1.1 - Number of women receiving assistance, education, or guidance for getting a well woman visit, immunizations, or referral to tobacco cessation programs, substance use programs or other referrals.

Measure Status:	Active

State Provided Data		
	2019	2020
Annual Objective		
Annual Indicator		1,225
Numerator		
Denominator		
Data Source		MCH Package Counts No. 204-Prenatal Referrals
Data Source Year		2020
Provisional or Final ?		Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	2,000.0	2,200.0	2,300.0	2,400.0	2,500.0	2,500.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
Calendar year 2020. Number of referrals made in the the Prenatal Package to LHD, WIC and HANDS referrals, and KY Women's Health data, who received or were referred for dental screenings, IPV-Intimate partner violence, depression, tobacco or other drug use.

ESM 4.1 - Number of hospitals receiving technical assistance, educational offerings. Policy review from public health (LHD or state program) about the 10 steps to successful breastfeeding

Measure Status:	Active

State Provided Data				
	2017	2018	2019	2020
Annual Objective			32	33
Annual Indicator			30	10
Numerator				
Denominator				
Data Source			KY Nutrition Services Records	KY Nutrition Service Records
Data Source Year			2019	2020
Provisional or Final ?			Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	34.0	35.0	36.0	37.0	38.0	40.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
COVID impacted the number of hospitals that received outreach 2020. 11 hospitals received outreach during January-February 2020, but all outreach stopped in March due to COVID Statewide state of emergency.

ESM 5.1 - PRAMS mothers who report placing their infants in a back-to-sleep positioning by September 30, 2025.

Measure Status:	Active

State Provided Data	
	2020
Annual Objective	
Annual Indicator	83
Numerator	
Denominator	
Data Source	KY PRAMS Weighted Data Set
Data Source Year	2019
Provisional or Final ?	Final

Annual Objectives					
	2022	2023	2024	2025	2026
Annual Objective	79.0	80.0	81.0	82.0	84.0

Field Level Notes for Form 10 ESMs:

None

ESM 7.1.1 - Number of community members receiving training or technical assistance about preventable child injuries or death and promoting injury prevention activities including child maltreatment, child passenger, gun, water, fire, pedestrian, ATV, or more.

Measure Status:	Active

State Provided Data		
	2019	2020
Annual Objective		
Annual Indicator		96,859
Numerator		
Denominator		
Data Source		RedCap No. 201-Child Fatality Review Activities
Data Source Year		2020
Provisional or Final ?		Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	97,000.0	98,000.0	99,000.0	100,000.0	101,000.0	102,000.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
KY RedCap No.201-Data from number reached for training or TA

ESM 8.1.1 - Number of early care and education professionals or providers completing training modules on nutrition, physical activity, or other obesity related opportunities.

Measure Status:	Active

State Provided Data				
	2017	2018	2019	2020
Annual Objective	200	2,200	2,300	2,300
Annual Indicator	2,122	2,394	48	0
Numerator				
Denominator				
Data Source	UK HDI	UK HDI	KY PQI training data	KY PQI training data
Data Source Year	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	2,400.0	2,450.0	2,500.0	2,550.0	2,600.0	2,600.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
During 2020, the child care health consultant entire focus was on COVID related education, mitigation in childcare and management of quarantine/isolation issues. No formal opportunities for clock hour trainings for child care providers were developed or presented. This is an ongoing mission for FY22

ESM 8.2.1 - Number of districts receiving training or technical assistance for strategies to create a healthy school nutrition environment, or evaluation of recess and multi-component education policies.

Measure Status:	Active

State Provided Data				
	2017	2018	2019	2020
Annual Objective			80	100
Annual Indicator			50	171
Numerator				
Denominator				
Data Source			KY Healthy Schools	KY Healthy Schools
Data Source Year			2019	2020
Provisional or Final ?			Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	120.0	140.0	160.0	171.0	171.0	171.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
Kentucky Healthy Schools Teams diverted trainings to a virtual platform reaching 2,617 individuals representing 9 districts of the 171 districts in Kentucky. Between June 30, 2020 and June 29, 2021, KDE and partners provided approximately 136 PD and TA activities that focused on such topics as Understanding COVID-19 transmission, Remote teaching and instruction, Reopening schools safely, Protection for teachers and staff, Social distancing in school
ols and classrooms, Safe recess practices, Safe physical education practices, Serving school meals safely, Managing food insecurity during COVID-19, Safe nursing and health management practices, Health practices during out-of-school time, and Mitigation strategies to reduce the spread of COVID-19 in schools (e.g., masks, hand washing). These trainings were completed and distributed in partnership to all 171 districts.

ESM 12.1 - Employ Health Care Transitions (HCT) Process Measurement tool towards assessing progress on implementation of Six Core Elements of Health Care Transitions statewide

Measure Status:	Active

State Provided Data					
	2016	2017	2018	2019	2020
Annual Objective		85	86	87	95
Annual Indicator	84	94	94	100	100
Numerator	84	94	94	100	100
Denominator	100	100	100	100	100
Data Source	HCT Process Measurement Tool	HCT Process Measurement Tool	HCT Process Measurement Tool	HCT Process Measurement Tool	HCT Process Measurement Tool
Data Source Year	2016	2017	2018	2019	2020
Provisional or Final ?	Provisional	Provisional	Provisional	Final	Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	96.0	97.0	98.0	99.0	100.0	100.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2016**
	Column Name:	**State Provided Data**
	Field Note: Copy of score sheet attached in CYSHCN Supporting Documents (#4). Tool published by Got Transition/Center for Health Care Transition Improvement	
2.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: Copy of score sheet attached in OCSHCN Supporting Documents. Tool published by Got Transition/Center for Health Care Transition Improvement	
3.	**Field Name:**	**2019**
	Column Name:	**State Provided Data**
	Field Note: With the updates to the HCT tool, the OCSHCN will update to the latest version. With new components added and with the addition of expansion to all children with special health care needs, OCSHCN anticipates this measure needs to continue and that the annual indicator in future years could be impacted.	
4.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**
	Field Note: Remains 100% with health care transitions tool. Working on expanding OCSHCN program to include entire state CYSHCN population.	

ESM 14.2.1 - Increase by 5% the number of Kentuckians covered by comprehensive smoke-free policies by 2026. Baseline: 32.7% (2017) Data Source: DPH and Kentucky Center for Smoke-Free Policy

Measure Status:	Active

State Provided Data		
	2019	2020
Annual Objective		
Annual Indicator		36.6
Numerator		
Denominator		
Data Source		UK College of Nursing Center for Smoke Free Policy
Data Source Year		2021
Provisional or Final ?		Final

Annual Objectives						
	2021	2022	2023	2024	2025	2026
Annual Objective	40.0	42.0	44.0	46.0	48.0	48.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
As of July 1, 2021, 36.6 % of Kentuckians are protected by a smoke free law. StrengthofPolicy_070121.pdf (uky.edu)

Form 10
Evidence-Based or -Informed Strategy Measures (ESMs) (2016-2020 Needs Assessment Cycle)

2016-2020: ESM 2.1 - Number of outreach activities (data reports, presentations, and technical assistance) on the topic of cesarean deliveries among low-risk first births.

Measure Status:				**Active**	
State Provided Data					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective		9	11	13	15
Annual Indicator	7	9	13	3	0
Numerator					
Denominator					
Data Source	State specific data	State Specific Data	State Specific Data	State Specific Data	State Specific Data
Data Source Year	2016	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Final	Final	Final

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
Secondary to COVID, the MCH annual conference was not presented. Data sets for EED were part of an overview provided on MCH data sets in general, but did not have specific focus in other trainings.

2016-2020: ESM 5.1 - Number of cribs distributed through the Cribs for Kids for Community Partners MCH Evidence Informed Strategy

Measure Status:				**Active**	
State Provided Data					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective		700	900	800	700
Annual Indicator	695	889	743	679	464
Numerator					
Denominator					
Data Source	LHD reporting data	LHD MCH Package reporting data	Catalyst LHD reports	Catalyst LHD reports	MCH RedCap Survey
Data Source Year	FY2016	FY2017	FY18	FY19	FY20
Provisional or Final ?	Final	Final	Final	Final	Final

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
Crib Distribution Counts from RedCap Report # 203-Cribs for Kids MCH Package.

2016-2020: ESM 7.1.1 - Implementation of Child Passenger Safety Strategies in local communities

Measure Status:				Active	
State Provided Data					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective		25	30	55	56
Annual Indicator	19	30	54	17	273
Numerator					
Denominator					
Data Source	Catalyst reporting system	Catalyst Reporting System and Safe Kids Coordinato	Catalyst LHD report	KY Office of HWY Safety Coord.	Safe Kids Louisville
Data Source Year	2016	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Final	Final	Final

Field Level Notes for Form 10 ESMs:

None

2016-2020: ESM 13.2.1 - Fluoride varnish applications for children in local health departments

Measure Status:				Active	
State Provided Data					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective			28,500	18,500	19,000
Annual Indicator	15,580	28,000	18,123	18,123	9,517
Numerator					
Denominator					
Data Source	CDP data system	CDP data system	CDP data system	CDP data system	Catalyst - Package Reports
Data Source Year	2016	2017	2018	2018	2020
Provisional or Final ?	Final	Final	Final	Final	Final

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2018**
	Column Name:	**State Provided Data**
	Field Note: Decrease in counts could potentially have occurred secondary to transition of record keeping used by LHD reporting.	
2.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**
	Field Note: The count provided includes the number of school staff, or children for whom fluoride varnish and benefits were discussed, or for whom varnish was applied. CDP counts of actual number of children provided varnish in the school setting is not available. Counts for varnish are markedly lower for 2020 as many schools were on virtual learning platforms and LHDs were not able to provide this service.	

2016-2020: ESM 14.2.1 - Implementation of 100% Tobacco-free School Policies

Measure Status:				Active	
State Provided Data					
	2016	**2017**	**2018**	**2019**	**2020**
Annual Objective		39	42	44	46
Annual Indicator	37	40.5	42.8	96	96
Numerator	64	70	74	166	166
Denominator	173	173	173	173	173
Data Source	KY Tobacco program	KY Tobacco Program	KY Tobacco Program	KY Tobacco Program	KY Healthy Schools Team
Data Source Year	2016	2017	2018	2019	2020
Provisional or Final ?	Final	Final	Final	Final	Final

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2020**
	Column Name:	**State Provided Data**

Field Note:
With the legislation related to tobacco free ordinances in school passing July 2019, most KY schools became tobacco free campuses. While the work for supporting the school policies is ongoing, in 2020, the focus of the Healthy School Teams work was more centered on COVID, and mental health for children. Counts for individual districts were not completed.

Form 10
State Performance Measure (SPM) Detail Sheets

State: Kentucky

SPM 1 - Reduce by 5% the rate of neonatal abstinence syndrome among Kentucky resident live births
Population Domain(s) – Perinatal/Infant Health

<table>
<tr><td>Measure Status:</td><td>Active</td></tr>
<tr><td>Goal:</td><td>To reduce the rate of Kentucky resident infants born with neonatal abstinence syndrome</td></tr>
<tr><td>Definition:</td><td>
<table>
<tr><td>Unit Type:</td><td>Rate</td></tr>
<tr><td>Unit Number:</td><td>1,000</td></tr>
<tr><td>Numerator:</td><td>The number of Kentucky resident infants with neonatal abstinence syndrome</td></tr>
<tr><td>Denominator:</td><td>The number of Kentucky resident live births</td></tr>
</table>
</td></tr>
<tr><td>Healthy People 2030 Objective:</td><td>Reduce abstinence from illicit drugs among pregnant women MICH-11</td></tr>
<tr><td>Data Sources and Data Issues:</td><td>Kentucky Neonatal Abstinence Syndrome Reportable Disease Registry and Kentucky Office of Vital Statistics, Live Birth Certificate Files</td></tr>
<tr><td>Significance:</td><td>Substance abuse is having a devastating effect across all MCH populations in KY as evidenced in the 2020 needs assessment process and quantitative data analysis. It is an issue in every community in KY, and the consequences of this epidemic have been particularly devastating to pregnant women and their infants. These consequences include pregnancy complications, increased risks of relapse, and overdose deaths in women; and for their children, NAS, infant death from co-sleeping with an impaired caregiver, and deaths from pediatric abusive head trauma (PAHT).</td></tr>
</table>

SPM 2 - Reduce by 10% the number of maternal deaths of Kentucky residents associated with substance use disorder by 2025
Population Domain(s) – Women/Maternal Health

Measure Status:	Active
Goal:	To reduce the number of accidental resident maternal deaths associated with maternal substance use.
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** The number of Kentucky resident accidental maternal deaths with ICD 10 codes associated with substance use **Denominator:** The total number of Kentucky resident maternal deaths
Healthy People 2030 Objective:	Increase the proportion of pregnant women who receive early and adequate prenatal care MICH-08
Data Sources and Data Issues:	Kentucky Office of Vital Statistics Linked Live Birth and Death Certificate Files
Significance:	Substance use disorder (SUD) has devastating effects across all MCH population. SUD is impacting every Kentucky community with higher rates in the eastern part of Kentucky. Maternal accidental deaths have risen over the past 5 years with approximately 50% or higher attributed to SUD or drug overdose. SUD complicates pregnancy and Kentucky has worked to reduce the increasing numbers of Kentucky newborns diagnosed with Neonatal Abstinence Syndrome.

SPM 3 - Percent of OCSHCN Access to Care Plan components completed
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active
Goal:	Increase access to care and services for Kentucky's CYSHCN population
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Number of completed items on OCSHCN Access to Care Plan **Denominator:** Number of total items on OCSHCN Access to Care Plan
Data Sources and Data Issues:	OCSHCN Access to Care Plan 2015-2016 National Survey of Children's Health may not be comparable to 2009-2010 NS-CSHCN. OCSHCN will analyze NSCH when available. Until such time, OCSHCN Access to Care Plan will be scored annually.
Significance:	Advancing the ability for families to find providers and resources, and easily access services, is a key component of a well-functioning system. OCSHCN's plan addresses multiple aspects of Access to Care, and includes several improvement elements in each of the areas identified in the Needs Assessment - including availability of medical and specialty care; availability of provider networks; and development and promotion of supports and resources.

SPM 4 - Percent of OCSHCN Data Action Plan components completed
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active
Goal:	Increase available data regarding Kentucky's CYSHCN population
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Number of completed items on OCSHCN Data Action Plan **Denominator:** Number of total items on OCSHCN Data Action Plan
Data Sources and Data Issues:	OCSHCN Data Action Plan - this plan has been developed with the assistance of an advisory committee, convened with the support of MCHB technical assistance
Significance:	OCSHCN has identified increasing the capacity to make data-driven decisions as a state priority. Using an instrument and a scoring system developed with expert partners and MCHB technical assistance, Kentucky will assess progress toward the goal of using data to better understand and respond to the needs of CYSHCN in Kentucky.

SPM 5 - Percent of children ages 0 through 17 who are adequately insured
Population Domain(s) – Children with Special Health Care Needs

Measure Status:	Active
Goal:	Increase the number of children who are adequately insured
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Number of children, ages 0-17, who were reported to be adequately insured **Denominator:** Number of children, ages 0-17
Data Sources and Data Issues:	National Survey of Children's Health
Significance:	Almost one-quarter of American children with continuous insurance coverage are not adequately insured. Inadequately insured children are more likely to have delayed or forgone care, lack a medical home, be less likely to receive needed referrals and care coordination, and receive family-centered care. The American Academy of Pediatrics highlighted the importance of this issue with a policy statement. The major problems cited were cost-sharing requirements that are too high, benefit limitations, and inadequate coverage of needed services.

SPM 6 - Reduce by 5% the number of child and adolescent deaths categorized as suicide by 2025.
Population Domain(s) – Adolescent Health

Measure Status:	Active
Goal:	Reduce by 20% the number of child and adolescent deaths categorized as suicide by 2025. *2017 Baseline: Definition: Kentucky Residents: 26 cases of child/adolescent suicide deaths of the total 594 cases of child death (4.3%).
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Number of Kentucky Resident child/adolescent deaths as reported in death certificate files with the Office of Vital Statistics (OVS) in which the manner of death is designated as suicide on the death certificate. **Denominator:** Total number of Kentucky Resident child/adolescent deaths as reported in death certificate files with the Office of Vital Statistics (OVS) regardless of manner of death in the designated calendar year.
Healthy People 2030 Objective:	Increase the proportion of children and adolescents who get appropriate treatment for anxiety or depression EMC-D04.
Data Sources and Data Issues:	Office of Vital Statistics and KY DPH Child Fatality Review Data
Significance:	The number of Kentucky child and adolescent suicides have increased annually for the past 5 years. Kentucky also has an increase number of children with greater than 3 Adverse Child Experiences (ACEs) By providing education/awareness on ACEs and resiliency, addressing early childhood mental health evaluations and building early coping patterns, adolescent coping skills may be positively impacted and reduce self harm injuries and child/adolescent suicide deaths.

SPM 7 - Adverse Childhood Experiences
Population Domain(s) – Adolescent Health

<table>
<tr><td>Measure Status:</td><td>Active</td></tr>
<tr><td>Goal:</td><td>By 2026, reduce by 1 percent of Kentucky residents reporting 5 Adverse Childhood Experiences or more with the Kentucky Behavioral Risk Factor Surveillance System.2018: 11.4% of respondents reported 5 or more ACEs (18 years and older).</td></tr>
<tr><td>Definition:</td><td>
<table>
<tr><td>Unit Type:</td><td>Percentage</td></tr>
<tr><td>Unit Number:</td><td>100</td></tr>
<tr><td>Numerator:</td><td>Kentucky respondents for the Kentucky Behavioral Risk Factor Survey reporting 5 or greater ACEs.</td></tr>
<tr><td>Denominator:</td><td>All Kentucky respondents for the Kentucky Behavioral Risk Factor Survey reporting any response of ACEs.</td></tr>
</table>
</td></tr>
<tr><td>Healthy People 2030 Objective:</td><td>AH-D02: Increase the proportion of children and adolescents with trauma who get treatment.</td></tr>
<tr><td>Data Sources and Data Issues:</td><td>Weighted percentages from Kentucky Behavioral Risk Factor Survey (KyBRFS)</td></tr>
<tr><td>Significance:</td><td>Kentucky children experience a large variety of trauma and health impact from an increase number of adverse childhood experiences (ACEs). Adverse childhood experiences (ACEs) are potentially traumatic events that can have negative, lasting effects on health and well-being. These experiences range from physical, emotional, or sexual abuse to parental divorce or the incarceration of a
parent or guardian. ACEs can also increase an individual’s risk of various chronic health conditions and leading causes of death including: sexually transmitted infections, maternal and child health problems, teen pregnancy and involvement in sex trafficking, cancer, diabetes, heart disease, suicide. The risk factors/behaviors underlying these chronic health conditions are actually coping mechanisms. What is viewed as a problem by a health care provider is actually a solution to past adverse experiences. Dismissing these coping mechanisms as “bad habits” or “self destructive behavior” misses their source of origin and does little to promote a solution. It is important to raise awareness regarding ACEs impact and initiatives that promote resiliency beginning early in childhood that can be sustained into their adult life.</td></tr>
</table>

Form 10
State Outcome Measure (SOM) Detail Sheets

State: Kentucky

No State Outcome Measures were created by the State.

Form 10
Evidence-Based or –Informed Strategy Measures (ESM) Detail Sheets

State: Kentucky

ESM 1.1 - Number of women receiving assistance, education, or guidance for getting a well woman visit, immunizations, or referral to tobacco cessation programs, substance use programs or other referrals.
NPM 1 – Percent of women, ages 18 through 44, with a preventive medical visit in the past year

Measure Status:	Active
Goal:	Increase by 5% the number of women who are screened for well-women preventive health visits, immunizations, and referral to primary care provider by 2025.
Definition:	**Unit Type:** Count **Unit Number:** 50,000 **Numerator:** Number of women receiving education on well woman visits, breast/cervical screenings, immunizations, or referrals for evaluation/intervention for tobacco use cessation, substance use treatment, or other health outcomes. **Denominator:**
Data Sources and Data Issues:	KY Womens Health Division, MCH REDCap reporting system, and Federally available data, WIC, HANDS referrals
Evidence-based/informed strategy:	• Utilize media outlets to promote preventative medical visits. • Develop educational modules focused on the Well-Woman Visit • Integrate well woman visit messaging in prenatal program evidence informed strategies • Provide education to women and track use of the Well-Woman Visit and referrals into evidence-based programs such as WIC, HANDS, and MIECHV/other home Visiting Programs. • Increase the number of educational presentations and materials regarding prevention and factors that significantly impact women's health (e.g., smoking, SUD, domestic violence, depression) to health care providers. • MCH remains committed to ongoing successful strategies/initiatives.
Significance:	The well-woman visit provides providers an opportunity to promote a healthy lifestyle and identify earlier potential health risks. By promoting preventive services and counseling during the well woman visit, MCH has an opportunity to improve the overall health and well-being of women throughout the lifespan.

ESM 4.1 - Number of hospitals receiving technical assistance, educational offerings. Policy review from public health (LHD or state program) about the 10 steps to successful breastfeeding
NPM 4 – A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months

<table>
<tr><td>Measure Status:</td><td>Active</td></tr>
<tr><td>Goal:</td><td>Increase by 5% the number of infants exclusively breastfed through 6 months by 2025.</td></tr>
<tr><td>Definition:</td><td>
<table>
<tr><td>Unit Type:</td><td>Count</td></tr>
<tr><td>Unit Number:</td><td>48</td></tr>
<tr><td>Numerator:</td><td>Number of birthing hospitals who are implementing all 10 steps to successful breastfeeding</td></tr>
<tr><td>Denominator:</td><td></td></tr>
</table>
</td></tr>
<tr><td>Data Sources and Data Issues:</td><td>MCH Breastfeeding Program Data Reports (Nutrition Services Branch)</td></tr>
<tr><td>Evidence-based/informed strategy:</td><td>• Develop annual survey for birthing hospitals to measure progress on 10 steps for successful breastfeeding

• Educate the general public and health care providers on the importance and benefits of breastfeeding (short-mid)

• Partner with WIC, Kentucky Hospital Association and health promotion programs at state and local health departments to assist birthing hospitals in implementing and increasing the number of hospitals who operationalizing the 10 steps for successful breast feeding (long)

• Development of web-based parent materials, social media educational opportunities, linkage to virtual breastfeeding support (long)

• Development and implementation of comprehensive breast feeding support and education training with local agency staff in WIC (long)

• Offer Train the Trainer offerings to increase capacity of designated breastfeeding experts at all LHDs (mid)

• Build work force capacity in the community for peer support counseling (long)

• Develop education materials/offerings for employers regarding designing supportive policies for Mother-Friendly breastfeeding

• Develop evidence based initiatives for nutrition education, breastfeeding, employer supports for breastfeeding, media campaigns</td></tr>
<tr><td>Significance:</td><td>Promotion of 10 steps to successful breastfeeding to KY birthing hospitals, with policy/systems level engagement by the birthing providers during hospitalization and after discharge helps improve initiation and duration of breastfeeding.</td></tr>
</table>

ESM 5.1 - PRAMS mothers who report placing their infants in a back-to-sleep positioning by September 30, 2025. 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 by 5% (current 79% for 2018 PRAMS data) the percent of PRAMS reporting mothers who place their infants in a back-to-sleep positioning by September 30, 2025.
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Number of women responding to PRAMS survey who place infants in back-to-sleep positioning. **Denominator:** Total PRAMS respondents reporting safe sleep positioning.
Data Sources and Data Issues:	KY PRAMS; Weighted data set
Evidence-based/informed strategy:	• Distribute parent education materials (in other languages) to birthing hospitals and providers • Development of online modules for home visitation programs, CPS or other targeted providers. • Maintain 100% of infant deaths that are reviewed by a multi-disciplinary review team. • Development of educational materials at statewide literacy rate. • Implement targeted interventions at both the state and local level identified populations/areas at greatest risk of non-back sleep. • Include culturally sensitive education opportunities for addressing risk factors, smoking during pregnancies, environmental exposure, how to have conversation with parents on assessment of safe sleep environment, substance use, teen births. • MCH remains committed to ongoing successful strategies/initiatives.
Significance:	2018 PRAMS data noted that 21% of KY respondents reported to having placed their infants in a non-back sleep position. In 2015, KY had 101 infant SUID deaths. The goals of the KY Safe Sleep campaign are to bring together detailed, population-based data about the circumstances of death; improve the completeness and quality of death investigations; identify common characteristics and risk factors in SUID cases: and inform data-driven practices and policies to reduce future deaths.

ESM 7.1.1 - Number of community members receiving training or technical assistance about preventable child injuries or death and promoting injury prevention activities including child maltreatment, child passenger, gun, water, fire, pedestrian, ATV, or more.
NPM 7.1 – Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9

Measure Status:	Active
Goal:	Decrease by 5% the rate of emergency room visits among children ages 0-19 years by September 30, 2025.
Definition:	**Unit Type:** Count **Unit Number:** 150,000 **Numerator:** NA **Denominator:**
Data Sources and Data Issues:	KY MCH Packages REDCap data system, KY CFR and Injury Prevention Program, TRAIN
Evidence-based/informed strategy:	• Adopt community educational opportunities, such as smoke alarm installations, water safety, etc. Provide injury prevention education for families participating in home visiting programs. • Increase the number of car seats that are installed and used appropriately and increase the number of CPS technicians in rural areas. Provide oversight and regulation of innovative programs such as comprehensive home safety assessments. Conduct outreach, education campaigns, and trainings in school-based settings.
Significance:	Providing education and outreach on all causes for preventable child injury will raise awareness of prevention activities to reduce the overall rate of preventable child injuries resulting in hospitalization or emergency room visits.

ESM 8.1.1 - Number of early care and education professionals or providers completing training modules on nutrition, physical activity, or other obesity related opportunities.
NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

<table>
<tr><td>Measure Status:</td><td>Active</td></tr>
<tr><td>Goal:</td><td>Reduce by 5% the percentage of 6-17 year olds reported in the National Survey of Children’s Health (NSCH) who are obese by September 30, 2025.</td></tr>
<tr><td>Definition:</td><td>
<table>
<tr><td>Unit Type:</td><td>Count</td></tr>
<tr><td>Unit Number:</td><td>10,000</td></tr>
<tr><td>Numerator:</td><td>Number of training, conferences, webinars completed by early care and education professionals</td></tr>
<tr><td>Denominator:</td><td></td></tr>
</table>
</td></tr>
<tr><td>Data Sources and Data Issues:</td><td>Early care and education TRIS system, PQI data reports, TRAIN</td></tr>
<tr><td>Evidence-based/informed strategy:</td><td>• Develop support package and materials for technical assistance providers to increase capacity and consistency of TA provided.

• Increase the number of collaborative partners for physical activity training within the school system.

• Increase the number of schools with personnel trained in physical activity programs, such as Comprehensive School Physical Program (CSPAP), Integrating Classroom Physical Activity and recess trainings.

• Infrastructure and Environmental Supports for Physical Activity: Promote the development and use of infrastructure that facilitates physical activity (e.g., walking trails, sidewalks, playgrounds, parks).

• Maintain and develop additional online training modules that support ECE professionals in health best practices.

• Promotion of nutrition and physical activity with Women, Infant and Children (WIC) recipients.

• MCH remains committed to ongoing successful strategies/initiatives.</td></tr>
<tr><td>Significance:</td><td>By training early care and education professionals , medical providers, or school staff, MCH will increase awareness of best practice intiiatives, knowledge and community policies for incorporation of healthy strategies into early care settings, school environment, or the child's home.. With increased awareness of nutrition and physical activity strategies, more young children will have an opportunity to develop healthy habits and have them role modeled.</td></tr>
</table>

ESM 8.2.1 - Number of districts receiving training or technical assistance for strategies to create a healthy school nutrition environment, or evaluation of recess and multi-component education policies.
NPM 8.2 – Percent of adolescents, ages 12 through 17 who are physically active at least 60 minutes per day

<table>
<tr><td>Measure Status:</td><td>Active</td></tr>
<tr><td>Goal:</td><td>To assist all KY school districts with development of policies for students and staff that address creation of a healthy school nutrition, environment and and multi-component physical education opportunities.</td></tr>
<tr><td>Definition:</td><td>
<table>
<tr><td>Unit Type:</td><td>Count</td></tr>
<tr><td>Unit Number:</td><td>173</td></tr>
<tr><td>Numerator:</td><td>Number of school districts receiving technical assistance or professional development training</td></tr>
<tr><td>Denominator:</td><td></td></tr>
</table>
</td></tr>
<tr><td>Data Sources and Data Issues:</td><td>Kentucky Coordinated School Health data</td></tr>
<tr><td>Evidence-based/informed strategy:</td><td>• Develop support package and materials for technical assistance providers to increase capacity and consistency of TA provided.

• Increase the number of collaborative partners for physical activity training within the school system.

• Increase the number of schools with personnel trained in physical activity programs, such as Comprehensive School Physical Program (CSPAP), Integrating Classroom Physical Activity and recess trainings.

• Infrastructure and Environmental Supports for Physical Activity: Promote the development and use of infrastructure that facilitates physical activity (e.g., walking trails, sidewalks, playgrounds, parks).

• Maintain and develop additional online training modules that support ECE professionals in health best practices.

• Promotion of nutrition and physical activity with Women, Infant and Children (WIC) recipients.

• MCH remains committed to ongoing successful strategies/initiatives.</td></tr>
<tr><td>Significance:</td><td>This measure will allow KY to address measures taken to reduce the obesity rate among adolescents.</td></tr>
</table>

ESM 12.1 - Employ Health Care Transitions (HCT) Process Measurement tool towards assessing progress on implementation of Six Core Elements of Health Care Transitions statewide
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:	Measure the implementation of agency-wide improvements as guided by Health Care Transition Process Measurement Tool for Transitioning Youth to Adult Health Care Providers
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Score on HCT tool, as assessed annually **Denominator:** Possible Score on HCT tool
Data Sources and Data Issues:	Health Care Transition Process Measurement Tool for Transitioning Youth to Adult Health Care Providers, created by Got Transitions, and scored for Kentucky by OCSHCN.
Evidence-based/informed strategy:	• Survey pediatricians on their transitions awareness and processes to inform education efforts for pediatricians and CYSHCN • Identify challenges for transition using the HCT tool by community providers • Based on survey results, develop and provide education regarding successful transition process and use of HCT tool for evaluation of transition outcomes • Repeat survey evaluation
Significance:	Statewide HCT improvements shall be guided by research-based instrument conforming to consensus statement of best practice and CYSHCN national standards.

ESM 14.2.1 - Increase by 5% the number of Kentuckians covered by comprehensive smoke-free policies by 2026.
Baseline: 32.7% (2017) Data Source: DPH and Kentucky Center for Smoke-Free Policy
NPM 14.2 – Percent of children, ages 0 through 17, who live in households where someone smokes

Measure Status:	Active
Goal:	Reduce by 5% the proportion of children who live in a household with someone who smokes based on the National Survey of Children's Health by September 30, 2025.
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** Percentage of KY communities reporting comprehensive smoke free policies **Denominator:** NA
Data Sources and Data Issues:	KY Tobacco Cessation Program and Kentucky Center for Smoke Free Policy
Evidence-based/informed strategy:	• Support the 100% Tobacco-Free Schools Evidence Informed Strategy by assisting the schools with implementing this policy. • Collaborate with stakeholders to increase the number of local communities with smoke/vaping-free laws and ordinances. • Home Visits + Education Materials + Telephone Counseling: Provide in-person counseling via home visits + educational materials + telephone counseling to reduce child exposure to secondhand/vaping smoke in the home. • School-based Counseling + Education Materials: Provide in-person counseling in a school setting + educational materials to reduce child exposure to secondhand smoke/vaping in the home. • Smoking Policies/Bans/Legislation: Support policies/legislation to establish smoking/vaping bans in homes, cars, and other family spaces.
Significance:	Comprehensive smoke free policies have strong evidence that they reduce second hand smoke exposure, prevalence of tobacco use, increasing number of tobacco users who quit smoking, and reduction of tobacco use in adolescents/young adults. KY has a high rate of tobacco use including E-products. In areas of KY with higher rates of tobacco use, there are higher rates of asthma, birth defects, low birth weight and infant mortality.

Form 10
Evidence-Based or -Informed Strategy Measure (ESM) (2016-2020 Needs Assessment Cycle)

2016-2020: ESM 2.1 - Number of outreach activities (data reports, presentations, and technical assistance) on the topic of cesarean deliveries among low-risk first births.
2016-2020: NPM 2 – Percent of cesarean deliveries among low-risk first births

Measure Status:	Active
Goal:	Increase the availability of Kentucky-specific data, resources, and interventions to reduce the occurrence of cesarean deliveries among low-risk first time births.
Definition:	**Unit Type:** Count **Unit Number:** 100 **Numerator:** Number of data reports, presentations, and technical assistance activities documented by the Kentucky Title V program **Denominator:**
Data Sources and Data Issues:	MCH Programmatic Staff Reports
Significance:	The reduction in number of cesarean deliveries will require an increased awareness among providers and the general public on this topic. The measurement of outreach activities will include providing reports and presentations on cesarean sections and early elective deliveries as well as MCH reports for birthing hospitals on these indicators. Targeted technical assistance will also be offered to birthing hospitals with higher percentages of cesarean deliveries.

2016-2020: ESM 5.1 - Number of cribs distributed through the Cribs for Kids for Community Partners MCH Evidence Informed Strategy
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:	Decrease by 5% (current 21% for 2018 PRAMS data) the percent of PRAMS reporting mothers who place their infants in non-back sleep positioning by September 30, 2025.
Definition:	**Unit Type:** Count **Unit Number:** 50,000 **Numerator:** The number of cribs distributed by local health departments through the Cribs for Kids for Community Partners package **Denominator:**
Data Sources and Data Issues:	REDCap Reporting to the Division of Maternal and Child Health for MCH Evidence Informed Strategies. Data is reported on a monthly basis.
Evidence-based/informed strategy:	• Distribute parent education materials (in other languages) to birthing hospitals and providers • Development of online modules for home visitation programs, CPS or other targeted providers. • Maintain 100% of infant deaths that are reviewed by a multi-disciplinary review team. • Development of educational materials at statewide literacy rate. • Implement targeted interventions at both the state and local level identified populations/areas at greatest risk of non-back sleep. • Include culturally sensitive education opportunities for addressing risk factors, smoking during pregnancies, environmental exposure, how to have conversation with parents on assessment of safe sleep environment, substance use, teen births. • MCH remains committed to ongoing successful strategies/initiatives.
Significance:	Kentucky's rate of infant deaths due to Sudden Unexpected Infant Death in 2013 was 1.6 per 1,000 live births, an increase from 1.24 in 2012. In 2013, SUID was the second most common cause of infant deaths in Kentucky, and 90% of SUID cases had at least one sleep-related risk factor. Sleep positioning is one of these risk factors.By working with community partners for distribution, MCH is able to leverage funds to purchase more cribs and reach more families for distribution of a safe sleep environment for use along with safe sleep education from trusted sources.

2016-2020: ESM 7.1.1 - Implementation of Child Passenger Safety Strategies in local communities
NPM 7.1 – Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9

Measure Status:	Active
Goal:	Increase the number of local health departments that implement the Child Passenger Safety package in their community.
Definition:	**Unit Type:** Count **Unit Number:** 300 **Numerator:** The number of local health departments that implement the Child Passenger Safety package **Denominator:**
Data Sources and Data Issues:	Catalyst Reports from Local Health Departments
Significance:	Education of community on appropriate child restraint use and safe teen driving will reduce the occurrence of non-fatal and fatal motor vehicle injuries in the state.

2016-2020: ESM 13.2.1 - Fluoride varnish applications for children in local health departments
2016-2020: NPM 13.2 – Percent of children, ages 1 through 17, who had a preventive dental visit in the past year

Measure Status:	Active
Goal:	Increase the number of children who receive fluoride varnish applications in local health departments
Definition:	**Unit Type:** Count **Unit Number:** 40,000 **Numerator:** The number of children receiving fluoride varnish applications in the local health departments **Denominator:**
Data Sources and Data Issues:	Custom Data Processing (all local health departments) Reports
Significance:	Fluoride varnish and the application of dental sealants are preventive health strategies used to meet the needs of our youngest Kentuckians who live in pockets of the state without pediatric dentists or where providers do not accept Medicaid or treat uninsured populations. The availability of this service provides dental services to those who may be unable to access services otherwise.

2016-2020: ESM 14.2.1 - Implementation of 100% Tobacco-free School Policies
NPM 14.2 – Percent of children, ages 0 through 17, who live in households where someone smokes

Measure Status:	Active
Goal:	Increase by 10% the proportion of school districts that implement a 100% Tobacco-free School Policy
Definition:	**Unit Type:** Percentage **Unit Number:** 100 **Numerator:** The number of Kentucky school districts that implement a 100% Tobacco-free School policy **Denominator:** The number of Kentucky school districts
Data Sources and Data Issues:	Kentucky Tobacco Prevention and Cessation Program
Significance:	100% Tobacco Free School policies prohibit tobacco use, including vapor products and alternative nicotine products, by students, staff, and visitors twenty-four hours a day, seven days a week, inside Board-owned buildings or vehicles, on school owned property, and during school-sponsored student trips and activities. These policies will reduce exposures to secondhand smoke and reduce initiation of tobacco use in youth.

Form 11
Other State Data

State: Kentucky

The Form 11 data are available for review via the link below.

Form 11 Data

Form 12
MCH Data Access and Linkages

State: Kentucky

Annual Report Year 2020

	Access				Linkages	
Data Sources	(A) State Title V Program has Consistent Annual Access to Data Source	(B) State Title V Program has Access to an Electronic Data Source	(C) Describe Periodicity	(D) Indicate Lag Length for Most Timely Data Available in Number of Months	(E) Data Source is Linked to Vital Records Birth	(F) Data Source is Linked to Another Data Source
1) Vital Records Birth	Yes	Yes	More often than monthly	0		
2) Vital Records Death	Yes	Yes	More often than monthly	0	Yes	
3) Medicaid	Yes	Yes	More often than monthly	0	Yes	
4) WIC	Yes	Yes	More often than monthly	0	Yes	
5) Newborn Bloodspot Screening	Yes	Yes	Daily	0	Yes	
6) Newborn Hearing Screening	Yes	Yes	Daily	0	Yes	
7) Hospital Discharge	Yes	No	Quarterly	3	No	
8) PRAMS or PRAMS-like	Yes	Yes	Annually	12	Yes	

Other Data Source(s) (Optional)

	Access				Linkages	
Data Sources	(A) State Title V Program has Consistent Annual Access to Data Source	(B) State Title V Program has Access to an Electronic Data Source	(C) Describe Periodicity	(D) Indicate Lag Length for Most Timely Data Available in Number of Months	(E) Data Source is Linked to Vital Records Birth	(F) Data Source is Linked to Another Data Source
9) NAS Registry	Yes	Yes	More often than monthly	0	Yes	
10) HANDS 2.0	Yes	Yes	Daily	0	Yes	
11) TOTS	Yes	Yes	Daily	0	No	

Form Notes for Form 12:

None

Field Level Notes for Form 12:

Other Data Source(s) (Optional) Field Notes:

Data Source Name:	**9) NAS Registry**
	Field Note: This is a State-built system based on RedCap.
Data Source Name:	**10) HANDS 2.0**
	Field Note: This is the data collection system for our home visiting program/MIECHV.
Data Source Name:	**11) TOTS**
	Field Note: Technology Assisted Observation Teaming System (TOTS). This houses our First Steps data.