Maternal and Child Health Services Title V Block Grant

Kentucky

FY 2020 Application/ FY 2018 Annual Report

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I. General Requirements

I.A. Letter of Transmittal

CABINET FOR HEALTH AND FAMILY SERVICES
DEPARTMENT FOR PUBLIC HEALTH

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July 3, 2019

Michael D. Warren, MD, MPH, FAAP
Associate Administrator
Maternal and Child Health Bureau
Health Resources and Services Administration
US Department of Health and Human Services
5600 Fishers Lane
Rockville, Maryland 20857

Re: Kentucky 2020 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 2020 Maternal and Child Health Title V Block Grant application/2019 Annual Report in response to HRSA Program Announcement Number: HRSA-20-001.

MCH is pleased to have the opportunity to present the various projects, plans, and goals for Kentucky mothers and children. Grant funds are used for maternal and child health initiatives as administered by the Department for Public Health and local health departments and to support services as administered by the Office for Children with Special Health Care Needs. This grant request is for financial assistance in support of these efforts.

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
Senior Deputy Commissioner

I.B. Face Sheet

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

I.C. Assurances and Certifications

The State certifies assurances and certifications, as specified in Appendix F of the 2018 Title V Application/Annual Report Guidance, are maintained on file in the States' MCH program central office, and will be able to provide them at HRSA's request.

I.D. Table of Contents

This report follows the outline of the Table of Contents provided in the *"Title V Maternal and Child Health Services Block Grant To States Program Guidance and Forms,"* OMB NO: 0915-0172; Expires: December 31, 2020.

II. Logic Model

Please refer to figure 4 in the "Title V Maternal and Child Health Services Block Grant To States Program Guidance and Forms," OMB No: 0915-0172; Expires: December 31, 2020.

III. Components of the Application/Annual Report

III.A. Executive Summary

III.A.1. Program Overview

The Kentucky (KY) Maternal and Child Health (MCH) Title V Program is committed to assuring the health and well-being of Kentucky's mothers and their children. As defined in section 501(a)(1) of the Title V legislation, the purpose of the MCH Services Block Grant Program is to enable each state to:

- Provide and assure mothers and children have access to quality MCH services
- Reduce infant mortality and the incidence of preventable diseases and handicapping conditions among children
- Provide rehabilitation services for blind and disabled individuals under the age of 16 receiving benefits under Title XVI, to the extent medical assistance for such services are not provided under Title XIX
- Provide and promote family-centered, community-based, coordinated care for children with special health care needs (CSHCN) and facilitate the development of community-based systems of services for such children and their families

The KY Title V Program develops and supports the public health infrastructure and enabling services to meet these objectives. Title V Programs include the MCH and the CSHCN program. The KY 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 for all 5 population domains. National Performance Measures (NPMs) are selected based upon the identified needs.

KY outcome measures are notably poorer in the eastern part of the state where residents have many social determinants such as problems accessing primary and specialty care, increased rates of substance use disorders, lack of providers, and transportation in areas where geographically large traveling distances for care and cultural difference exist.

Public policies have correlated with increasing numbers of those insured and a successful transition to the federal exchange (HealthCare.gov). The KY HEALTH 1115 Medicaid Waiver was not implemented secondary to federal rulings. Pregnant women and child benefits have not changed.

Women/Maternal Health Domain

The priority needs for KY is reduction of early elective deliveries (EEDs) and maternal morbidity/mortality. KY has selected the *NPM #2: Percent of cesarean deliveries among low-risk first births*. For 2020, KY added a *SPM: Reduce by 10% the number of maternal deaths of KY residents associated with substance use disorder.*

Reduction of EEDs included collaboration with a variety of stakeholders to strengthen or promote hard-stop policies at KY hospitals. Federally available data has shown a decrease of 3.2% since the 2009 inception of this plan.

The Health Access Nurturing Development Services (HANDS) home visitation program has proven to improve maternal and child outcomes of premature births, low birth weights, child abuse/neglect, pregnancy-induced hypertension, maternal complications and improved adequacy of prenatal care. The Federal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program has improved performance measures in screenings, well child visits, depression referrals and other benchmarks.

Substance abuse is influencing all MCH populations in KY. The consequences of this epidemic in women include pregnancy complications, increased risks of relapse, and pregnancy associated deaths from overdose.

With an alarming increase in maternal deaths, half of which have substance use as a risk factor or cause, KY restructured the maternal mortality review process and established a 28-member multidisciplinary review team. Expansion of review scope included all causes of maternal death within one year of the end of pregnancy. Plans for 2020 include establishment of a Perinatal Quality Collaborative and application for Alliance for Innovation on Maternal Health status to utilize maternal safety bundles, potentially starting with "Obstetric Care for Women with Opioid Use Disorder".

Smoking during pregnancy in KY is gradually decreasing over time, from 24.1% in 2009 to 16.9% in 2018; however, this is more than double the national rate of 7.2%. Activities promote smoking cessation among pregnant women and smoke-free policies. Continued emphasis on evidence-informed strategies has diminished impact, in recent years, in regards to the percent of women who smoke during pregnancy and the number of children who live in a household where someone smokes.

Perinatal/Infant Health Domain

Infant mortality is the single leading indicator of the overall health and well-being of a population. The 2017 infant mortality rate is 6.7 per 1,000 live births, an increase from and rose from 6.3/1,000 live births in 2016. In the 2015 needs assessment, stakeholders identified neonatal abstinence syndrome, prematurity, and unsafe sleep as the priority issues. 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 improved. Mothers initiating breastfeeding prior to hospital discharge increased from 52.7% to 70.9% (2005-2017). Duration rates for 6 months are much lower at 21.1%. Gap filling surveys are underway as contracted with Coffective®, through the Women, Infant and Children (WIC) program. Ninety-five percent of birthing hospitals have implemented kangaroo care.

MCH developed an educational safe sleep campaign, 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 moving SUID to the second leading cause of death for KY's infants with 95% having at least one unsafe sleep risk factor. While rates appear to be decreasing, messaging continues. To address this issue, additional information on infant sleep positioning and unsafe sleep will continue to be collected in the Pregnancy Risk Assessment Monitoring System (PRAMS), a CDC funded grant that conducts surveillance of women who have recently had a live birth. The percentage of surveys returned for a recently awarded PRAMS state was higher than averages reported across other states.

Substance use during pregnancy has additional consequences of neonatal abstinence syndrome (NAS), infant deaths from unsafe sleep practices (bed sharing, and impaired caretaker) 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 three NAS annual reports. MCH continues to collaborate with the Department for Behavioral Health, Developmental and Intellectual Disabilities (DBHDID); the OCSHC; and the Department for Community Based Services (DCBS) to develop and implement a Plan of Safe Care for infants discharged from the hospital who are substance exposed or diagnosed with NAS. One example, of an innovative and integrated program is the Healing, Empowering, and Actively Recovering Together (HEART) model describe in this report. To address ongoing needs about adequacy of care for infants with NAS, MCH is working with local coalitions, local health departments (LHD), and community and state partners to develop a sustainable plan of safe care and to maintain mental and physical health for mothers and their children.

Birth defects and congenital disorders are one of the leading causes of infant mortality. The MCH program continues to provide metabolic screening referral and linkage to specialty providers for 57 disorders as recommended per the Recommended Uniform Screening Panel (RUSP). X-linked adrenoleukodystrophy (X-ALD), another devastating disorder, was added to this panel in 2018. Many of the metabolic disorders can be effectively treated with metabolic foods and formulas (reimbursable by Medicaid). As a payor of last resort, KY operates a Metabolic Foods and Formula program at no cost for KY resident's requiring metabolic foods and formula.

Child Health Domain

Injury is the leading cause of death among KY children over the age of one, and a priority need identified in 2015. Child maltreatment is the highest priority with child passenger safety and teen driving concerns also raised by the participants. For this domain, KY selected *NPM #7.1: Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9 and adolescents ages 10-19*. Hospitalizations for child maltreatment are part of the reported rate for this measure. Education for identification and reduction of pediatric abusive head trauma (PAHT) is ongoing. In 2018, an innovative curriculum was developed to educate high school students on PAHT and safe sleep.

KY continues to work on projects with the KY Safety Prevention and Alignment Network (KSPAN), the Division of Pediatric Forensic Medicine at the University of Louisville (UL), Prevent Child Abuse Kentucky, the 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 during 2018 with the number of review teams locally expanded from six teams in 2017 to 104 as of 2019. These teams conduce comprehensive, quality reviews and develop interventions for prevention programs at the local level. Mentoring, training and technical support are provided to the state coroners, and local team members. The MCH director and CFR coordinator are members of the Child Fatality and Near Fatality External Review Panel (conducted under the auspices of the Department of Justice), allowing for referral of review by the External Panel for cases in which suspected abuse or neglect has led to a child's death.

Training on the 5-2-1-0 program (5 fruits and vegetables per day, no more than 2 hours of screen time per day, 1hour of physical activity per day, and no (0) sugary beverages) continues as part of early childhood education opportunities, and coordinated school health efforts. This program is a family friendly tool for improving nutrition and physical activity. MCH provides technical support tor development and implementation of model policies for childcare centers around nutrition and physical activity.

A statewide 100% Tobacco Free School (TFS) bill became law in 2019. This new law will prohibit the use of tobacco products on school property beginning in the 2020-21 school year. A smoke free environment is now enjoyed by 34.7% of Kentuckians secondary to community initiatives, and local ordinances.

To increase the number of preventive dental visits and measure ongoing progress, KY selected *NPM #13.2: Percent of children, ages 1 through 17, who had a preventive dental visit in the past year.* In 2018, 77.6% of Kentucky children had a preventive dental visit in the past year. The KY Oral Health Program (KOHP) trains public health nurses to provide fluoride varnish treatments to children through the fifth grade. Public health dental hygiene programs housed in LHDs serve 34 KY counties and perform screenings, apply sealants and link children to an oral health home.

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 from 16.5% in 2011 to 20.2% in 2017. 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 centers/child care centers, and school settings through the Coordinated School Health (CSH) Program.

Suicide was identified in 2017 as an emerging need for this population the number of KY child/teen deaths from suicide continue to rise with some as young as age 10. With 75% of the deaths for children, age 15-17 occurring by suicide, active intervention with school districts and communities was ongoing with trainings provided to teachers and some district electing to contract with outside mental health supports.

Tobacco efforts have also focused on adolescents. By March 2018, the number of school districts with 100% TFS policies has grown to 40% of school districts or 70 in the state, covering 721 individual schools and protecting 56% of students in the state.

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 2016 National Survey of Children's Health, KY's rate of CYSHCN is the highest in the country. OCSHCN believes in working with partners, including families, on new initiatives to develop and promote a more robust system of care. It is the OCSHCN's belief that such collaborations will ensure more of KY's CYSHCN will have access to the care they need. OCSHCN believes that further developing the expertise to properly collect, measure, and evaluate data will ensure meaningful progress is made. To that end, OCSHCN continues to make progress on its Data Action Plan, which is designed to address the needs for proper measurement and evaluations.

CYSHCN priorities, identified through the Needs Assessment process, 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, including data from the National Survey of Children's Health (NSCH), is examined along with internal data to determine 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 KY specific data assist in tailoring program evaluation, needs assessment, and program planning and development towards KY's CYSHCN population.

Cross-Cutting/Systems Building Domain

The state recognizes substance use disorder, tobacco use/exposure, oral health, and insurance adequacy affects multiple domains. Activities in these crosscutting domains are embedded in the five aforementioned selected national domains.

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

Title V funds are divided with 65.1% of funding used to address all population priorities for MCH and 34.9% for OCSHCN priorities for children with special health care needs. MCH allocates the bulk of funding to the local health departments to provide enabling, population health services and system building activities depending on the needs of local MCH populations. All of OCSHCN funding goes towards providing, facilitating, and supporting care for Kentucky's children and youth with special health care needs.

Title V funds are used to support MCH and OCSHCN services based upon the following priorities identified in the 2015 Title V Needs Assessment:

- Maternal Morbidity
- 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

The state assures appropriate use of funds through a select list of MCH evidence informed strategies focused on MCH identified priorities. LHDs collaborate with community stakeholders for matching funds for projects related to the MCH population, and for outreach and support to the community. Funds support public health surveillance and prevention including maternal mortality review, child fatality review, school health nursing support, well child nursing certification, perinatal care, workforce development and trainings, and technical assistance to LHDs.

III.A.3. MCH Success Story

In 2018, MCH/OCSHCN continued defining and building strong community support through collaboration across departments, agencies, and community. These partnerships created opportunities to expand an informed workforce to promote education/outreach, program innovation, and needs assessment/surveillance. Examples of a variety of triumphs from these partnerships include:

- Establishment of a 28-member Maternal Mortality Review Committee
- Establishment of over 57 multidisciplinary local child fatality review teams (vs. 6 in 2017)
- Access to specialty providers close to home for children with special health care needs
- Collaborating with the University of Missouri's ECHO Autism project with plans to implement the program in KY
- Development for 2019 implementation of virtual care teams and the establishment of clinics for children with medical complexity
- Establishment of an integrative, multidisciplinary program to address NAS, improve parenting skills, and assist with reunification of infant with mother
- Multi-agency efforts for cohesive safe sleep and abusive head trauma prevention curriculum for use in public high schools
- Evidence-informed strategies that guide targeted work by LHDs to address infant mortality, perinatal health, child safety, school health, obesity, and oral health

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 Kentucky state capital, Frankfort, Kentucky (KY), is the location of the Cabinet for Health and Family Services (CHFS), which houses the KY Department for Public Health (KDPH). The Division of Maternal and Child Health (MCH) administers the Title V grant and program. 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. KDPH operates the personnel and financial systems for LHDs and supports their role in state and federally funded programs via allocations, standards of practice, training, and technical assistance. The Office for Children with Special Health Care Needs (OCSHCN) is the agency that administers the state's Children and Youth with Special Health Care Needs (CYSHCN) program. OCSHCN's central office is located in the state's largest city, Louisville, with eleven regional sites throughout the state (serving all 120 counties), and six other satellite clinic locations.

Recent changes in the health care landscape for KY include:

- 2011: Implementation of Managed Care Organizations (MCOs) for Medicaid beneficiaries
- 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
- 2017: Section 1115 Medicaid Waiver (KHW) was submitted to the Centers for Medicare and Medicaid Services (CMS) for approval. The KHW did not change benefits for pregnant women or children
- 2018: Received approval from CMS for the KHW entitled "Kentucky Helping to Engage and Achieve Long Term Health". In June 2018, a federal ruling blocked KHW. Therefore, 2018, KHW was revised and a tentative start date set for April 2019 if approved.
- March 27, 2019: Federal district court blocked the re-approval of the KHW. However, the benefits for pregnant women and children continue without change through KY Medicaid

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

- reducing the number of low-income residents who lacked health care
- improving the health status of Kentuckians – especially low-income residents without prior access to health care coverage
- boosting KY's economy

The enrollment of non-elderly adults in KY Medicaid increased 72.7%, from 376,956 in the first quarter of Medicaid expansion to 650,867 in the third quarter of 2016 (State Health Access Data Assistance Center, 2017). During this same period, there was an increase in births covered by Medicaid expansion, but it was offset by a decline in births in traditional Medicaid (State Health Access Data Assistance Center, 2017). This shift may be the result of women who enrolled in expanded Medicaid and later became pregnant. Although Medicaid expansion did not have a direct impact on Medicaid eligibility for pregnant women (at 185% FPL in KY), it did allow more women to be covered in the preconception and interconception care periods.

In January 2014, KY implemented provisions of the ACA to provide coverage for mental health and substance abuse services. This new State Medicaid Plan amendment utilized a state based health exchange (KYNECT) and opened up the Medicaid provider network to add multiple mental health and substance abuse provider types. Since implementing the ACA requirements, more than 300 new behavioral health providers have enrolled in Medicaid and at least 13,000 individuals with a substance abuse disorder have received related treatment services (Deloitte Development LLC, 2015). This was positive improvement for access to these critical services for MCH populations and addressing the epidemic of substance abuse, a major priority indicated by the MCH needs assessment. In 2015, when the state held needs assessment meetings, focus groups and families expressed difficulties in finding local providers based upon MCO choice and the lack of coverage to access treatment for mental health and substance use disorders (SUD). The only mental health or substance abuse treatment paid by Medicaid was through

Kentucky's community Mental Health Centers. The KHW includes a SUD program to improve quality care and health outcomes for Kentuckians with SUD.

It became evident that the cost of the state run exchange was not sustainable long-term. In 2016, enrollment with MCOs began transitioning to the Healthcare.gov platform, and by November 2017, exclusive enrollment occurred. KY currently contracts with five Managed Care Organizations (MCOs) to provide healthcare services for Kentuckians eligible for Medicaid. During the 2018 enrollment period, 89,569 people enrolled in coverage, more than a 10%, increase over 2017 enrollment, a decrease from 2016. For 2018, enrollees had two choices of insurers: CareSource (61 counties) and Anthem (59 counties). Both insurers had rate increases with CareSource increasing 19.4% and Anthem 4.3% from 2017 (healthinsurance.org, 2018).

The Kentucky HEALTH Waiver (KHW) was planned to change KY's traditional Medicaid expansion. As of March 2019, the federal courts blocked the re-approval. Kentucky benefits for women and children remains unchanged. In January 2018, beneficiaries were able to begin earning credit for *My Rewards* Account (MRA) activities for preventive health services. MRA works like a Health Spending Account and beneficiaries may use earned dollars to pay for preventive dental/vision services and some gym/fitness activities. During the KHW appeal process, beneficiaries have continued to earn MRA credits.

Medicaid expansion has been successful. National data indicates that KY experienced the largest decrease of any state in its adult uninsured rate from 2013-2016, dropping from 20.4% to 7.8% (Witters, 2017). The aggressive outreach and marketing efforts, along with support from LHDs, OCSHCN, area development districts, community mental health centers, community action agencies, faith-based organizations, hospitals, clinics and other health care providers, were likely responsible for KY exceeding targeted enrollment for Medicaid expansion (Deloitte Development LLC, 2015). The Title V program has continued to promote this effort. OCSHCN regional offices, the Family to Family Health (F2F) Information Centers, and several LHDs have staff trained to facilitate customers accessing the exchange for enrollment. In other communities, they know the locations to send families for this service.

Title V continues to assist mothers and children with access to care. One action of the prenatal MCH package, chosen by various LHDs, was to ensure referral for Medicaid to assist with presumptive eligibility and assessment of need for other services with linkage to care through HANDS, WIC, and obstetric care, or to local resources for smoking cessation and substance abuse treatment. One district health department continues to contract with a university adolescent health program to bring mental health screenings to the middle and high schools in their district.

Since the inception of the national exchange (Healthcare.gov), OCSHCN affiliated navigators have completed 12-15 hours of training on the exchange and recertify annually.

The 2015 Needs Assessment survey data 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 (2016). 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 and a disparity of adequacy exists in terms of CYSHCN. OCSHCN is working toward greater (appropriate) coverage by guiding and advocating for CYSHCN on an individual basis and on a state level, participating in ongoing dialogue with Medicaid and the MCOs to reach solutions for any issues (such as pre-authorization requirements for medical procedures from which CYSHCN may previously have been exempted). OCSHCN continues to participate in learning collaborative opportunities alongside Medicaid partners, state partners, and national experts.

State Health Agency Priorities

Since being sworn into office, in December 2015, Governor Matthew Bevin maintains that creating a Healthier Kentucky is a priority. Governor Bevin and Kentucky's first lady are supportive of children's issues, and work with local Department of Community based Services (DCBS) offices and various programs to benefit foster children.

In 2017, KDPH evaluated target areas of concern for the state. 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 rates of neonatal abstinence syndrome, reduction of Sudden

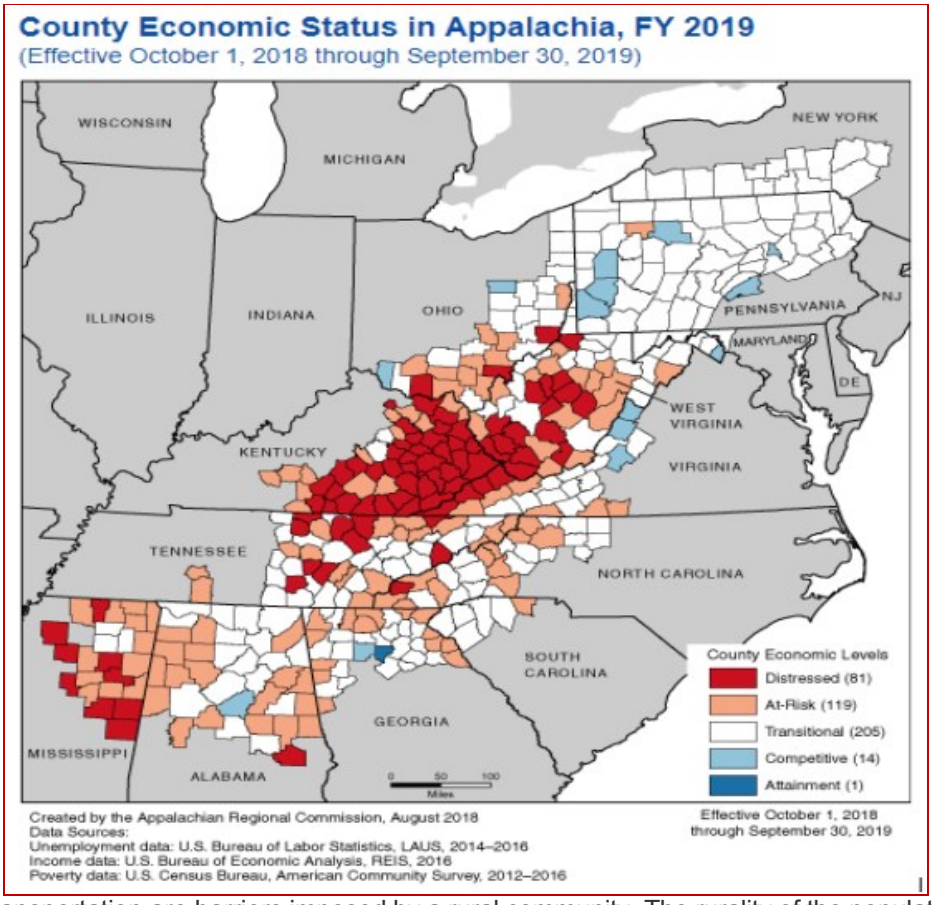
Unexpected Infant Deaths (SUID), and ongoing identification and treatment for pregnant woman with substance use disorder.

In 2018, KDPH began meeting with every local health department and stakeholders to address Public Health Transformation based on Public Health 3.0 principals. 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.

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.

Kentucky's population is 87.8% Caucasian, 8.4% African American, and 3.7% Hispanic. The poverty rate is 17.2%. More than 41% of Kentuckians live in a rural area (Quick Facts Kentucky, 2019). The US Census Bureau 2018 Population Estimates for KY is 4,468,402. 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.



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 81 distressed counties in 13 states, with 38 counties located in eastern Kentucky (ARC-Designated Distressed Counties, Fiscal Year 2019).

Appalachian communities are unique and deserve special attention given the rural, resource-limited, socio-economically impoverished nature of families in this part of KY. This effects 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 PH Transformation, LHDs are evaluating how to move from preventive and primary care services to population health measures. Kentucky's poverty rate is 17.2% with one of four KY children living below the Federal Poverty Level (United States Census, 2019). This rate is higher in the rural areas of KY.

Identified distressed counties correspond with higher indicators of poor health.

Kentucky has three primarily urban areas: Louisville, Lexington, and Northern Kentucky. Both Louisville and Lexington have a children's hospital providing comprehensive pediatric care. Kentucky has one specialty hospital, Shriners Hospital for Children serving children (regardless of ability to pay) with orthopedic conditions. Shriners accepts referrals for services from OCSHCN. The number of providers in KY's health program shortage areas (HPSA) are listed below:

	2018	2019
Primary Care HPSA	75	94
Dental HPSA	41	46
Counties with Mental Health HPSA	100	103
FQHC Sites	139	282
FQHC School Clinics	111	
Primary Care Centers	113	178
Certified Rural Health Clinics	210	145
Rural Health Clinic License only	11	
Childrens Hospitals	3	3

Shaping our Appalachian Region (SOAR) is a non-partisan economic development agency instituted in 2013 to "expand job creation, enhance regional opportunity, innovation, and identity, improve the quality of life, and support all those working to achieve these goals in Eastern Kentucky". SOAR promotes collaboration and innovation (SOAR 2018). Now co-led by Congressman Hal Rogers and Governor Bevin, this initiative has drawn millions of dollars of investments from many state and federal agencies providing funding for a variety of projects in the 54 Appalachian counties to improve access to technology, telehealth initiative in Hazard, KY, food collaborative, farmers market, broadband access, and more. Soar's Healthy Communities Advisory Council has a focus on reduction of physical and economic impact of obesity, diabetes, and substance abuse. In 2014, the SOAR Health Committee completed 16 "listening sessions" across KY resulting in a report on health prioritization areas of concern. These included: Coordinated School Health, Environmental Health, Smoke-Free Initiatives, Substance Abuse, Wellness Initiatives (Healthy Eating & Water First), a regional Health Clearinghouse, Adverse Childhood Experiences (ACEs), Transportation/Access, Children's Oral Health, and Physical Education in Schools. In 2017, SOAR published a blueprint to organize the findings from all SOAR reports into goals and corresponding objectives for coordination of activities. In the SOAR Regional Blueprint, four goals were established to meet the health mission. The four objectives for this goal are:

- Implement innovative evidence-based programs to address regional health disparities in access, quality of care, and health outcomes
- Strengthen community partnerships and collaborations with stakeholders to increase focus on health and disease prevention throughout the region
- Reduce the scope and impact of substance abuse and related consequences through education, awareness, prevention, and access to services
- Increase access to healthy, affordable foods and opportunities for physical activity

These objectives align with the needs identified by the 2015 Title V Needs Assessment and ongoing work of Title V in KY. Health disparities to include racial, ethnic, economic and geographic disparities continue to dominate the concerns for KY MCH population.

Process Description

An extensive needs assessment process, which included multiple levels of inputs, was designed to align the major health efforts at the state level with the Title V Needs Assessment.

KY's Title V 2015 needs assessment process included a review of quantitative data on numerous indicators, consumer surveys that were conducted in LHDs and OCSHCN sites across KY, focus groups with local staff from the LHD and OCSHCN, and stakeholder input. Potential priorities were identified for the five MCH population domains of women/maternal health, perinatal/infant health, child health, adolescent health, and children and youth with special health care needs. The ranking of those topics across the domains was assessed to determine their importance for each domain, or if it had impact on all MCH populations and was crosscutting. Each successive step in the process

helped reinforce the issues identified as most important from our consumers and stakeholders shaping a clear picture of the needs of the Title V populations. These were aligned with the new Title V structure and the priorities of the state, as described above.

Through ongoing needs assessments, stakeholder meetings, KDPH accreditation, and data review, the previously identified areas of concerns and emerging concerns remain the focus of work. KY is striving to reduce non-medically indicated cesarean sections, and maternal morbidity and mortality review became a priority task in 2018. As identified in the 2015 needs assessment and noted in the prior update, NAS and substance use continues to require community engagement on all levels to address the growing needs of this population. Hepatitis C and HIV cases have increased; and they are associated with the rise of substance use in Kentucky. LHDs work diligently with needle exchange programs to address these issues.

State Statutes and Other Regulations that Have Relevance to Title V Program Authority

KY Revised Statutes (KRS) and KY Administrative Regulations (KAR) of relevance to KYs Title V program authority are described in this section to provide the basis for MCH programs and their required activities.

- 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 becomes effective June 27, 2019.
- KRS 214.160 requires Hepatitis C screening for all pregnant women and 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 by 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 Kentucky birthing hospitals
- KRS 211.651 authorizes the Kentucky 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 laboratory reporting
- 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 provider qualifications
- 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 multiple of the 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 child care providers in child health and safety to increase awareness and education for parents of children who attend child care
- 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.
- OCSHCN has been in the process of creating three new Kentucky Administrative Regulations (KAR) in order to provide greater transparency to the public. OCSHCN has filed the three new KARs and filed to repeal another two KARs. The new KARs cover applying to OCSHCN, issues pertaining to medical staff, and OCSHCN billing and fees. OCSHCN anticipates these will be enacted after the July 19, 2019 meeting of Kentucky’s Interim Joint Committee on Health, Welfare, and Family Services. If enacted, the new KARs may be found at https://apps.legislature.ky.gov/law/kar/TITLE911.HTM

III.C. Needs Assessment

FY 2020 Application/FY 2018 Annual Report Update

Kentucky identified the state priority needs during the 2015 needs assessment to be:

- NAS Care Coordination
- Treatment For Women With Substance Use
- Access to Care
- Breastfeeding Engagement
- Infant Mortality/SUID/Child Fatality
- Maternal Mortality
- Aces
- Childhood Mental Health/Suicide
- Oral Health of Children
- Obesity
- Children with Special Health Care Needs Services

During 2018, Title V continued to participate in program reviews, data analysis, and evaluations as part of an ongoing needs assessment. These analyses included data review, surveys such as the Behavioral Risk Factor Surveillance System (BRFSS) and PRAMS, advisory board reviews, and regional meetings. A stakeholder survey was developed and piloted at the 2018 KPA and KFAP meetings prior to use for the 2020 needs assessment. MCH has included the parent/consumer voice in survey assessment and education material review.

Emerging Needs

Throughout 2018, these needs 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 the 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.

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
        - In 2019-20, KY will begin a new grant funded initiative in collaboration with the Governor's Office of Early Childhood
    - 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
    - Oral health programs address regulatory review of fluoridation processes for municipal water plants, public health registered dental hygiene programs, LHD register nurse program to screen children and provide fluoride varnish in childcare settings and school settings. While this section moved from MCH during the KDKH reorganization in December 2018, collaboration for activities continues.
- 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
- Health Promotions encourage healthy living and prevention activities such as physical activity, optimal nutrition, tobacco cessation/prevention programs, and healthy community programs. This branch moved during the reorganization; however, MCH continues to collaborate on programming for mothers and children.

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, providing 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 partnerships and collaborations.

Agency Capacity

Title V services are provided in all 120 counties to assure utilization of programming for the MCH population through partnerships and collaborations as described later in the application.

Workforce Development and Capacity:

MCH employs 95 public health staff focused on improving the well-being of all KY women, infants, children, adolescents, and their families. With 154 employees statewide, OCSHCN strengths include organizational structure, collaborative history, financial management, and affiliation with hospitals and universities.

KY CFHS leadership stabilized during 2018 after the appointment of Secretary Adam Meier. Secretary Meier continued the work begun on KHW and supported efforts with KDPH focused on addressing mental health needs to reduce suicides, response to the opioid epidemic, and the Hepatitis A outbreak.

KDPH Commissioner Jeffery D. Howard, MD, continues his service to the Commonwealth. Dr. Howard, a KY Appalachian native, attended the University Of Louisville School Of Medicine prior to the Harvard T.H. Chan School of Public Health. Dr. Howard often states, "KY's number one public health focus is to address the state's opioid epidemic." Dr. Howard has spent much of 2018 traveling to LHDs to understand, at the community level, the public health needs of KY and funding concerns. Technical support and information was provide about Public Health Transformation. Dr. Howard continues to support programming addressing the opioid crisis, NAS, mobile harm reduction pharmacy, and much more that has influence or impact on the health of mothers and children.

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 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.

Shellie A. May, BSN, an alum of Bellarmine University's Donna and Allen Lansing School of Nursing & Clinical Sciences, has served as OCSHCN Executive Director since January 2018. She has served on a number of boards and committees focused on KY's most vulnerable children, including OCSHCN's former Board, the Kid's Center for Pediatric Therapy, and Easter Seals of Louisville. She has served on planning and fundraising committees for organizations focused on CYSHCN and oversees OCSHCN Children with Medical Complexity (CMC) CoIIN Grant from Boston University. She has experience in both administrative and executive level positions, as well as fundraising and legislation. She has been a mentor for parents of medically fragile children. As a CMC mother, she brings an important perspective into the life and challenges of CYSHCN and their families. Shellie continues to be a strong resource for CYSHCN parents.

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
- Jan Bright, RN, BSN, Manager of the Child and Family Health Improvement Branch, and Title V Block Grant Administrator has 29 years of pediatric nursing experience
- Tracey Jewell, MPH, Manager of the Program Support Branch, MCH Epidemiologist with over 20 years of experience in DPH and Title V
- Nicole Nicholas, MS, RD, LD; Manager of the Nutrition Services Branch has
- Paula Goff, MS; Manager of the Early Childhood Development (ECD) Branch has over 31 years of experience in ECD programs and IDEA Part C
- Julie McKee, DMD; State Dental Director: KY Oral Health Program.
- Laura Beard, 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:

- Shellie A. May, BSN, OCSHCN Executive Director, has served in many public non-profit programs supporting care of children with special needs
- Cherjuantoe Moran, MBA, Director of the Division of Administrative and Financial Services, has over 19 years in various roles in the Office of Management and Budget with Louisville Metro Government
- Karen Mercer, RN, BSN, Interim Director of the Division of Clinical and Augmentative Services has over 20 years of state government service, with over 17 years at OCSHCN and three with the Department of Juvenile Justice
- Ivanora Alexander, BS Biomedical Engineering, Assistant Director of Support Services and has worked over 18 years with rehabilitation engineering with children and adults with special health care needs
- Jonathan Borden, Ed.D. Internal Policy Analyst III, 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
- Debbie Gilbert, Co-Director, F2F, served 6 years with the Council on Developmental Disabilities (CCDD). She is currently State Coordinator for Family Voices, and she is a state affiliate of Parent to Parent of KY
- 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

Cultural Competence

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 partnered with MCH to provide 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

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 adopted a department wide health equity policy to guide equity efforts.

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, Zika Registry, and Child Welfare.

FY 2019 Application/FY 2017 Annual Report Update

III.C. Needs Assessment (FY 2019 Application/FY 2017 Annual Report Update)

Kentucky's state priority needs were determined through the 2015 needs assessment as described in the five-year needs assessment summary. During 2017, needs assessments were ongoing with KY's accreditation process, state oral health strategic planning, and review of MCH programming. Assessments include data review, surveys such as the Behavioral Risk Factor Surveillance System (BRFSS) and PRAMS, advisory board reviews, and regional meetings. Some of these were direct surveys with mothers, grandparents or other caregivers were part of team addressing a specific concern.
The emphasis remains:

NAS care coordination
Treatment for women with substance use
Access to care
Breastfeeding engagement
Infant mortality/SUID/child fatality
Maternal mortality
ACEs
Childhood mental health/suicide
Oral health of children
Obesity

While consistent with 2015, some measures (child suicide, maternal death) have emerged to be larger concerns.

Organizational Structure

The KY Executive Branch has 11 cabinets, with the Cabinet for Health and Family Services (CHFS) being the largest. The state health agency, KDPH, and CCSHCN are organizationally located within CHFS. Title V is implemented through the Division of Maternal and Child Health within the KDPH.

The foundational statute for KY MCH is within KY Revised Statute (KRS) 211.180, giving CHFS the responsibility and authority to formulate, promote, establish, and execute policies, plans, and programs relating to all matters of public health. LHDs receive the majority of Title V funding to implement MCH Evidence Informed Strategies based upon the priority needs of the MCH population.

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

Direct care gap-filling clinics for those children with a diagnosis on the agency's eligibility list.
Audiology services, which include hearing conversation, testing, hearing aid fittings, and programming for cochlear implants. CCSHCN administers the state 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 through collaboration with DCBS.
Family to Family Health Information Centers (F2F), which provide assistance to families and professionals in navigating health care systems; information, education, training, support and referral services; outreach to underserved/underrepresented populations; guidance on health programs and policy; 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 partnerships and collaborations.

KY CFHS has had multiple leadership changes in the past year. Secretary Vickie Yates Brown Glisson resigned January 2018; Scott Brinkman served as Interim Secretary until June 2018 when Adam Meier was appointed Secretary of the CHFS. Mr. Meier previously served as Deputy Chief of Staff for Policy, focusing on healthcare policy in KY, and was responsible for oversight of KY's 115 Medicaid Waiver.

Commissioner Hiram C. Polk, MD resigned fall 2017. During his tenure, Commissioner Polk worked to address the current opioid epidemic in KY through the launch of the Mobile Harm Reduction Pharmacy that dispenses Naloxone, holds needle exchange programs, provides education, and offers testing for Hepatitis C and HIV. Upon his resignation, Jeffery D. Howard, MD, served as Acting Commissioner for KDPH with appointment to Commissioner, June 2018. Dr. Howard, a KY Appalachian native, attended the University Of Louisville School Of Medicine prior to the Harvard T.H. Chan School of Public Health. Dr. Howard often states "KY's number one public health focus is to address the state's opioid epidemic." Dr. Howard continues to support programming addressing:

NAS
ACEs
Mobile Harm Reduction Pharmacy

Dr. Henrietta Bada, a neonatologist with the University of KY, was appointed to serve as the Director for the Division of

Maternal and Child Health as well as KY's Title V Director in 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. Dr. Bada is a graduate of the University of Santo Tomas, Manila, Philippines. At the University of Louisville, her residency was in Pediatrics and her fellowship was in Neonatology. Dr. Bada 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 reached 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 (see CV Attachment).

Shellie A. May, BSN, was appointed CCSHCN Executive Director in January 2018. She is a graduate of Bellarmine University School of Nursing. She has served in executive level administrative positions with local government, while serving on a number of committees focused on the state's most vulnerable children, including the B.O.D. of Kid's Center, Louisville Pediatric Therapy Center, and Easter Seals of Louisville. As a mother of premature triplets, one a special needs son, she has a unique perspective into the life and challenges of families and children with special health care needs. Shellie brings 22 years of personal experience in CBS, First Steps, IEP planning, home ventilation, home health/PD nursing, feeding issues and all types of therapies.

Agency Capacity

Title V services are provided in all 120 counties to assure operationalization of programming for the MCH population through partnerships and collaborations as described later in the application.

DPH/MCH Workforce Development and Capacity:

MCH employs 93 public health staff focused on improving the well-being of all KY women, infants, children, adolescents, and their families.

DPH/MCH Staff:

Dr. Connie White, Senior Deputy Commissioner for Clinical Affairs, is Board Certified in OB/GYN with emphasis on patient education and preventive medical care.
Joy Hoskins, RN, BSN, Director of Women's Health and the Director of Nursing for DPH.
Vivian Lasley-Bibbs, MPH, directs the Office of Health Equity and is a Health Disparities Epidemiologist and Healthy People 2020 State Coordinator.
Dr. Henrietta Bada, MCH Division and Title V Director: She is Board Certified in Pediatrics and Neonatal-Perinatal Medicine. She also has an MPH.
Andrew Waters, MPH' Assistant MCH Division Director, Epidemiologist: Manages day to day MCH operations; legislative liaison, MCH planning and budget process, branch oversight and has experience with tobacco prevention and cessation, and environmental health.
Tracey Jewell, MPH, Senior MCH Epidemiologist with over 18 years of experience in DPH and Title V.
Jan Bright, RN, BSN; Manager: Child and Family Health Improvement Branch (prenatal, pediatric, and oral health programs); administers the Title V MCH Block Grant.
Nicole Nicholas, MS, RD, LD; Manager, Nutrition Services Branch (WIC, MCH Nutrition Program, Breastfeeding Peer Counselor Program, and WIC Farmer's Market).
Paula Goff, MS; Manager: Early Childhood Development Branch, (HANDS, First Steps, Newborn Screening, and Early Childhood Mental Health).
Erin Hill: Manager: Health Promotions Branch (Tobacco Prevention and Cessation, Obesity Prevention, and Physical Activity).
Julie McKee, DMD; State Dental Director: KY Oral Health Program. Leads the effort in expanding the KY Oral Health Program.
Monica Clouse, MPH, is a division level epidemiologist for MCH overseeing child fatality data, KBSR, and Zika Birth Defects Surveillance.
Laura Beard, MCH Family Consultant: Early Childhood Mental Health, KY Strengthening Families, and family informed workgroups.

CCSHCN

With 137 employees state-wide, CCSHCN strengths include organizational structure, collaborative history, financial management, and affiliation with hospitals and universities.

CCSHCN Staff:

Shellie A. May, BSN, CCSHCN Executive Director, has served in many public non-profit programs supporting care of children with special needs.

Judith Theriot, MD, Medical Director, is Board Certified in Pediatrics, a Certified Physician Executive, and a University of Louisville (UL) professor of Pediatrics. Prior to her appointment with CCSHCN, she served as director of the Pediatrics Clinical Research Unit at UL and as medical director of the multidisciplinary primary care clinic serving the inner-city, high risk children of Louisville.

Cherjuantoe Moran, MBA, Director of the Division of Administrative and Financial Services, joined CCSHCN in 2017 after serving with Louisville Metro Government over 19 years in various roles in the Office of Management and Budget, including Fiscal Administrator of various agencies comprising the Louisville Zoo, Community Services and Revitalization, and Human Resources.

Karen Rundall, RN; Director of the Division of Clinical and Augmentative Services, has 29 years of experience as a registered nurse providing pediatric care for children with special needs, including 17 years at CCSHCN.

Ivanora Alexander is Assistant Director of Support Services. Ivy holds a Bachelor of Science Degree in Biomedical Engineering and worked in the field of rehabilitation engineering for 14 years as a service provider and later a manager. She recommended and designed technology for children and adults with disabilities.

Family Members on CCSHCN Staff:

The Parent Advisory Council (PAC) and Youth Advisory Council (YAC) each meet quarterly to provide input on how to better serve KY families. In addition to 113 trained family support parents, 7 PAC members, 6 YAC members, and the agency's Executive Director, the following family members of CYSHCN serve on the staff:

Debbie Gilbert, Co-Director, F2F, served on the Council on Developmental Disabilities for 6 years, having worked with many disability groups. She is currently State Coordinator for Family Voices, and she is a state affiliate of Parent to Parent of KY

Sondra Gilbert, Co-Director, F2F, has 14 years of experience writing Individual Education Plans for CYSHCN. Sondra has been a volunteer in the Owensboro school district, is appointed to the Council on Developmental Disabilities, and serves on the Regional Genetics Collaborative

Cultural Competence

MCH partners with the Office of Health Equity (OHE) to promote activities raising awareness of health inequities. This includes using the Bridges Out of Poverty and Bridges into Health curriculums to enhance understanding of how our personal biases influence our health decision making.

The OHE provides training on aspects of cultural competence for communities and programs both face-to-face or via two web-based modules. The OHE partnered with MCH to provide 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

OHE collaborates with the KY BRFSS to ensure oversampling of the largest minority populations in KY as a data source for focused programming addressing health disparities encouraging:

Local efforts to develop Community Health Assessment and Community Health Improvement Plans that address the prevailing health and safety needs of residents

Communities to include input from underserved and marginalized groups such as

- Homeless
- Lesbian, Gay, Bisexual, Transgender (LGBT)
- Elderly
- Veteran populations

Faith-based leaders to address disparities in the African American community using faith-based models

Engagement of community partners with Kentucky Functional Access and Needs Collaborative teams to address cultural and social norms specific to minorities and the underserved in the event of a natural or man-made disaster

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 adopted a department wide health equity policy to guide equity efforts.

Partnerships, Collaboration, and Coordination

Partnerships with state agencies and community partners extend the reach and influence of MCH. Academic partners collaborate with OHE to provide content area expertise to ensure holistic training and professional development of students in the health sciences. MCH and CCSHCN 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, CCSHCN has developed formal and working relationships with a variety of programs providing services to children.

Emerging Issues

As previously identified, the opioid crisis has a devastating impact on the MCH population on many fronts (ACES, NAS,

suicides, maternal mortality, SUID). Data in 2016 showed an increase in all of these concerns. These will be discussed in the domain narratives.

Other Programmatic Activities

Kentucky has invested in many programs to improve outcomes. Some examples are:

- SSDI initiative
- Mentors for HRSA Epidemiology Graduate Program Students
- HANDS/MIECHV
- KYSF
- Federal Healthy Start Program
- CDC grants
- SUID case registry
- PRAMS
- Birth Surveillance Registry
- Childhood Lead Poisoning Prevention
- National State Based Tobacco Control Programs

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 the CCSHCN have cross collaboration with First Steps, Early Hearing Detection and Intervention, Zika Registry, and Child Welfare 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.

FY 2018 Application/FY 2016 Annual Report Update

Needs Assessment Summary

Kentucky did not coordinate any structured needs assessment activities during the current year. Stakeholder and client input was reviewed throughout the year for program enhancements.

Organizational Structure

There are 11 Cabinets in Kentucky's Executive Branch, the largest of which is the Cabinet for Health and Family Services (CHFS). KDPH and CCSHCN are organizationally located within CHFS. KDPH is the state health agency; Title V is implemented through the Division of Maternal and Child Health within KDPH.

The foundational statute for Kentucky MCH is within KY Revised Statute (KRS) 211.180, which gives CHFS the responsibility and authority to formulate, promote, establish and execute policies, plans and programs relating to all matters of public health. Legislation related to MCH is contained in the Overview document of the Title V Application. The majority of Title V funding is provided to LHDs to implement MCH Evidence Informed Strategies based upon the priority needs of the MCH population.

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

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

The Governor appointed Vickie Yates Brown Glisson to be Secretary of the Cabinet for Health and Family Services in December 2015. Secretary Glisson is a nationally recognized health care and health insurance attorney and has held a number of appointments including serving as a member of the National Institutes of Health Advisory Council for the Human Genome Project and the Advisory Council of the National Institute of Diabetes, Digestion and Kidney Disease as part of the National Institutes of Health.

Secretary Glisson appointed Hiram C. Polk, MD to serve as Commissioner for the Department for Public Health. Commissioner Polk, a prominent Louisville surgeon is forging the path for KDPH by emphasizing prevention, promotion, and protection for healthier communities across the Commonwealth. He is addressing the current opioid epidemic by establishing and expanding prevention programs with early childhood education (K-3) stressing the negative consequences of drug, alcohol and tobacco use. Efforts have also focused on the launch of a traveling mobile pharmacy that dispenses Narcan and offers testing for Hepatitis C and HIV. Dr. Polk has launched a weekly awareness campaign, 52 Weeks of Public Health, highlighting public health efforts to accomplish the goal of being the "healthiest nation in a generation". With Dr. Polk's leadership, KDPH is actively preparing for accreditation with the intention to submit all required documentation to the Public Health Accreditation Board by September 2018.

Dr. Henrietta Bada, a neonatologist with the University of Kentucky was appointed to serve as the Director for the Division of Maternal and Child Health within the Department for Public Health as well as Kentucky's Title V Director. Dr. Bada also serves as the Mary Florence Jones Professor and Vice Chair of Academic Affairs of the Department of Pediatrics, University of Kentucky where she also practices clinical neonatology. Dr. Bada is a graduate from the University of Santo Tomas, Manila, Philippines and had her residency in Pediatrics and fellowship in Neonatology at the University of Louisville. Dr. Bada is Board Certified by the American Board of Pediatrics in General Pediatrics and Neonatal-Perinatal medicine. Dr. Bada also received a Masters of Public Health from the University of South Florida.

She has been the course faculty for the Introduction to Maternal and Child Health at the University of Kentucky, College of Public Health. The course is a prerequisite to be awarded a certificate in Maternal and Child Health. 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 reached 16 years of age. She has numerous publications with recent ones related to the findings on follow-up of children and adolescents who had prenatal drug exposure (see Attachments for CV).

Jackie Richardson continues to serve as Executive Director of the Commission for Children with Special Health Care Needs. Ms. Richardson is responsible for policy making and the administration of all programs related to specialty medical and therapeutic services for children with special health care needs, as well as the administration of the First Steps Early Intervention Services point of entry in the seven-county area including Louisville. In addition to Kentucky's CCSHCN program serving as a gap-filling direct care provider, Ms. Richardson ensures that CCSHCN assumes a leadership role in assuring state and local systems of family centered, comprehensive, coordinated care are accessible for CYSHCN. Ms. Richardson attended the University of Kentucky for undergraduate studies and received an MBA from Webster University. She also earned a Professional in Human Resources certification. Prior to joining CCSHCN, Ms. Richardson's 18-year career with Louisville Metro government included serving as chief financial officer for the zoo, internal auditor, and chief of staff for Health and Wellness.

Agency Capacity

Title V services are provided in all 120 counties to assure gap-filling services for the MCH population. Partnerships and collaboration are described later in this needs assessment summary. The basic preventive and assurance services that are provided by population health domain are described in the original needs assessment summary.

MCH Workforce Development and Capacity

MCH employs 93 public health practitioners focused on improving the physical, socio-emotional health, safety and well-being of all KY women, infants, children, adolescents and their families.

DPH/MCH Staff

Dr. Connie White, Senior Deputy Commissioner for Clinical Affairs, is board certified in OB/GYN with emphasis on patient education and preventive medical care.

Joy Hoskins, RN, BSN is Director of Women's Health, and the Director of Nursing for DPH.

Vivian Lasley-Bibbs, MPH, directs the Office of Health Equity and is a Health Disparities Epidemiologist and Healthy People 2020 State Coordinator, affiliated with national, state, civic and community based organizations.

Dr. Henrietta Bada directs the Division of MCH and is Board Certified in Pediatrics and Neonatal-Perinatal Medicine. She also has an MPH. She is actively involved in clinical and basic science research and has numerous publications.

Andrew Waters, MPH, Assistant Director for MCH has background in Epidemiology, tobacco prevention and cessation, and environmental Health. He serves as the legislative liaison for MCH, and oversees the LHD plan and budget process.

Joyce Robl, EdD, MS, CGC, MCH Data and Evaluation Officer, is a board certified genetic counselor and coordinates epidemiology, surveillance, and evaluation within MCH.

Tracey Jewell, MPH, Senior MCH Epidemiologist has over 18 years of experience in DPH and Title V.

Jan Bright, BSN, Manager, Child and Family Health Improvement Branch; manages Prenatal, Pediatric, and Oral Health Programs, and administers the Title V MCH Block Grant.

Jennifer Wyatt, MS, RD, LD manages Nutrition Services branch including; WIC, MCH Nutrition Program, statewide WIC EBT, Breastfeeding Peer Counselor Program, and WIC Farmer's Market.

Paula Goff, MS, manages the Early Childhood Development branch including; HANDS, First Steps, Newborn Screening, and Early Childhood Mental Health.

Erin Hill, manages the Health Promotions branch including; Tobacco Prevention and Cessation, Obesity Prevention and Physical Activity.

Julie McKee, DMD, State Dental Director oversees the Oral Health program in KY, was previously the Director of WEDCO District HD and leads the effort in expanding the KY Oral Health program.

Monica Clouse, MPH is a division level epidemiologist for MCH overseeing child fatality data, KBSR, and Zika Birth Defects Surveillance.

CCSHCN

With 137 employees in offices throughout the state, CCSHCN strengths include organizational structure, collaborative history, financial management, and affiliation with hospitals. Needs include limited supply of providers, wait time for appointments, and missing skill sets such as marketing and epidemiology/data capacity.

CCSHCN Staff

Jackie Richardson, Executive Director; prior to joining the CCSHCN, she served 18 years with the Louisville Metro Government in various roles including Chief of Staff for Public Health and Wellness.

Judith Theriot, MD, Medical Director; Dr. Theriot is Board Certified in Pediatrics, a certified physician executive and a professor of Pediatrics at UL. Prior to her appointment with the CCSHCN, she served as director of a Pediatrics Clinical Research Unit at a multidisciplinary primary care clinic serving inner-city, high risk children.

Cherjuantoe Moran, Director, Division of Administrative and Financial Services; Juan comes to CCSHCN following serving with Louisville Metro Government over 19 years in various roles in the Office of Management and Budget, including Fiscal Administrator of various agencies which include Community Services and Revitalization, Louisville Zoo, and Human Resources.

Karen Rundall, RN, Director, Division of Clinical and Augmentative Services; 22 years of experience as a nurse providing pediatric care for children with special needs, including 9 years at CCSHCN.

Ivanora Alexander, Assistant Director of Support Services; Ivy holds a Bachelor of Science Degree in Biomedical Engineering and worked in the field of rehabilitation engineering for 14 years, as a service provider and later a manager, were she recommended and designed technology for children and adults with disabilities.

Mike Weinrauch, MSW, Title V MCH Coordinator; 20 years of experience with CHFS, including 10 with CCSHCN. Other areas of focus include technical assistance with foster care support programs, and general policy guidance/analysis.

Family Members on Staff

The Parent Advisory Council (PAC) and Youth Advisory Council (YAC) each meet quarterly to provide input on how to better serve KY families. In addition to 105 trained family support parents, 16 PAC members, 9 YAC members, and the agency's Executive Director, the following family members of CYSHCN serve on staff:

Co-Director, F2F: Debbie Gilbert served on the Council on Developmental Disabilities for 6 years, having worked with many disability groups. She is currently State Coordinator for Family Voices, and state affiliate of Parent to Parent of KY.

Co-Director, F2F: Sondra Gilbert has 13 years experience writing Individual Education Plans for CYSHCN. Sondra has been a volunteer in the Owensboro school district, is appointed to the Council on Developmental Disabilities, and serves on the Regional Genetics Collaborative.

CULTURAL COMPETENCE

MCH partners with the Office of Health Equity (OHE) to promote activities to raise awareness on health inequities. This includes using the Bridges Out of Poverty and Bridges into Health curriculums as tools to enhance understanding of how our personal biases influence health decision making. OHE provides face-to-face training on all aspects of cultural competence for communities and programs. There are currently two modules on TRAIN available when face-to-face is not available. OHE prepares the biennial Minority Health Status Report to inform key decision makers about health disparities and inequities that affects Kentuckians. In addition, OHE collaborates with the Kentucky Behavioral Risk Factor Surveillance System to ensure oversampling of the largest minority populations within the state as an additional data source to provide more focused programming efforts to address health disparities.

The OHE is instrumental in the use of the Community Health Improvement Plan to determine prevailing health and security needs of the community and representing the underserved and marginalized, such as the homeless, Lesbian, Gay, Bisexual, Transgender (LGBT), elderly, and Veteran populations.

OHE works with the faith based community and existing social networks along with spiritual leaders, to address disparities in churches, within the African-American community using faith based models. They also work with the Kentucky Functional Assessment Needs teams to collaborate with other community partners in addressing cultural and social norms specific to minorities and the underserved in the event of natural or man-made disasters. In addition, OHE applies for grants to assist in adequately meeting the needs of culturally diverse groups.

Academic partners collaborate with OHE to provide content area expertise to ensure holistic training and professional development of students in the health sciences. The areas covered include; cultural competency, health literacy and social determinants of health, and other social injustices related to health inequities.

OHE is currently outlining guidance for health in an all-policies approach in addressing health inequities to be incorporated in the department strategic plan and infused throughout all state public health programs.

PARTNERSHIPS, COLLABORATION, AND COORDINATION

Partnerships with state agencies and community partners extend the reach and influence of MCH on behalf of mothers, infants, children and adolescents. MCH and CYSHCN programs strive to work collaboratively with other federal partners and private organizations to help meet aligned agency goals and to address the priority needs of the MCH populations. CCSHCN

plays a critical role in coordinating partnerships to assure that the needs of this group are met. With a 90-plus year history of service provision, CCSHCN has developed relationships with a variety of programs providing services to children.

FY 2017 Application/FY 2015 Annual Report Update

Five Year Needs Assessment Summary (Update)

Kentucky's (KYs) Title V Program continued the needs assessment process in the past year by convening a group of stakeholders to continue discussion of the priority topics that were identified in the 2015 Needs Assessment and identify potential strategies for the State Action Plan to address KY's national (NPM) and state (SPM) performance measures. The meeting was held on December 11, 2015 with 81 participants representing a diverse stakeholder group, including families, family organizations, professionals, and advocates. Ninety-five percent of the participants reported that they were interested in continuing to participate in discussions about maternal and child health priorities and performance measures.

The Title V director provided an overview of the priorities identified in the needs assessment and a description of the performance measures chosen for each domain to begin the meeting. Participants then began small group work based on their chosen area of interest. Each interest group had 4 to 14 participants, and a facilitator and content expert. Each small group was asked to respond to 3 questions:

1. What is currently working–in KY or across the nation–to address this topic?

2. What are the gaps that exist in addressing this topic for mothers and children [including children and youth with special health care needs (CYSHCN)] in KY?

3. What strategies would be most effective for KY to implement or enhance to improve outcomes and "move the needle" on the performance measure for this topic?

Participants were asked to prioritize the responses developed by their group for the gaps (question 2). After discussing most effective strategies (question 3), they prioritized strategies from their list, and then assessed the feasibility of the identified strategies. Using a matrix, participants rated the priority strategies on a scale of 1 to 5 for the following questions: addresses a gap, economic/social impact, the state's ability to implement the strategy, and if you could address only 1 strategy, how important is this one.

A summary of the findings from this stakeholder meeting are described below by population health domain. The topics covered included:

- Women & Maternal Health: Maternal Morbidity (NPM #2)
- Perinatal & Infant Health: Infant Mortality (NPM #4 and NPM #5)
- Child Health: Child Abuse & Neglect (SPM #2)
- Child and Adolescent Health: Child Injury (NPM #7); Child Obesity: Physical Activity (NPM #8)
- Children & Youth with Special Health Care Needs: Transition (NPM #12) & Access to Care (SPM #3)
- Cross-Cutting: Neonatal Abstinence Syndrome (NAS) (SPM #1), Oral Health (NPM #13), Tobacco (NPM #14), & Insurance Coverage (SPM #5)

Women and Maternal Health:

Maternal Morbidity. Gaps identified included a lack of a standard for induction of labor, lack of education (health care providers about active labor management and pregnant women), and a lack of hard-stop policies in birthing facilities. Strategies that were identified included: 1) Identify and educate facilities without hard-stop policies; 2) Improve provider education around substance abuse and its effect on pregnant women; 3) Non- or reduced payment for elective deliveries; 4) Centering Pregnancy or similar group prenatal care programs.

Perinatal and Infant Health:

Breastfeeding. Gaps identified included a lack of International Board Certified Lactation Consultants (IBCLCs) at birthing facilities, lack of perinatal and postpartum support for breastfeeding, and a lack of acceptance at the family, workplace and social levels. Strategies that were identified included: 1) Buy-in from hospitals and providers that IBCLCs are needed, using communication and education with data, customer satisfaction surveys, and Maternal Practices in Infant Nutrition and

Care (mPINC) surveys from the Centers for Disease Control and Prevention; 2) Increase the number of qualified providers for lactation consulting and increase number of referrals for outpatient consultation; 3) Improve education for medical providers, such as website, continuing medical education on breastfeeding, etc; 4) Administer a statewide campaign to promote normalcy of breastfeeding with partners.

Safe Sleep. This table discussed both Safe Sleep and the topic of Child Injury. Gaps identified included a need for education (problems/risks associated with unsafe sleep, lack of consistent messaging, changes to social/cultural norm), the need to connect safe sleep with other prevention messages related to infant health, and a lack of consistent language when discussing the topic (e.g. avoiding terms like accidental suffocation and strangulation in bed). Strategies that were identified included: 1) Send information on safe sleep/abusive head trauma/car seat safety to all parents when sending birth certificates; 2) Family court requires safe sleep/abusive head trauma/child safety training for all foster, adoptive, and grandparents; 3) Combine safe sleep with other infant risk issues; 4) Legislation mandating safe sleep education in hospitals for all parents.

Child Health:

Child Abuse and Neglect. This was the largest interest group, with 14 individuals; a diverse group including a pediatric trauma surgeon, an obstetrician, a child abuse pediatrician, child welfare, mental health, and general pediatrics. Gaps identified included educational needs (effective education for professionals and caregivers, lack of understanding adverse childhood experiences (ACEs), lack of consistency among agencies and resources, lack of data on the topic, and the need for substance abuse treatment programs for parents and caregivers. Strategies that were identified included: 1) Long term data collection and evaluation; 2) Recommend to the Department of Education that an age-appropriate educational curriculum include social-emotional skills; 3) Marketing/public education campaign about short- and long-term adverse effects of ACEs; 4) Develop strategies for statewide training and education.

Child Injury. Gaps identified included inadequate access to behavioral health and educational needs (consistent across all demographics, especially effective car seat usage). Strategies that were identified included: 1) Education, partnerships and collaborations for healthcare professionals on getting patients into behavioral health treatment (suicide prevention, substance abuse, depression); 2) Graduated driver's license education for parents (e.g. passenger restriction, curfew).

Child and Adolescent Health:

Physical Activity(PA). Gaps identified included lack of funding for PA programs, lack of regulations in schools, and lack of parental engagement. Strategies identified included: 1) Training and technical assistance for people who work in PA: early childhood education/care staff, schools, staff/worksite wellness to educate parents and community; 2) Community and family engagement/buy-in: consistent messaging, relationship building (local leaders), identify a community champion, utilize the media; 3) Top-down funding and coordination of funding streams that affect children who receive PA services; 4) Advocate for the state to have regulations in schools, programs, early childhood education, etc. regarding PA requirements (refer to what other states have enacted successfully).

Children & Youth with Special Health Care Needs:

Transition. Gaps that were identified included a lack of access to quality adult and pediatric specialty providers, need to access employment/work for individuals with disabilities, lack of connecting to all children with special health care needs through independent case management, mindset on living with disability versus quality of life in pursuing access to service, and need to assist aging-out youth in foster care to benefit from access to services/college through extended commitment. Strategies identified included: 1) Utilizing non-clinical support to analyze regional data; 2) Establish ongoing relationship with schools so they can refer for education regarding available services; 3) Increase the number of schools participating in Disability Employment Awareness activities.

Access to Care. Gaps identified included lack of data sharing between agencies, lack of provider capacity, challenges associated with the rural nature of KY, need for payment reform for coordinated care and multidisciplinary visits, and a need to engage those who haven't accessed care. Strategies identified included: 1) Shared vision, leadership, and strategy regarding data sharing and use; 2) Telehealth, including tools and education for families; 3) Improve skills and capacity of current providers.

Cross-Cutting/Life Course:

Substance Abuse/Neonatal Abstinence Syndrome. The gaps identified included a lack of a Center of Excellence to coordinate education and treatment efforts, lack of standardized guidelines for treating mothers and babies as well as maternal screening/referral, lack of funding for treatment, and a lack of communication across both providers and agencies. Strategies that were identified included: 1) Create a Center for Excellence for public and private education, website, grant writing, standardized guidelines; 2) State and regional collaboratives, including many partners, to disseminate quality, research, treatment, long-term outcomes, child development, etc. to educate public and private entities; 3) Proactive legislation to create a Center for Excellence, including "treatment as the first response"; 4) Continued data collection and dissemination; 5) Develop standardized guidelines for maternal screening and treatment (e.g. Screening, Brief Intervention, and Referral to Treatment; Assessment, Counseling, and Educational Services).

Oral Health. This was the second largest interest group with 13 participants, including university, public and private partners. The State Dental Director served as the facilitator. Gaps identified included a lack of collaboration between obstetrics/primary care providers and dental providers, limited school-based dental services, a gap in services for 1-3 year olds, and a lack of Medicaid reimbursement for providers. Strategies identified included: 1) Opt-out school based dental services; 2) Expand sponsoring agencies for public health dental hygienists; 3) Establish a soda or sugar-sweetened beverage tax, earmarked to oral health and obesity prevention; 4) "Statewide" oral health delivery framework.

Tobacco. Gaps identified included limited secondhand smoke exposure data, limited access to resources, lack of innovative ways to reduce barriers for high risk pregnant women, inconsistent assessment of tobacco use at every clinic visit, and a lack of alternative access routes to the Quit Line services. Strategies identified included: 1) Administrative public health forms should assess other household members' smoking status; 2) Encourage other household members not to smoke in the house or car; 3) Birth records should access and capture details of father's smoking and other household members' smoking status; 4) Electronic medical records should be empowered to transmit information to or be linked to the Quit Line who will initiate a call to people who smoke; 5) Continuing medical education using centralized evidence-based resources tailored to patients.

Insurance Coverage. Gaps identified included the high cost of insurance (premiums, co-pays, deductibles), inconsistency in coverage (multidisciplinary meetings, therapies such as speech, physical), and limited provider/specialist networks. Strategies identified included: 1) Maintain Medicaid expansion and access to health benefits exchange; 2) Take current data from the National Committee for Quality Assurance on all insurance companies and identify gaps; 3) Additional waivers for special health care needs; 4) Community experts and patient advocates to assist people in navigating benefits, appeals, and claims; 5) Increase the number of providers with loan repayment to help stay in KY.

Following the small group work, the top strategies prioritized by each small group were put on flip chart paper and hung on the back wall. Each team reported out a summary of the discussion from their table so that everyone would have some information on each of the strategies selected. The meeting concluded with all stakeholders participating in a departing "dot" activity: Participants were instructed to review all of the day's top strategies identified by each team, and were given three "Dots" to place on any strategy. They were instructed to place one dot on each of the three strategies that they felt were the most important and feasible for maternal and child health work in KY. The table below summarizes the results of the final prioritization of strategies by participants for the top ten strategies.

Rank	Topic	Strategy	# of dots
1	Maternal Morbidity	Providers asking about substance abuse in order to educate	28
1	Oral Health	KY soda (sugar-sweetened beverage) tax earmarked for oral health & obesity	28
3	Child Injury/Safe Sleep	Family court to require safe sleep, abusive head trauma & car seat education to all taking home/caring for an infant	26
4	CYSHCN: Adequate Insurance Coverage	Maintain Medicaid expansion & kynect	24
4	Substance Abuse/NAS	Proactive legislation to create a Center for Excellence including treatment as the 1st response	24
6	CYSHCN: Access to Care	Telehealth capacity: use telehealth to educate families	23
7	Child Abuse and Neglect	Recommend Dept of Education develop age-appropriate educational curriculum that includes social emotional skills	22
8	CYSHCN: Transition	Increase number of high schools participating in disability employment activities by collaborating with regional interagency teams & new transition efforts	20
9	Child Obesity: PA	Advocate for state regulations in schools, early childhood education programs, PA programs regarding PA requirements (Refer to other states success)	18
10	CYSHCN: Access to Care	Improve skills/capacity of current providers	17

The input collected at this meeting informed the ongoing development of the state action plan. Stakeholders who wanted to remain involved were added to a list serve for ongoing communication.

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

II.B.1. Process

Five Year Needs Assessment Summary

The 2015 KY Title V Needs Assessment was conducted by the KDPH MCH and KY CCSHCN with support provided by the University of KY College of Public Health (UK CPH). Throughout 2014, the planning committee gathered and analyzed information from LHD staff and consumers, CCSHCN clinic staff and families, and a diverse group of MCH stakeholders.

THE PROCESS

The planning committee had three goals for the 2015 MCH Needs Assessment process: to thoroughly examine the health status of the population health domains using quantitative and qualitative data; to identify priorities for the Title V program over the next five years; and to achieve this work with an unprecedented level of integration between the two agencies.

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 are described below. Selected results from the data resources will be presented under MCH Population Needs.

Quantitative Data Resources

MCH Fact Sheets: Sixteen MCH fact sheets (Attachment A) were developed from May to December in 2014 by Title V staff and practicum MPH students from the UK CPH. Using state-level data such as Vital Statistics, the Behavioral Risk Factor Surveillance System and the Youth Risk Behavior Surveillance System as well as national surveys, fact sheets were developed as the foundation for needs assessment efforts.

National Survey of Children's Health (NSCH) & National Survey of Children with Special Health Care Needs (NS-CSHCN) Analysis: To enhance data capacity and review outcomes for KY CYSHCN, survey results for the 2011/2012 NSCH and 2009/10 NS-CSHCN were analyzed to compare KY outcomes to HRSA Region IV and the Nation. The results examined core performance outcomes, inequities between CYSHCN and non-CYSHCN, and the prevalence of select conditions (Attachment B).

Consumer/Family Survey Analysis: A consumer survey (English and Spanish) was distributed in county and district health departments and CCSHCN clinics across KY in May. A total of 3,361 surveys (813 from CCSHCN families) were returned. The UK CPH team examined statewide results and compiled LHD and regional CYSHCN reports for sites with at least 75 completed surveys. A detailed report on the survey is in Attachment C.

Stakeholder Survey: In October, a survey was developed to prioritize topics identified by the consumer survey. The criteria and weight (wt) used for prioritization included: seriousness of issue (wt=2); economic and social impact (wt =1); state's ability to prevent, improve, or impact the issue (wt =3); and overall importance of the issue to the rater (wt =2). The survey was distributed to all potential attendees of the stakeholder meeting as a "pre-meeting" assignment. One hundred and sixty-four responses were received, and weighted by domain and overall. Results were presented during the stakeholder meeting.

CYSHCN Prevalence Estimates for Select Conditions: In an attempt to better estimate the prevalence of five chronic conditions (Asthma, Diabetes, Epilepsy, Allergies and Attention Deficit Hyperactivity Disorders [ADHD]) within the Commonwealth and CCSHCN Regions, staff at CCSHCN conducted a research project using KY Dept. of Education (KDE) data tracking condition and diagnosis data for students requiring health service accommodations. KDE provides information

on the number of children with a specific condition at each of their public schools. These numbers were summed and then compared to county-level school enrollment statistics, allowing CCSHCN staff to estimate the proportion of children affected by county for each condition. This proportion was then applied to the total population of all children (ages 5-19) in each county and estimates of the true prevalence of each condition were extrapolated. These estimates were compared to CCSHCN electronic patient data system (CUP) to identify gaps, if they existed, at the state and CCSHCN regional office level.

Qualitative Data Resources

Focus Groups: In September and October of 2014, MCH LHD and CCSSHCN staff volunteered to participate in focus groups that were held in 10 KY sites with one Central pilot site: 2 Eastern, 4 Western, and 4 in North/Central KY. CYSHCN parent involvement was included where possible. The intent of the focus group process was to critically examine topics from the consumer survey and identify major themes of importance to communities. Four topics were discussed: Substance Abuse; Child Abuse/Neglect; Services and Resources for CYSHCN; Access to Care – Medical, Dental and Mental Health. Participants ranked these topics specific to their impact on the community, provided details about each problem based upon experience, and discussed what was working in their communities to address these issues. The focus groups had a total of sixty-six participants with an average of 6 per group. At least one CCSHCN staff member and/or parent representative was present at all sites. Group membership was primarily female with an average of nearly 14 years of public health experience. The fields of nursing, social work, public health and other areas represented. Focus groups were transcribed and recorded. UK CPH conducted the focus groups and completed the data analysis.

Hospital Community Health Needs Assessments (CHNA): The ACA requires non-profit hospitals to conduct a CHNA at least once every three years. Non-profit hospitals throughout KY were identified and a search was conducted for a CHNA document for each. Of 125 identified hospitals, 73 CHNA documents were identified and reviewed. Details within the CHNA documents varied substantially; however, MCH problems and needs were quickly identified with several topics raised as issues of critical importance to hospitals and their communities.

Stakeholder Meeting: Stakeholders registering for the November meeting were asked to select a domain area and then assigned, in small groups (8-10) to their selected area. Eight groups were formed in total – Women/Maternal (1); Perinatal (1); Child (3); Adolescent (1); CYSHCN (2). Each group included a facilitator and subject matter expert familiar with data available in the domain to assure that discussions focused on measureable, achievable targets.

With nearly 100 individuals in attendance, the meeting began with an overview of the Title V mission and evidence collected to date. KDPH and CCSHCN leadership used this time to set the stage for the work to come - challenging the participants to identify priorities for the domains. Those in attendance would discuss and vote during the small group work portion of the meeting.

Each small group was given 3-5 topics determined by consumer and stakeholder surveys, and was asked to select the two most important topics by voting. The two issues selected would determine their discussion for the remainder of the meeting. The discussion addressed what communities were currently doing to address the topic, what gaps exist, what participants wanted to see happen in communities, and action steps necessary to implement their ideas. Upon completion of the small group work, participants reconvened for a report out by each group. The three gaps identified for *each* of their two topical areas were reported, and these were the subject of the final vote of the day by all participants.

II.B.2. Findings

II.B.2.a. MCH Population Needs

MCH POPULATION NEEDS

Women's and Maternal Health

Overview: The statewide consumer survey identified the top issues for women as *overweight/obesity* (56.5%), *drug/marijuana use* (34.3%), *depression* (30.0%), w*omen who smoke* (23.1%) and *secondhand smoke* (22.6%), with other comments including *domestic violence, abuse, Hepatitis C* and *poverty*. **Prioritization by stakeholders resulted in the following ranked priorities for this domain: *substance abuse*, *overweight/obesity*, *pregnancy/health problems***

***related to pregnancy*, and *mental health*.** The priority topics in KY have not changed since the 2010 needs assessment although the order has changed with substance abuse becoming the leading concern.

Strengths and Needs: Strengths that were identified include few reported problems obtaining family planning services, WIC vouchers, or seeing a doctor for care during pregnancy or yearly checkups based on the consumer survey. Regional differences were noted with concerns about drug use higher in the East (46.9%) than the West (22.9%). Concerns about mental health, problems related to pregnancy, and sexually transmitted diseases (STDs) were more common in Western KY.

Drug abuse was the top concern across KY hospital Community Health Needs Assessments with discussion of prescription and non-prescription drug addiction; lack of rehabilitation services and inpatient facilities as well as limited substance abuse counseling. Tobacco and alcohol abuse, domestic violence (and the need for shelters) were also common concerns. Availability of mental health services for all ages and obesity were also raised by community hospitals. Further, a need for specialists in obstetrics/gynecology and maternal fetal medicine, a need for coordinated obstetric care, and more resources to support chronic diseases (particularly diabetes) were also documented.

Needs identified based on stakeholder input included a lack of comprehensive substance abuse and mental health treatment options (residential and outpatient centers) and the need for prevention and early intervention services. Shortages of mental health providers and long wait times for substance abuse and mental health treatment, even during pregnancy, were primary concerns. A need for developing support groups outside of 12-step/referrals and treatment facilities available for those unable to pay were identified. Education about substance abuse and mental health issues for professionals across many disciplines was noted. Stakeholders also discussed a focus on youth and prevention, collaboration across service providers, continuity of care, and the need for stricter guidelines for medication-assisted treatment.

Successes, Challenges, and Gaps: Focus group participants noted that heroin is more prevalent in urban areas with methamphetamines and prescription drugs a wider concern in rural communities. They reported few treatment options are available and waits for in-treatment beds are long, an average of three months. Addicts are selling Subutex and Suboxone on the street and Hepatitis C is increasing, particularly in Northern KY.

Tobacco use during pregnancy is known to be a concern for families across KY. KYs rate of smoking during pregnancy has decreased 9% in the past five years from 24.1% in 2009 to 21.9% in 2013, but more work must be done. Stakeholders recommended that work towards a statewide smoking ban continue.

The concern about health problems related to pregnancy and PT birth continues to be an issue. KYs rate of PT birth has been decreasing since 2007, in part due to efforts to reduce EEDs, particularly late PT births (34-36 weeks) through our Healthy Babies are Worth the Wait (HBWW) projects. In 2013, KYs PT birth rate is estimated to be 12.6%; nearing the US rate of 11.4% suggesting that the gap between KY and the US is beginning to close. In 2013, 30.6% of KY low-risk first births were delivered by cesarean section compared to 26.8% in the US. These cesarean sections were common among non-Hispanic Black women, and women over the age of 29.

Recognizing Preterm birth as a continuing problem for KY, stakeholders recommended increasing the birthing hospitals with hard-stop policies and stressed the importance of education for vulnerable populations about the risks of prematurity. They also noted that increased access to obstetric care, and extended Medicaid eligibility following delivery for both mother and baby, were important goals that would require legislative support to achieve. Finally, enhanced provider knowledge about progesterone therapy to reduce PT deliveries was considered optimal.

Programmatic Approaches: Programmatic approaches to improve the health of women and mothers include collaborative efforts with other state agencies to increase comprehensive treatment options, promotion of preconception and interconception health, and strategies to increase access to mental health services. HANDS, HBWW, and CoIIN activities should continue as well as efforts to promote smoke-free policies.

Perinatal/Infant Health:

Overview: The top issues identified by consumers for infants included secondhand smoke exposure, improper use of car seats, and preterm birth (born too early), and drug use by parents/children living in homes where drugs are used/ infants born addicted to drugs. Over half (54%) of the comments received were about some *exposure to drugs*. **Prioritization by stakeholders resulted in the following priorities for this domain: *NAS, Preterm births,* and *Breastfeeding*.**

Strengths and Needs: Overall there has been an increase in provider education regarding NAS with special emphasis on standardizing medical treatment for infants. Additionally it was noted by stakeholders that HANDS continues to have a positive impact on preterm birth as well as our collaboration with March of Dimes and the Kentucky Hospital Engagement Network (KHEN) that is working to implement hard stop policies in birthing hospitals to reduce elective deliveries less than 39 weeks gestation. These will continue as strategies in the maternal health domain.

The Hospital CHNA overview reflected issues associated with NAS and child abuse/neglect. Needs identified by stakeholders included improvement in post-discharge care for addicted mothers and their infants, need for medical homes and providers to see these patients. Additional suggestions from the group included the immediate identification of infants diagnosed with NAS followed by the use of risk-reduction interventions to support families as they work to break the cycle of addiction. The need for legislative support, including policy development, funding and accountability, was emphasized by participants.

Successes/Challenges/Gaps: Focus group members discussed their concerns about rates of NAS in their communities and the risks for infants raised by drug-addicted parents. Exposure to secondhand smoke, while recognized by members as a significant issue, was preempted by the severe and immediate influence that drugs had on the families under their care. The number of reported cases of child abuse and neglect were increasing exponentially and, in some communities, overwhelming the safety net systems established to address them.

Breastfeeding was identified as a larger issue in the 2010 Needs Assessment than in 2015. However, our data reflects that even though we have made significant progress in breastfeeding initiation rates, there is still room for improvement and thus have chosen to continue to focus efforts on improving breastfeeding rates in KY.

Although the issue of safe sleep was not a highly ranked priority by consumers or stakeholders, our data shows an increasing number of KY infants are dying due to unsafe sleep. In 2013, 90.5% of SUIDs had at least one sleep-related risk factor documented, and over half (54.8%) of the sleep-related deaths in 2013 had bed sharing listed as a risk factor. Due to the overwhelming presence of this potentially preventable risk factor, KY has chosen to focus on safe sleep efforts in the upcoming years.

Programmatic Approaches: The Kentucky Perinatal Quality Collaborative (KPQC) has introduced an NAS quality improvement project with the goal of collecting information from partnering hospitals in KY. From there, information on best practices for treating infants with NAS will be disseminated to hospitals and maternal-infant health care providers. Initially, the focus will be on interventions for hospitalized newborns with NAS, including both medication and non-medical treatments. MCH is developing a hospital recognition program that promotes both breastfeeding and safe sleep (http://chfs.ky.gov/dph/mch/ns/KISS.htm). Continued participation in the National CoIIN efforts on Safe Sleep will remain an area of focus for KY.

Child Health:

Overview: Kentucky's children comprise nearly one quarter of the state's population. KY ranks 35th in overall child well-being according to the 2014 Kids Count. In that data, the health measures are beginning to show improvement, but measures of economic well-being and family and community are lagging. **Priority topics for children that came out of the Needs Assessment process were child abuse and neglect, pediatric obesity, and injury prevention.** Child abuse and neglect, influenced in part by substance abuse issues of parents and caretakers, was identified as a top issue for KY children.

Strengths and Needs: LHDs still serve as safety net providers, as health care networks expand across the state more children are able to access medical homes. However, particularly in rural areas, transportation remains a major issue. Two major contextual factors, substance abuse and poverty, impact the health and well-being of children in the state. In the 2015 Needs Assessment process, these topics were all prominent concerns for the children of the state.

LHD and CCSHCN consumers selected the top problems for KY children as: exposure to secondhand smoke (55.9%); child abuse or neglect (53.2%); babies born too early (prematurity) (20.5%); inadequate use of car or booster seats for infants and children (20.2%); and overweight/obesity (19.5%). Results of the 2010 consumer survey results were similar with an emphasis on secondhand smoke exposure and child abuse or neglect. On a positive note, the consumer survey also documented that few have problems obtaining immunizations for children or WIC vouchers. The stakeholder survey

identified child abuse and neglect as the top priority for children, followed by obesity and developmental screening. Obesity will be dealt with in the Adolescent Health Domain. Developmental screening fell to a lower priority in the overall ranking of needs, but is noted in the discussions of child abuse in the stakeholder small groups (see below).

Successes, Challenges, Gaps: Stakeholders identified as strengths the increased awareness of child abuse and particularly the laws requiring education on pediatric Abusive Head Trauma (AHT), laws for child safety restraints, and places to check for proper car seat installation as positives that are currently helping address the problem. They noted that particularly in rural areas, many people were not aware of resources. This was compounded by lack of knowledge and siloed approaches by service providers. Lack of knowledge of parenting and child development came up frequently, as did lack of mental health and substance abuse treatment services. Lack of support for families was identified including difficulty accessing affordable child care, lack of family friendly work policies, lack of educational opportunities for parents, and concern about stigma as a deterrent to accessing needed services. Local CFR teams were seen as successful efforts to address injury prevention in their communities, but the need for more local data for local action was a gap.

Programmatic Approaches: Stakeholders identified a number of programmatic approaches as working well, including local CFR teams, the Strengthening Families initiative, and mandatory pediatric AHT education. They noted the HANDS home visiting program positive outcomes of HANDS, including reductions in child abuse and neglect, and encouraged the continuation and expansion of this program. Focus group participants also recognized HANDS for the positive difference it was making in the Commonwealth.

In addition, stakeholders suggested efforts that included integration/co-location of mental health and physical health providers, reducing stigma for mental health and substance abuse treatment, making coping skills part of the school curriculum, more child care assistance, more coordination between substance abuse treatment providers and child protection workers, improving transportation, involving faith based groups, and promoting community health workers. While the Title V agency does not have direct authority over many of these, Title V is working to influence and impact all of these through partnerships and interagency collaboration.

Adolescent Health

Overview: The statewide consumer survey regarded *drug or marijuana use* (60%) the top issue for the adolescent population with *teen pregnancy* second at 55.4%. Concerns for *teen smoking* (28.9%), *exposure to STDs* (17.3%) and *overweight/obesity* (16.5%) followed. Survey results were similar to 2010, with overweight/obesity replaced by injuries or deaths associated with motor vehicle accidents. **Prioritization of the leading topics by stakeholders resulted in the following ranked priorities for this domain: *substance abuse*, *overweight/obesity*, and teen pregnancy.**

Strengths and Needs: Regional survey results included concerns about drug use being higher in Eastern and Central KY (63.9% and 63.2% respectively) compared to Western KY (51.3%). Eastern KY ranked motor vehicle accidents as a concern, while the risk of STDs and teen self-harm were more serious in Western KY.

Substance abuse exposure and use in adolescents dominated discussions throughout the needs assessment process, as did poor mental health, stress associated with bullying and lack of community-level resources for teens. Stakeholders discussed youth living with families addicted to drugs and the resulting depression and isolation that permeated their lives.

The CHNA hospital scan revealed the need for drug abuse prevention (including smoking) and more mental health services. Hospitals expressed concern about depression, anxiety, overweight, obesity and diabetes among youth in their communities.

Adolescent fatalities due to drug overdose now exceed those caused by motor vehicle crashes. Increased rates of Hepatitis C when injecting heroin with dirty needles were particularly high in Northern KY. Western KY reported families as fearful to discuss their child's weight with doctors they may not address this and just tell parents the child is fine. LHDs are not equipped to see teens for substance abuse, and referral to a community mental health center or private substance abuse provider usually has a long wait time. Western KY stated immunizations may not be given in private physician offices, or for certain types such as Varicella, they send patients to the LHD. One comment was if immunizations were solely handled through LHDs everyone would get the right ones at the right time. Central KY cited the need for more public education on substance abuse.

Successes, Challenges and Gaps: Teen pregnancy, although declining in KY, varies by race and region of the state. While KY's rate per 1,000 has declined 28% since 2008, the greatest impact is reported among Black women, with a 46%

decrease in teen births, a greater decline than that observed in the U.S. (30%) over the same time frame. Yet KY's rate remains one of the highest, ranking 5th among all states and the District of Columbia.

Needs or gaps identified for teen substance abuse included lack of residential treatment centers, too few school-based services and drug counselors, lack of proactive treatment, and the need to educate teachers and other school employees on early signs of drug use. Suggestions include increased positive youth development, peer support, more local treatment options, and family support.

Obesity discussions included needed parent education and support by the school system, with such barriers as the cost of healthy foods and lack of knowledge about healthy eating. A reduction of physical education and activity in schools with increased media time at home increases the problem. Improvement ideas included regular health education and student wellness programs for all grades. Parental education on healthy lifestyles is needed along with community agency engagement, and a statewide physical education requirement policy change.

The 2014 State of Obesity Report cites KY as the worst in high school student obesity at 18% and 8th worst in obesity among 10-17 year olds at 19.7%. Based on 2013 KY Youth Risk Behavior Surveillance System (YRBSS) data, 22.5% of high school students were physically active for at least 60 minutes per day on 7 of the past 7 days compared to 27.1% in the Nation. Non-Hispanic Black students were less likely to have this much physical activity (15.3%) compared to non-Hispanic Whites (23.6%), and only 15.4% of female high school students had this level of activity compared to 29.5% of male students.

Programmatic Approaches: The Coordinated School Health Program addresses obesity and overall youth well-being by increasing the number of schools with leadership trained in the SHAPE program, increasing the number of schools with a school wellness policy and CSPAP. The 5-2-1-0 campaign is designed to give parents, healthcare professionals and child care providers a memorable way to talk about the key evidence-based behaviors that reduce childhood obesity before the teenage years.

Children and Youth with Special Health Care Needs

CCSHCN saw *improvement* in 6 of 8 measures from 2009-2014. The number of infants screened for hearing revealed a slight decline, due in part to better tracking and an increase in home births. Obesity rose slightly in 2013 and 2014 although no trend is evident over the 5-year period. CCSHCN faces challenges associated with completing the transition from a traditionally direct service role to an assurance role with regard to ensuring statewide systems of care and infrastructure-building. The gulf between the number served in CCSHCN specialty clinics (approximately 9400) and the estimated population of CYSHCN (197,000) illustrates the issue, as does the fact that KY's rate of CYSHCN is the highest in the country. CCSHCN looks to fill gaps in services–not necessarily through provision of direct care, but by ensuring integrated services exist in communities where CYSHCN live. As 2015 progresses, CCSHCN intends to leverage partnerships, TA, and community resources to emerge with a robust plan to strengthen and enhance the overall system of care for CYSHCN in KY.

When asked about needs for CYSHCN, survey respondents said that their greatest concerns are ensuring the ability of families to receive services, ability to find insurance to pay for care, and availability of developmental, social, and emotional screening services. Training and support for children with behavioral issues, and finding doctors who can provide care were the last two priorities. When this category was examined using only data from families of CYSHCN enrolled in CCSHCN clinical programs, priorities varied slightly. The need to find insurance moved off the list completely and was replaced by concerns about finding doctors to provide care as the second issue. Training and support for children with behavioral issues moved to the third priority and the need for early identification of special health care needs was added to the list. When responses were examined by region, statistically significant variations occurred. Finding doctors who can provide care was of greater concern in Western KY than in Eastern, though the latter is known for provider shortages. Finding insurance to pay for care was more of an issue in Central KY and nearly a quarter of respondents from Eastern KY said early identification of CYSHCN was a high priority need. The need for transition services was thought to be greater in Eastern KY.

The analysis of NSCH and NS-CSHCN data compared KY outcomes to Region IV and national results overall, KY fared well; 2 outcomes are targeted for improvement: *access to community-based services,* and *Transition Services*.

When condition prevalence was examined, KY had more children living with Asthma; Arthritis; ADD or ADHD; Behavioral or conduct problems; Epilepsy/seizure disorders; heart problems; and Cerebral Palsy. KY fared better than either Region IV or the nation in autism prevalence and blood problems. Small sample sizes in the datasets present issues in accurately

analyzing disparities within the state; it is noted that with the exception of Hispanic, males outnumber females in CYSHCN prevalence in every race/ethnicity. KYs population is significantly more rural than CYSHCN nationally.

Focus groups discussed issues pertaining to CYSHCN and their families. Access to resources and services was the primary topic. Specialized providers are not available in many rural areas of KY. The lack of pediatric dentists and pediatric mental health providers was noted as were barriers families faced as they traveled long distances for needed specialty care. Professionals report that families often struggle to navigate existing systems. Sometimes services are available but unknown. Parents may be overwhelmed by responsibilities and the need for respite was frequently mentioned.

The stakeholder meeting devoted 2 tables to CYSHCN issues. Gaps identified by stakeholders included provider shortages, transportation and complexity of system navigation for families. Too few providers accept Medicaid in KY, so enrollment does not equate with access to care. Multiple possible solutions were discussed, including education of medical societies regarding barriers, creation of a CYSHCN resource hotline, increased use of telemedicine, etc. Provider capacity issues explored included lack of specialists, too few clinics, and reimbursement issues. Ideas included collaborations to provide loan repayment support for young physicians as well as increased use of physician extenders. To improve provider reimbursement, negotiations with MCOs for bundled payments for multidisciplinary clinics and special rates for CYSHCN were suggested. Stakeholders acknowledged that often families did not know what services were available and that many lived in resource-poor regions of the state. Solutions included blended funding, expanded outreach and centralized resources to help families navigate services.

Cross-Cutting/Life Course:

The cross-cutting/life course domain was not a separate domain in the needs assessment process. Instead, all topics were considered in each of the population domains, and following prioritization were reviewed to determine those topics that crossed multiple populations. Priority topics that were considered in this domain include: adequate insurance coverage, adverse childhood experiences, oral health, overweight and obesity, and substance use including tobacco use. **The priorities in the cross-cutting/life course domain that were identified through the needs assessment process are substance abuse and oral health.**

Substance Abuse

Overview: Substance abuse was, by far, the most significant priority identified throughout the needs assessment process. This epidemic is having a devastating effect on all MCH population domains; a leading priority in 3 domains: women/maternal, perinatal/infant, and adolescent. Child abuse and neglect, a priority issue in child health is linked to substance abuse.

Strengths and Needs: A significant strength in this area is the collaborative efforts that have occurred to identify best practices for comprehensive treatment options for women with substance use disorder especially pregnant women who have substance use disorder. These efforts are described in the State Action Plan.

The needs are many, but an initial focus must be access to quality, evidence-based treatment programs for individuals with substance use disorder. Consistent data is needed across age groups with consistent definitions among agencies and stakeholders.

Successes, Challenges and Gaps: Successes related to the area of substance abuse is legislation requiring reporting of NAS to MCH, and a 2015 comprehensive Heroin bill. Focus group participants noted that heroin is more prevalent in urban areas with methamphetamines and prescription drugs a wider concern in rural communities. They reported few treatment options are available and waits for in-treatment beds are long, an average of three months. Addicts are selling Subutex and Suboxone on the street and Hepatitis C is increasing, particularly in the Northern portion of the state. Related specifically to tobacco, KY has documented some progress with a decrease of 9% from 2009 to 2013, but more work must be done.

Programmatic Approaches: Communities are fighting back. Activists in Northern Kentucky are responding to the heroin epidemic through a collective impact initiative (Drug Free NKY, 2013). In Eastern KY, Operation UNITE works to empower communities and to raise awareness about drug addiction to change society norms. Efforts to improve the data related to substance abuse are important to understand its complete impact and monitor progress. Additionally, comprehensive treatment options are needed across the Commonwealth for all age groups. Stakeholders also supported comprehensive smoke-free legislation to improve the health of all MCH populations.

Oral Health

Overview: Oral health problems, and a lack of oral health services, continue to challenge KY families. Oral health was not a top priority from the 2015 Needs Assessment, but due to its inclusion as one of six focus areas in kyhealthnow, it has been chosen as a priority of focus for the next five years.

Strengths and Need: A major strength in oral health is the increased emphasis that it has received from all levels of leadership. State General funds have been provided to build infrastructure including additional personnel for water fluoridation, epidemiology, and program management, and to establish a public health dental hygiene program with a state-level hygienist program manager. During the Needs Assessment and MCH focus groups, it was reported that dental preventive services (oral exams, sealants and fluoride varnishes) provided in LHDs and school satellite clinics fill an important gap. Too few dentists will accept Medicaid, and those dentists who do accept Medicaid children are near capacity in the number of patients they can accept. Reports also included dentists are not comfortable treating children with cleft lip and palate and other special needs. In Western and Central KY, group input applauded the fluoride varnish program, especially access for consumers through school clinics.

Successes, Challenges and Gaps: KY ranks 41st in annual dental visits, 45th in the percentage of children with untreated dental decay (34.6%), and 47th in the percentage of adults 65+ missing 6 or more teeth (52.1%). In 2015, state general funds were provided to establish the public health dental hygiene program. The program allows hygienists to provide preventative services, but the most important service provided to this at-risk population is the referral of these patients to a permanent 'dental home' in their own communities.

Programmatic Approaches: Support for existing public health dental hygiene programs is ongoing and efforts will focus on increasing the number of LHD dental hygiene programs, and promoting fluoride varnish by public health nurses. To address access for children in rural areas, the KOHP has a training program that offers general dentists practical training in pediatric techniques so that they will see this young patient population (under six years of age).

II.B.2.b Title V Program Capacity

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

ORGANIZATIONAL STRUCTURE

Governor Steven L. Beshear remains in office until December 2016. In his Executive Branch there are 11 Cabinets, the largest of which is the Cabinet for Health and Family Services (CHFS). KDPH and CCSHCN are organizationally located within CHFS. Other agencies located within CHFS include the Department for Aging and Independent Living, the Department for Community Based Services (DCBS), Department for Family Resource Centers and Volunteer Services, Office of Health Benefit and Health Information Exchange, Office of Health Policy, Department for Income Support, Department for Medicaid Services (DMS), and Department for Behavioral Health, Developmental and Intellectual Disabilities. KDPH is the state health agency; Title V is implemented through the Division of Maternal and Child Health.
The foundational statute for Kentucky MCH is within KY Revised Statute (KRS) 211.180 which gives CHFS the responsibility and authority to formulate, promote, establish and execute policies, plans and programs relating to all matters of public health. Legislation related to MCH is contained in the Overview document of the Title V Application. The majority of Title V funding is provided to 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 CCSHCN include:

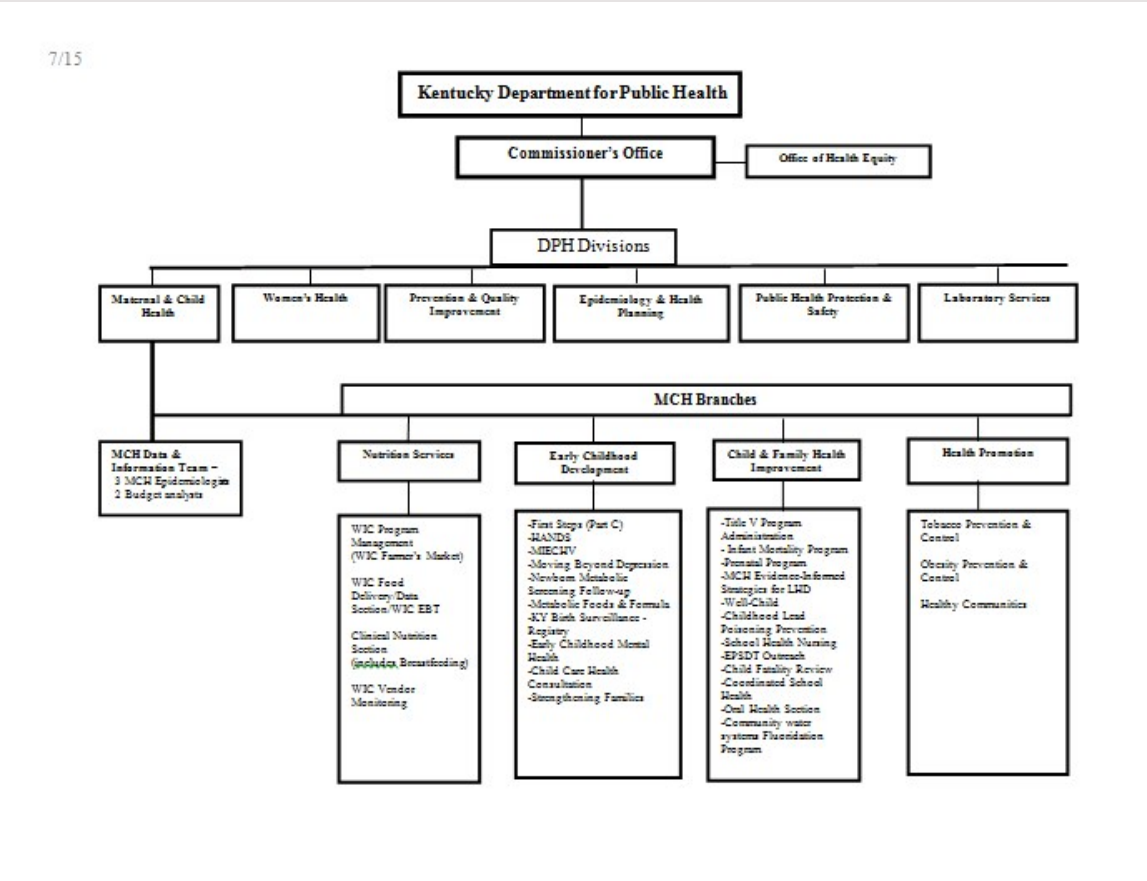
1. Direct care gap-filling clinics for those children with a diagnosis on the agency's eligibility list. Clinic visits include access to nutritional services, social services and transitions preparation, care coordination through a registered nurse, and care provided by contracted specialty physicians. Therapists are included in clinics for children with conditions such as orthopedic conditions, cerebral palsy, hearing loss or other conditions that affect speech and language development. Clinics in which complex conditions are treated offer the services of multiple physicians who provide a team approach to management. Clinical services offered via telehealth are a newly added method of service delivery.

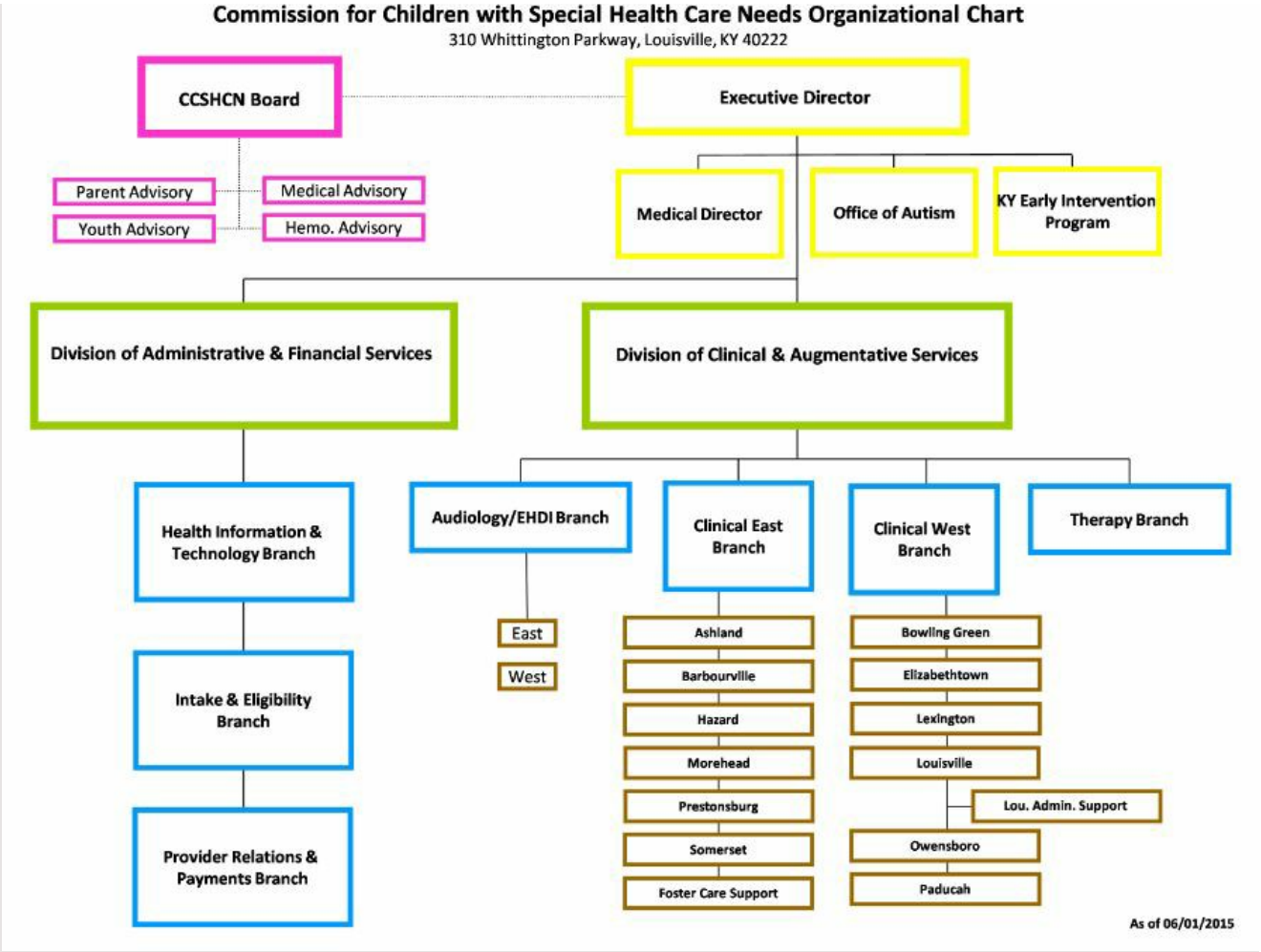
2. Audiology services, which are easily accessible and includes hearing conservation, testing, hearing aid fittings, and programming for cochlear implants. CCSHCN administers the state Early Hearing Detection & Intervention (EHDI) newborn hearing screen surveillance program.

3. Foster care support programs, which support children with special needs in the child protective service system through collaboration with the DCBS. This involves a home visitation program to meet the needs of medically fragile children placed in foster care, and a nurse consultant program which provides consultation and assistance on medical issues through nurses stationed in regional DCBS offices statewide.

4. Support for those with Autism Spectrum Disorders, which includes a statewide Office on Autism created within CCSHCN, an advisory council of community partners and service providers, and direct services provided through pilot clinics in collaboration with the UL.

5. Family to Family Health Information Centers (F2F HICs), which provide assistance to families and professionals in navigating health care systems; information, education, training, support and referral services; outreach to underserved/underrepresented populations; guidance on health programs and policy; and collaboration with other F2F HICs, family groups, and professionals in efforts to improve services for CYSHCN.





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

AGENCY CAPACITY

Title V services are provided in all 120 counties to assure gap-filling services for the MCH population. Partnerships and collaboration are described later in this needs assessment summary. The basic preventive and assurance services that are provided by population health domain include:

Women's/Maternal Health: MCH assures the health of Kentucky's women and maternal population with direct services for prenatal, postpartum and interception care. The Prenatal Program provides gap-filling services and the statute intends that no pregnant woman in Kentucky should go without prenatal care. MCH collaborates with the Division of Women's Health (DWH) in KDPH on adolescent health, family planning & teen pregnancy prevention, and preconception/interconception care efforts.

Perinatal/Infant's Health: Perinatal and infant health in Kentucky relies upon preventative services, the promotion of nutrition and breastfeeding, and healthy beginnings for infants and young children. The newborn screening program assures that all infants born in Kentucky are screened for conditions recommended by the ACMG. The HANDS home visiting program promotes healthy birth outcomes and safe environments for KYs most vulnerable population.

Child Health: Child health programs utilize a holistic approach to promote child well-being including physical, mental, emotional, and oral health in children. Preventative services include well child exams, nutrition counseling, injury prevention, and services provided in the school setting.

Adolescent Health: Adolescents receive gap-filling services including immunizations, physical exams, family planning, and

STD screening. MCH partners with the Division of Women's Health on teen pregnancy prevention.

CYSHCN: CCSHCN has made continuous attempts to expand beyond the clinically eligible population and reach more of the estimated 197,000 CYSHCN through non-direct services. While there will always be a need for the provision of gap-filling direct services, in recent years, deliberate attention has been placed on assuming a place in a well-constructed service system. These attempts are institutionalized in the agency's strategic plan and draft standards of practice documents. CCSHCN programs are administered on a regional basis by staff located in twelve (12) offices throughout the state. Regional clinics operate with available area providers who contract with CCSHCN, and outreach and programs are based on the particular community's needs. While the formal needs assessment, program planning, and evaluation processes are functions of the central administration, CCSHCN relies on each regional office to identify solutions to localized issues and to participate in human service councils or other partnerships to advance those beyond the scope of one agency.

CCSHCN program collaborations with other agencies include formal memoranda of understanding with the KDPH for audiology referral services (as well as interpreter services) for the First Steps early intervention system, and the DCBS for foster care support and audiology services. The public health agencies collaborate through a variety of other initiatives as well, such as participation in healthy weight initiatives with the Partnership for a Fit KY and distribution of folic acid multivitamins as a preventative measure to the specific population of families of CYSHCN. Given the structure of CHFS and weekly leadership meetings, many partnerships may start at the management level (e.g. services for children with ASD, a collaboration with the state's behavioral health system), while others develop at a community level as pilot initiatives (e.g. foster care support services), originating to address an identified need in one community and expand statewide. As public programs are only one part of the array of KYs services, CCSHCN collaborates with private organizations as well, such as recently entering into an agreement with Health First Bluegrass, a FQHC, to assure medical home services for underserved populations in the Lexington area. Through a public-private partnership, CCSHCN therapy staff is housed at, and have access to the state-of-the-art equipment of the Home of the Innocents, a private facility specializing in the care of children with medically complex needs. CCSHCN's board and advisory councils include representatives from various private entities, and staff participates in committees and boards locally, regionally, and at the statewide level.

Cross-cutting/ Life Course : All MCH population domains are included in this domain. Strategies are developed to target individual population domains, but cross-cutting allows an opportunity to coordinate these strategies across the life span. This domain requires significant collaborative efforts with other agencies in order to develop a comprehensive approach for dealing with significant issues. Further details are provided in the State Action Plan.

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

MCH WORKFORCE DEVELOPMENT AND CAPACITY

MCH employs 80 public health practitioners focused on improving the physical, socio-emotional health, safety and well-being of all KY women, infants, children, adolescents and their families. MCH provides funds to the LHDs to implement Evidence Informed Strategies in alignment with MCH priorities to assure an identified person as MCH Coordinator at each local health department.

DPH/MCH Staff

Dr. Connie White, Deputy Commissioner for Clinical Affairs, is board certified in OB/GYN with emphasis on patient education and preventive medical care.

Joy Hoskins, RN, BSN is Director of Women's Health, serving DPH in MCH and WH, and the Director of Nursing for DPH.

Vivian Lasley-Bibbs, MPH directs the Office of Health Equity (OHE), and is a Health Disparities Epidemiologist and Healthy People 2020 State Coordinator, affiliated with national, state, civic and community based organizations.

Dr. Ruth Ann Shepherd directs MCH, and is Board Certified in Pediatrics and Neonatal-Perinatal Medicine, and has certificates in Business Administration, Non-Profit Management, and Healthcare Quality. She served on HHS Secretary's Advisory Committee on Infant Mortality and was a team co-lead in the initial HRSA COIIN.

Marvin Miller, MSW, Assistant Director for MCH was instrumental developing WIC, HANDS and many Well Child Programs. He is legislative liaison for MCH, and oversees the LHD plan and budget process.

Shelley Adams, MSN, RN manages Child and Family Health Improvement, Prenatal, Pediatric, and Oral Health Programs, and administers the Title V MCH Block Grant.

Frances Hawkins, RDLD manages Nutrition Services, WIC, MCH Nutrition Program, including state-wide WIC EBT, Breastfeeding Peer Counselor Program, and WIC Farmers' Market.

Paula Goff, MS manages Early Childhood Development, HANDS, First Steps and Newborn Screening. She was the Part C Coordinator in KY and Missouri, and serves on the Governor's Early Childhood Advisory Council.

Andrew Waters manages Health Promotions. He is an epidemiologist with experience in local health, tobacco prevention/control, and environmental health.

Julie McKee, DMD, State Dental Director, was previously the Director of WEDCO District HD and is instrumental in expanding KY Oral Health Program.

Joyce Robl, EdD, MS, CGC, MCH Data and Evaluation Officer, is a board certified genetic counselor that coordinates epidemiology, surveillance, and evaluation within MCH.

Tracey Jewell, MPH is the lead MCH epidemiologist for the MCH, with 17 years' experience in DPH and Title V.

Monica Clouse, MPH is a division level epidemiologist for the MCH, overseeing child fatality data and KBSR.

CCSHCN

With 155 employees in offices throughout the state, CCSHCN strengths include organizational structure, collaborative history, financial management, and affiliation with hospitals. Needs include limited supply of providers, wait time for appointments, and missing skill sets such as marketing and epidemiology/data.

CCSHCN Staff

Executive Director: Prior to appointment, Jackie Richardson served 18 years with the Louisville Metro Government in various roles, including Chief of Staff for Public Health and Wellness.

Medical Director: Judith Theriot served as director of a Pediatrics Clinical Research Unit and a multidisciplinary primary care clinic serving inner-city high risk children prior to appointment. Dr. Theriot is a certified physician executive and a professor of Pediatrics at UL.

Director, Administrative and Financial: Janaki Kannan has 12 years of government experience in various roles . She is a degreed Certified Public Accountant with a Fellowship of Cost and Executive Accountant.

Director, Clinical and Augmentative: Karen Rundall has over 22 years of experience as a nurse providing pediatric care for children with special needs, including 9 years at CCSHCN.

Director, Office of Autism: Amy Cooper-Puckett has 17 years of professional social work experience, 12 years with CHFS. Experience includes child protection, clinical therapy services, and program management.

Title V MCH Coordinator - Mike Weinrauch has 19 years of experience with CHFS, including 9 with CCSHCN. Other areas of focus include technical assistance with foster care support programs, and general policy guidance/analysis.

Family members on staff

The Parent Advisory Council (PAC) and Youth Advisory Council (YAC) each meet quarterly to provide input on how to better serve KY families. In addition to 96 trained family support parents, 16 PAC members, 9 YAC members, the agency's Executive Director, and participants on boards, the following family members of CYSHCN serve on staff:

Co-Director, F2F: Debbie Gilbert served on the Council on Developmental Disabilities for 6 years, having worked with many disability groups. She is currently State Coordinator for Family Voices, and state affiliate of Parent to Parent of KY.

Co-Director, F2F: Sondra Gilbert has 12 years experience writing Individual Education Plans for CYSHCN. Sondra has been a volunteer in the Owensboro school district, is appointed to the Council on Developmental Disabilities, and serves on the Regional Genetic Collaborative.

CULTURAL COMPETENCE

MCH partners with The Office of Health Equity (OHE) to promote activities to raise awareness on health inequities. This includes using the Bridges Out of Poverty and Bridges into Health curriculums as tools to enhance understanding of how our personal biases influence our health decision making. The OHE provides face-to-face training on all aspects of cultural competence for communities and programs. There are currently two modules on TRAIN available when face-to-face is not available. The OHE prepares the biennial Minority Health Status Report to inform key decision makers about health disparities and inequities that affects Kentuckians. In addition, OHE collaborates with the Kentucky Behavioral Risk Factor Surveillance System (KyBRFSS) to ensure oversampling of the largest minority populations within the state as an additional data source to provide more focused programming efforts to address health disparities.

The OHE is instrumental in the use of the Community Health Improvement Plan to determine prevailing health and security needs of the community and representing the underserved and marginalized, such as the homeless, Lesbian, Gay, Bisexual, Transgender (LGBT), elderly, and Veteran populations.

OHE works with the faith based community and existing social networks along with spiritual leaders, to address disparities in churches, within the African-American community using faith based models. They also work with the Kentucky Functional Assessment Needs teams to collaborate with other community partners in addressing cultural and social norms specific to minorities and the underserved in the event of natural or man-made disasters.

OHE applies for grants to assist in adequately meeting the needs of culturally diverse groups. OHE conducts community based participatory research as one method used in capturing data from diverse populations to better understand barriers to care such as; access, service delivery and other social determinants of health. This data is used to enhance program development in addressing health inequities and social justice issues.

Academic partners collaborate with OHE to provide content area expertise to ensure holistic training and professional development of students in the health sciences. The areas covered include; cultural competency, health literacy and social

determinants of health, and other social injustices related to health inequities.

The office provides a pipeline for racially diverse students and recent graduates who are interested in health disparity work by providing the opportunity to explore research interests and exposure to public health via interdisciplinary collaborations.

OHE is currently outlining guidance for health in an all-policies approach in addressing health inequities to be incorporated in the department strategic plan and infused throughout all state public health programs.

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

PARTNERSHIPS, COLLABORATION, AND COORDINATION

Partnerships with state agencies and community partners extend the reach and influence of MCH on behalf of mothers, infants, children and adolescents. Along with KDPH, MCH programs strive to work collaboratively with other federal partners and private organizations to help meet aligned agency goals and to address the priority needs of the MCH populations. In addition, the CCSHCN plays a critical role in coordinating partnerships to assure that the needs of this population group are met. The vision of the CCSHCNs is “To be the visible leader in supporting the highest quality of life for KYs children with special health care needs and their families through collaboration and creation of a more accessible community based system of support.” In accomplishing this vision, partnerships, collaboration, and coordination are essential values. The agency’s strategic plan includes specific sections on collaboration, as well as marketing and outreach (partially in the service of further collaboration). In addition to involvement on a care coordination level, several CCSHCN staff actively serve on boards and councils that further the agency’s mission. As a state agency with a 90 year history of service provision, CCSHCN has developed formal and working relationships with a variety of programs providing services to children. CCSHCN's contracted network of direct providers for clients numbers in the hundreds. CCSHCN strives to remain connected and relevant by remaining involved with outside organizations that are resources to families of CSHCN.

A more extensive discussion of partnerships and collaborations, including other MCHB, HRSA, and federal investments, as well as other government agencies, public and private partners, is found in the “Other Programmatic Activities” in the State Action Plan.

III.D. Financial Narrative

	2016		2017	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	$11,029,949	$11,316,416	$11,034,716	$11,256,327
State Funds	$28,672,600	$29,362,066	$31,024,500	$30,321,932
Local Funds	$0	$0	$0	$0
Other Funds	$139,767	$0	$0	$0
Program Funds	$21,651,933	$19,003,467	$26,998,206	$23,126,210
SubTotal	$61,494,249	$59,681,949	$69,057,422	$64,704,469
Other Federal Funds	$129,434,229	$125,626,092	$120,101,030	$118,916,101
Total	$190,928,478	$185,308,041	$189,158,452	$183,620,570

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

	2020	
	Budgeted	Expended
Federal Allocation	$11,100,869	
State Funds	$28,300,100	
Local Funds	$0	
Other Funds	$0	
Program Funds	$27,995,100	
SubTotal	$67,396,069	
Other Federal Funds	$124,259,349	
Total	$191,655,418	

III.D.1. Expenditures

Kentucky maintains and provides budget and expenditure data as required under the Title V Section 5050(a) of the Social Security Act. Available budget and expenditure data reflects the overall federal application and the breakdown of primary and preventive care for MCH children, children with special health care needs, maintenance of effort, and administrative costs.

III.D.1 Expenditures

Block Grant funding and expenditures are provided by the state, as are explanations for significant variations in the expenditure data of 10% or greater compared to the previous year, as reported in Forms 2 and 3. Expenditures for this section are based on actual expenditures for state fiscal year 2018, which ended June 30, 2018. The budget is based on state fiscal year 2018. Reporting of actual expenditures may differ from the reported budget due to state fiscal year carryover and grant year amount variations. Kentucky'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. The variance in budgeted vs. expended for FY2018 was $421,868. (Expenditures were greater than budget in financial system and will be adjusted to fit within the budget). 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 Kentucky requires a balanced budget at the end of each fiscal year.

MCH has funded total expenditures 12% from the State General Fund, 66% from Federal Funds, and 18% from Agency 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.

Local Health Departments 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 will be held for lack of reporting activities.

Expenditures for Federal MCH Title V Program Services are divided by types of MCH services provided:

- 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
- 23% Enabling services
- 71% Public health services and systems
- 6% Administrative Program costs

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 FY20.

It should be noted KY's largest non-federal investment in encounter driven primary and preventive services for pregnant women, mothers, and infants is the $8.3M 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 $19M in federal 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 $7M. 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 and to provide crib kits for needy families without a safe place for infant sleep. These three programs are promoted by 53 LHDs which provide some part of safe sleep education in 92 of 120 KY counties. These counties have successfully recruited a community partner match for Title V funding to double the number of cribs available for families in need. Title V funds support workforce development trainings for prenatal and public health programs. Funds support well child assessment trainings to assure services provided by PH school nurses and school board nurses billing Medicaid are trained in best practice pediatric assessment and expanding access for well child exams and acute care visits within the school setting thus decreasing absences from school for children with acute illness or chronic health care needs.

OCSHCN has funded total expenditures using 31% from the State General Fund, 25% from Federal Funds and 44% from Agency Funds. During FY2018, the total expenditures of OCSHCN are broken down as follows:

- 55% on Direct Services such as personnel, physician contracts, Care and Support
- 5% on Foster Care Program
- 13% on Augmentative services such as audiology and therapy services

- 15% on First Steps Interpreters services
- 12% on Administrative expenses

Even with minor reductions, OCSHCN has made a commitment to preserve infrastructure and continue to serve those who are most in need. This requires careful prioritization, reliance upon partnerships, and a 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. The agency funds are generated by collaboration with other agencies, 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 March 2019, 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. The second weakness was there was no procedural manual for report preparation and staff turnover had an impact on preparation of the report. This was the first year for all staff, with exception of the epidemiologist, to prepare the annual report. Audit recommendations were:

- Document the report preparation process in a procedure manual
- Retain supporting documentation used for the preparation of the MCH report
- Consider developing a method to ensure all applicable staff are trained and familiar with the report preparation process

MCH has developed a plan to address all recommendations. This is the second year for preparation of the annual report for the Title V coordinator and the budget analyst. Both assisted with this routine audit. A procedure manual is in development with final copy due by August 31, 2019. A procedure to retain data files is in place.

III.D.2. Budget

The Kentucky Title V Block grant is spent in compliance with the federal requirements for utilization of those funds. KDPH retains 65.1% of Block Grant funding and allocated 41.9% of the FY2020 budget to support primary and preventive care for children. Administrative costs are less than 10% of the Block Grant funding budget. As per contractual agreement, 34.9% goes to the Office for Children with Special Health Care Needs.

The total required $4 federal/$3 state match for KY is $8,325,652 (based on $11,100,869 award), which includes OCSHCN and MCH. OCSHCN is responsible for their portion of the match (34.9%, or $3,874,203) and the remainder ($6,846,666) is the responsibility of MCH. Both agencies have more than adequate funds from state general funds to meet the match requirement. KY's total maintenance of effort from 1989 is $22,552,700. As is evident on Form 2, 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.

MCH's total budget for State FY20 increased 5.1% based on expenditures from FY18. For FY20, the total MCH budget was funded from:

- 12% State General Funds ($23,051,100)
- 19% Agency Funds ($37,118,303)
- 4% Federal MCH Block Grant ($7,226,666)
- 65% Other Federal Funds ($123,771,811)

MCH feels certain that the state and agency funds required for the 1989 maintenance of effort level of $22,552,700 and the match of $8,222,317 will continue to be available in the conceivable future.

For the FY20 budget, it is anticipated $7,226,666 of the MCH Title V Grant allocation will go 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 MCH receives includes:

Federal Grants	Grant Amounts
State and Local Healthy Homes and Childhood Lead Poisoning Prevention Programs (CLPPP) SJBW-0170000L	$ 600,750
ACA Maternal, Infant and Early Childhood Home Visiting Program SJTC-013000	$ 7,019,433
State Systems Development Initiative (SSDI) SJPJ-0177000L	$ 100,000
Women, Infants and Children (WIC) SJRC-011600 and 011700	$107,719,250
Early Identification and Intervention Infants/Toddlers (First Steps) SJPB-015200	$ 6,082,500
Sudden Unexpected Infant Death (SUID) Case Registry SJPS-015300	$ 80,900
Pregnancy Risk Assessment Monitoring System (PRAMS) SJBT-019600	$ 153,417
Birth Surveillance (SJPU)	$ 210,000
KY Healthy Communities, Tobacco Control, Diabetes Prevention and Control (SJCB)	$ 1,138,751
Increasing QUIT NOW KY Reach & Sustainability thru Media Strategies, Stakeholder (SJCL)	$ 666,810
TOTAL	**$123,771,811**

Non-Federal program funding MCH receives includes:

Non-federal Programs	Amounts
Maternal and Child Health SJB	$ 2,237,600
Oral Health SJB4/SJBR	$ 1,170,500
KEIS Gen. Funds ONLY SJPA/SJPB	$ 9,704,800
Genetics SJPF	$ 177,800
Newborn Screening SJPL/SJPK/SJPE/SJPF reorg to SJBV/SJBQ	$ 1,507,400
HANDS GF SJTE	$ 6,710,400
Healthy Start S4TA	$ 1,000,000
ECD Mental Health S8TA	$ 1,000,000
ECD Oral Health S9TA	$ 1,050,000
TOTAL	**$23,051,100**

OCSHCN's total budget for FY19 was neutral in comparison to the FY18 Budget year. OCSHCN expects to fund the total budget from:

- 25% State General Funds
- 24% from Federal MCH Block Grant
- 2% from other Federal Funds
- 49% from Agency Funds

OCSHCN is certain that the State General Funds and Agency Funds will continue to be made available to support the required match amount and required maintenance of effort level.

Other Federal Funding OCSHCN received in FY19:

Federal Grants	Grant Amounts Awarded in PP19
Family to Family Health Information Centers	$ 96,750
Kentucky Infants Sound Start (HRSA/MCHB)	$ 291,111
Early Hearing Detection and Intervention (EHDI)	$147,191
TOTAL	**$535,052**

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. 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. Title V serves as the lynchpin for all parts of MCH strategic planning and responses to public health demands across all domains.

As a leader in public health, the MCH Title V Program encourages and promotes LHDs, hospitals and community partners to use evidence informed strategies ("packages") to address the needs identified by ongoing program evaluation, surveys, and surveillance at the local and state level. 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 the 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, childcares, 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 the community needs. The Title V program reaches families deep into the community through school-based program, local clinics and community partners, faith-based organizations, and providers. Since inception of the packages, MCH has had many reports from localities of innovative projects and ways the LHDs have used funds for population health strategies while maintaining fiscal accountability and directing efforts to priorities based on the identified needs of their community.

MCH collaborates with universities 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

At the state level, MCH and OCSHCN workforce actively participate in multiple collaborations with partners 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 partners
- Multiple state agencies.

These collaborations have allowed leveraging of Title V funding and an ability to have a greater scope and reach deep into KY communities. Throughout the year, staff engage partners and organizations for educational opportunities or technical to promote activities that address the identified priority needs of KY. To address an emerging issue of suicide in KY children programming has specifically focused on bullying and prevention trainings

for school staff and community partners.

KY has focused on critical issues affecting the population across the full life course. MCH recognizes there are critical periods, from prior to conception throughout the lifespan, influencing the health and wellbeing 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, and behavioral health needs are growing. Many children are out of home placements through foster care. Kinship care now extends to older generations of great and great-great grandparents.

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 First Steps. OCSHCN strives to address the rural needs of KY's children with special health care needs by providing access to care through regional based clinics that include care coordination, referral for services, partnerships in service delivery, and offering providers the use of space and telehealth equipment at OCSHCN locations.

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

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

In 2012, an extensive study of Kentucky's health care workforce was completed in preparation for the Kentucky Health Benefit Exchange (KHBE) and Medicaid expansion (A Health Care Workforce Capacity Report (Deloitte Consulting, 2013). A maldistribution of providers is an issue as KY is primarily a rural state.

The KDPH Education and Workforce Development Branch ensures a well-trained competent public health workforce at the state and local level. This branch provides training opportunities via a national public health web-based training system (TRAIN). TRAIN completes a statewide public health workforce assessment on an ongoing basis with the next assessment planned for FY20. To understand training needs, MCH participates on the KDPH accreditation team for workforce development. Secondary to retirement of the chief nursing officer, KDPH appointed Jan Bright, Title V nurse administrator to provide oversight and approval of trainings available for nursing contact hours. This raises awareness and promotion of other MCH pertinent public health offerings.

MCH employs 95 public health practitioners focused on improving the health, safety, and well-being of all MCH populations. In the past year, MCH has continued to have over 1/3 of these positions vacant secondary to delays in personnel hiring practices, or inability to recruit experienced candidates. These vacancies and the number of newly hired employees created a significant burden to train, and mentor new staff. In December of 2018, a department reorganization combined:

- MCH clinical nursing staff to the Child and Family Health Improvement Branch
- MCH epidemiology and budget staff to the Program Support Branch
- Moved the Kentucky Oral Health Program and Health Promotions Programs to another KDPH Division

Despite changes and staffing barriers, MCH continues to meet program benchmarks and promote activities as planned for FY18.

MCH supports local MCH professionals with trainings and technical assistance; funds assure a MCH coordinator at 58 LHDs. 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. In 2018, MCH reinstated the MCH conference to provide community stakeholders information about the state's MCH program, data, and assist with planning for current or emerging areas of focus.

Secondary to rising pension costs and other budgetary constraints, LHDs are engaging in a KY Public Health Transformation. This plan directs LHDs to have intentional activities and focus on population health measures and decreases direct services. At present, many LHDs are reviewing their workforce capacity to determine ways to do or assure regulatory and other public health functions. This effort may result in workforce reductions at some LHDs.

MCH also participates 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. In the past year, students have assisted with review of MCH data for the NAS report or for distribution on program subject matter to local facilities or health departments.

As new staff enter the MCH workforce, they are encouraged to attend local, state, and national trainings to build expertise in the specific program needs and critically review program processes, data management, and parent engagement opportunities to improve the scope and reach of the program.

OCSHCN has increasingly partnered with universities – initially, UK's College of Public Health and subsequently University of Louisville's, as well as MCH epidemiologists, to assist in developing data capacity for the CYSHCN domain.

OCSHCN employs 154 staff, including 38 who are funded through 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. For the past several years, OCSHCN has been working toward expanding non-direct services. As of August 2015, OCSHCN employs an Assistant Director of Support Services who is 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

An Access to Care Plan pursuant to SPM #3 is attached in the supporting documentation.

OCSHCN collaborated with the MCH Workforce Development Center to increase staff knowledge in preparation for strategic planning sessions. Representatives from the Workforce Development Center came onsite to train staff and managers selected to be part of the strategic planning process. There was representation from each OCSHCN office. The sessions focused on how to serve more CYSHCN, how to shift OCSHCN services model toward systems-building and identified areas where staff need further training. The result of these efforts will be the publication in early 2019 of OCSHCN's Strategic Plan (FY2020 – FY 2021).

OCSHCN makes every effort to improve workforce capacity. Using materials available on the MCH Navigator as guidance, leadership staff created an MCH Primer, which is posted on the staff intranet and is a required training for new employees. The primer is periodically revised to reflect changes associated with the block grant transformation and continuing education has been provided to all OCSHCN staff. Core competencies training is provided through TRAIN. Staff are encouraged to seek personalized opportunities for growth in their field as they pertain to job duties. For example, social workers may choose to attend trainings related to resource brokering or advocacy; nurses may pursue training in case management. OCSHCN staff receive informal training on important issues (such as Transitions, Medical Home, insurance, care coordination, billing, etc.) through presentations at monthly statewide manager's meetings.

OCSHCN staff attend the annual AMCHP conference and other relevant opportunities to stay abreast and learn from other states. 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

Kentucky'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.

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 community clinics (including Spanish-speaking practice) and in rural KY clinics (Autism clinic in Corbin, KY)

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

OCSHCN has a long-standing partnership with the Louisville LaCasita Center who hosts, "Una Mano Amiga" (A Friendly Hand) support groups monthly for mothers, and a second group for families. Maria Fernanda Nota, MD, helped initiate the support groups at La Casita, and 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. The link below is the WHAS news report about these groups and is available in both English and Spanish. This report was in honor of Hispanic Heritage month (9/15/17-10/15/17).

http://www.whas11.com/news/local/spanish-news/hispanic-heritage-maria-fernanda-nota-pediatrician-at-uofl-pediatrics-kosair-charity-center/480442019

Advisory Committees

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

- Hemophilia Advisory Council (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 the advisory committees.

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. For the Region IV Genetics Collaborative, F2F parents participated in making several videos that included care coordination and information for parents of newly diagnosed children with genetic disorders. F2F helped developed two resource booklets called *Partnering with Your Doctor, The Medical Home Approach* and the *Journey through Diagnosis.*

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 both parents of CYSHCN. These co-directors are valued and hard-working OCSHCN staff who are involved in a variety of aspects of agency operations on behalf of the CYSHCN population. Furthermore, a network of capable support parents assist with statewide initiatives and serve on external boards such as the UK Human Development Institute. The executive director of the agency is a parent of a son with special health care needs.

The MCH Early Childhood Mental Health team leads the KYSF and Youth Leadership Team. This team of family members, family and youth organizations, and advocates promote strength-based, family, and youth-driven principles and values. The Leadership Team focus for 2018-2019 is to increase participation at the local level through Regional Leadership Teams.

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

As of May 2019, 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 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 have experienced a café since 2015 during regional cafés hosted for families and youth and through provider training opportunities and conferences
- The Café Collective (social media group), 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
- In 2018, the Leadership Team developed a Family Thrive Action Guide and distributed 1,000+ guides

The MCH family consultant participates with the AMCHP Family Engagement Community of Practice CoIIN to develop a family engagement tool kit.

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. The Part C program conducts family surveys annually to assure the program is meeting the family's need 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.

Parents participate in task specific workgroups, such as those to improve the family assessment process used by the Part C Program. Parents were members of the two workgroups convened 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.

In addition, 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 are asked to respond to a short survey. Re-administration of the survey occurs after early intervention services begin. This data collection 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. HANDS solicits input from the perspective of parents and service providers through completion of two different satisfaction surveys, on an annual basis, impacting 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

In 2018, the MCH parent representative and MCH leadership met to plan for establishment of a MCH parent advisory group. This group will meet 4 times annually to review current projects in partnership with MCH to inform quality improvements across the MCH healthcare system. Plans include training for parents and volunteers on the various MCH projects and specific inclusion of the parent advisory group's guidance on needs assessment, program monitoring, educational offerings, and quality improvement activities.

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 education 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 2015 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. Family members participated in the follow-up stakeholders meeting in December 2015 to develop strategies for the State Action Plan. Ongoing reviews were completed during meetings, program review, surveys, and discussions.

Materials Development

In 2014-2015, the Early Childhood Mental Health team identified a gap for social and emotional resources. Based on suggestions and needs assessment data from multiple audiences, a 3-hour Social and Emotional training module was created for:

- Early Care and Education Teachers
- Early Childhood Professionals
- Parents of Children 2-5 Years

This training concentrates on three aspects:

- 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

Timeline of successes with this endeavor are as follows:

- 2015: Family participants assisted with the initial testing of the preschool curriculum. Parent focus groups assisted with the modification of the social emotional module for parents of children 2 to 5 years
- 2016: Early childhood professionals, along with 26 parents, became Train the Trainers of the parent module. A webpage with downloadable resources was built to disseminate key module concepts for parents and teachers. The social emotional module for parents of children 2-5 was adapted and tested for integration with early childhood professionals working with families in one-on-one situations
- As of May 2019: 244 active trainers across 63 cities were approved to host Connect the Dots (CTD) trainings for teachers, providers, and parents:
    - 215 training sessions delivered to 3,553 staff from early education centers have been trained across all 4 steps
    - Approximately 405 CTD training sessions were held reaching nearly 6,000 total caregivers

In response to a growing demand, CTD supplemental resources were created in 2018. A curriculum was developed to support specific needs of families who have children with Autism Spectrum Disorder, mothers and fathers in substance use recovery, and caregivers of children with Down Syndrome. Consideration for next pilot groups include

caregivers of children in foster care and children with trauma and grief experiences. The Connect the Dots ASD Pilot, through KY Autism Council funding, began March 28, 2018 and will end June 30, 2019. A new one-page Connect the Dots handout was created to disseminate as well as 4 short promotional videos.

Connect the Dots training effectiveness was evaluated through pre- and post-testing surveys. The revised Connect the Dots evaluation includes a measure of caregiver competence and increased knowledge because of the training. The results indicated approximately 88% of training participants increased at least 2 levels in confidence when asked if they could identify how a predictable schedule, organized routines, transition tools, and visual aids improve a child's behavior. Nearly 100% of participants indicated they knew how to use proven skills to help a child link positive behavior to positive experiences and feelings, compared to around 77% before the training. Over 98% of training participants indicated their knowledge of reducing challenging behaviors and promoting social and emotional development increased. After CTD training, nearly 100% of participants agreed or strongly agreed they could handle the next outburst without losing their temper, compared to less than 85% of caregivers before the training.

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

KYs 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 KYs MCH data capacity to support Title V efforts and the utilization of data for MCH programmatic decisions
- 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 Kentucky.

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, have assisted in the ongoing needs assessment process, monitored progress on NPMs, SPMs, and structural/process measures, completed analysis of all state reported data in the block grant, and contributed to various parts of the MCH block grant narrative.

In addition to activities around the block grant, SSDI staff provide data for the National CoIIN to Prevent Infant Mortality for Social Determinants of Health. Staff will be receiving training on geographical mapping techniques to aid in the assessment of infant mortality and the role of social determinants in KY along with other risk factors. SSDI staff provide on-going monitoring and support/technical assistance to birthing hospitals in the reporting of Neonatal Abstinence Syndrome (NAS) cases to MCH. Electronic reporting was instituted May 1, 2018 after utilizing a hard copy fax and data entry system. Reporting facilities submit ongoing reports of NAS cases electronically through REDCap.

Tracey Jewell, Senior MCH epidemiologist provides administration and oversight of the SSDI grant.

KY MCH epidemiologists continue to mentor various student interns. Currently, MCH epidemiologists are mentoring a graduate student working in the area of birth defects as well as policy and procedures development for the appropriate use of data and recommendations for data release and sharing.

Other Data Capacity Efforts

MCH collects and evaluates data through many databases protected by the Kentucky Online Gateway. Data bases used are designed and built by state developers, or are national databases. Each of the databases are specific to the program to provide either surveillance data, case management/care coordination, or program evaluation. In the upcoming year, MCH has a goal to transition from current reporting methods for MCH evidence based strategies to REDCap. MCH is continuing to focus on this goal and has had several meetings with IT staff to facilitate this process. MCH epidemiologists have been actively:

- Preparing the data dictionary for the Childhood Lead Poisoning Prevention Program
- Evaluating the newborn screening data base for potential upgrades to include integration and linkage with the Division of Lab Services data base
- Assisting the child fatality team with data abstractions and linkage from multiple sources to assure timely identification of cases
- Linking data from various databased to identify maternal deaths occurring within one year of delivery for inclusion for review by the MMRC and inclusion in the CDC MMRIA data base soon to be available for KY use

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

In 2013, KY implemented the ACA provisions with a state-based health insurance exchange and expansion of Medicaid which transitioned to the federal exchange.

KY began enrollment with KY Health Waiver (KHW) in 2018, and initial enrollees established *My Rewards* Account (MRA) activities for preventive health services. While, KHW seeks approval, enrollees continue with KY Medicaid or with one of 5 Managed Care Organizations (Aetna, Anthem, Humana, Passport and WellCare) without change to benefits. As of December 2018, KY had 1,348,991 enrollees, with Passport largely serving urban Jefferson County and WellCare serving much of eastern KY.

Since the initial rollout of health reform, Title V has primarily supported outreach and enrollment. LHDs support by assisting women and children with presumptive eligibility and providing ongoing education for access to Medicaid. 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. As a way to ensure that all families and CYSHCN have adequate sources of insurance, OCSHCN parent consultants and social workers have received training on the 1115 waiver and support to clarify information for parents. Statewide Needs Assessment survey data shows 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.

Services That Advance Implementation of ACA

In previous years, LHDs used Title V funds to provide education about the ACA and its benefits to MCH clients and 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. The Title V Program continues to provide expanded duty certification training for LHD nurses to provide well child assessments that are reimbursable by Medicaid. With limited direct services in many rural KY areas, LHD’s are collaborating with their local FQHCs for direct services to provide assurance that key services are available in their communities for the MCH population. Funds are used to provide training for LHD nurses to screen, apply fluoride varnish, and refer to a dental home children served by the LHD.

OCSHCN recognizes the effect that the relatively recent shift to managed care has had on CYSHCN, with changes in the way care is financed. Through discussions and an initial orientation period with the recently established MCOs, OCSHCN was able to educate as to the services the agency provides, which has allowed for partnerships and integrated practices. For example, nursing assessments were developed to align documentation with the needs of the existing MCOs, and nursing care plans were created 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, and this has the potential to fracture the team approach when providers are substituted on teams. An example of cooperation is OCSHCN’s work with the dental administrator for three MCOS to create policy specifically for CYSHCN enrolled in craniofacial anomalies and cleft lip and palate clinics to go beyond a once-in-a-lifetime orthodontia benefit and permit phased treatment.

Another success was in negotiating with two MCOs to assure pre-authorization for therapy services would not be required. For other MCOs, who require pre-authorizations, therapists are educated on consistently documenting medical necessity when requesting pre-authorizations on the front end. 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 (or obtain Medicaid waivers for needed services where appropriate).

Cultural and Linguistic Competence

The Office of Health Equity provides training to state and local public health professionals on cultural competency sensitivity including vulnerable populations. The Louisville Healthy Start administrator is the leader for KY's National CoIIN Social Determinants of Health (SDoH) workgroup in which MCH participates. This SDoH group hosted a training, "How biased am I" to about 300 community, LHD, and hospital stakeholders in the fall of 2018. In 2019, this training was part of southern KY regional conference and is part of the agenda for 2 more regional conferences and the annual MCH conference, November 2019.

OCSHCN staff received implicit bias training, "Everyday Bias in Healthcare", during the statewide staff meeting (August 2017) from Ryan Simpson from the University of Louisville Health Sciences Center Office of Diversity and Inclusion, and Faye Jones, MD, Associate Vice President for Health Affairs/Diversity Initiatives at the University of Louisville.

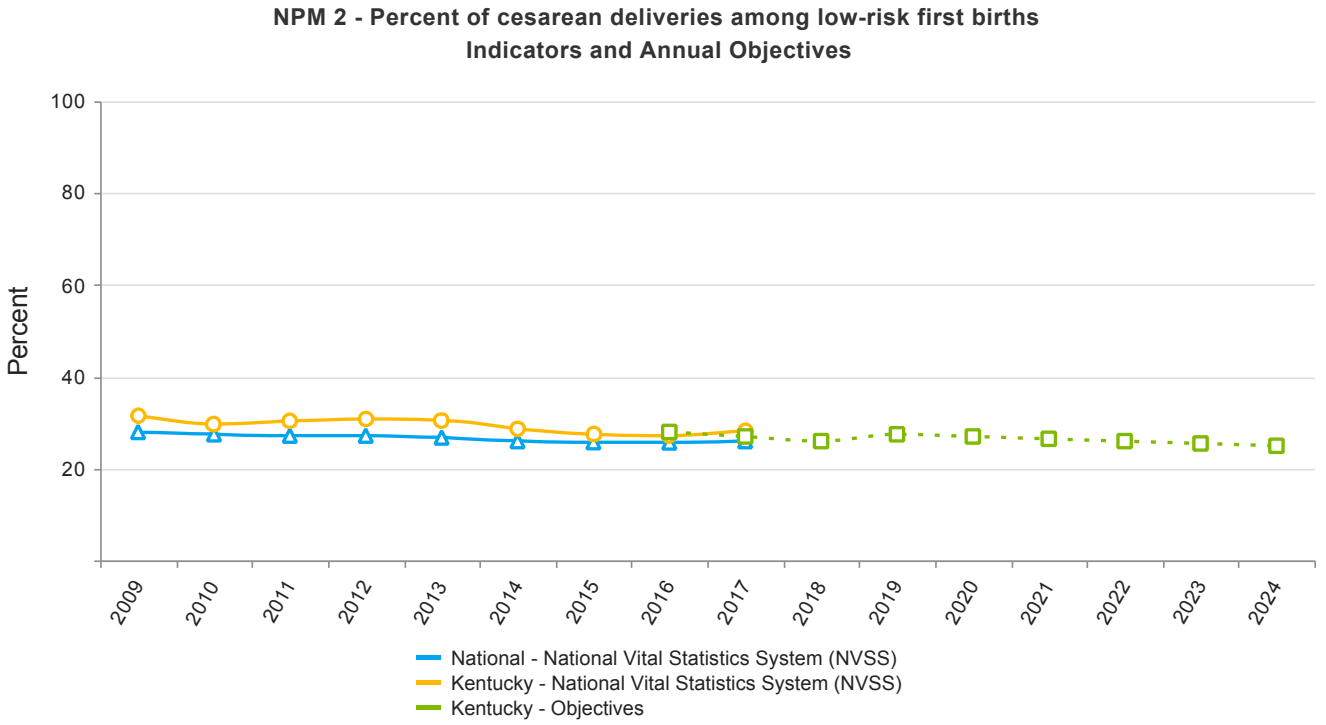
III.E.2.c State Action Plan Narrative by Domain

Women/Maternal Health

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 2 - Rate of severe maternal morbidity per 10,000 delivery hospitalizations	SID-2015	116.3	NPM 2
NOM 3 - Maternal mortality rate per 100,000 live births	NVSS	Data Not Available or Not Reportable	NPM 2

National Performance Measures



Federally Available Data			
Data Source: National Vital Statistics System (NVSS)			
	2016	**2017**	**2018**
Annual Objective	28	27	26
Annual Indicator	27.4	27.2	28.3
Numerator	5,018	4,819	4,907
Denominator	18,321	17,748	17,321
Data Source	NVSS	NVSS	NVSS
Data Source Year	2015	2016	2017

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	27.5	27.0	26.5	26.0	25.5	25.0

Evidence-Based or –Informed Strategy Measures

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
Annual Objective		9	11
Annual Indicator	7	9	13
Numerator			
Denominator			
Data Source	State specific data	State Specific Data	State Specific Data
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	13.0	15.0	17.0	19.0	21.0	21.0

State Performance Measures

SPM 6 - Reduce by 10% the number of maternal deaths of Kentucky residents associated with substance use disorder.

Measure Status:					Active
Annual Objectives					
	2020	**2021**	**2022**	**2023**	**2024**
Annual Objective	40.0	38.0	36.0	34.0	32.0

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 2 - Percent of cesarean deliveries among low-risk first births

Objectives

Decrease by 10% the proportion of low risk, first time cesarean sections by September 30, 2020.

Strategies

Increase the availability of Kentucky-specific data on cesarean sections and early elective deliveries and include the data in in hospital data briefs

Identify hospitals with high early elective delivery rates and provide targeted outreach and education

Incorporate information about cesarean sections and early elective deliveries into provider educational opportunities

Develop a data analysis plan to estimate the use of 17-OH progesterone among Medicaid clients

Encourage LHDs promote the Healthy Babies are Worth the Wait MCH-Evidence Informed Strategy with local providers and birthing hospitals to develop a "hard stop" policy to reduce the number of early elective deliveries at each facility

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

NOMs

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

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

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

Priority Need

Reduce maternal morbidity and mortality rates in Kentucky

SPM

SPM 6 - Reduce by 10% the number of maternal deaths of Kentucky residents associated with substance use disorder.

Objectives

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

Strategies

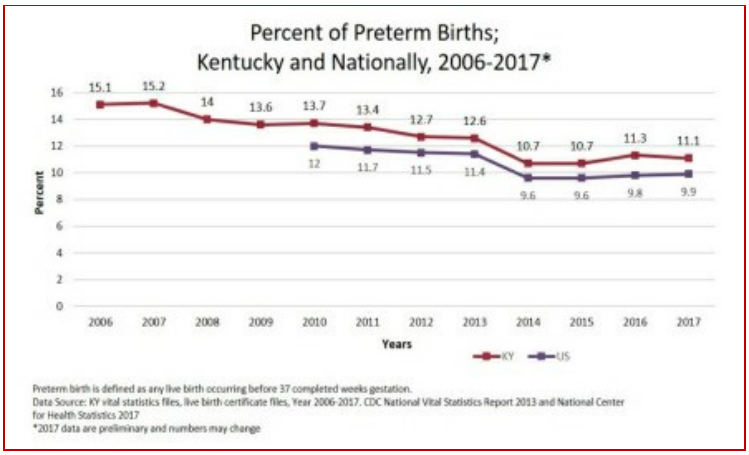
Identify maternal deaths associated with ICD codes for substance use and assure review is conducted on all cases within 1 year of death

Provide recommendations based upon review findings for inclusion in annual Maternal Mortality Review and Prevention report, and for presentation at various MCH sponsored stakeholder meetings

KY MCH utilizes many strategies to address the identified needs and outcomes assessed in 2015. These strategies include data briefs and outreach to providers and birthing facilities. Primarily, MCH accomplishes this by promotion of best practice packages with funding from MCH Title V provided to LHDs for implementation of evidence informed strategies. Based on community needs, LHDs have the opportunity to opt-in and select 2-5 packages with a requirement that at least one package chosen to address infant mortality. MCH sets the allocations for LHDs based upon a formula using a base rate, number of children in poverty, and number of the MCH population served by Medicaid. LHDs are encouraged to use the package guidelines as a point of reference and to be innovative with initiatives to reach the MCH population. LHDs, stakeholders and collaborative partners are engaged at both local and state level building an integrative strategic plan across all levels.

Women/Maternal Health Domain Annual Report

MCH collaborates with an extensive group of partners both internally and externally to address issues related to women/maternal health. The Kentucky Perinatal Association, Kentucky Chapter of March of Dimes, and the Healthy Start Program in Louisville have been three strong partners during 2018. As stated for several years, the work completed for this effort began as part of the national effort to "Put the M back in MCH". During the past year, many data measurements reviewed determined the impact for mothers and major issues and their impact for the health of mothers and women of childbearing age. For FY18, KY *continued the work for NPM #2: Percent of cesarean deliveries among low-risk first births* with a goal to reduce early elective cesareans by 10% by 2020.



Since 2009, based upon federally available data, the rate has decreased by 3.2%. Changing this outcome has been a slow process. Kentucky 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.

Healthy Babies Are Worth the Wait (HBWW):

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. 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.

KY demonstrated success in the program, as results indicate a statistically significant 12 percent decline in the preterm birth rate in the intervention sites. KY now has nine hospitals along with seven LHDs as members of the HBWW Collaborative. Partnerships involved in the Collaborative include the MOD, state and LHDs, hospitals, and community organizations. Creating the HBWW Collaborative made it possible for all hospitals and health departments in the state to participate, collectively working to reduce preterm births and EED. All sites participate on monthly calls to share information and strategies. The HBWW program requires five different components for success:

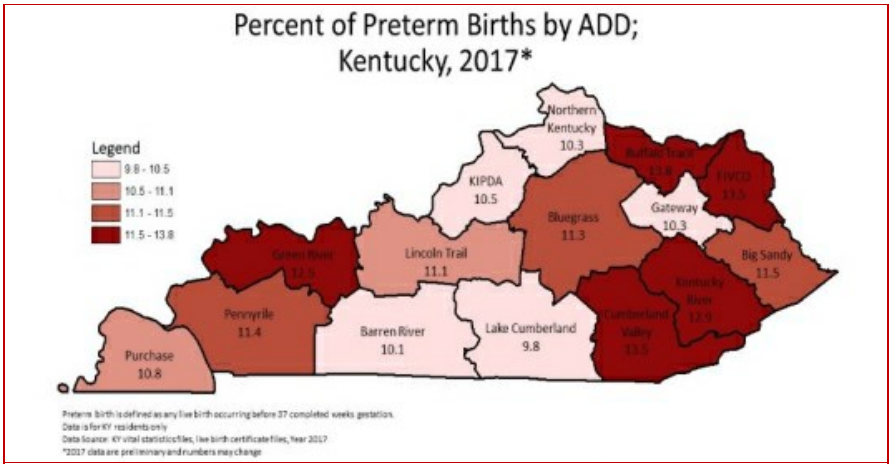
- Partnerships and Collaboratives
- Patient Support
- Provider Initiatives such as Grand Rounds and On-Going Education
- Public Engagement
- Progress Measures

In the past year, interest in the HBWW package and work in the community decreased as LHDs began pulling away from providing family planning and direct patient care services for the prenatal population. Previous partners on the calls waned. What this project learned was to reduce the rate of early elective deliveries; hospitals must adhere to a hard stop policy. The Advisory Board is extremely important, as this team ensures the program is data driven.

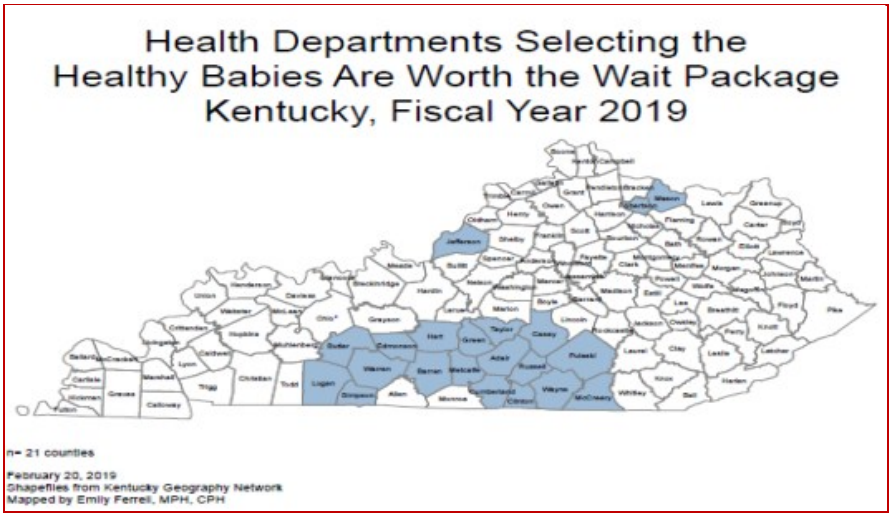
Moreover, of equal importance, the site team at each individual hospital must monitor and actively enforce the hard stop policy. Educational resources from the MOD website are available for all collaborative partners to distribute to clients.

When the HBWW pilot project began, KY's preterm birth rate was over 15%. This rate (see figure below) was slowly declining until the past 4 years, which has appeared to plateau with 2017 preterm rate for KY being 11.1%. KY's rate continues to be above the US rates of 9.93% as reported by the MOD for 2017.

From a geographical perspective, the greatest rates of preterm birth were located in the more eastern and western areas of the state with some Area Development Districts (ADD) being as high as 13.8%.



Of interest, the LHDs and communities that elected to work on HBWW are located in the areas that have some of the lowest rates of EED. The Lake Cumberland District has a hard stop policy and committee review required prior to scheduling. They internally publish the EED rates for each provider and diligently adhere to policy.



In August of 2017, KY DMS clarified coverage for EED including non-medically necessary inductions and cesarean deliveries. Claims submitted for labor inductions or cesarean sections on or prior to 39 weeks gestation required documentation they were medically necessary and claims would be denied if documentation were not present. Practitioners are to complete the ACOG Patient Safety Checklist (or comparable form) when scheduling an induction of labor or cesarean section for deliveries less than 39 weeks gestation. Outcome data from DMS and MCOs for period since this rule began shows initially there was a decrease for EEDs. Some MCOs report the decrease has persisted while others report it may be rising. One MCO reported an increase of EEDs at 39 weeks gestation. Another MCO noted an increase in EEDs in the summer months.

PRAMS:

Pregnancy intent was part of the survey questions for the 2017 Cohort of PRAMS. From responses:

- One in four mothers were sexually active and not using contraceptives, but had no intent to be pregnant at that time.
- One in three mothers that never wanted to be pregnant were sexually active without using any contraceptives.

The reasons provided for not using contraceptives varied with the highest being concern about predicted side effects of contraceptives.

Data Dissemination:

During the 2018 MCH Conference, MCH collaborated with the KY MOD Chapter, KPA and Healthy Start Louisville to address social determinants of health, data from many MCH programs and survey for the Title V 5-year needs assessment. This conference was not held for several years and this became the official “reboot” of community engagement for MCH. Prematurity prevention was a highlighted topic. Distribution of MOD materials and prematurity data briefs to nearly 400 people from LHDs, hospitals, childcare, and faith based community partners occurred. Based upon 2017 PRAMS Cohort data, new data briefs are being developed for distribution to stakeholders in 2019-20.

DPH contracts with a university to provide an annual prenatal/postpartum training for new LHD nurses, as well as an annual update for all nurses working in-house prenatal clinics at LHDs. Due to the variance in new hires and turnover, the attendance at the trainings has varied from 4 to 25 staff in attendance over the past several years. With public transformation, this training program is discontinued for FY20. Every few years the sessions are taped to provide the most recent and updated information that aligns to the ACOG guidelines. The 2018 training was taped and is archived for LHD staff to view. Subject matter for this training includes fetal development, physiology of pregnancy, genetics, obstetrical complications, routine assessments, procedure and labs, perinatal nutrition, diabetes, prematurity, perinatal infections, breastfeeding, substance use, and domestic violence. The training and MOD materials provided to LHDs have emphasis on prevention of preterm births and EEDs.

In the past year, the data reports on cesarean sections and/or EEDs were made available at the MCH Conference and the Kentucky Perinatal Association conference for prenatal providers, as well as hospital and LHD nurses.

Hepatitis C:

A revision of KRS 214.160, in 2018, added language to include Hepatitis C screening for all pregnant women in KY rather than for those with risk factors. If a pregnant woman is positive for Hepatitis C virus antibodies or RNA, the child from that pregnancy, should receive serologic testing for the presence of Hepatitis C antibodies at the 24-month well child check. While this statute became law in 2018, the infrastructure for electronic surveillance and provider education and promotion was not yet available. The KY Division of Epidemiology and Health Planning (DEHP) currently provides surveillance for Hepatitis C through reporting from OVS and reportable disease reports received from providers. The DEHP is building the Hepatitis C reporting page in the National Electronic Disease Surveillance System (NEDSS). The DEHP and DMCH have plans to message the changes to statute and Hepatitis C information through ACOG, AWHONN, KPA, KHA, NBS and other community partners.

Maternal Morbidity:

Despite all the advances in science, maternal morbidity and mortality has not decreased in recent years. KY’s priority need in this domain was to address maternal morbidity. Top concerns for stakeholders in the 2015 Needs Assessment in this domain were substance abuse, health problems related to pregnancy, and maternal obesity, all of which contribute to maternal morbidity. These remain a concern for 2018 and future years, as these have an effect on the rising maternal mortality rate, increased risk for preterm birth and long-term effect on the newborn.

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. Should the 1115 Kentucky Health Waiver be authorized after appeal, the impact to benefits for this population will not change or be reduced.

As LHDs have moved to transformation to population health services, they have continued to provide a safety net for clinical services for uninsured pregnant women. They assist with presumptive eligibility for Medicaid. If denied coverage, many counties used local tax dollars or MCH agency funds to pay for services as a payor of last resort for services rendered by the local provider. LHDs not providing in-house prenatal services are required to provide

assurance that women can access prenatal care in their community, whether by referral to local obstetricians or contracts with local providers. The number of women receiving maternity services through the LHDs has increased from 1,439 in 2017 to 2,900 in 2018.

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, for women who ultimately are denied benefits they 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.

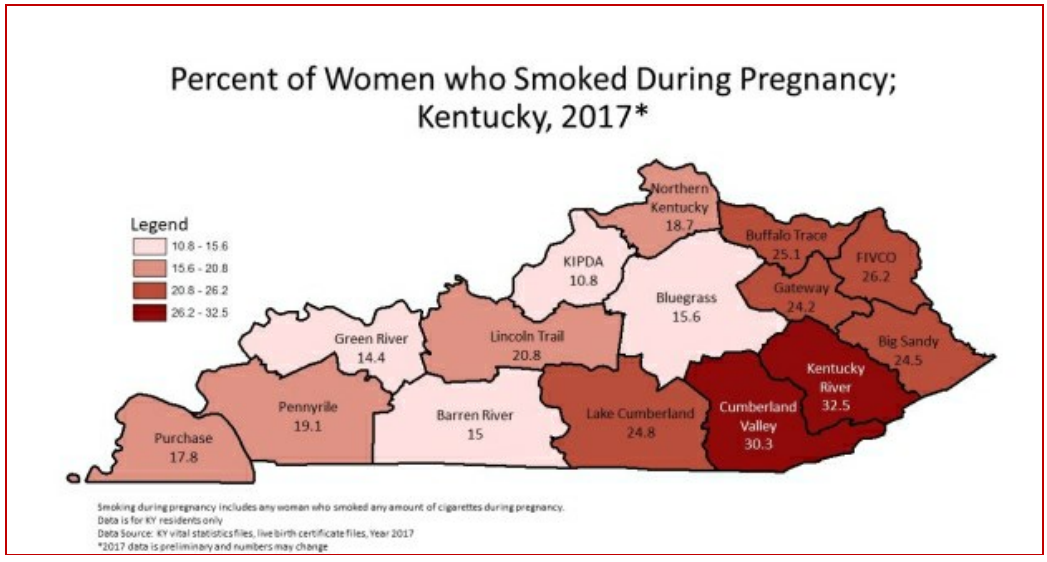
Title V grant funding may be used to support education, outreach, or enabling services for this population. Referrals to address smoking cessation, domestic violence, mental health services, and substance use disorders is standard service for each LHD. Many contract with a FQHC in the area. As to the SDoH, the rurality of KY has been a major barrier, in regards to local access to womens health providers, birthing hospitals, and referral for specialty services, available through travel of longer distances.

Preconception health counseling, including the distribution of folic acid/multivitamins, continue at LHDs and partner providers through MCH and Family Planning Programs. During FY18, 29,700 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.

Tobacco Use:

KY data shows a continued decline in smoking during pregnancy. While the percentage of women who smoke during pregnancy has fall from 16.9% in 2018, which is the lowest rate of the past eight years, this rate is still far above the US rate of 7.2%. From a geographical view, rates are considerably higher in rural eastern KY, with some rates as high as 32.5% of births in Kentucky River District.

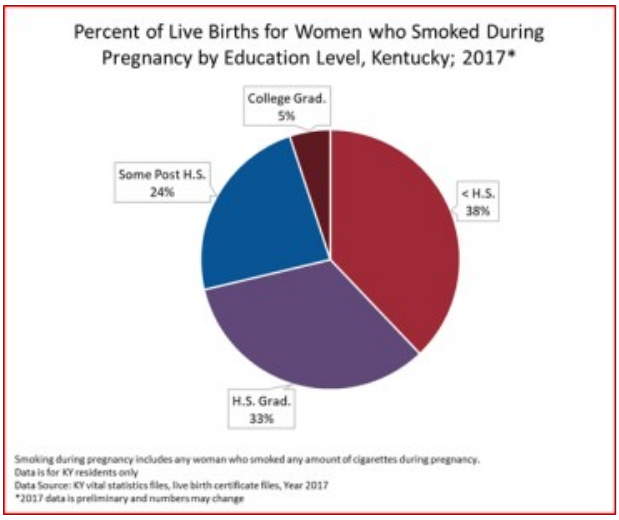


Kentucky recently received the weighted PRAMS data for the 2017 Cohort. Of interest:

- Over one in four PRAMS mothers reported smoking at some point during pregnancy
- After giving birth, half of PRAMS mothers no longer allowed anyone to smoke in or around their home

Surveillance of OVS live birth files data analysis was completed. Amidst those who smoke in pregnancy:

- KY Caucasian women were about 1/3 more likely to smoke than black women were.
- Two out of three women who reported smoking in pregnancy had a high school diploma or less than high school education
- Close to 50% were women less than 25 years of age.



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.

The Tobacco Prevention and Cessation Program has also been working with Medicaid MCOs and the Quality Improvement Branch on a Prenatal Smoking Performance Improvement Plan (PIP) through an enhanced Obstetric Care Management model. The suggested PIP template suggests the following areas:

- 1a) Develop a care management program to enhance reach to target the smoking subpopulation for smoking cessation outreach and follow-up
- 1b) Tailor care coordination with care management to susceptible subpopulations as indicated by risk factors identified in focused study
- 3a) Use Health Risk Assessments (HRAs) and develop new methods to identify smokers
- 3b) Improve HRA response rates by collaborating with providers to complete HRAs for new members
- 3c) Develop a MCO smoker registry to identify smokers for outreach, engagement in cessation counseling, and referral to the Kentucky Quitline
- 4a) Work to track members who contact the quitline, receive services, and monitor quit status

To date, the collaborative has worked with Audrey Darville, APRN, CTTS (Certified Tobacco Treatment Specialist) to provide tobacco cessation training for MCO care managers. The MCOs are working on developing a smoking registry. Those women who are identified as pregnant and smokers are referred to OB care management, where they are educated about smoking risks and encouraged to utilize Quitline services and Safelink/Vioxiva text messaging. Upon delivery, postpartum nicotine replacement therapy (NRT) is initiated for smokers, who had not quit or relapsed, to reduce exposure of secondhand smoke to the newborns.

A plan, provider, and member barrier analysis was conducted with the following results.
Plans:

- Do not systematically know if a member is pregnant and/or a smoker
- Do not know how many pregnant smokers are enrolled in care management
- Have inadequate staffing to support care management/care coordination for pregnant members for smoking cessation
- Care management team does not advise/assess member after enrollment if member declines help for cessation
- Unable to reach members to initiate postpartum NRT and/or determine quit status
- Erroneous member contact information

Providers:

- Lack of provider involvement in 5A's (Ask, Advise, Assess, Assist, and Arrange)
- Lack of provider knowledge about MCO smoking cessation benefits and quitline resources

Members:

- Lack of knowledge about MCO smoking cessation benefits and quitline resources
- Lack of knowledge about tobacco risks to unborn child, need for prenatal care and screening
- Lack of willingness/readiness to quit
- Lack of family support

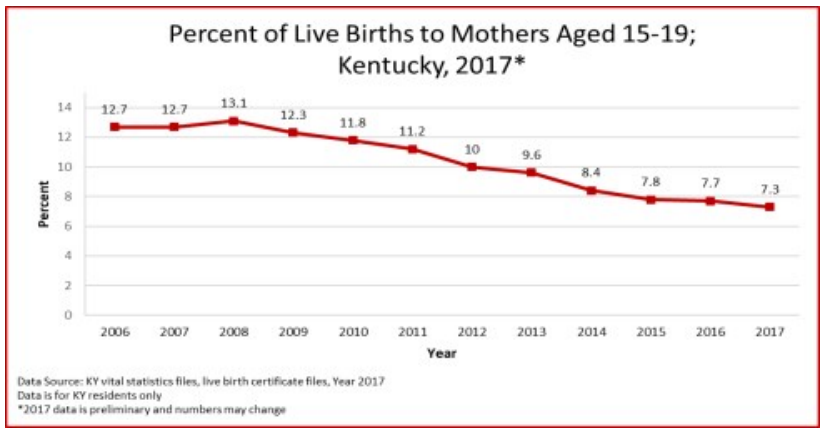
- Privacy concerns to Quitline referral

To address this need, LHDs could select a smoking cessation package targeted to pregnant women, Giving Infants and Families a Tobacco Free Start (GIFTS). GIFTS had minimal engagement reported by local health departments. For FY18, eight LHDs chose the program, with 369 pregnant women and 310 postpartum women reached by the program. After cessation of the program for FY19 (for whom only 15 engaged with the QUIT line in FY18), LHDs reported greater numbers of engagement.

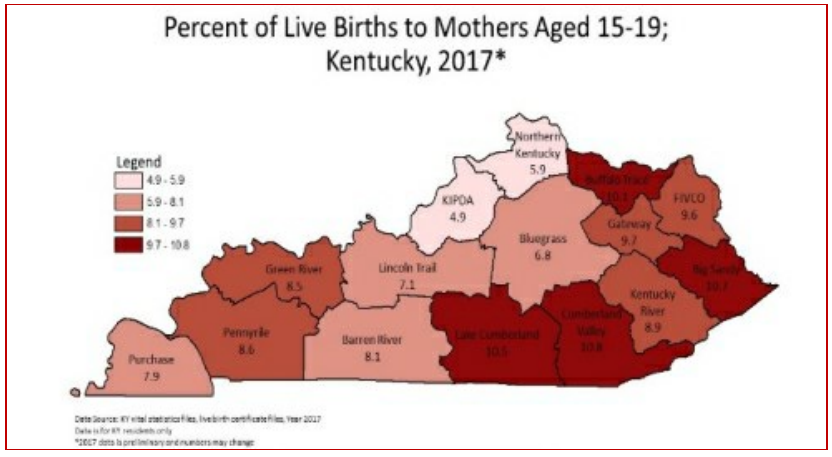
While KY has made some progress in decreasing the number of women who smoke during pregnancy, the rates of smoking during pregnancy in KY remain almost double that of the nation. KY is consistently one of the worst states on this indicator. Initial efforts to encourage participation of pregnant smokers in Quit Now KY have not been successful. In 2018, there were a total of 56 women enrolled in the pregnancy protocol and 24 women enrolled in the post-partum protocol. Quit Now KY services are under utilized by pregnant women in KY. New strategies to engage this population will be identified and tested in the upcoming year.

Teen Birth:

Since 2008, Kentucky has experienced a steady decline in teen birth rate of fifteen to nineteen year olds. The teen birth rate was 13.1% in 2008 and is down to 7.3% in 2017.



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 births rate is slightly higher in Blacks at 7.6% compared to 7.2% in Caucasians.



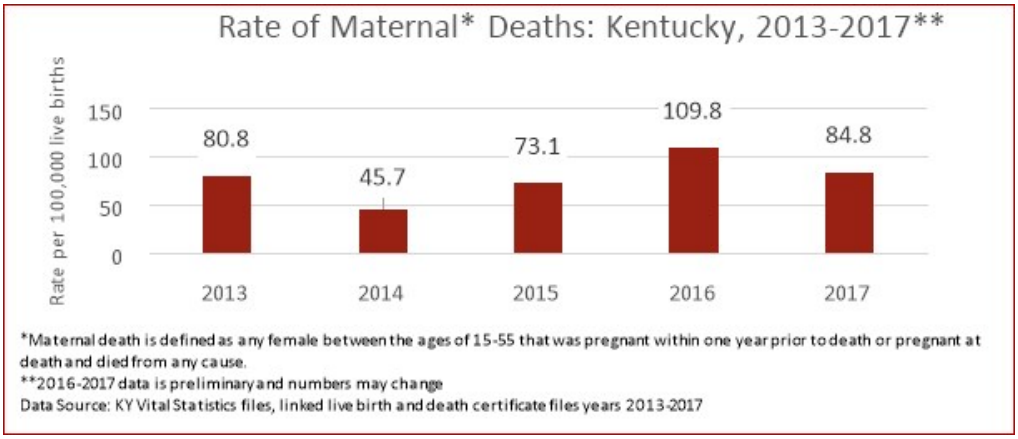
Maternal Mortality Review:

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 Kentucky, the rate of maternal death has increased in the past five years. Historically, approximately 40 maternal deaths were reported annually through the Office of Vital Statistics (OVS) occurring within one year of the end of pregnancy. In 2016, this rate rose to 60

deaths and in 2018 preliminary data, 80 cases have already been identified for review.

While pregnancy-related causes of death comprised a large percentage of causes of death, the pregnancy-associated, but not related causes such as accidental injury, suicide, and homicide, appear to be the precipitating cause of many deaths. Factors affecting morbidity, such as tobacco use, obesity, socioeconomic disparities, depression, and substance use disorder increase the risk of mortality in Kentucky. Social determinants of health, such as transportation, access to care, domestic violence, and a geographically rural state, limit early preventive care to reduce risk and address morbidities. Many women in rural Kentucky have an hour or much longer for travel to birthing hospital, specialist or obstetrician. If a pregnancy is high risk, the expecting mother may need to travel greater distances to Lexington or Louisville, KY, for management of the pregnancy.

Disparities in Kentucky 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 Kentucky with an additional burden of low health literacy and limited access to care. The following figure represents the maternal mortality rate per 100,000 live births for Kentucky for 2013-2017 based strictly upon reported fields on the Kentucky Certificate of Death represents these deaths further defined by manner of death.



Nationally, African American women are estimated to be three to four times more likely to die from a pregnancy-related complication. The number of deaths of these women in Kentucky is too small to provide a valid review of racial disparity. From review of death certificates, maternal deaths appear to be higher among black women in the two largest urban cities of Lexington and Louisville; however, providers and birthing hospitals are more readily available in these areas. 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.

With an increasing rate, it became imperative for Maternal and Child Health (MCH) to understand the factors influencing this increase. A deeper review of the data revealed the number of maternal deaths from possible pregnancy-related causes (natural deaths) remained relatively unchanged. While, possible pregnancy-associated or pregnancy associated - but not related causes such as accident, homicide or suicide were rising. Further review of accidental deaths found over half had at least one ICD code related to substance use disorder or drug overdose.

Late in 2017, MCH began restructuring the MMR process with plans to be inclusive of all maternal deaths within one year of pregnancy. Key MCH staff consulted with the Centers for Disease Control and Prevention (CDC) technical assistant to assure case identification, review process, MMRC, and abstraction tools would meet best practice guidance provided and assure fidelity of the MMR program. MCH submitted a request for the Maternal Mortality Review Information Application (MMRIA) to ensure data and abstractions align with national reporting goals and processes.

In June 2018, an amendment to Kentucky Revised Statute (KRS) 211.684 authorized the Kentucky Department for Public Health (KDPH) to develop a multidisciplinary MMRC to conduct case reviews to inform public health policy, programming, and prevention activities and to assure case review details had protection from discoverability. Implementation included:

- June 2018: MCH presented the changes in scope to community stakeholders during the annual Kentucky

Perinatal Association (KPA) meeting.

- August 2018: Appointment of Dr. John Barton, a maternal-fetal medicine specialist and 30-year veteran ACOG member as MMRC chair. Invitations were sent to those who would comprise a 28-member MMRC with clinical and non-clinical backgrounds.
- October 2018: Inaugural MMRC meeting held. MMRC determined the new case review process would begin with 2017 cases.
- As of June 2019: This 28-member MMRC has met 3 times and reviewed 20 cases occurring in 2017. The multidisciplinary composition of the MMRC can be noted in the MMRC annual report included in the Supporting Documents section.

With more than 60% of pregnancy-related deaths estimated to be preventable, it is imperative Kentucky identify factors involved in maternal deaths and translate MMRC recommendations into prioritized strategies for primary, secondary, and tertiary prevention to reduce maternal mortality. Plans for next steps include further enhancement of the MMR process, partnerships with local birthing facilities or providers, and dissemination of recommendations.

MCH has applied for the CDC-RFA-DP19-1908 Preventing Maternal Deaths: Supporting Maternal Mortality Review Committees. This funding would support sustainability of the MMRC and subsequent increase in the MCH workforce to re-establish a Kentucky Perinatal Quality Collaborative (KPQC), and apply for the Alliance for Innovation on Maternal Health (AIM) to promote use of data-driven quality improvement strategies and align existing safety efforts to improve maternal outcomes. Strategic planning for a KPQC began in June 2019 with various community partners.

The KPQC will use information learned from a previous Perinatal Advisory Committee that began in 2015. This committee was suspended in 2017 secondary to lack of funding. Their recommendations regarding substance abuse during pregnancy and NAS remained a core concern for MCH. Much of the work MCH has completed or planned for began from the core recommendations from this committee. Ongoing work to establish the KPQC is planned to continue on these fundamental best practice recommendations.

The Perinatal Quality Committee recommendation for women with substance use during pregnancy was:

- Develop more comprehensive services for pregnant and parenting women with substance use disorder
    - In 2018, KY launched Find Help Now KY (findhelpnowky.org) website launched, developed in collaboration between KIPRC, UK College of Public Health, CDC, KY Cabinet for Justice and Public Safety, and multiple departments from the Cabinet for Health and Family Services.
    - Provider or an individual can use site to find up-to-date information on the current availability of accessible additional treatment services, both online and in real time

MCH Best Practice Strategy Packages:

In FY18, 23 LHDs selected the MCH Prenatal Care Tracking Package with 7,341 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.

Rates of EED continue to decrease since 2011. At that time, the percentage was 30.3%, which decreased to 27.2% in 2016 [National Vital Statistic System (NVSS)]. This reduction is likely due to many factors including the CoIIN EED team, HBWW, and KHA activities.

In FY18, five LHDs implemented the HBWW MCH Evidence Informed Strategy with 8,580 pregnant women, providers, and professionals reached. Activities included attendance at the National HBWW Conference, distributing HBWW material to communities and obstetric providers, newspaper articles, and TV interviews regarding preterm birth prevention. Implementation of this package promotes increased collaboration between LHDs, providers, and

hospitals with a common goal of preventing EEDs. LHDs have provided HBWW presentations to pregnant women, WIC participants and obstetric providers. The Barren River District Health Department collaborated with the Medical Center at Bowling Green to organize a presentation for providers on “Preterm Labor Risk Factors and Strategies for Management”.

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 focuses 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.

The HANDS program has also shown success in improving maternal and child outcomes with the latest data showing:

- 26% less premature births
- 46% less low birth weight births
- 47% less child abuse and neglect
- 14% more adequate prenatal care
- 49% less pregnancy-induced hypertension
- 40% less maternal complications during pregnancy

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 Kentucky’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.

The MIECHV grant requires grantees to demonstrate improvement in performance measure outcomes. Based on the performance report data submitted in October 2017, KY’s MIECHV/HANDS demonstrated improvements with the following percentage of clients receiving:

- Screenings
  - Depression (73%)
  - Developmental (81%)
  - Behavioral (90%)
- Well Child Visits (70%)
- Depression Referrals (90%)
- Primary Caregiver’s Education
- Early Language and Literacy Activities
- Children with Health Insurance Coverage
- Completion of HANDS Healthy Kids Childproofing Checklist

Moving Beyond Depression™ (MBD), a 15 session In-Home Cognitive Behavioral Therapy (IH-CBT) focused on alleviating symptoms of depression and increasing coping skills, ended on June 30, 2019. As a transition, MCH worked with the developer of MBD to design a tele-health approach to services, which is billable to Medicaid. KY’s MBD referrals by HANDS home visitors who see signs of depression in mothers and complete an Edinburgh screening will continue.
Changes to the Federal structure of the MIECHV program presented challenges for KY. Beginning July1, 2019 Medicaid will allow billing for HANDS multigravida services. This change will support sustainability of these services.

Oral Health:

In a previous reporting year, KY's annual objective for *NPM #13A (Percent of women who had a dental visit during pregnancy)* was set at 33%, with the actual outcome being 11% per Medicaid data. Improvements for this measure are most likely the result of lack of engagement and treatment. Strategic planning was completed to determine activities to promote inclusion of oral health assessment and referral for treatment as a routine service for pregnant women. From the 2017 PRAMS cohort data, over half of PRAMS mothers never spoke with a health care worker or dentist about oral health during pregnancy.

Emergency Preparedness:

The purpose of the Kentucky 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 Kentucky and its citizens.

This plan is the all-hazards emergency plan as described and required in Kentucky Revised Statue (KRS) 39A and is activated upon order of the Governor of the Commonwealth of Kentucky, the Director of KYEM, 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. Two nurses from MCH have been part of these teams as KDPH strike team leaders in years past.

Women/Maternal Health - Application Year

In the upcoming year, KY will continue activities addressing *NPM #2: Percent of cesarean deliveries among low-risk first births*. Based on federally available data, 28.3% of low-risk, first time KY births were delivered by cesarean section in 2017. While this is a decline from 31.5% in 2009, it rose from 27.2% in 2016. A great deal of improvement is needed to attain the Healthy People 2020 goal of 23.9% (U.S. Department of Health and Human Services, 2010).

To address this measure, KY plans to implement five strategies targeting reduction of cesarean deliveries among low-risk, first time births and early elective deliveries. The strategies include:

1. Increase the availability of Kentucky-specific data
2. Provide technical assistance to birthing hospitals with high cesarean section rates using HBWW best practice strategy package
3. Increase provider educational opportunities
4. Monitor and promote the use of 17-hydroxyprogesterone (17P)
5. Develop a dissemination plan for early elective delivery best practice guidelines regarding enforcement of a “hard stop” policy to refuse scheduling of early cesarean sections not medically indicated

To address these strategies, KY will continue engagement through many partners. A trained and competent work force is needed to organize and restructure the perinatal program to establish a KPQC and promote maternal safety bundles. Ongoing policy review and engagement with the LHDs has proven to be highly effective, and MCH plans to use this model to improve the reach of the KY perinatal program.

To increase available KY specific data regarding EED, non-medically indicated cesarean, and use of 17P, KY will continue to work with DMS and MCOs to understand the data provided. This data will be distributed to providers and birthing hospitals in the form of fact sheets, data briefs, and presentations. Information will be included in the MCH PowerPoint update for use during regional meetings and the annual MCH Conference planned for November 2019. Prevention partners, KY MOD, KY Folic Acid and Perinatal Partnership (KFAP), LHDs, and KPA will be encouraged to use KY data and presentations with their partners. MCH will also work with the Department for Medicaid Services (DMS) to develop a data analysis plan to estimate the use of 17P among Medicaid clients. MCH epidemiologists, who have access to the Medicaid data system, will link Medicaid and live birth certificate data to obtain this information.

Healthy Babies Are Worth the Wait (HBWW) is one of the strategies LHDs can implement through this funding. The objective is for the LHD to establish partnerships with local MOD representatives, prenatal providers, and hospital administrators to promote public awareness about ACOG recommendations to not induce labor or perform cesarean sections before 39 weeks unless there is a medical indication. Fewer early inductions will result in fewer cesarean sections. Specific activities for this strategy include:

- determining if their local birthing hospital has a hard stop policy in place regarding elective deliveries
- reviewing local baseline data for preterm birth, cesarean sections, and early elective deliveries
- establishing a HBWW team to discuss and implement the HBWW information and ACOG recommendations into existing practice.

If the local birthing hospital does not have an existing hard stop policy in place, the LHD will be encouraged to work with the HBWW team, MOD, and the local birthing hospital to establish a hard stop policy. The LHD will also train community partners on the HBWW Toolkit so they may present the HBWW information on preterm birth prevention to the local community, including pregnant women.

Regarding payment for early elective deliveries prior to 39 weeks’ gestation, all five Medicaid MCOs in KY established a policy that began on November 1, 2017. Any Medicaid claims submitted, labor inductions, or cesarean sections on or before 39 weeks’ gestation that are not properly documented as medically necessary will be denied by Kentucky Medicaid, including the Kentucky Medicaid Managed Care Organizations. While this is a positive step forward, further work and education to further educate and encourage hard stop policies will continue, as reporting for EEDs has not significantly changed. Of the five LHDs implementing the HBWW package, one hospital did state this policy was a deterrent to early elective deliveries prior to 39 weeks’ gestation. The other four hospitals also have an existing hard stop policy.

In terms of addressing challenges, early entry into prenatal care remains a public health challenge and a core function for MCH. Per KY vital statistic data, 66% of KY’s pregnant women had adequate prenatal care, with care initiated in the first trimester, and 10 or more prenatal visits during the pregnancy. To improve this rate, 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 application for Medicaid. The PH Transformation plan has begun with significant financial changes anticipated for FY20. This plan requires LHDs to continue core services (regulatory services), HANDS, WIC and Substance Use Disorder services. The Public Health Prenatal Program is encouraged as a population health service, not a core service. 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. All LHDs will be required to assist pregnant women with the PE application process as well as referral to wrap around services.

In the fall of 2018, MOD awarded a 17P education grant to KDPH. MCH and MOD quickly strategically planned and initiated grant work. MCH conducted a survey about 17P prior to release of education materials for distribution to clients. This plan includes distribution of materials to LHDs for release to women identified as previously having a preterm birth and distributed by LHDs to local providers and birthing hospitals.

Restructuring of the Maternal Mortality Review and prevention efforts will continue to align practice with CDC and ACOG guidance. MCH has identified the 2017 and 2018 cases meeting case definition for review. The MMRC has set an aggressive schedule to meet 6 times in 2019 to review as many as possible of these 120+ cases. An additional 0.75 FTE Nurse Consultant position was established in 2018. An internal candidate assumed this position and is detailed to obtain records, complete case abstraction, convene the MMRC, and guide efforts to reduce preventable maternal deaths and promote a healthy pregnancy. KY has requested MMRIA access. Once MMRIA is available, data entry on all cases identified and reviewed will be housed this database.

KY elected to create *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 will be reviewed by the MMRC. KY will promote substance use treatment programs and link to HEART where available. The KDPH Senior Deputy Commissioner has begun planning to promote parts of the AIM bundle that addresses SUD to local providers and birthing hospitals. Establishment of a KPQC will be important to assuring reduction of maternal deaths related to SUD.

KY MCH has plans for more regional meetings across the state with a goal to engage active community collaboratives to pilot the HEART program. These meetings will continue to provide education on SDoH, address social bias, plan of safe care, and other MCH data to promote strengthening the mother/child dyad.

Strategic planning for HANDS, MIECHV, and WIC continue to promote these respective programs and increase referral and engagement with women. MCH will continue to collaborate across all programs to educate and promote programming to assure continuity and to eliminate silos in communication to the community.

Oral Health:

In the coming year, Kentucky will be addressing the decline in the percentage of prenatal patients having a dental visit. KOHP plans to conduct a needs assessment to identify reasons for this disparity in collaboration with other state, and local providers for pregnant women. KOHP has begun plans for a pilot project to have public health RDHs dental hygienist provide appropriate preventive care for pregnant Medicaid patients, as part of their comprehensive prenatal care.

Hepatitis C:

The DMCH will collaborate 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

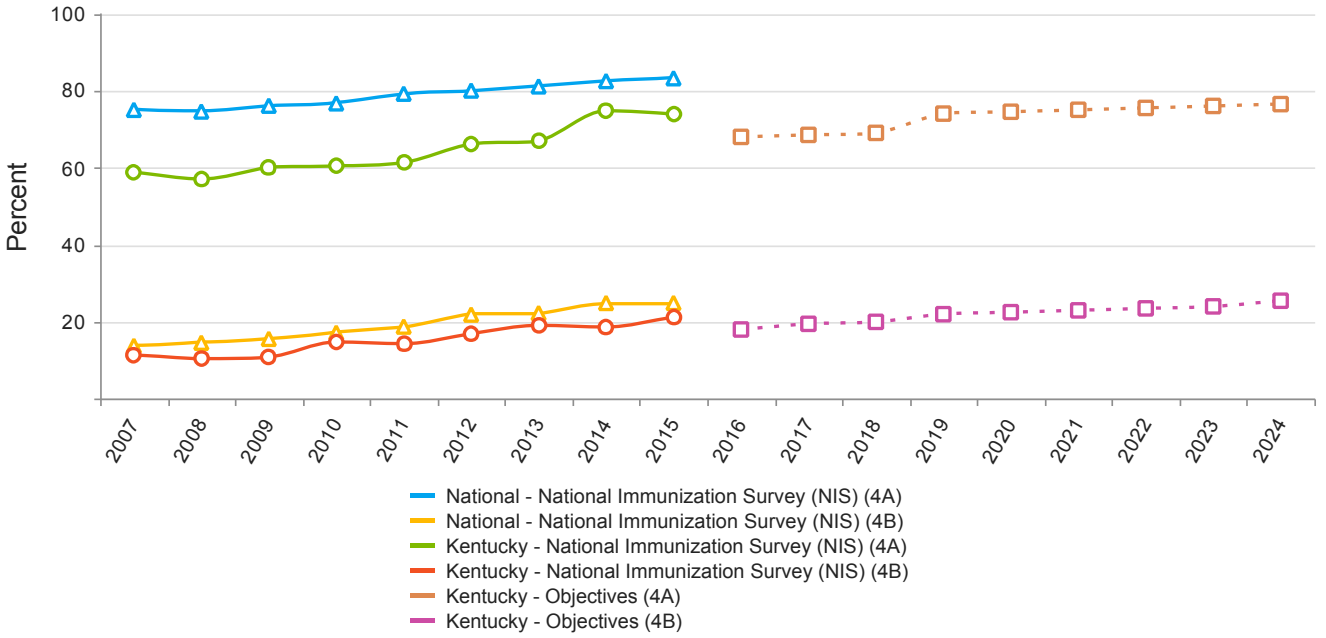
Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 9.1 - Infant mortality rate per 1,000 live births	NVSS-2016	6.8	NPM 4 NPM 5
NOM 9.3 - Post neonatal mortality rate per 1,000 live births	NVSS-2016	2.9	NPM 4 NPM 5
NOM 9.5 - Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births	NVSS-2016	176.7	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**
Annual Objective	68	68.5	69
Annual Indicator	66.9	74.9	73.9
Numerator	32,863	39,855	36,330
Denominator	49,132	53,240	49,132
Data Source	NIS	NIS	NIS
Data Source Year	2013	2014	2015

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	74.0	74.5	75.0	75.5	76.0	76.5

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

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2016	**2017**	**2018**
Annual Objective	18	19.5	20
Annual Indicator	19.0	18.5	21.1
Numerator	9,175	9,330	9,877
Denominator	48,213	50,546	46,742
Data Source	NIS	NIS	NIS
Data Source Year	2013	2014	2015

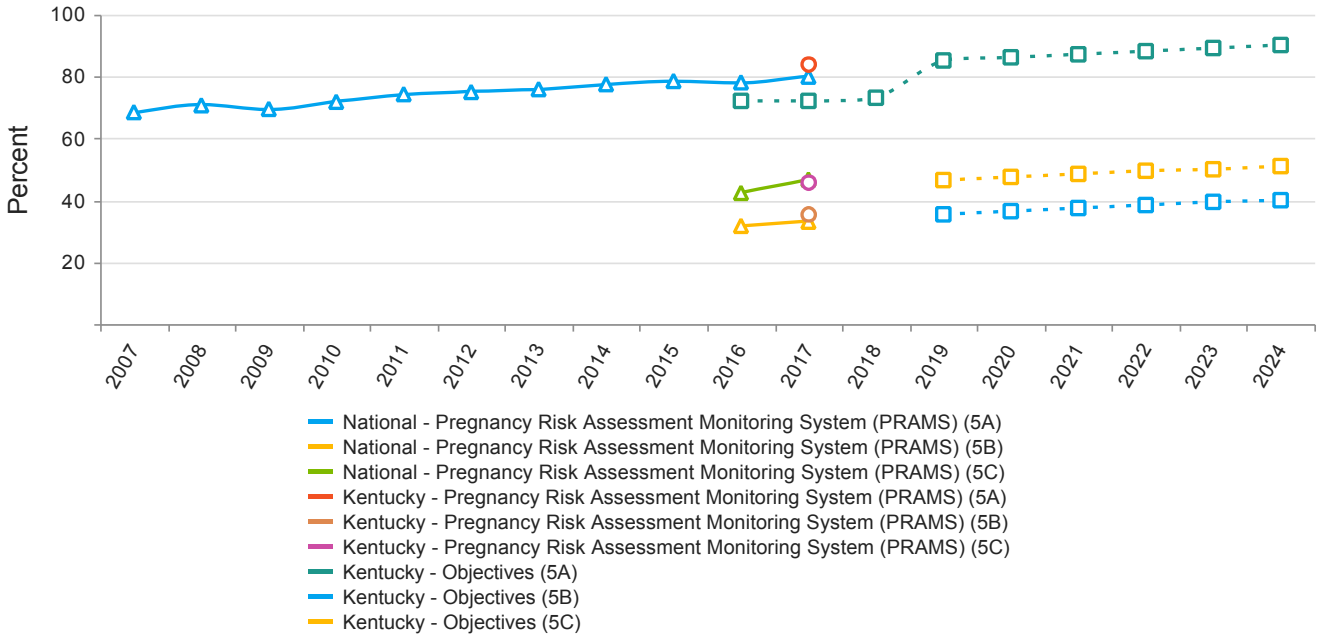
Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	22.0	22.5	23.0	23.5	24.0	25.5

Evidence-Based or –Informed Strategy Measures

ESM 4.2 - Number of hospitals receiving technical assistance from public health (LHD or State Program) about the 10 steps to successful breastfeeding

Measure Status:					Active	
Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	32.0	33.0	34.0	35.0	36.0	37.0

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
Annual Objective	73
Annual Indicator	83.9
Numerator	40,180
Denominator	47,882
Data Source	PRAMS
Data Source Year	2017

State Provided Data			
	2016	2017	2018
Annual Objective	72	72	73
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						
	2019	2020	2021	2022	2023	2024
Annual Objective	85.0	86.0	87.0	88.0	89.0	90.0

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

Federally Available Data	
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)	
	2018
Annual Objective	
Annual Indicator	35.3
Numerator	16,040
Denominator	45,490
Data Source	PRAMS
Data Source Year	2017

State Provided Data		
	2017	**2018**
Annual Objective		
Annual Indicator	0	
Numerator		
Denominator		
Data Source	none available	
Data Source Year	2018	
Provisional or Final ?	Final	

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	35.5	36.5	37.5	38.5	39.5	40.0

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

Federally Available Data	
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)	
	2018
Annual Objective	
Annual Indicator	45.9
Numerator	20,900
Denominator	45,561
Data Source	PRAMS
Data Source Year	2017

State Provided Data		
	2017	**2018**
Annual Objective		
Annual Indicator	0	
Numerator		
Denominator		
Data Source	No state data is available	
Data Source Year	2018	
Provisional or Final ?	Final	

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	46.5	47.5	48.5	49.5	50.0	51.0

Evidence-Based or –Informed Strategy Measures

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
Annual Objective		700	900
Annual Indicator	695	889	743
Numerator			
Denominator			
Data Source	LHD reporting data	LHD MCH Package reporting data	Catalyst LHD reports
Data Source Year	FY2016	FY2017	FY18
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	800.0	800.0	810.0	810.0	820.0	820.0

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
Annual Objective		23.8	22.5
Annual Indicator	24.3	22	20.7
Numerator	1,354	1,114	1,114
Denominator	55,714	50,716	53,923
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
Data Source Year	2015	2017	2017
Provisional or Final ?	Final	Provisional	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	22.0	21.5	21.0	20.5	20.0	19.5

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 25% the number of hospitals that have implemented the ten steps towards for successful breastfeeding by September 30, 2020.

Strategies
1.1 Educate the general public and health care providers on the importance and benefits of breastfeeding.
1.2 Partner with WIC to assist birthing hospitals in implementing Kangaroo Care and working towards10 steps for successful breast feeding.

ESMs	Status
ESM 4.1 - Number of hospitals receiving Technical Assistance from Public Health towards becoming baby friendly	Inactive
ESM 4.2 - Number of hospitals receiving technical assistance 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 - Sleep-related 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

Decrease by 5% the proportion of SUID cases that have a risk factor of non-back sleep by September 30, 2020.

Strategies

Increase the percent of infant deaths that are reviewed by a multi-disciplinary review team.

Continued implementation of state-wide safe sleep media campaign to educate the general public on safe sleep.

Implement targeted interventions at both the state and local level to identified populations/areas at greatest risk of non-back sleep.

ESMs	Status
ESM 5.1 - Number of cribs distributed through the Cribs for Kids for Community Partners MCH Evidence Informed Strategy	Active

NOMs

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

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

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

State Action Plan Table (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 September 30, 2020

Strategies

Maintain the current NAS surveillance system, complete at least one report on the findings, and continue to provide technical assistance to reporting facilities

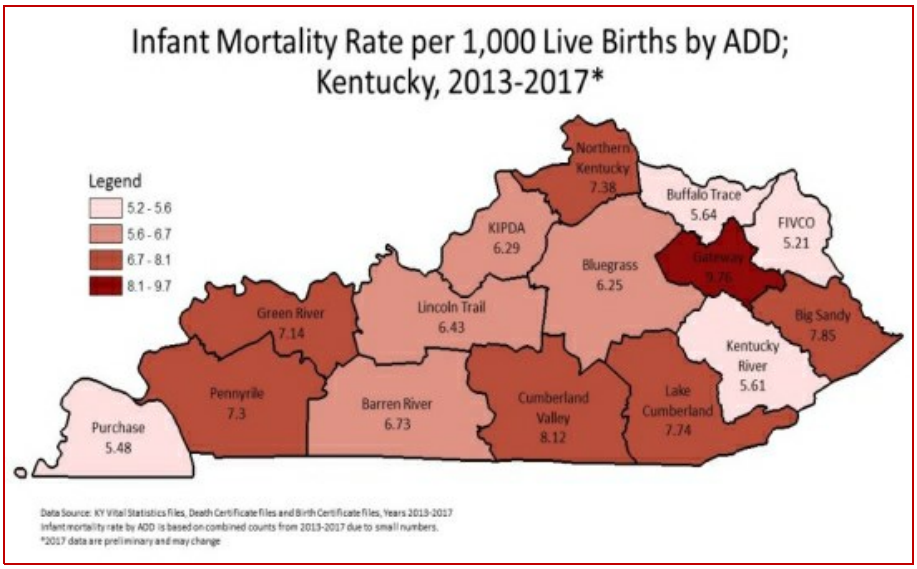
Continue collaborations with other state agencies to address the opioid epidemic

During 2018, KY had targeted efforts to address two NPMs. *NPM # 4: A) Percent of infants who are ever breastfed, B) Percent of infants breastfed exclusively through six months* and *NPM # 5: Percent of infants placed to sleep on their backs*. Both NPMs target KY's efforts to address risk factors and protective factors to reduce infant mortality.

Infant Mortality:

Infant mortality remains the single best indicator of the health of a state, and in KY, has been identified 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. KY's most recent rate is 6.7, compared to the national rate of 5.8. This is in fact a slight increase to the 2015 rate.

Racial disparity exists with the rate for black infants (11.1 per 1,000 live births) being almost twice the infant mortality rate of white infants (6.4 per 1,000 live births).



The more concerning rates for infant mortality are located in the southeastern areas of the highest poverty-stricken areas of KY with rates varying from 5.2/1000 to 9.76/1000 in a district bordering an urban locality. ADDs with lower rates have commonality of higher rates of teen pregnancy, smoking and substance use during pregnancy, NAS, and late prenatal care. Social determinants such as transportation, housing, access to medical care, and rurality further create barriers for improving rates.

Title V continues to provide gap filling services for pregnant KY mothers and their infants during the perinatal period, including prenatal care as described in the previous section, and assuring access to appropriate levels of perinatal care for all mothers and infants through referral networks between LHDs and community providers. 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.

Breast Feeding 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 handouts, regional/local billboards, internet and movie theater advertisements, classes, and community events. Health care professionals and hospitals receive education through newsletters, web-based and on-site face-to-face trainings,

and conferences. During 2018, three breastfeeding conferences held for health professionals had approximately 175 people attend at least one of the conferences. 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, educational conferences, health professional and hospital education, outreach, media events, and community events.

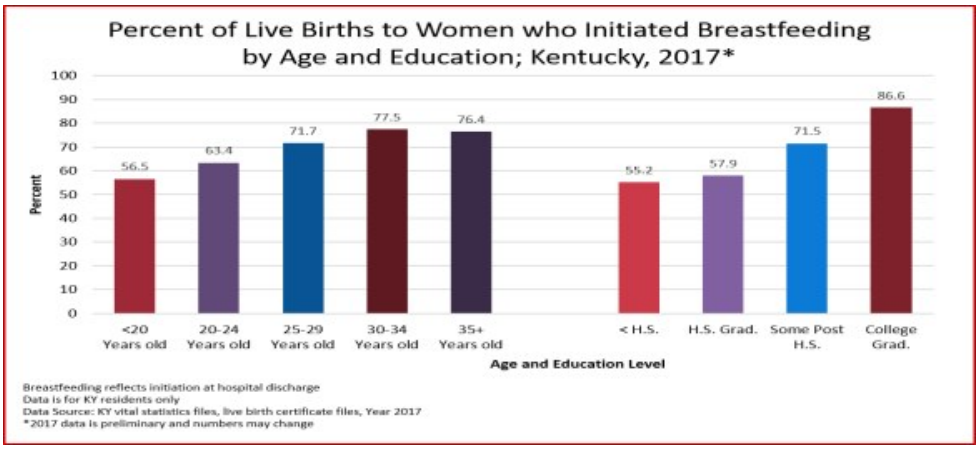
Per the 2017 PRAMS Cohort:

- 93% of PRAMS mothers intended to breastfeed their child
- Four out of five PRAMS mothers reported ever breastfeeding their infant
- One out of ten PRAMS mothers reported not producing milk was a barrier to breastfeeding

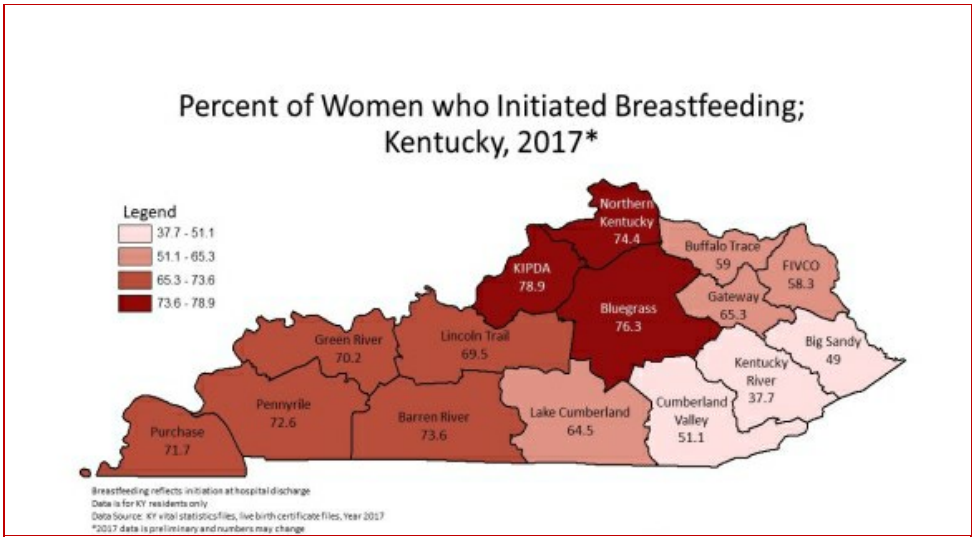
Ten Steps to Successful Breastfeeding:

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 2018, 35 hospitals received technical assistance towards increasing steps and/or working toward a Baby Friendly designation.

Breastfeeding initiation rates in 2005 were 52.7%. In 2016, this had risen to 70.4% with continued increase to 70.9% in 2017 (KY OVS data). Initiation rates improved with older maternal ages and higher levels of education attained, as shown in the figure below.



Duration rates of mothers' breastfeeding their 6-month-old babies' remains low at 21.1% reported for 2015 births (Centers for Disease Control, 2018). A geographical view of the state reveals the lowest initiation rates are in the southeast part of KY.



Even though improvements in breastfeeding have been made over time, KY still remains well below the nation (51.8%) in terms of the percent of mothers who breastfed their infants at six months of age. Currently four Baby Friendly hospitals deliver 20.3% of the babies born in KY. KY has a limited number of International Board certified lactation consultants, which limits resources for mothers seeking assistance when breastfeeding problems arise. Many KY workplaces do not support breastfeeding when the mother returns to work. Limited peer counselor availability further affects breast feeding support and duration

Regional Breastfeeding Coordinators provide breastfeeding training, technical support, and education to more than 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 with supports after birth resources, and the return of the mother to class 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.

WIC participants may receive hospital grade, 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 targeting childcare providers released in 2017.

The Breastfeeding Peer Counselor Program consists of 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.

There is a considerable amount of controversy among breastfeeding advocates around bed sharing to promote breastfeeding. This contradicts recommendations for room sharing, but not bed sharing, for infant safe sleep. MCH promotes the ABCDs of safe sleep and recommends room sharing.

- In 2019, one successful measure was the establishment of the Pregnant Workers Act (KRS 344.030-.10) which 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 becomes effective June 27, 2019.

Nutrition Activities:

KY currently provides Medical Nutrition Therapy (MNT) services in many local health departments. MNT is nutrition counseling provided by registered dietitians (RD/RDN) and certified nutritionists (CN) on specific medical conditions and chronic diseases. MNT may be an individual education session or group education. In 2018, LHDs reported 2,756 initial MNT visits, 535 follow-up MNT visits, and 23 group MNT visits. The top five reasons for MNT visits included: obesity, diabetes, overweight, underweight and gestational diabetes. The local health departments also provide basic nutrition education in the clinic, in the community one on one, or in a group setting.

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 $16 dollars in WIC-FMNP coupons to spend on KY grown produce at their local farmer's market. This program is available in 92 counties.

Coffective®:

In 2018, to improve breastfeeding engagement and duration in KY, the Nutrition Services Branch and the MCH Title V program collaborated to evaluate current breastfeeding practices in the community, hospital, LHD, and parent level. Coffective® (Community + Effective) strives to empower the community to help families reach their breastfeeding goals. Coffective® defines community as a composition of mothers, nurses, providers, peer counselors, WIC providers, home visitors, leaders, hospitals, and more.

Coffective® had face-to-face meetings with birthing facility representatives, HANDS representatives, WIC staff, LHD directors, MCH Title V LHD coordinators, breastfeeding coalitions, and other providers to conduct a needs assessment specific to their breastfeeding engagement successes and barriers. Follow-up calls were made to contacts with each Regional Breastfeeding Coalition to increase engagement with their membership.

MCH Nutrition services expects to have results of the various surveys available in mid-late fall, 2019. Plans are in place for this data to be presented at the annual MCH conference.

Healthy Start

Louisville Healthy Start is one of 100 HRSA-funded programs throughout the US working to eliminate disparities in perinatal health. For more than two decades, Louisville Metro Healthy Start has invested in the health and wellbeing of Louisville's families with the goal of reducing health disparities, including infant mortality, by providing direct services to pregnant and postpartum women, their infants and fathers. The rates for African Americans in west Louisville neighborhoods are double the rate than that of Louisville Metro as a whole and more than triple the rate for Caucasians.

Healthy Start approaches pregnant women in the target neighborhoods through home visits and other outreach methods to make sure that women begin prenatal care during the first three months of pregnancy and that they continue to get consistent care throughout pregnancy and after delivery. Healthy Start continues to work with families after the birth of the baby until two years of age through such programs such as parenting classes, helping them with skills, and understanding the development of their babies through their first years of life.

Collaboration with Title V MCH is encouraged by HRSA leadership, and Louisville Metro Healthy Start benefits from this teamwork in multiple ways. The MCH Coordinator provides classes for Healthy Start and local HANDS families about child passenger safety. Classes offered at the bi-monthly Healthy Start baby showers include information about safe sleep practices, abusive head trauma, and smoking cessation. The financial partnership with MCH Title V allows Louisville Metro to match purchases for Cribs for Kids® safe sleep kits. The MCH Coordinator participates in several collaborative partnerships that support maternal and infant health, including the Pediatric Behavioral Mental Health Alliance, Safe Kids Coalition, Safe Families in Recovery, and, and the Plan of Safe Care; and, she leads both the Louisville FIMR and Child Fatality Review.

Finally, Louisville Metro Healthy Start is a multi-year March of Dimes Healthy Babies are Worth the Wait partner, receiving grant funding, training, and support for implementation projects designed to reduce prematurity and improve birth outcomes for women of color in Louisville. A representative from Healthy Start is a member of the SDoH CoIIN.

Social Determinants of Health CoIIN

The Louisville Metro Healthy Start leader chairs the KDPH/MCH team for KY's Infant Mortality CoIIN for SDoH and coordinates efforts with MCH partners including the Office of Health Equity, MOD, and KY Perinatal Association. The goal of this team is to change policies and practices to reduce disparities in health outcomes by addressing social determinants of health and social bias. In 2018, Healthy Start CoIIN combined with MCH, MOD, and KPA to host a two-hour training titled, "How Biased Am I?" This training has been repeated at regional meetings in partnership with MCH.

Over the past year, KY has participated in several webinars, learning labs, and action calls to build its knowledge and understanding of social determinants and the impact on population health and to identify areas of intervention that is most conducive to achieving equity in birth outcomes in KY.

HANDS

The HANDS program continued in improving infant outcomes and reducing infant mortality overall in the families served. Prenatal education provided promotes 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 healthy, safe environments. In addition, families served through the 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.

Safe Sleep Surveillance Annual Report

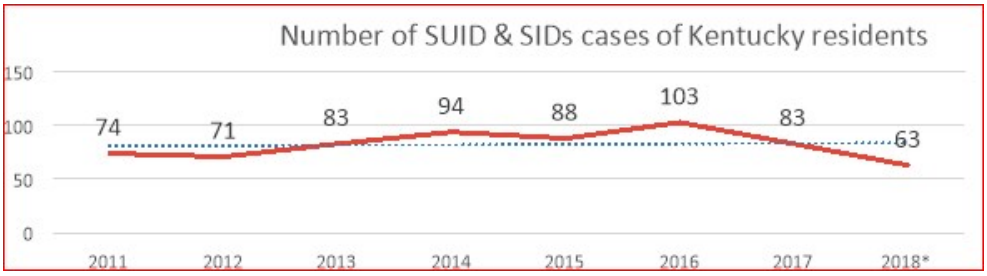
KY continues to focus on assuring safe sleep activities and review of cases meeting definition for the SUID case registry. KY chose to target *NPM # 5: Percent of infants placed to sleep on their backs*.

In 2012, MCH conducted a review of all SUID cases from death certificate records and medical examiners reports to identify the presence of risk factors including the sleep environment. The CDC broadened the focus on infant deaths that occur while sleeping, to include not only SIDS, but also accidental suffocation and strangulation in bed and undetermined causes. These causes of infant death all fall under the designation of Sudden Unexpected Infant Death. The history of SUID review in KY is:

- September 2015, KY was awarded SUID Surveillance Grant
- 2016, MCH began collecting case data and reports
- 2017, 83 infants were identified meeting case definitions and SUID became the second leading cause of death among KY's infants.

The SUID grant promotes the early identification of SUID cases, as well as a comprehensive death scene investigation (DSI) and multidisciplinary case review, to identify opportunities for prevention. SUID Case Registry work in KY has focused on enhancing the capacity for local teams to conduct SUID case reviews in addition to the development of a state level multidisciplinary review team to review all SUID cases not reviewed at the local level.

A data system has enabled staff to monitor the timeliness of all data sources as well as the risk factors associated with each case and has served as a foundation for the discussion of quality improvement. Six multidisciplinary trainings held across the state focused on DSI, comprehensive case review, and photo documentation. Since the definition, change to SUID, KY has had 70 or more SUID cases identified annually.

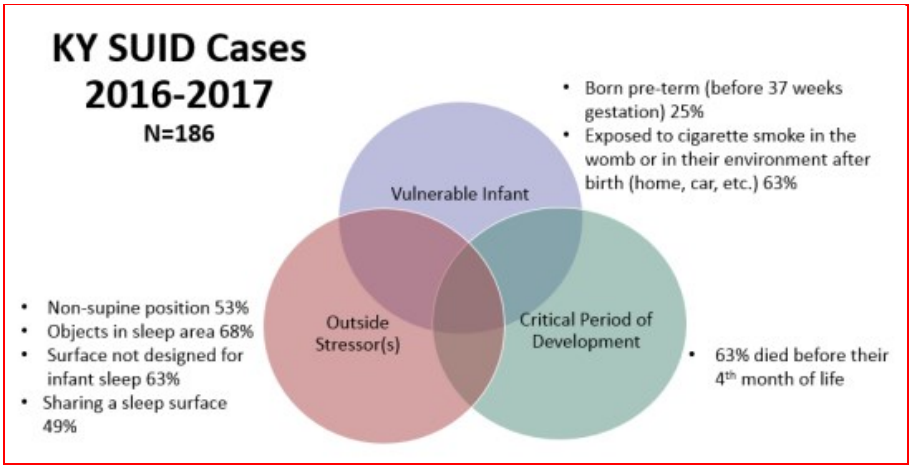


While 2018 data is preliminary, SUID deaths appear to be trending down. To determine if this result is related to the safe sleep campaign, KY will need to review the data for a minimum of 5 years after the campaign.

The 2017 PRAMS Cohort information found:

- 95% of mothers had a health care professional recommend placing their infant on their back to sleep
- Three out of four of these mothers reported following this recommendation

During 2016-2017, 186 infants died suddenly and unexpectedly in KY. Of those cases, 63% died before their 4th month of life. This infographic shows additional risk factors present in SUID cases during 2016-2017.



Safe Sleep Campaign:

In response to surveillance data and information from KY's External Panel for the Review of Child Fatalities and Near Fatalities, KY began strategically planning to address the alarming number of deaths from co-sleeping/bed-sharing.

At the 2016 KY State Fair, KY surveyed attendees about safe sleep practices and beliefs. After review of results, it became evident; KY needed to add a "D" for Danger/Distraction to the campaign. The opioid epidemic in KY was having an impact on infant deaths and it was determined rest or sleep deprivation, distraction, and impairment from substances impose a significant danger to the ability of a parent to assure a safe sleep environment for the infant.

KY was the only state to incorporate a "D" into safe sleep messaging. The campaign focal points became:
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

The Safe Sleep KY Educational Campaign partially funded by an AMCHP Birth Outcomes began in phases in 2016. Many portions of this campaign continue today. LHDs, hospitals, and community partners frequently request materials developed during the campaign. One valuable lesson learned was the need to refresh materials to assure ongoing engagement. Beginning in 2018, new materials were developed and refreshed. A newly developed crib card is in pilot with several birthing hospitals across the state. The card provides the ABCDs of safe sleep, reinforcing the message developed during the campaign. It provides the vital birth information of the newborn for the crib.

Additional educational materials are in development for use during car seat checks and EMS runs, and KY State Police waiting areas and for distribution by community partners. All materials were translated into Spanish this year. Safe sleep magnets, door hangers and diaper bag tags are mailed to birthing hospitals across the state as free giveaways for new mothers.

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. During the previous year, the Safe Sleep KY Facebook page had: 18,122 reach, 1,037 engagements, and 158 post engagements. More information can be found at www.safesleepky.org.

Safe Sleep Culture and SDoH:
The question remains, "why would parents choose unsafe sleep behaviors that do not follow the recommendations from their provider?" In KY, culture and following the childrearing example previously set by grandparents, aunts, or others certainly plays a part in the decision to co-sleep; placement on infant for sleep, and adding bumper pads, quilts, or other soft bedding to the crib. Appalachian culture relies heavily on familial connections to tradition, quilting, and honoring the maker of the quilts used for an infant. Responses to this question elicit the statements, "I did this and it did not cause crib death".

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.

MCH Evidence Informed Strategies at LHD's

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: 26
- Safe to Sleep for Child Care Providers: 18
- Prevention of Abusive Head Trauma Package: 27
- Cribs for Kids for Community Partners: 22
- All Safe Sleep Packages: 8

The Cribs for Kids package requires the LHD to find a match with a local community stakeholder to purchase an equal number of cribs. In 2018, 36,591 parents, caregivers, or other community members received safe sleep education and 743 crib kits have been distributed.

Perinatal Quality Committee

The Perinatal Quality Committee mentioned in the Women/Maternal Health Domain narrative also made recommendations for infant and specifically infants with NAS that were:

- Require NAS reporting by birthing hospitals
  - KY has had an established NAS reporting registry since 2015
- Develop a standardized model for identification and treatment of NAS
  - MCH continues in development phase and will work with KPQC (once established) to determine current practices statewide and make recommendations for best practices for future dissemination
- Educate parent/alternate caregivers of all newborns on PAHT and Safe Sleep practices prior to discharge after
  - Birthing hospitals utilized various trainings for both topics
- Encourage rooming in for the mother with an infant with NAS
  - Birthing hospitals present at the KHA meeting noted they encourage rooming in and use the opportunity to model safe sleep and promote breastfeeding with mothers

KY Center for the Prevention of Neonatal Abstinence Syndrome

Established through a contractual agreement with the University of KY in 2016, a committee of experts was tasked to develop a manual for evidence-based practices for diagnosis, treatment, or management of NAS. Chapters to be developed were:

- Pre-pregnancy
- Screening for substance use during pregnancy
- Management of opioid-dependent women during pregnancy
- Intrapartum and postpartum management

- Infant care
    - Discharge planning and transition to community services
    - Primary care for infants affected by perinatal opioid use
    - Assessment and treatment (pharmacologic and non-pharmacologic) for infants with NAS

The guideline for infant care was received in early 2018. Secondary to the university request that they do not have resources to continue this initiative, this contract ended in 2018.

Neonatal Abstinence Syndrome (NAS)

In KY, data from hospital discharge records indicate the number of cases of NAS has increased more than 20-fold in the last decade (46 in 2001 compared to 1,114 in 2017). Mandatory reporting of NAS to MCH was instituted in July 2014. Annual reporting for NAS began in 2015 and to date three reports have been published (see attachment).

Per the KY NAS registry, in 2017 the rate of NAS was 22.35/1,000 live births. This rate is much higher than nationally reported rates. Rates are highest in Appalachian areas of the state with some areas reaching 65 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, 63% 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 35% 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: 12.5 days as compared to 3.8 days for infants without NAS.

More than 80% of infants with NAS were referred to the Department for Community Based Services, and more than 75% 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 encouraging MAT programs, implementing a Plan of Safe Care, encouraging education on abusive head trauma and safe sleep for parents, implementing safe sleep modeling by healthcare and childcare providers, increasing enrollment in services such as WIC and home visiting program, and improving access to long-acting reversible contraception.

Plan of Safe Care:

The DBHDID, in collaboration with MCH and multiple other community partners, has been working on an initiative focused on developing a comprehensive system of care for women of childbearing age and their families, who are at risk of using drugs or alcohol.

During 2017-2018, MCH hosted six regional meetings with the KY Perinatal Association (KPA) to discuss the plan of safe care for infants with NAS. The topics focused on

- NAS overview data, and treatment
- Services provided by one treatment program for mother and infant
- Safe Sleep and Plan for Safe Care
- Resources for Mothers and Children

These meetings had an average attendance of 50-100. In attendance were representatives from multiple local agencies with a desire to learn more on this subject and begin work to address helping the mothers and newborns.

Healing Empowering and Actively Recovering Together (HEART):

From these meetings, MCH launched the pilot program, HEART in Floyd County. With 70 of every 1,000 births diagnosed with NAS, Floyd County represented one of the neediest populations in the state. One benefit of choosing this site was the active community support found within the Big Sandy NAS Coalition. This program design meets the needs of pregnant and parenting women who have Opioid Use Disorder (OUD) and their young children through a support group experience. It includes supports for mother and child akin to “one-stop-shopping”. Through this experience, participants build protective factors to minimize the opportunities for stress and feelings of being overwhelmed. This parent-driven and strength-based program has resources for physical and mental healing, education and skill building for nurturing parenting, and the necessary supports for success in long-term recovery.

Initially, Highlands Regional Hospital in Floyd County referred all mothers who delivered a baby with a NAS diagnosis to the Floyd County local health department Health Access Nurturing Development Services (HANDS) program. Enrollment is now open to other referral sources. A HANDS home visitor and peer support coach met with the mother

in the hospital or made contact if already released to offer HANDS home visitation services and/or enrollment in the HEART program. The HEART group consists of six to ten mothers who, along with their children, meet every Tuesday from 10 a.m. to 1:00 p.m. at a local community church. HANDS home visitors, trained in a group socialization curriculum, and co-led the group experience with assistance from an Early Childhood Mental Health Specialist, OUD Peer Support Specialist, and a Regional Program Coordinator. During the three-hour meeting, parents learn parenting best practices from *Growing Great Kids Curriculum* and *Nurturing Parenting Curriculum*. Parents have time to practice these new skills with their infants under the guidance and support of HANDS providers. In addition, parents learn positive coping strategies using KY Strengthening Families Protective Factors Framework. Finally, area providers attend sessions on a rotating schedule to provide critical mental and physical health services such as well-child check-ups, immunizations, nutrition education, easy access to community resources, tax preparation and other services as identified by participants.

There are five overarching goals of the HEART program:

1. Infrastructure: Increase coordination of care for parenting and pregnant women with OUD by integrating HANDS with OUD services and supports
2. Prevention: Utilize an early detection screener to help prevent opioid misuse and abuse in Floyd County
3. Treatment: Increase connectivity to OUD Treatment Service
4. Recovery: Provide psycho-education on relapse and prevention and increase retention for long-term recovery
5. Harm Reduction: Every child and family that participates in this program builds strong protective factors to buffer toxic stress and ACES

The first group meeting was in September 2018. Engagement was slow at first, however, with dedicated, face-to-face and encouragement from the peer support coach, more women attended consistently. At this point, a father's group now meets. Eventually, a local judge attended to "find out what is going on, to make such improvements". Because this group is now at capacity, Floyd County LHD is creating a Thursday group and has identified a third site elsewhere in the county. Preliminary evaluation data indicates that the participants highly value the social connections built through the program and the non-judgmental support they receive.

The widespread nature of the substance abuse epidemic in KY is a challenge. When focusing efforts on treatment options for pregnant and parenting women, the need far outweighs capacity. From a data standpoint, there also are challenges to obtain accurate numbers using administrative data sources. Another significant concern is that some babies with NAS are 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. Lessons learned from other counties were not as successful. Madison County created a group of community stakeholders and designed a manual to be given to the provider for tracking purposes with various providers prior to disbanding. More regional meetings have been ongoing. In May 2019, Laurel County hosted a community meeting to begin discussions with MCH to use the business model used by Floyd County to launch HEART in their area.

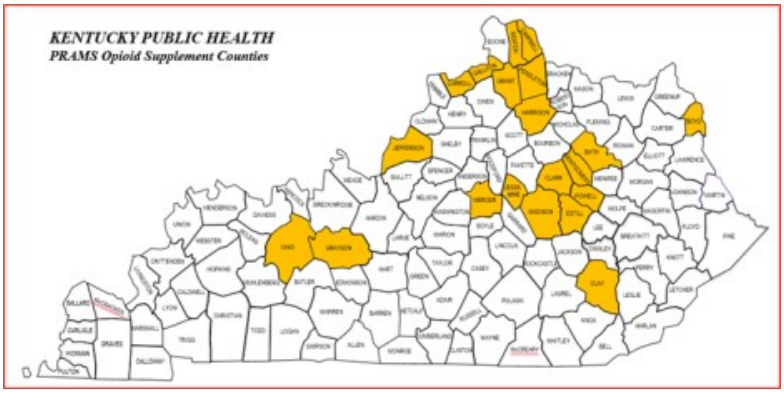
The widespread nature of the substance abuse epidemic in KY is a challenge. When focusing efforts on treatment options for pregnant and parenting women, the need far outweighs capacity. From a data standpoint, there also are challenges to obtain accurate numbers using administrative data sources. Another 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.

KY Pregnancy Risk Assessment Monitoring System (PRAMS)

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 recently entered into the third year of a five-year cooperative agreement for PRAMS. PRAMS data collection began in 2017 and KY has completed two full years of surveying. Epidemiology staff are in the process of analyzing the data for the 2017 cohort. The percentage of survey returns was higher than averages reported across other states, an admirable performance for a surveillance program in its first year. KY will disseminate the results at the annual MCH conference in the fall of 2019.

The KY PRAMS program was awarded additional supplemental funding in October 2018 for an opioid survey and an

additional call back survey. The survey will sample mothers in counties with a high number of overdose deaths. Once the mothers complete the survey, they will have the option to participate in an additional call back survey when their infant is 9 months of age. The purpose of these supplemental questions is to assess additional risk factors associated with substance use before, during and after pregnancy. These data will assist states in understanding the issues facing these mothers and babies. The counties included in the opioid survey are included in the map below:

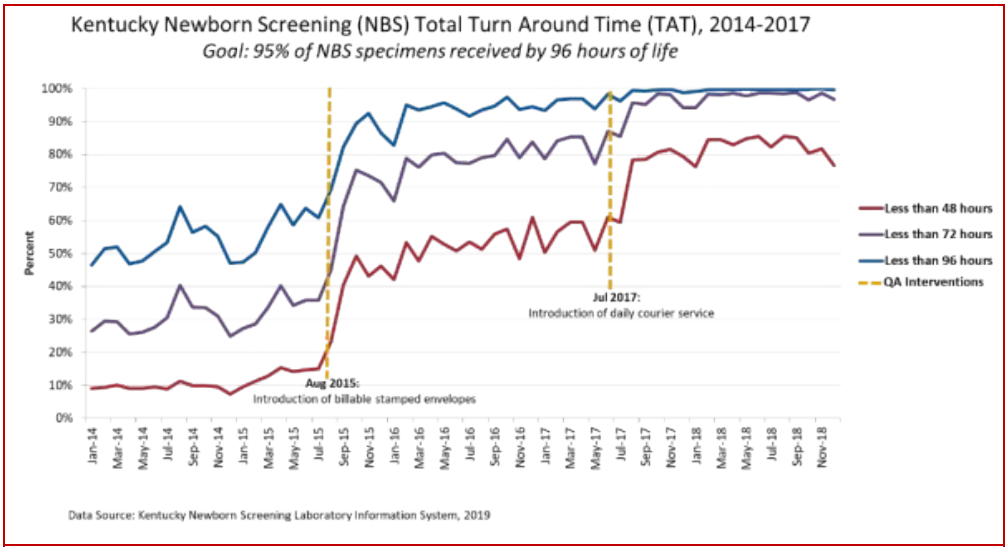


Promotional materials of various types were developed and printed to help raise awareness of the KY PRAMS survey. PRAMS distributes materials to local partners, community providers, stakeholders, and select professional organizations with a focus on birthing hospitals.

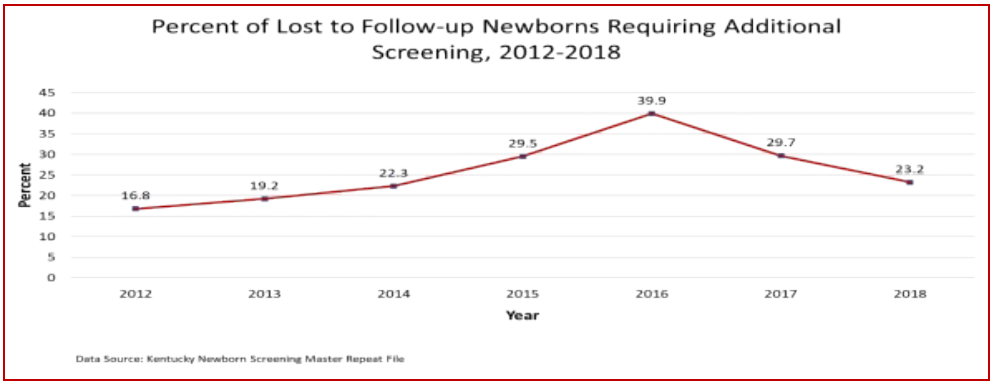
KY PRAMS faces budgetary challenges for sustainment of the survey. The Division of the CDC that funds the state-level PRAMS programs received a funding reduction by Congress. Therefore, all CDC funded PRAMS states received a 10% reduction in funds for year two of the grant. KY, along with the other PRAMS 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 manner in which KY PRAMS is functioning, PRAMS funding is augmented by Title V funds.

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. The previous process included an immediate telephone notification to provider completed by the DLS, and then NBS follow-up mailed a parent letter at day 10 after initial notification, a certified parent letter on day 20, and closed the case as lost to follow-up if no contact or result received on day 30. The new process added an additional letter at day 5. The provider of record, if located, contacted by telephone to notify need for repeat labs prior to closure of lost to follow-up. In 2018, NBS follow-up, in collaboration with both university referral centers, developed standing orders for evaluation of repeat lab results received for newborns evaluated for congenital hypothyroidism. This protocol and orders will allow for timely evaluation for local primary providers and for faster case closure or referral to pediatric endocrinology for longer follow-up and evaluation. It is anticipated this new procedure will also help to reduce the lost to follow-up rates.

In 2018, NBS began screening for X-linked adrenoleukodystrophy (X-ALD). Plans are in place for adding Spinal muscular atrophy (SMA) screening beginning in the fall of 2019. Both disorders affect the nervous system of children. With the addition of these disorders, KY now screens for 56 disorders including CCHD.

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 support 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

Emergency Preparedness:

The KDPH Continuity of Operations Plan (COOP) has a detail sheet for how KY will assure the newborn screening metabolic screen and CCHD processes continue during an emergency. COOP also addresses programmatic plans for maintaining metabolic foods and formula services.

Perinatal/Infant Health - Application Year

KY will continue to focus on *NPM # 4: A) Percent of infants who are ever breastfed, B) Percent of infants breastfed exclusively through six months.*

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 through webinars
- 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
- Continue Coffective® partnership to reach local health departments and hospitals

Coffective® will conduct surveys at birthing hospitals and of WIC staff at LHDs. WIC Health Professionals will begin receiving breastfeeding education materials and counseling sheets to assist with counseling.WIC Health Professionals and Breastfeeding Peer Counselors will receive up to 8 hours of breastfeeding education to increase breastfeeding knowledge and ensure a consistent breastfeeding message is available across the state.

Coffective® will be working with birthing hospitals to assist them in breastfeeding promotion and education by offering tools and coaching calls to assist them in implementing the 10 Steps to Successful Breastfeeding. Hospitals interested in the program receive three coaching calls. These coaching calls will focus on helping them understand the current and their desired practices within the hospital and form relationships for coordination with the LHD and other breastfeeding partners within their community. The regional breastfeeding coordinators will serve as a liaison with the hospitals and the LHDs during this relationship development and building.

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. Special emphasis will be placed on increasing the number of hospitals that have implemented Kangaroo Care and moving toward becoming baby friendly. Regional Breastfeeding Coordinators work with each birthing hospital in KY to help implement and maintain Kangaroo Care.

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.

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 monitor social media and will promote the safe sleep programs on the Facebook feed for local community partners and health departments. The program will continue review of child deaths related to unsafe sleep practices and support local teams with prevention planning and promotion. Data will be collected on these cases with ongoing technical assistance and support provided to local teams as part of the ongoing statewide child death review program. Prevent Child Abuse KY, the KY Hospital Association, and KDPH are collaborating to create a comprehensive education video concerning safe sleep and AHT for new mothers to view prior to discharge. The KDPH, KSPAN, KPRIC and Northern KY Health Department plans 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 Kentucky counties.

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. MCH has an annual meeting and other regional programs planned for 2019 in conjunction with needs assessment to provide MCH data and further promote plan of safe care and the business model for HEART. It is anticipated the HEART program will expand to an additional day per week for another group in Floyd County, with a second site identified in Floyd County for a third group, and engagement of Laurel County to replicate the program.

Social Determinants of Health

KY will continue to participate on this CoIIN. The Louisville Healthy Start Program continues as a major collaborator in this endeavor. The MCH conference is planned for November 2019 to promote education about SDoH, along with cultural diversity, in collaboration with the KY March of Dimes chapter and the Kentucky Perinatal Association. Multiple regional meetings are planned to further the education provided with the "How Biased Am I?" training.

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.

PRAMS

KY will continue with the PRAMS survey as described in the annual report. Once the weighted data set is received, KY will analyze and distribute the results. Because KY PRAMS survey addresses other areas of MCH population health, the data will provide 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. Plans are in place for the analysis of PRAMS to be shared at the annual MCH conference and regional conferences across the state.

Newborn Screening

As reported nationally within the short-term follow-up NBS community, many states struggle with having the correct provider listed on the specimen upon submission. There are multiple causes for this including:

- Parent provides incorrect name of provider
- Parent realizes after discharge their insurance is not accepted by provider, provider is not accepting new patients
- Parent elects to use a different provider after discharge
- Hospital lists hospitalist, neonatologist, OB/GYN, resident on specimen
- Hospital leaves field blank

This requires the Division of Lab Services and the MCH NBS program large amounts of time to investigate to locate the provider to report abnormal lab findings. During the next year, KY has plans to work with the Kentucky Hospital Association to determine ways to improve the primary provider reporting with the metabolic screening.

NBS has ongoing activities planned to continue reducing timeliness of receipt of the lab from birthing hospitals and reduction of the lost to follow-up rate.

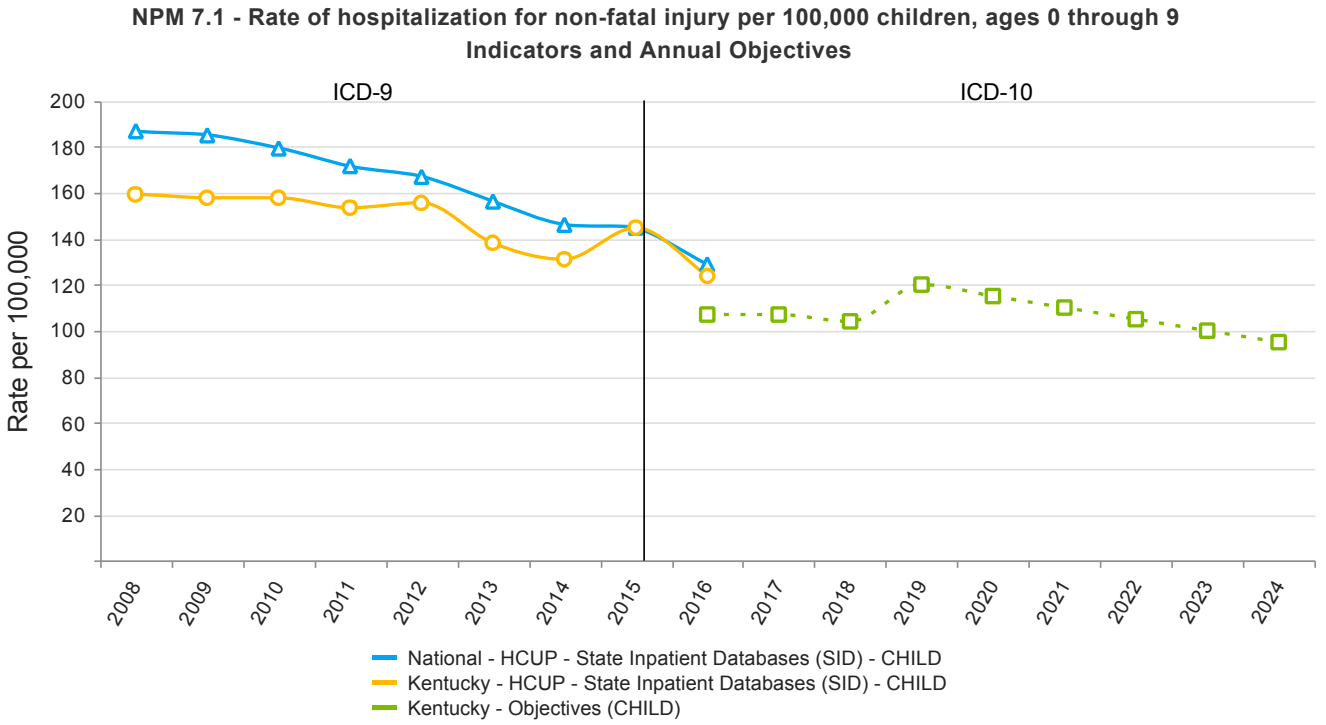
Child Health

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-2015	116.3	NPM 14.2
NOM 3 - Maternal mortality rate per 100,000 live births	NVSS	Data Not Available or Not Reportable	NPM 14.2
NOM 4 - Percent of low birth weight deliveries (<2,500 grams)	NVSS-2017	8.8 %	NPM 14.2
NOM 5 - Percent of preterm births (<37 weeks)	NVSS-2017	11.1 %	NPM 14.2
NOM 6 - Percent of early term births (37, 38 weeks)	NVSS-2017	29.1 %	NPM 14.2
NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths	NVSS-2016	6.3	NPM 14.2
NOM 9.1 - Infant mortality rate per 1,000 live births	NVSS-2016	6.8	NPM 14.2
NOM 9.2 - Neonatal mortality rate per 1,000 live births	NVSS-2016	3.9	NPM 14.2
NOM 9.3 - Post neonatal mortality rate per 1,000 live births	NVSS-2016	2.9	NPM 14.2
NOM 9.4 - Preterm-related mortality rate per 100,000 live births	NVSS-2016	178.5	NPM 14.2
NOM 9.5 - Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births	NVSS-2016	176.7	NPM 14.2
NOM 14 - Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year	NSCH-2016_2017	11.2 %	NPM 13.2
NOM 15 - Child Mortality rate, ages 1 through 9, per 100,000	NVSS-2017	19.2	NPM 7.1
NOM 16.1 - Adolescent mortality rate ages 10 through 19, per 100,000	NVSS-2017	41.6	NPM 7.1
NOM 16.2 - Adolescent motor vehicle mortality rate, ages 15 through 19, per 100,000	NVSS-2015_2017	18.9	NPM 7.1
NOM 16.3 - Adolescent suicide rate, ages 15 through 19, per 100,000	NVSS-2015_2017	13.4	NPM 7.1

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	NSCH-2016_2017	90.4 %	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-2016_2017	19.3 %	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)	WIC-2014	13.3 %	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-2017	20.2 %	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) - CHILD			
	2016	**2017**	**2018**
Annual Objective	107	107	104
Annual Indicator	108.4	145.0	123.8
Numerator	606	605	687
Denominator	558,942	417,308	555,089
Data Source	SID-CHILD	SID-CHILD	SID-CHILD
Data Source Year	2014	2015	2016

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	120.0	115.0	110.0	105.0	100.0	95.0

Evidence-Based or –Informed Strategy Measures

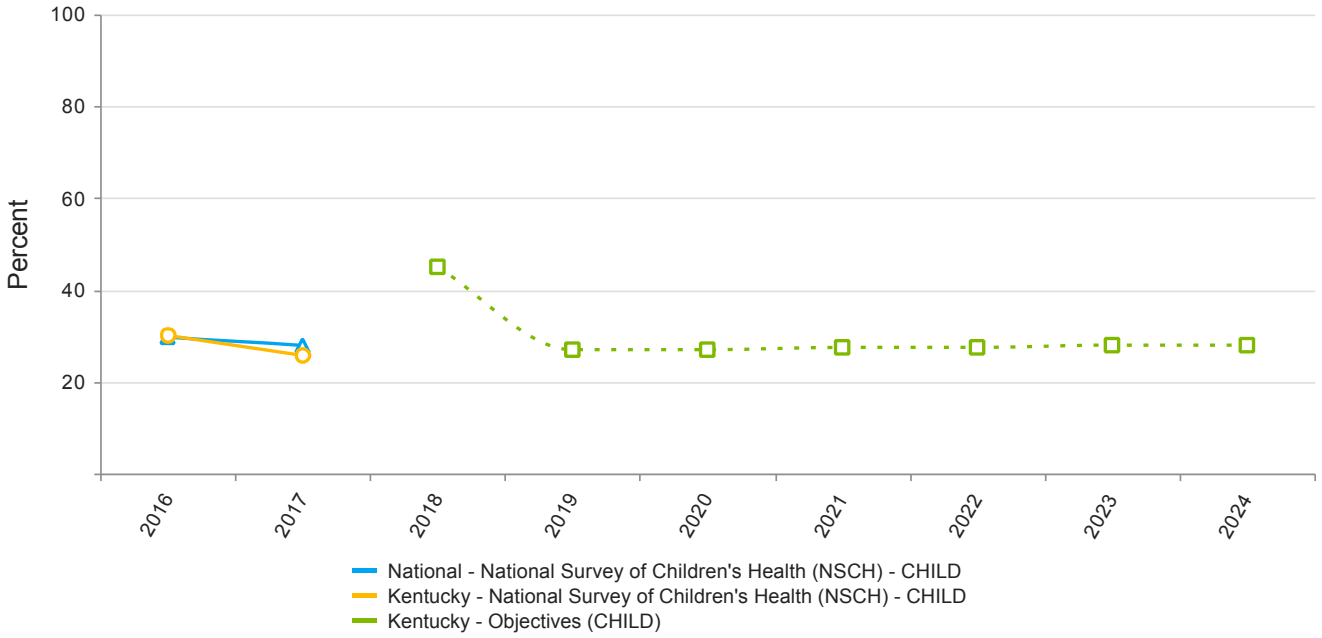
ESM 7.1.1 - Implementation of Child Passenger Safety Strategies in local communities

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		25	30
Annual Indicator	19	30	54
Numerator			
Denominator			
Data Source	Catalyst reporting system	Catalyst Reporting System and Safe Kids Coordinato	Catalyst LHD report
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	55.0	56.0	56.0	57.0	57.0	58.0

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**
Annual Objective			45
Annual Indicator		30.2	25.8
Numerator		90,306	77,802
Denominator		299,110	301,378
Data Source		NSCH-CHILD	NSCH-CHILD
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	27.0	27.0	27.5	27.5	28.0	28.0

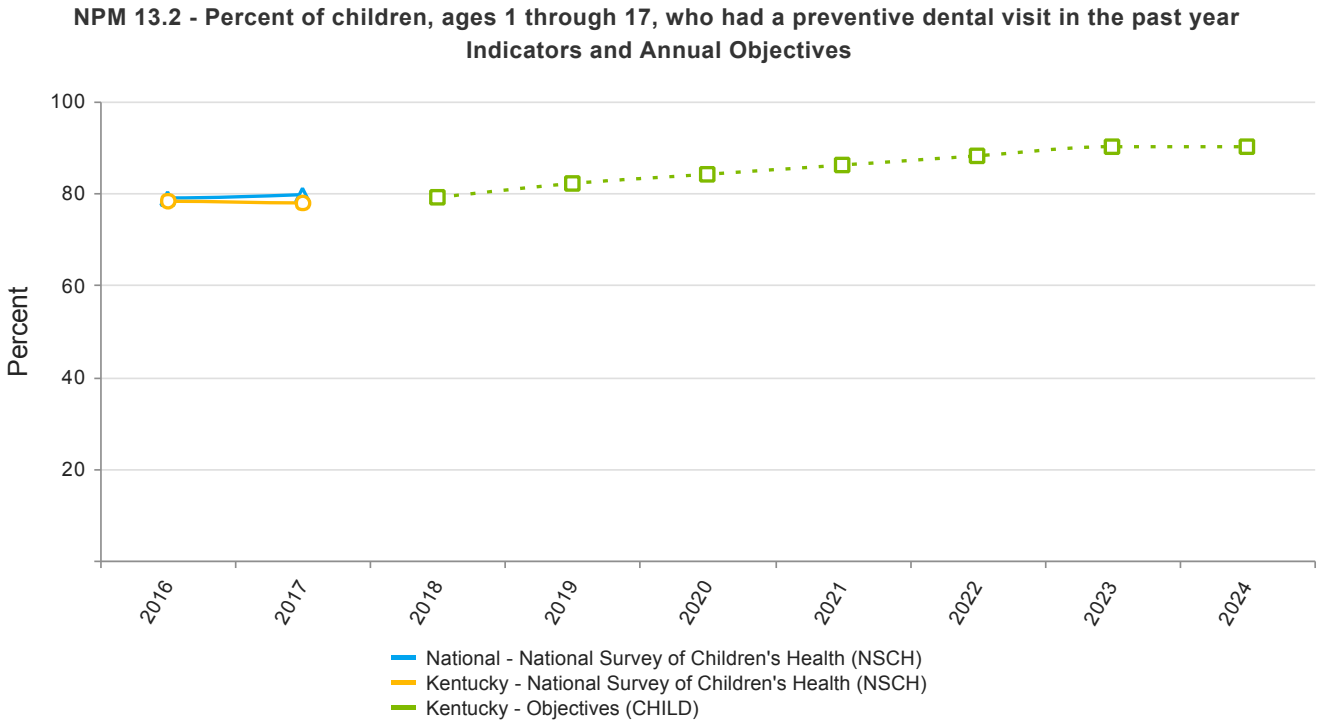
Evidence-Based or –Informed Strategy Measures

ESM 8.1.1 - Number of early care and education professionals completing online training modules

Measure Status:	Active

State Provided Data		
	2017	2018
Annual Objective	200	2,200
Annual Indicator	2,122	2,394
Numerator		
Denominator		
Data Source	UK HDI	UK HDI
Data Source Year	2017	2018
Provisional or Final ?	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	2,300.0	2,400.0	2,500.0	2,600.0	2,700.0	2,700.0



NPM 13.2 - Child Health

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH)			
	2016	**2017**	**2018**
Annual Objective			79
Annual Indicator		78.3	77.6
Numerator		746,012	735,981
Denominator		952,247	949,011
Data Source		NSCH	NSCH
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	82.0	84.0	86.0	88.0	90.0	90.0

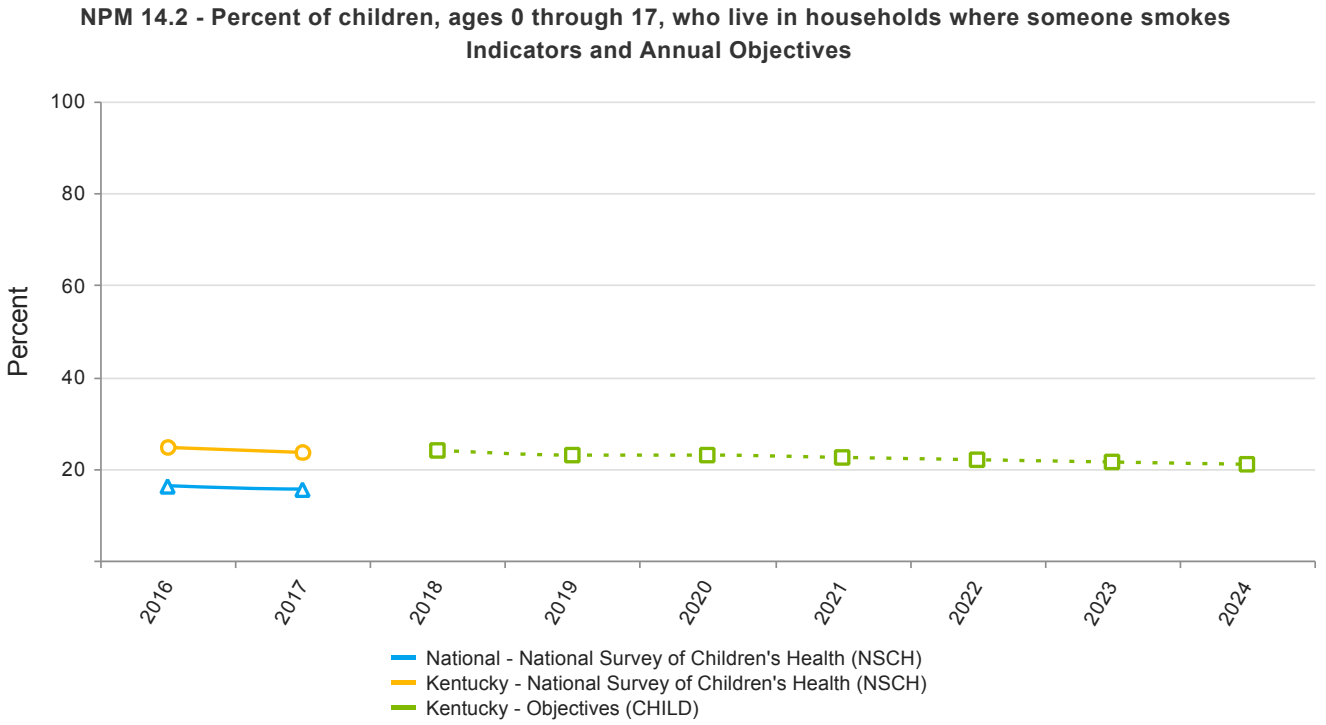
Evidence-Based or –Informed Strategy Measures

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

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective			28,500
Annual Indicator	15,580	28,000	18,123
Numerator			
Denominator			
Data Source	CDP data system	CDP data system	CDP data system
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	18,500.0	19,000.0	19,000.0	19,500.0	19,500.0	20,000.0



NPM 14.2 - Child Health

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH)			
	2016	**2017**	**2018**
Annual Objective			24
Annual Indicator		24.6	23.4
Numerator		244,610	233,551
Denominator		992,768	998,969
Data Source		NSCH	NSCH
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	23.0	23.0	22.5	22.0	21.5	21.0

Evidence-Based or –Informed Strategy Measures

ESM 14.2.1 - Implementation of 100% Tobacco-free School Policies

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		39	42
Annual Indicator	37	40.5	42.8
Numerator	64	70	74
Denominator	173	173	173
Data Source	KY Tobacco program	KY Tobacco Program	KY Tobacco Program
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	44.0	46.0	48.0	50.0	52.0	52.0

State Action Plan Table

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

Priority Need

Reduce overweight and obesity among teens

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 2-4 year old Women, Infant and Children participants who are obese by September 30, 2020.

Strategies

Create and launch two additional online training modules that support ECE professionals in health best practices.

Increase the number of early care programs that have written policies in place supporting health best practices.

Develop support package and materials for technical assistance providers to increase capacity and consistency of TA provided.

ESMs	Status
ESM 8.1.1 - Number of early care and education professionals completing online training modules	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) - Child Health - Entry 2

Priority Need

Reduce child injury rates with focus on reduction of injury related to child abuse and neglect

NPM

NPM 7.1 - Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9

Objectives

Decrease by 10% the rate of hospitalizations related to motor vehicle accident injuries among children ages 0-19 years by September 30, 2020.

Strategies

Increase the number of car seats that are installed and used appropriately and increase the number of CPS technicians in rural areas.

Increase the number of local health departments that participate in the child passenger safety package.

Increase the number of LHDs participating in the PAHT package and promote the PAHT web based training course

ESMs	Status
ESM 7.1.1 - Implementation of Child Passenger Safety Strategies in local communities	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 3

Priority Need

Improve oral health outcomes for children and pregnant women

NPM

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

Objectives

Increase by 10% the number of fluoride varnish applications provided by the public health system by September 30, 2020.

Strategies

The KOHP will continue to train LHD nurses in the procedures required for a successful varnish application and evaluate the KIDS Smile curriculum to improve the outputs and outcomes

Promote and expand the public health dental hygiene program and referrals to dentists

Establish and sustain an oral health surveillance system for children

ESMs	Status
ESM 13.2.1 - Fluoride varnish applications for children in local health departments	Active

NOMs

NOM 14 - Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year

NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health

State Action Plan Table (Kentucky) - Child Health - Entry 4

Priority Need

Reduce outcomes related to Substance Use Disorder for pregnant women and reduce the number of Neonatal Abstinence Syndrome cases

NPM

NPM 14.2 - Percent of children, ages 0 through 17, who live in households where someone smokes

Objectives

Increase by 5% the proportion of women who report no smoking in the third trimester of pregnancy by September 30, 2020

Strategies

Collaborate with stakeholders to increase the number of local communities with smoke-free laws and ordinances

Support the 100% Tobacco-Free Schools Evidence Informed Strategy to increase the number of schools that implement this policy

Provide education and technical assistance to the HANDS and WIC programs to increase referrals to Quit Now Kentucky

ESMs	Status
ESM 14.2.1 - Implementation of 100% Tobacco-free School Policies	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 - Sleep-related 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

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).

Funding from the Title V Block Grant supports a university-based training program for public health registered nurses (RNs) to develop skills in pediatric assessment, which certifies them to perform preventive pediatric well-child examinations. The Well Child Program will be ongoing throughout the next year and provides:

- Identification of early dental problems, vision and hearing impairment
- Identification of risk factors including obesity and related poor nutrition
- Preventive specialized health services including:
    - Immunizations
    - Screenings for those at risk for lead poisoning
    - Identification of risk factors leading to child abuse, neglect, and injury
- Age appropriate health education and anticipatory guidance
- Referral for further diagnosis of health problems and community-based education

Since its inception in 2003, this program has provided the 23-module web-based well child training to 1,015 nurses have. LHD well child protocols are provided by MCH and follow AAP Bright Futures recommendations. In addition, the Title V program contracts with the universities for annual professional development, continuing education for nurses that review current topics related to pediatric preventive services as well as school health. Through face-to-face and web-based training opportunities in 2018, 138 nurses received the following initial or update training:

- Pediatric Assessment Well Child training (100)
- Annual 1-day Pediatric Assessment Update training (54)
- Annual 1-day School Health Nursing Update training (46).

The professional development trainings are archived and available online through Training Finder Real Time Affiliate Integrated Network (TRAIN).

Local school boards collaborated with 41 LHDs for the provision of child and adolescent preventive health services (school nursing) in the school setting utilizing the skills of these pediatric-trained nurses. The LHD 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. Depending on the local arrangement, nursing services may include preventive health services, education, emergency care, referrals, and management of acute and chronic conditions in a school setting. School nurses serve children aged pre-school through adolescence (up to age 21). MCH encourages children and adolescents to have a medical home and, where possible for schools to augment this service.

In 2018, KDPH established 1.0 FTE nurse consultant position to:

- Provide program coordination
- Review/update well child certification curriculum and practicum structure
- Coordinate/collaborate with other KDPH divisions and KDE to assure promotion of public health messaging impacting school-aged children in the school system

The KDE employs a 1.0 FTE nurse consultant who provides technical assistance to the public schools on health issues. In a collaborative approach to school health services, KDPH funds one-half of the salary for this position.

The number of direct pediatric preventive services provided at the LHDs appears to be trending downward. More health departments are linking children to care in a medical home with community partners instead of providing direct services at the LHD. 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. There is opportunity for engagement with the staff during WIC visits, childhood lead poisoning prevention case management, and school health visits.

Immunizations:

This year the KY Immunization Program in the Immunization Disease Branch updated the annual school survey to include 11th and 12th grades and changed the 6th grade survey to 7th grade. This survey change allows the Immunization Branch to better determine how many KY adolescents are up to date on the routine vaccines given at age 11-12 years of age. A survey of 11th and 12th grades was added to reflect the vaccines required for school entry per legislation requiring a booster dose of meningococcal vaccine. Legislation changes also included Hepatitis A as a required vaccine for school entry, and the survey now includes Hepatitis A measures.

The KY Immunization Registry (KYIR) section has, through many outreach efforts, increased school nurse usage of KYIR over the past year. School nurses are given read only access to the Immunization Registry so they are able to view students immunization records and print immunization certificates as needed.

KY had two measles cases earlier in 2019. These are the first cases in KY since 2010. While KY does not have active transmission of disease, we are proactive. Community providers and other partners receive national measles updated information as provided by the KY Immunizations Program. These updates and guidance reflect CDC recommendations. KY promotes vaccination above all. Materials include recognition of measles and actions to take for prevention of the spread of the illness, as well as care measures. KY Immunization Program created talking points regarding vaccination and measles education. MMR vaccination rates increased from 91.5% in 2017 to 92.9% in 2018.

Immunization regulations changed in 2017 to require Hepatitis A vaccinations for school entry. With the first year surveyed, rates are 84.3%. This rate is expected to improve for 2018 as engagement and reporting improves.

KY actively recruits new Vaccines for Children (VFC) providers and has 317 vaccine providers. This active and strong program aided KY's public health response during the Hepatitis A outbreak. In addition, KY has a nurse vaccination team that travels to local communities statewide to administer Hepatitis A vaccinations. Since April 2019, this team held 22 vaccination events, successfully immunizing 1,627 persons. LHDs and community partners have given over 43,000 Hepatitis A vaccines within the past 12 months (per REDCap survey - not all LHDs have responded).

As described, the KY Immunization Program has many standardized processes to assure high rates continue as reported. The challenges for immunizations will be maintaining this level when faced with public health outbreaks. The response to Hepatitis A, in the past year, positively reflects upon the strength of KY to respond and maintain immunization rates at a high level. MCH epidemiologists provided staff support for investigation and surveillance during the Hepatitis A outbreak.

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 145.0 to 123.8/100,000 children ages 0-9 and adolescents ages 10-19. While this improvement is promising, it is too soon to draw a conclusion about this data, as the 2015 indicator was 108.4. To reduce this rate, LHDs collaborate with the child fatality and injury prevention team and Safe Kids KY to promote best practice injury prevention messaging and activities.

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 has not been able to establish this practice in the past year, but has not lost sight of continuing this goal for future years. 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. Since that time, 1793 nurses receive the training. Evaluation comments received have noted some have repeated the course after providing care for a child diagnosed with PAHT to assure personal understanding and knowledge remained current.

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, KSPAN, KY AAP, and MCH, the Northern KY District HD developed a high school curriculum to educate high school students about AHT and a safe sleep environment. 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 two independent high schools in Northern KY, and presented the training to 110 students at the state meeting of Health Occupations Students of America. Preliminary results showed from pre-test to post-test, 74% of students improved their overall PAHT/ Safe Sleep knowledge after completing the curriculum. The average test score across all items improved by 12% from pre- to post-test. Other notable findings from pre- and post-tests reveal:

- 85% increase in the knowledge of child abuse prevention (e.g., recognize child abuse, understand state reporting practices, and recognize normal bruising patterns)
- 19% increase in awareness of risk factors for PAHT
- 16% increase in knowing how to select a safe caregiver
- 10% increase in knowing how to solve problems non-violently and manage stress (e.g., soothe a crying baby)
- 6% increase in knowledge regarding the identification of PAHT and its associated injuries
- 5% increase of how to promote safe sleep practices for infants (e.g., identify and mitigate risk factors for unsafe sleep)

The cost for this joint collaboration was 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.

In an effort to meet concerns voiced by birthing hospitals that parents are not engaging in education prior to discharge, the KY Hospital Association in partnership with Prevent Child Abuse of KY, WellCare MCO, and KDPH held a focus group in April 2018 with leadership from the mother/baby and NICU leaders of all birthing hospitals. In April 2019, this group released a video with AHT and safe sleep information.

LHDs often provide AHT training alongside safe sleep education for families and the community. In 2018, AHT education has been provided to over 49,584 Kentuckians. In the 2018, Buffalo Trace LHD mentored Lake Cumberland District Health Department for Nurturing Father programming. These two programs have provided this evidence-based program to Mason County and Pulaski County Detention Centers. To date, 76 male inmates and 10 female have completed the program. Another 39 are enrolled, and eight community partners are engaged in assisting with this program. Buffalo Trace LHD reports, "The program is institutionalized as a requirement for the substance abuse program. The Department of Justice (KY) has approved Nurturing Fathers as an evidence-based class that will remove time from sentence, 60 days of time service is received, if class is completed and strictly implemented. Requirements are inmates complete all assignments including in class work and homework".

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 Abuse Surveillance

In the 2015 needs assessment process, both consumers and stakeholders were particularly concerned about injury related to child abuse. Because of this, KY chose to focus on *NPM #7: Rate of hospitalization for non-fatal injury per 100,000 children ages 0 through 9.* While DCBS functions as a lead agency to reduce and prevent child abuse, Title V actively participates in the Child Fatality and Near Fatality External Review Panel, and targets reduction of child abuse through education, surveillance, and child death reviews. Title V and DCBS actively collaborate on cases, and educational efforts. The Child Fatality and Near Fatality External Review Panel was created and

established by KY Revised Statutes 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 CFR Nurse Coordinator attend the Child Fatality/Near Fatality External Panel Review meetings. The MCH CFR Coordinator 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 Coordinator.

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 participates as a presenter at MCH annual and regional meetings.

Child Fatality Review

The Title V MCH Program has striven to improve 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. The MCH Child Fatality and Injury Prevention Program currently receives notifications of any child death occurring in KY from multiple data sources. KY utilizes an electronic death registration system as one source of data for child death reports. An annual report of child death data prepared by MCH is required by legislation to be submitted to the Governor, the Legislative Research Commission, and the Chief Justice of the KY Supreme Court by November 1 each year.

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.

In February 2018, MCH filled a vacancy for a nurse consultant for Child Fatality Review and Injury Prevention. She first began a structural review of process, data management, reporting requirements, and child death review teams available across the state. While doing this, she traveled to almost all counties conducting a needs assessment for the CFR Program. The outcome of this review:

- 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
- 5 counties and 1 district had strong, quality child death reviews
- KRS governing child death review has permissive language for child death review as called by the coroner and most coroners were not actively participating or leading a review team

During the assessment, the nurse consultant began collaborating 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. KDPH linked those six areas with strong review teams, to 60+ newly formed teams to help with technical assistance.

Publication of the annual child fatality report occurs 2 years after date of death, as data from the Office of Vital Statistics is preliminary. For 2016, there were 612 child deaths in KY. The child mortality rate of 60.6 deaths per 100,000 children exceeded the US rate of 50.9 deaths per 100,000 children. Infant deaths, under one year of age, comprised 61% (372) of all KY childhood deaths. Eighty-nine percent of infant deaths are non-injury related; whereas, 54% of child deaths, 1-17 years of age, are due to injuries. For 2018 (preliminary), 538 child deaths have been reported with:

- 260 Natural Deaths (not including out of state resident deaths)
- 95 Out of State Resident Deaths
- 183 Accident, Homicide, Suicide, Undetermined Deaths

The KY CFR program internally reviews natural cases for categorization. A local team reviews preventable deaths under the guidance of the CFR Program’s nurse consultant. The state ME has accompanied the program nurse to

reviews to assist with training and support for counties in which the coroner will not engage in review. This resulted in:

- Quality local child death reviews
  - 64 of the 2017cases
  - 123 of the 2018 cases
- 57 counties conducted a case review

During this restructuring, the CFR nurse consultant:

- Developed a weekly surveillance report to assure quick follow up with coroners and CFR Coordinators to obtain required reports and implement follow up with families and county residents impacted by the death
- Increased trainings with coroners and CFR Coordinators by meeting with each county individually to discuss barriers, concerns and update on reporting requirements, prevention activities, and advantages of the local review process for each child fatality.
- Conducted 46 trainings on CFR and injury prevention with local CFR teams
- Conducted training, in collaboration with ME, for the coroners each quarter in 2018
- Assisted SUID coordinator with updating safe sleep education handouts
- Developed floor clings/signage for use in high traffic public areas for safe sleep promotion
- Created an educational resource center for agencies across the state to obtain free CFR education/prevention materials
- Conducted monthly follow up with CFR Coordinators on open deaths pending review
- Improved state CFR team member engagement and participation
- Encouraged and provided guidance for effective meeting strategies to improve barriers and assist with questions from the local CFR teams
- Increased the receipt of the coroner reporting forms on all deaths that a coroner was called to investigate

Further evaluation of the training and work by this program highlights the strength-based collaborative and communication KY now has with local partners. This is essential to successful child death review and injury prevention efforts. This has improved the statutorily required reporting by the coroners to report child deaths to the KDPH, DCBS, LHD, and ME office. With this positive communication change, local coroners personally reach out to the CFR Program for reporting, seeking guidance, and requesting injury prevention materials. Coroners and LHDs now view the state program as a strong asset and supporter of community level engagement to reduce child deaths.

The other success for this program has been the monthly report developed. This report is a tool used to inform LHDs and coroners of a death that may have been a natural death or a resident death that occurred in another county/state. This has created greater awareness of natural causes of death to look at any trends or patterns for prevention efforts, prematurity prevention efforts, and increasing reviews in county of residence vs. county in which the death was reported.

Secondary to the enormous volume of work required to conduct reviews for this volume of cases, a second nurse consultant position was established, and a temporary agency data clerk was hired.

This program has built internally many strength-based processes in communications and community resources with local coroners, school systems, LHDs, and providers. The challenge for the program is the minimal staffing at the state level for program management, data surveillance, re-education of LHD CFR coordinators and local coroners secondary to ongoing turnover.

Injury Prevention and Intervention

The MCH program contracts 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 statewide injury coalition, the KY Safety and Prevention Alignment Network (KSPAN). KSPAN is a network of public and private organizations, and individuals, dedicated to

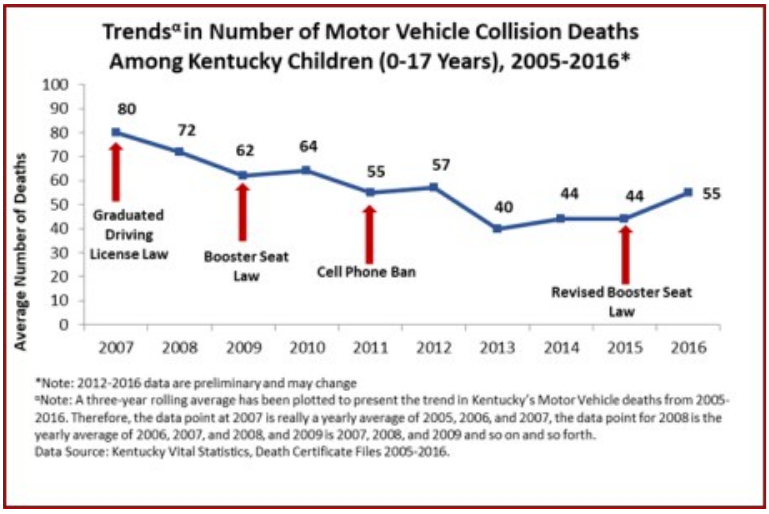
promoting safety and preventing injuries throughout the Commonwealth of KY. KSPAN is specifically working to improve the state's capacity to conduct injury prevention and control activities across a wide range of injury causes and types and risk factors and to increase the reach, efficiency, and effectiveness of existing prevention efforts through greater coordination and alignment of resources. There are five major prevention emphasis areas for the KSPAN coalition and the KY Violence and Injury Prevention Plan:

- Motor Vehicle, Child Passenger, & Teen Driver Safety
- Prevention of Drug Abuse
- Fall Prevention for Older Adults
- Residential Fire Safety
- Prevention of Child Maltreatment.

MCH staff serves on three of the five different subcommittees that relate to the focus areas. This partnership has deep impact in the community. This partnership has the ability and scope to reach deep into parts of the community as a recognized leader to advocate and educate for injury prevention. This enhances the MCH capacity to disseminate best practice injury prevention programming.

Child Passenger Safety:

The 2015 MCH Title V Needs Assessment identified improper use of car seats and/or lack of a car seat as top issues causing child injuries and deaths.



MCH Title V Block Grant funding was made 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”. In reviewing the 10 years of Health Status Indicators, KY has made steady progress in reducing the death rate due to unintentional injuries for children 14 and younger.

In the 2015 legislative session, KY improved its booster seat bill to meet national recommendations, increasing the height requirement to 57 inches and the age requirement to 8 years.

The CPS work completed for KY MCH injury prevention program is reliant upon small grants identified by the KIPRC contractor. This program is challenged by turnover of CPS technicians in the community, re-education of local program staff, and limited resources for purchasing child seats. Per the coordinator of the KY Office of Highway Safety Child Passenger Safety, in 2018

- 18 national certification courses taught adding 185 new technicians
    - 91 firefighters
    - 9 HD staff
    - 59 police
    - 12 hospital
- 992 car seats were checked
- 346 seats distributed across 40 counties at permanent fitting stations

Many fitting stations continue have needs for donations of car seats as many families come with no car seat or resource for a car seat. Many of the car seats distributed were purchased using funding from other grant opportunities.

Child Safety CoIIN

Recognizing that more children and adolescents ages 1-19 die from injuries and violence than from all diseases combined, and injuries are a leading cause of emergency department visits, hospitalizations, and disabilities, KY participated in an 18 state Child Safety CoIIN. Work for teen driving, child passenger safety continued through partnerships as previously described. Participation with this CoIIN is under evaluation during strategic planning for 2020.

Primary Prevention-Home Visiting

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. Every HANDS home visitor must complete:

- 1.5 hours of Cabinet-approved Pediatric Abusive Head Trauma training before they are allowed to bill for visits
- Continuing education hours in the areas of:
    - Child abuse and neglect
    - Problem solving and crisis intervention
    - Domestic violence
    - Temperament and discipline

KY has a mandatory reporting law and all home visitors report any suspicions to CPS. HANDS home visits include using the Ages & Stages-3 and the Ages & Stages-SE2 questionnaires to identify children who are at risk of a developmental delay. These developmental screens act as a conversation starter between the home visitor and the parent, about what activities and behaviors are developmentally appropriate in all children, and prepares the parent for when their child transitions into new developmental stages.

In FY2018, there were approximately 208,376 home visits provided to overburdened parents in KY with services available in every county. HANDS provides home visits and education to primigravida and multigravida families.

HANDS evaluations continue to show success at reducing child abuse and neglect in this population of high-risk families. The most recent outcome evaluation studies have found that HANDS participants experience 47% less child abuse and neglect than similar high-risk families that did not participate in the program. This is consistent with earlier studies, which also showed a 50% reduction in child emergency room visits among HANDS participants compared to children statewide. This data is current for 2018; a recent survey has not been completed.

HANDS is a core function of public health with PH Transformation program. MCH began a revision of the HANDS process manual to streamline reporting forms, and procedures. MCH is conducting a program assessment to assure fidelity to program curriculum while restructuring to improve efficiencies. LHD staff and state staff are collaborating on this project.

Early Childhood Obesity Prevention

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.

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 2012, KY established a 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 beverages

Designed for parents, early childhood professionals, and healthcare professionals, the campaign specifies a memorable method for caregivers to talk about key evidence-based behaviors and encourage parents to adopt obesity prevention strategies for children. The KDPH, KY Chapter of the AAP, and Foundation for a Healthy KY helped to establish the campaign. To support community agencies and technical assistance providers in sharing information about the behaviors, MCH developed a toolkit. The 5-2-1-0 campaign will continue through the next year.

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. These opportunities resulted in a reach to 497 childcare workers. In 2018, CCHCs completed 18 training sessions for 201 participants. Childcare providers were able to earn 40 clock hours to meet childcare statute requirements.

In FY2018, the Healthy People, Active Communities Package was selected by 24 LHDs chose. Work in this package continue to be innovative and relies heavily upon community engagement to promote engagement of adoption of healthy behaviors for nutrition and activity. LHDs have engaged the farmers market to collaborate with school systems to bring fresh produce from local farms to school students to learn how they are grown, harvested, and preserved. Many LHDs have included a community survey for activity and nutrition to plan how to promote activities or overcome culture or poverty of area effecting behaviors. Surveys have identified barriers of “too busy,” “not motivated,” and “too expensive”. Many LHDs worked with local schools to promote the 5-2-1-0 program.

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.

In April 2017, the KYSF Initiative hosted a KYSF Summit for agency and community teams to create action plans for implementing the initiative. In September 2017, the Early Childhood Advisory Council (ECAC) approved the KYSF Leadership Team to serve as the ECAC Family Engagement Subcommittee. In January 2018, the KYSF Leadership Team developed a two-year strategic plan that included the integration and development of the Youth Thrive Initiative, which compliments the KYSF Protective Factor Framework with having Youth Protective Factors for youth 9 to 26 years old. In the past year, this group developed a Family Thrive Action Guide distributed to over 1,000 parents or community members.

KYSF workforce had two losses of three staff members in the program as they promoted to other positions outside of MCH. The final employee (who served as the Title V parent representative, gave notice July 3, 2019 when she accepted a promotional position. Active recruitment for these vacancies is ongoing. Continuation and training at the same level has not been possible. Efforts have targeted training for HEART activities, and supporting ongoing programs supports. Additional activities for KYSF is in the Family Partnership Section.

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 I have been assisting them with the pediatric expansion program. During the last 18 months, they have had 1,079 children complete 2,127 ASQ™ screens. Since June 2009, they have had 7,720 children complete 21,631 screens.

As of June 15, 2019, HMGKY (excluding Metro United Way):

- 3,858 Ages & Stages Questionnaires® developmental screens have been completed for 2,207 children in 1,995 families
- Average of 50 new children screened monthly
- Average of 45 families enrolled monthly
- Average of 87 screens processed monthly with over 220 follow-up activities completed by the HMGKY call center each month. Of the total screenings completed there are three possible results from the Ages & Stages Questionnaires®
    1. 3,025 no concerns
    2. 458 monitor and rescreen in two months
    3. 375 concerns, 216 referrals, 143 to First Steps, to 56 preschool, and to 17 behavioral health, 151 chose to monitor and rescreen instead of being referred
       With 216 referrals, 199 were connected to services with the assistance of HMGKY support specialist

Tobacco Use

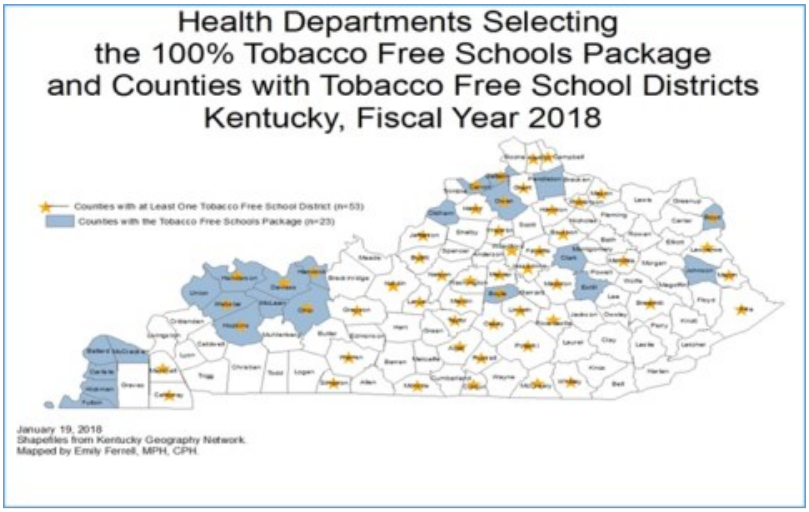
Broad goals for tobacco cessation and prevention are to prevent initiation of tobacco use among youth and young adults, promote tobacco use cessation among youth and adults, eliminate exposure to secondhand smoke, and identify and eliminate tobacco-related disparities. Efforts are targeted to *NPM 14.2) 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 organizationally located within the DMCH, which leads to increased collaborative efforts regarding the MCH target population and tobacco issues. In December 2018, this program was part of the reorganization moving it to the Division of Prevention and Quality Improvement. 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 proposed during the 2017 and again in 2018, legislative session failed. In 2019, the bill was signed into law. 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 2020-21 school year. 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 2018, 22 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. Activities for this package include the establishment of baseline data, meeting with key gatekeepers, stakeholders, and potential partners within the school district, and surveying school personnel, students, and the community for measures of their support. The package also supports collaboration with appropriate student groups and distribution of survey results and information about policies to key stakeholders. When policies are adopted, this package can also be used to assist with implementation of the policy. To date LHDs have provided education to 448 community stakeholders.



Tobacco efforts have also focused on adolescents. By March 2018, the number of school districts with 100% TFS policies has grown to 40% of school districts or 70 in the state, covering 721 individual schools and protecting 56% of students in the state.

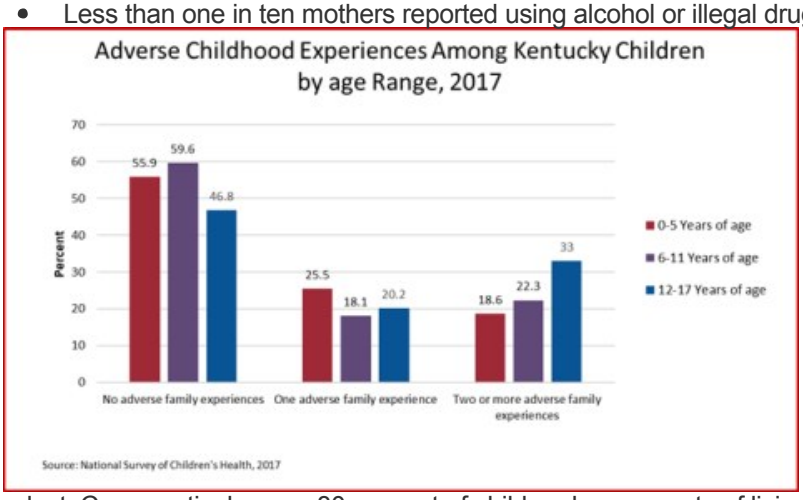
Smoke-free Child Care Centers:

One LHD piloted a program for tobacco-free childcare centers, which encourages child care 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.
From the 2017 PRAMS Cohort:

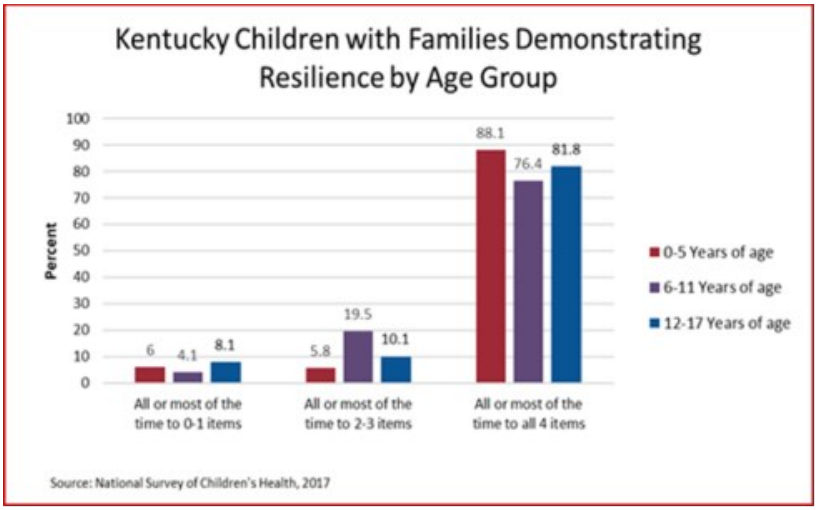
- More than one in six PRAMS mothers reported suffering from depression since giving birth
- Less than one in ten mothers reported using alcohol or illegal drugs before pregnancy



Some ACEs information is shown below from the 2017 National Survey of Children's Health as it relates to children in KY.

Children in KY (18.6%) as young as 0-5 years report two or more adverse family experiences. This percentage increases with age to 33% of children 12-17 reporting adverse family experiences.

These rates for KY is under in depth review as suicide rates for children as young as 10 years of life are rising, and more children have been place 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.



The ACES and epigenetics helps explain the multigenerational issues related to poor outcomes and why the KYSF leadership team is promoting the "two generations" approach. Audiences have been eager to receive this information and have included Kids Are Worth It, Early Childhood Institute, Behavioral health staff, Administrative Office of the Courts statewide meeting, Family Youth Resource Service Centers, the Early Childhood Advisory Council, the State Interagency Advisory Council (SIAC) for Children with Emotional Disorders, HANDS, Community Early Childhood Councils, and many smaller organizations.

Multiple viewings of the film, RESILIENCE have been offered throughout the year to KDPH staff and outside partners. ACEs is often a requested topic of interest when planning with local partners for regional meetings.

Building resilience is the primary work process for improving ACEs outcomes. This need must become part of the strengthening families framework promoted in all work within MCH programs. A major challenge to improving outcomes for children in KY is the emerging issue of the number of children experiencing ACEs and the need to address them at the earliest age identified. These potentially traumatic events can have a lasting impact on the physical and mental health of an individual.

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.

Early Childhood Obesity Prevention:

In KY, young children are cared for in many settings including Head Start, Public Preschool, and regulated childcare. 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

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 these agencies and solidifying strategies that align with the goals for these agencies.

Currently, KY has licensed childcare centers 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. According to a recent report (National Resource Center for Health and Safety in Child Care and Early Education, 2016), KY was implementing licensing regulations that fully aligned with only 3 of 47 healthy weight practices in child care centers and family child care homes, as defined by Caring for Our Children: National Health and Safety Performance Standards; and Guidelines for Early Care and Education Programs, 3rd Ed. (CFOC3). KY childcare health and safety regulations were opened this year and multiple partners responded to the open comment period in support of improving best practices in regulations

relating to nutrition, screen time, physical activity, and breastfeeding. None of the recommendations were implemented. The response stated the administrative regulation establishes minimum health and safety standards rather than best practices.

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.

During 2018, the obesity program at the state level hosted the following web-based trainings with 1,696 childcare providers in attendance.

- 5-2-1-0 Toolkit
- Staff Wellness in ECE
- Getting Kids Moving: Physical Activity in ECE
- Engaging Families Using the KY Strengthening Families Protective Factors: Focus on Healthy Behaviors
- Creating a Supportive Environment for Breastfeeding in Childcare
- Nurturing Healthy Eaters in Early Childhood Education

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 both the program level make awareness and education on the importance of child health a continuing challenge.

Childhood Lead Poisoning Prevention Program:

During 2018, 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.

In years past, the only known high-risk regions for childhood lead poisoning included Jefferson County and Northern KY Health Department District. As part of the needs assessment, additional high-risk regions were identified based on the number of active childhood lead poisoning cases in a given region. This expansion includes Green River District, Christian County, Madison County, and Lake Cumberland District. Additional childhood lead poisoning prevention funds were allocated for these newly identified high-risk regions. Community-specific outreach campaigns will be coordinated in the coming year in an effort to spread lead poisoning prevention awareness to KY's high-risk populations.

Oral Health:

The final NPM KY has selected for this domain is *NPM # 13: Percent of children, ages one through 17, who had a preventive dental visit in the past year.* While this NPM was moved to the child domain, work completed by the KY Oral Health Program (KOHP) promotes improved health outcomes across the lifespan.

Oral Health

Per KY Department for Medicaid Services (DMS), the proportion of KY children with Medicaid who accessed at least one dental service in 2017 was

- 35% under the age of 6
- 53% under the age of 15
- 52% under the age of 18 (CMS 416 Report)

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 has 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.

From 2013-2016, KOHP developed and initiated a pilot school-based fluoride varnish program, "Smiling Schools," for elementary children in 42 of KY's highest need counties. During this project, trained LHD nurses performed an oral health screening and application of fluoride varnish, importance of referral and establishment of an oral health home. LHD nurses provided two varnishes for over 22,000 students annually. Post-evaluation of the project found active decay was consistently reduced by 20% in this population. With this knowledge, MCH continued support of Title V funding for training and education support of the Smiling Schools Project. For FY18, the Smiling Schools Project provided over 28,000 fluoride varnishes to at-risk patients in clinics, school-based programs, and other outreach activities.

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.

The MCH fluoride varnish package had 19 LHDs opt to provide outreach activities, train RNs to establish school based varnish clinics, and perform quality assurance for fluoride varnish and education activities. In FY18, this package has reached 10,161 community members. KOHP provided training for 3 physicians' offices and for over 20 medical professionals about fluoride varnish placement.

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, about 50% of children entering school report a dental assessment.

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 provision of comprehensive dental treatment to these high-risk patients.

The success of the public health RDH teams is published the annual report of the Centers for Medicare and Medicaid outlining clinical experience of Medicaid children relative to dental services (CMS 416 Report). Based on the FY2017 data, KY RDH programs provide preventive care for 4.2% of all of the preventive dental care in the state, serving 29 of 120 counties. Secondary to changes in records management, data from 2017-2018 is limited. Preliminary data from 2019 appears decreased. This may be because LHDs elected to stop participation in the program or because they are transitioning services to a population health model.

Community Coalitions:

Established community oral health coalitions continue to provide solutions to barriers related to the lack of access to dental services. Sustainability of the coalition relies on training to increase oral health knowledge. Originally funded by federal grants, these 15 coalitions continue to promote activities to improve the dental health status of their community, with most targeting access to care for children.

KOHP contracts with the UK College of Dentistry to provide preventive and restorative outreach services for underserved children through mobile dental vans and remote clinics/teaching sites. The application of dental varnish, dental sealants, and placement of fillings impact the success of KY in meeting outcomes for the selected NPM.

Child Health - Application Year

Primary and Preventive Services for Children

The role of Title V for the next fiscal year is to continue providing primary supports to LHDs for provision of well child screenings/exams per the AAP periodicity schedule. MCH will continue to provide two annual face-to face well child, public health, school nurse trainings to this workforce is kept informed of well child best practice updates. The KDPH well child nurse consultant will work with KDPH departments to address immunization promotional activities, education during public health outbreaks, and/or assist KDE with coordinated school health activities.

As LHDs move toward transformation, many may choose to discontinue provision of school nursing programs. 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.

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, but child passenger safety and teen driving were also concerns raised by the participating groups. The NPM Kentucky 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*.

KY plans to continue ongoing partnerships for education and prevention activities. KY has identified a regional district LHD to engage as a second pilot for use of the PAHT high school curriculum. The MCH package for AHT is ongoing. Web training for PAHT is active, and community partners are available to provide face-to-face training as requested. KIPRC, KDPH, and Lake Cumberland Health District are planning to offer the PAHT curriculum in the Lake Cumberland Health District high schools, and HOSA events. A joint project with the Kentucky Board of Nursing (KBN) and TRAIN is planned to create a PAHT and Domestic Violence TRAIN web based training in the next year. This course will fulfill nursing licensure requirements. Promotion of the course will include KY schools of nursing, childcare/early education staff, and LHDs.

Likewise, MCH will continue to support LHDs collaborating with detention centers to provide the Strengthening Fathers/Family Curriculum. Leadership has identified candidates for appointment to the KY Strengthening Families and Early Childhood Mental Health Programs.

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.

Child Fatality Review

In the past year, CFR has experienced incredible program growth. This growth comes with the engagement of local partners. Education and sustaining this progress should improve rates of child death over the course of time. 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, 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 AHT 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.

KYSF

Cross-agency work to build protective factors and strengthen families continues. For the next year, Kentucky Strengthening Families (KYSF) will expand their reach by holding regional summits. The focus of the summits is to offer technical assistance to agencies, staff, and families as they identify how their practices align with protective factors and values. Some focus will also include identification of systems integration, policy change, and evaluation of impact. The KYSF Leadership Team offers a collaborative cross-agency and cross-system forum to review new policy and practice approaches to mitigate toxic stress and offer networking among agencies and communities to help them implement a protective factor framework through family driven and strength-based strategies to mitigate adverse childhood experiences (ACEs) and toxic stress.

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.

Applicants for vacancies are identified, and are in process of appointment.

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 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 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

KY requires childcare professionals to obtain up to 15 hours of “clock hour” training annually. Currently, five online training modules are available at low cost to Early Care Professionals, addressing best practices in health, which are allowable for these required hours. Few early childhood credentialed trainers across the state have the background to address health best practices. Typically, these trainers have an early education background and are less familiar with health topics. The online modules support access by Early Care Professionals across the Commonwealth to trainings on health best practices. Regionally, KY has Childcare Health Consultants (CCHC), located in the LHDs, who can advise and/or train on health, safety, and nutrition. These credentialed consultants provide “clock hours” for trainings, and are generally nurses or registered dieticians. The program plans to work with agencies, CCHCs, and others to develop additional online training modules.

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

The KOHP will focus on part B of *NPM #13: A) Percent of women who had a dental visit during pregnancy* and *B) Percent of children aged 1-17 who had a preventive dental visit in the past year*.

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
- Convene the 2019 Oral Health Stakeholder Meeting

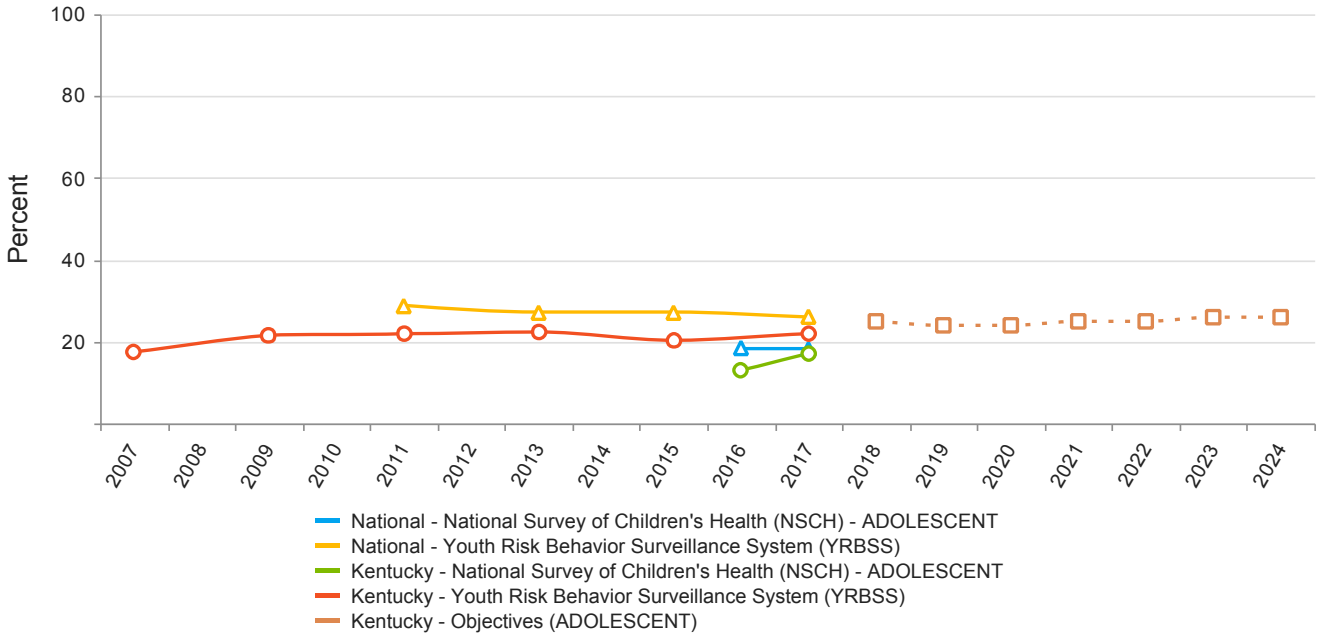
Adolescent Health

Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 19 - Percent of children, ages 0 through 17, in excellent or very good health	NSCH-2016_2017	90.4 %	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)	NSCH-2016_2017	19.3 %	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)	WIC-2014	13.3 %	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-2017	20.2 %	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**
Annual Objective	23	24	25
Annual Indicator	20.2	20.2	22.0
Numerator	37,629	37,629	41,447
Denominator	186,195	186,195	188,822
Data Source	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT
Data Source Year	2015	2015	2017

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH) - ADOLESCENT			
	2016	**2017**	**2018**
Annual Objective			25
Annual Indicator		13.1	17.2
Numerator		44,811	58,697
Denominator		342,824	341,755
Data Source		NSCH-ADOLESCENT	NSCH-ADOLESCENT
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	24.0	24.0	25.0	25.0	26.0	26.0

Evidence-Based or –Informed Strategy Measures

ESM 8.2.2 - 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	
Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	80.0	100.0	120.0	140.0	160.0	173.0

State Action Plan Table

State Action Plan Table (Kentucky) - Adolescent Health - Entry 1

Priority Need

Reduce overweight and obesity among teens

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 schools in Kentucky that have implemented a school wellness policy and a comprehensive school physical activity program (CSPAP) by September 30, 2020

Strategies

Conduct at least three (3) district trainings on development, implementation, and evaluation of the local school wellness policy

Partner with state and community agriculture resources to increase Farm-to-School Programs and Farmer's Markets

Provide LHDs the opportunity to select MCH Evidence Informed Strategies that promote physical activity among youth

ESMs	Status
ESM 8.2.1 - Increase the proportion of school districts who participate in KY SHAPE Network and Physical Activity Leadership trainings	Inactive
ESM 8.2.2 - 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

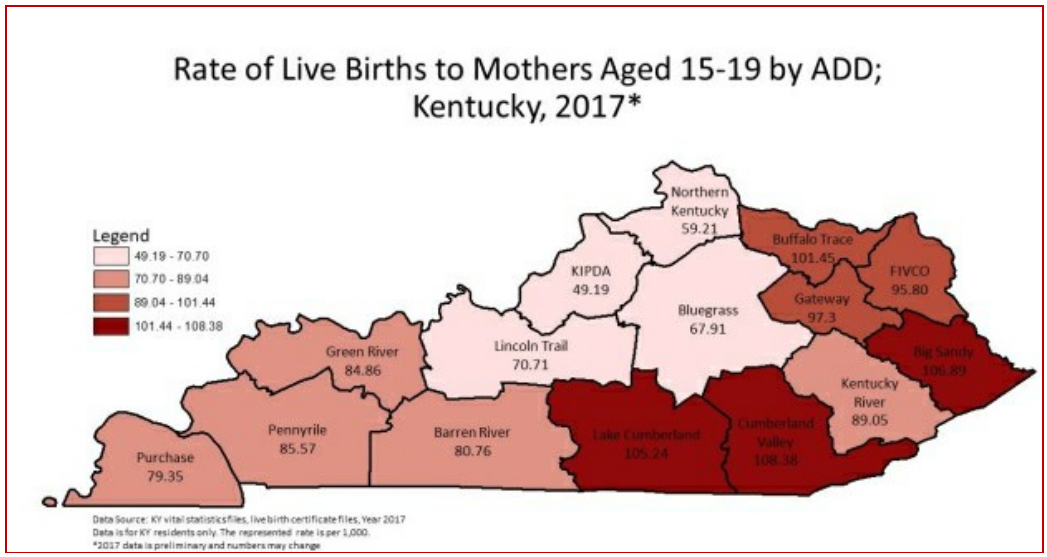
NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)

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 Kentucky 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.

KY's teen births continue to be higher than US teen birth rates. LHDs are responsive to addressing teen birth rate by providing family planning, engagement to HANDS, referral to WIC, and addressing alcohol, tobacco, or other drug (ATOD) use, or potential domestic violence. For many teens, they may first interact with a school nurse who provides communication with the LHD and community providers for linkage to early prenatal care. Teen birth rates for the Appalachian in KY Districts, illustrated below, continue to be higher than the state overall rate. This may be linked to other SDoH concerns for improving health behaviors in poverty-stricken areas of KY.



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.

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 3rd in obesity with 19.3% of high school students considered obese. This draws a keen focus to the issue of teen obesity (Robert Wood Johnson Foundation, 2018).

Data from the 2017 KY Youth Risk Behavioral Surveillance System (YRBSS) reported 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 20.2% in 2017 (KY YRBSS). When the data was reviewed by gender, high school males were more likely to be obese than female high school students. The 2017 data also shown students in grades 10 and 12 were more likely to be obese than grades 9 and 11. Amidst all high school ages, Black high school students were more likely to be obese.

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.

To increase access to physical activity, LHDs collaborated with a number of communities that have a pedestrian plan. A Community Physical Activity Committee has representation from the Federal Highway Administration, Foundation for a Healthy Kentucky, Kentucky Association for Economic Development, KDPH, KDE, Kentucky Office of Adventure Tourism, KIPRC, KSPAN, Kentucky Office of the Americans with Disabilities Act, Kentucky Rails to Trails Council, Kentucky State Parks, Kentucky Transportation Cabinet, Kentucky 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.

Information gathered helped develop the Access to Physical Activity Vision Document http://www.fitky.org/wp-content/uploads/sites/2/2015/04/PA-Vision-Slidedoc.pdf.
This document outlines three strategies needed to develop pedestrian plans: community engagement, easy to use resources, and training technical assistance and resources.

MCH has developed an Evidence Informed Strategy, the Healthy People Active Communities Package, to make 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 will serve to increase community engagement with organizations and local community members. Together, the LHD, community organizations, and community members will define the issue, address the barriers to meeting the 5-2-1-0 evidence-based healthy behaviors, and engage possible solutions. A collaborative action plan was developed and implemented on one of the 5-2-1-0 behaviors. LHDs (24) engaged 97,254 local residents and 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, or engagement with local medical providers to promote 5-2-1-0.

The KDPH Health Promotions 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, Farmers' Markets, and "Step It Up, Kentucky!"

One local health department used funding from the Healthy People Active Communities Package to collaborate with local community agencies to provide children's activities, including First Friday Community Field Day, to promote physical activity, health awareness, and nutrition in conjunction with a 5K walk/run. First Friday is a local market that occurs the first Friday of every month from June-Sept. Local merchants, farmers' market stands, and artists set up. Another success from these funds includes a LHD collaboration with their local BRIGHT Coalition leaders. This collaboration increased promotion of "Step It Up Kentucky!" and access to fresh fruits and vegetables in vulnerable populations.

Other successful programs have included community walking programs, community wellness council meetings, and school and community collaboration to better support students and families in nutrition lessons and wellness initiatives.

Coordinated School Health (CSH):

One program that is significantly involved with physical activity strategies in KY is the CSH program. 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 new funding cycle awarded to Kentucky'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. CSH is a major vehicle in schools and communities across the state, as well as the nation, to address obesity and the overall well-being of youth. CSH ties together adolescent services provided through the LHDs, schools, and school-based clinics. The traditional CSH model consists of eight components that recognize how health, wellness, environment, and learning are related. This traditional model expanded to include two additional and more specific components addressing the Social-Emotional Climate and Physical Environment. This expanded 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 promote preventive best practices to support the needs of the whole child. 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.

Among obstacles, the CSH team faces, is an effort to decrease adolescent obesity, and is the accountability core content outside of physical education and health education. Recently KY amended the Every Student Succeeds Act (ESSA) State Plan to eliminate the "Access and Opportunities" section that provided an accountability measure for physical education and health education. Without specific accountability, the CSH team is challenged to obtain administrative buy-in because of other priorities outlined in the state accountability system at the 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, the practices surrounding physical activity (PA) opportunities and enhancing nutrition settings in schools. In addition to academic success, we are seeing research on the benefits of PA in overall wellness including mental health. Addressing student mental health is a growing concern for school districts as we are familiarizing ourselves with the importance of addressing adverse childhood experiences (ACEs) and the long-term effect of exposure to trauma.

Suicide

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 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 Kentucky Incentives for Prevention (KIP) Study published a report of information from a 2018 survey completed with students in grades 6,8,10, and 12. The 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). (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 was decreasing prior to 2009, but has been increasing since that time in all grades (see figure below). There was a significant increase among 6th grade respondents reporting they have seriously considered attempting suicide.

This warrants immediate prevention activities with families and schools. 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 the past year, 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.

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-Aurgust 31, 2018" and presented this to the suicide prevention team at KDPH.

Nineteen LHDs partnered with schools and MCH in selecting the Bullying and Suicide Prevention MCH Package to provide reinforcement and link school districts with resources for prevention through regional treatment centers or grief counseling. In 2018, this package reached 19,457 students and community members and provided training for Sources of Strength with 50 school staff members. Anti-bullying messaging was placed on bulletin boards, with periodic changes throughout the year. Wedco District continued the Beautiful Minds Project in collaboration with University of KY Adolescent Health. This program provides on-site mental health screenings and, when possible, counseling on-site. This project has over 400 students self-referred or staff referred for have access to mental health screening and additional linkage to medical and mental health homes.

Teen Driving

MCH addresses teen driver deaths through collaborative efforts with KIPRC. LHDs had opportunity to implement strategies through a Teen Driving CFR package.

For the year 2017, 79 fatal collisions occurring in KY involved teen drivers. Teen drivers were involved in 8% of the state's collisions (262,109). (Kentucky Traffic Collision Facts, 2017). Efforts, in KY to reduce the number of deaths of children related to young drivers or teens include the graduated driver's license initiative, a cell phone ban for drivers under 18, and driver safety programs that address risk factors for youth drivers.

As part of child fatality and injury prevention, many health departments completed child passenger safety plans including car seat checks, 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 Kentucky Violence and Injury Prevention Program (KVIPP), supported by CDC Cooperative Agreement Number, U17 CE924846, collaborates with the Kentucky Office of Highway Safety (KOHS), Kentucky Association of Counties (KACo), KIPRC, Kentucky 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 piloted for statewide implementation in KY. The program has been revised, including Checkpoints™ educational materials, to reflect KY's Graduate Driver Licensing Program requirements and include 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

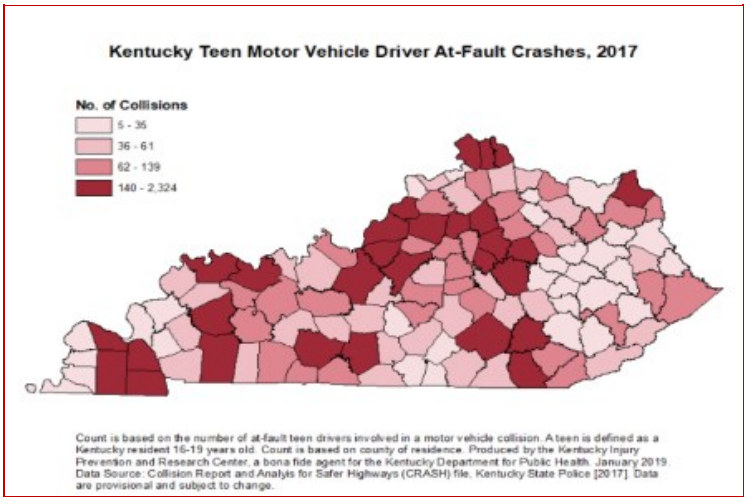
- Ways to effectively communicate with teens about safe driving (video content)
- How to set Interactive Parent-Teen Driving Agreements that are customizable to the respective parent and teen, establishing clear guidelines, expectations, and consequences for their teens' early driving and adaption as the teen progresses.

Checkpoints™ implementation was successful in 20 high schools in 14 counties in 2018. Participants were:

- Green River Area Development District (1 High School (HS) in Daviess County)
- Graves County Health Department (2 HS)
- Pennyrile District HD (2 counties - 2 HS in Livingston and Caldwell Counties)
- Lincoln Trail District HD (6 counties - 8 HS in Hardin, Meade, Larue, Marion, Washington, and Nelson Counties)
- Jessamine County HD, Safe Community (2 HS)
- Madison County HD, Safe Community (2 HS)
- Mason County HD, Safe Community (1 HS)
- Woodford County HD, Safe Community (2 HS).

Checkpoints™ is continuing into 2019 with an implementation goal of 20 counties with 35 high schools.

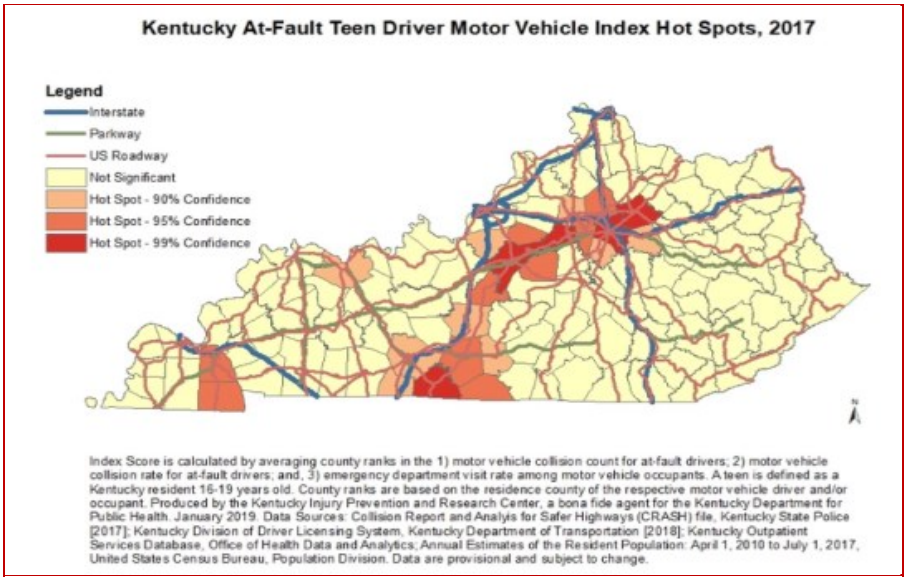
In addition, KVIPP is providing training and curriculum across the state to law enforcement officers on traffic safety Checkpoints™. The relevant components of the training to adolescent health are educating officers on the identification of impaired driving, human trafficking, improper restraint use, and any other obvious violations.



In November 2017, a specific Checkpoints™ Program strategy, website, and geographical review of data was completed and presented to KOHS officials and to the Governor's Executive Committee on Highway Safety.

This information, highlighted in the annual child fatality report shows counties with high population density (Northern KY, Louisville, Lexington) have higher rates of teen motor vehicle driver at-fault crashes. However, some rural areas equally have higher rates of collisions.

When reviewing areas of teen driver collisions, it was anticipated higher population density would be a factor. The group 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.



Teen Driving Challenges

With regard to teen driving, there are inadequate resources in districts that are experiencing the highest number of teen driving deaths. Personnel and training need to increase along with recruitment of additional community partners. The CoIIN and Teen Driver Package will allow us to reach some of these areas and provide education and resources. To address these challenges, KDPH will utilize Child Fatality Review (CFR) along with KIPRC, OHS, and Safe Kids in assuring that all motor vehicle deaths involving teen drivers receive reviews in CFR teams throughout Kentucky.

Adolescent Health - Application Year

For the coming year, MCH will continue to support access for primary and preventive clinical services to safeguard the health and wellness of all children and adolescents. Adolescents are less likely to visit LHDs for annual preventive care, not only because more have pediatric medical homes and insurance coverage, but also, due to the growth of retail-based clinics.

Referral and linkage to primary medical homes for immunizations and well child exams will continue. As previously noted in the child health section, LHDs have nurses trained annually to perform well child exams in the school system. This program will continue in the upcoming year. It is anticipated LHDs 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 Kentucky 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

The CSH team and state partners will continue to focus on providing ongoing technical assistance and education to school districts and staff on the implementation of a CSPAP and the importance of outlining nutrition, physical activity, and staff wellness in a Local School Wellness Policy (LSWP). The CSH team and school health network will continue providing professional learning to school administrators, educators, and LHDs to improve policy language regarding the opportunity for students to engage in physical activity before, during, and after school. The partnership with the Kentucky Association of Health, Physical Education, Recreation, and Dance (KAHPERD) provides health and physical educators' access to professional learning around quality physical and health education, supporting the whole child, and engaging the school environment to promote physical activity and healthy nutrition.

The CSH team provides statewide education on the importance of utilizing a LSWP to reflect practices in nutrition and physical activity within the school district. LSWPs are an important tool for parents, local educational agencies, and school districts in promoting student wellness, preventing and reducing childhood obesity, and providing assurance that school meal nutrition guidelines meet the minimum federal school meal standards. Implementation of the New Proposed Rule issued by the US Department of Agriculture's Food and Nutrition Service requires the following guidelines for school districts: annual progress reports, triennial assessments, and minimum content of the policy must include specific goals for nutrition promotion, nutrition education, physical activity, and other school-based activities that promote student wellness.

To further support the needs of the whole child and align KY with the Every Student Succeeds Act and "Well-Rounded Education". MCH will continue to promote best practice packages and LHDs are encouraged to align their work with frameworks to enhance efforts focused on the needs of individual students, schools, school districts, and communities. These packages specifically focus on student health and wellness in the school setting and supporting efforts at the community level.

The popular package, Healthy People Active Communities will continue as it promotes critical partnerships to increase access to healthy foods and activity for adolescents, families, and communities to decrease overweight and obesity. The goal is to increase the number of farmers' markets in underserved areas and the number of farmers' markets that accept the Supplemental Nutrition Assistance Program (SNAP), Women, Infants and Children (WIC), and Senior Farmers' Market Nutrition Program (SFMNP). A Farmers' Market Committee was formed to include the Kentucky Department of Agriculture (Farmers' Market Program and SFMNP), KDPH's WIC Farmers' Market Program, KDPH's Food Safety Program, Community Farm Alliance, UK Cooperative Extension, and other food and economic development advocates. Farmers' market stakeholders on the local and state level were interviewed to identify assets, needs, and barriers. Information gathered helped to develop the Access to Healthy

Foods Vision for Farmers' Markets. This vision document outlines three strategies needed to support farmers' markets: supportive infrastructure; training, technical assistance and networking opportunities; and community engagement. The KDPH Obesity Program and Farmers' Market Committee will help promote the vision document and three strategies to engage stakeholders.

Suicide

Although suicide is not a NPM, 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 2018-19 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.

Additionally, Kentucky 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 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 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.

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 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, 69 districts passed a Tobacco Free School Policy that 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*.

MCH is working through our partners at Kentucky Injury Prevention and Research Center (KIPRC) and the KY Office of Highway Safety (OHS) in a collaborative effort to develop a working action plan to address teen driving. The aim of the collaboration is that, by June 2020, we will reduce deaths, hospitalizations, and emergency department visits resulting from a crash in which the victim was a driver or occupant of a motor vehicle and was between the ages of 15-19. Our goal is to decrease teen fatalities and injuries related to motor vehicle collisions.

Strategies that are currently being discussed for inclusion in the action plan are: educating policymakers on evidence, create/expand teen driver coalitions, partner with health care organizations to implement standard procedures to provide anticipatory guidance on teen driver safety to teens and parents, enhance data collection

efforts, and provide a primer to parents on teen driver safety. Local CFR teams are also being encouraged to determine the graduated driver's license category for all teen fatalities in order to inform future policies.

KY offers a Child Fatality Review Strategy on 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™ website and to revise Checkpoints™ materials to be specific for KY.

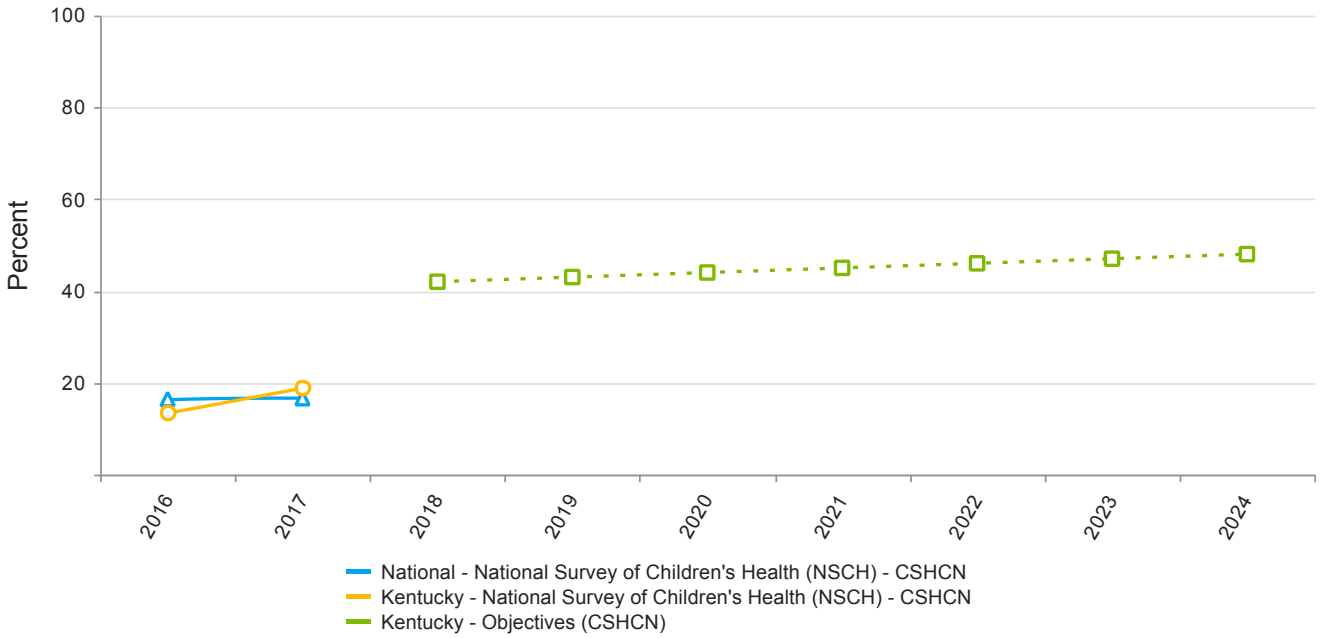
Children with Special Health Care Needs

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-2016_2017	17.3 %	NPM 12

National Performance Measures

NPM 12 - Percent of adolescents with and without special health care needs, ages 12 through 17, who received services necessary to make transitions to adult health care
Indicators and Annual Objectives



NPM 12 - Children with Special Health Care Needs

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH) - CSHCN			
	2016	**2017**	**2018**
Annual Objective			42
Annual Indicator		13.6	19.0
Numerator		16,553	20,062
Denominator		122,086	105,479
Data Source		NSCH-CSHCN	NSCH-CSHCN
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	43.0	44.0	45.0	46.0	47.0	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
Annual Objective		85	86
Annual Indicator	84	94	94
Numerator	84	94	94
Denominator	100	100	100
Data Source	HCT Process Measurement Tool	HCT Process Measurement Tool	HCT Process Measurement Tool
Data Source Year	2016	2017	2018
Provisional or Final ?	Provisional	Provisional	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	87.0	95.0	96.0	97.0	98.0	99.0

State Performance Measures

SPM 3 - Percent of OCSHCN Access to Care Plan components completed

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		90	100
Annual Indicator	81.3	90.7	94.7
Numerator	61	68	71
Denominator	75	75	75
Data Source	CCSHCN Access to Care Plan	CCSHCN Access to Care Plan	OCSHCN Access to Care Plan
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
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
Annual Objective		60	75
Annual Indicator	53.3	65.6	75.6
Numerator	48	59	68
Denominator	90	90	90
Data Source	CCSHCN Data Action Plan	CCSHCN Data Action Plan	OCSHCN Data Action Plan
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	90.0	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
Annual Objective		78	81
Annual Indicator	77.9	80.5	82
Numerator	1,401		185,968
Denominator	1,798		226,859
Data Source	NSCH	NSCH indicator 3.4	NSCH indicator 3.4
Data Source Year	2011-12	2016	2016
Provisional or Final ?	Final	Final	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	82.0	83.0	84.0	85.0	86.0	87.0

State Action Plan Table

State Action Plan Table (Kentucky) - Children with Special Health Care Needs - Entry 1

Priority Need
Transitions Services for CSHCN

NPM
NPM 12 - Percent of adolescents with and without special health care needs, ages 12 through 17, who received services necessary to make transitions to adult health care

Objectives
By 2019, achieve a 5% increase, (from 63.8%) in Kentucky families of CYSHCN reporting community based services are organized for easy use (CYSHCN Outcome #5), as measured by the National Survey of Children's Health

Strategies
Initiate or continue access to medical and specialty care efforts as per CCSHCN Access to Care Plan
sure availability of provider networks as per the CCSHCN Access to Care Plan
Take specific steps toward the development & promotion of an easy to access system of supports & resources as per the CCSHCN Access to Care Plan

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

Adequate Health Insurance Coverage

SPM

SPM 5 - Percent of children ages 0 through 17 who are adequately insured

Objectives

By 2019, achieve an increase to over 70% (from 66.8%) 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 CUP or other patient survey data to capture subset of CCSHCN-affiliated CYSHCN families)

Strategies

Assist and/or educate increased number of children/families with regard to adequate insurance through CCSHCN, F2F, and community health worker efforts

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 phased implementation of CCSHCN Data Action Plan, with improvement of at least 15% each year

Strategies

Develop and implement formal plan

State Action Plan Table (Kentucky) - Children with Special Health Care Needs - Entry 4

Priority Need

Access to Care and Services for CSHCN

SPM

SPM 3 - Percent of OCSHCN Access to Care Plan components completed

Objectives

By 2019, achieve a 5% increase, (from 63.8%) in Kentucky families of CYSHCN reporting community based services are organized for easy use (CYSHCN Outcome #5), as measured by the National Survey of Children's Health

Strategies

Initiate or continue access to medical and specialty care efforts as per CCSHCN Access to Care Plan

sure availability of provider networks as per the CCSHCN Access to Care Plan

Take specific steps toward the development & promotion of an easy to access system of supports & resources as per the CCSHCN Access to Care Plan

III.E.2.c. (5) CSHCN Annual Report

KY's Office for Children with Special Health Care Needs (OCSHCN) has leveraged technical assistance resources to strengthen and better integrate the overall system of care for CYSHCN. KY's participation in the Learning Collaborative to Improve Quality and Access to Care in a prior reporting period resulted in a case study developed and published by Altarum during this reporting period.

In an effort to locate children with special health care needs in KY who were not receiving services, OCSHCN developed a memorandum of understanding with the KY Birth Surveillance Registry (KBSR). KBSR, on a quarterly basis sent OCSHCN's Intake and Eligibility Branch a listing of infants with diagnoses treatable in an OCSHCN clinic. Identifiable information was shared in order to refer infants to services. In addition, on a biannual basis, KBSR sent rates, trends, and geography of various conditions. This data was mapped (by a GSEP student) to determine gaps in services. In addition to the MOU, two staff from OCSHCN were part of the KBSR Strategic Planning workgroup in January of 2017 and January 2018. (The medical director and the assistant director of support services).

As noted in last year's report, in 2017, OCSHCN worked with the National MCH Workforce Development Center to develop the approach to this project and assure readiness, using one-on-one intensive responsive technical assistance. This involved training of the core team and other stakeholders ensuring implementation planning and clear communication of the vision. The strategic plan was worked on throughout 2018 and finalized in 2019. OCSHCN has written administrative regulations pertaining to medical staff, initial application to clinical programs, and billing and fee structures. KY statute requires administrative agencies to promulgate regulations to set forth policies, and the agency filed several regulations in 2019, which were worked on throughout 2018. OCSHCN has several advisory committees, which have specific areas of interest in OCSHCN operations (e.g. Data, Early Hearing Detection and Intervention (EHDI), Youth Advisory Council (YAC), Parent Advisory Council (PAC). An area of need, which has been explored in some depth during past reports, is to accurately measure data beyond the provision of direct services.

While the revised NSCH will provide a backbone for annual block grant reporting, OCSHCN has revisited data collection efforts for the purposes of developing more accurate local and regional management information and to guide program evaluation and program planning and development. During the previous 5-year cycle, OCSHCN substituted consumer and agency generated data in place of national survey data, in order to measure year-to-year changes in progress or lack of progress toward indicators, and to connect results to programs. However, this approach suggests a clinical focus, and pertains to a subpopulation of the larger population of CYSHCN in KY. During the last reporting period a new survey was designed and deployed in OCSHCN clinics. The collecting of data continued throughout FY18 with over 745 surveys received.

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

Data from the 2009/10 National Survey of Children's Health showed that 73.6% of KY's families successfully achieved Core Outcome #1. The nationwide figure was 70.3%, with KY ranking 17th among the 50 states and D.C. As discussed in the FY17 annual report, OCSHCN's "comment card" initiative was discontinued after 6 years. It was replaced by a clinic survey using new to OCSHCN survey software. The comment card survey method found a 98% or higher rating on satisfaction and partnership, which was reported in the prior 5-year block grant cycle. The comment cards were given to one member of the patient's family, typically the adult rather than the patient. The new survey asks questions which correspond to approximately 30 variables derived from the MCH 3.0 revised NSCH survey. The survey is given to a randomly selected 20% of the clinic population with each person surveyed only once. In fiscal year 2018, 747 surveys were completed. Analysis of the results is currently being conducted and OCSHCN plans are to report the analysis in the 2020 Needs Assessment. The survey analysis will yield important OCSHCN clinic level data to compare CYSHCN serviced at OCSHCN clinics with the wider NSCH surveyed population.

OCSHCN's continuing challenge is to obtain meaningful stakeholder involvement at a policy level. OCSHCN staffs a Parent Advisory Council (PAC) and a Youth Advisory Council (YAC), which are avenues for family representation and participation. During this reporting period, a member of the PAC participated in OCSHCN strategic planning

process. While none of the YAC members participated, all were invited. Ultimately, the goal is for families to be involved in the policies that affect them. OCSHCN encourages families to participate in any way they can, from working in the office, to being a Support Parent, to talking with families in the clinic, or being on an Advisory Council. OCSHCN believes that allowing families to participate, where they are comfortable, will provide them information and support to grow and to become involved in other areas.

The Title V investment in KY includes coordination with an administration of the F2F Information Centers program, a critical initiative addressing the needs to the CYSHCN population. OCSHCN social work staff and F2F staff/Support Parents also served as Certified Application Counselors for the state's Health Benefits Exchange – part of a network of individuals trained to provide information and assistance with enrollment.

In FY18 F2F had 73 Support Parents through the state. The Support Parents talk with families about services and resources available to help them understand what services they might qualify for and how to access. To the extent possible, F2F matches families with a Support Parent who has a child with a similar diagnosis or needs. Support Parents are present during the Autism Spectrum Disorder (ASD) clinics (both OCSHCN based and community based) and at other OCSHCN clinics supporting families. Many times during what starts out as a casual conversation between the families and the support parent, the families reveal needs that they never thought to discuss with the Care Coordinator, Social Worker, or the Physician. Issues like the need for a stroller, a ramp or a lift; how health issues can be included on an Individual Education Plan (IEP); or reasons to have a 504 plan established for their child's education. F2F continues to work with the PAC, YAC, and CoIIN and participates on the EHDI Advisory Board.

During the reporting period, F2F provided individualized assistance to nearly 1,000 families and over 350 professionals. Specifically, F2F has worked one on one with 480 families in Partnering in Decision Making. F2F has several outreach projects including participating in the Children with Medical Complexity Improvement and Innovation Network (CoIIN to Advance Care for CMC), to advance medical care for children with medical complexity, resource fairs, back to school events, Special Education Camps on IEP and 504 Plans, and made presentations at the annual conference of the Community Collaboration for Children. F2F has several other outreach projects that include the Special Needs Expo, Grandparents/Bounce, Incarcerated Family Members Support Group, Hispanic Support Group, and Family Wisdom Learning Collaborative.

F2F and OCSHCN staff often receives comments from families about the services they receive. Staff helps the families to address their concerns to the appropriate department or agency. MCH has a toll-free number, and OCSHCN also offers a comment line available for families. F2F staff assists in monitoring the comment line and works with families needing assistance.

F2F offers small stipends to trained Support Parents to attend trainings or conferences to expand their knowledge so they are better equipped to assist other families. F2F offers a lending library, with a wide array of materials, which families can access.

OCSHCN staff work in partnership to support families in making decisions about health care and individualized treatment. The nursing care coordination and multi-professional team approach continues onsite, and a Support Parent is present at offsite Muscular Dystrophy clinics in Louisville. Care coordinators also attend expanded Cerebral Palsy and Autism clinics, and care coordination and dietitians assist 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. In FY18, 21% of those patients agreed to answer survey questions from the transition coordinator. An analysis of the survey results is in process.

MCHB Core Outcome #2: CSHCN who receive coordinated, ongoing, comprehensive care within a medical home

According the 2017 National Survey of Children's Health, the percent of CYSHCN who have a medical home is 43.6% in KY compared to 43.3% nationwide. 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 are linked with other efforts.

Case management services are offered to families who have children with an OCSHCN eligible diagnosis. The child does not have to be enrolled in OCSHCN's clinical program 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. Among its services, F2F assisted 231 families toward the medical home outcome.

MCHB Core Outcome #4: CSHCN who are screened early and continuously for special health care needs

OCSHCN specialty clinics serve CYSHCN from ages 0-21 and at different developmental stages, however, the Early Hearing Detection and Intervention (EHDI) surveillance program reaches the entire population of newborns to ensure early screening and follow up for hearing. In addition, OCSHCN has initiated a developmental screening program available to any child in KY, birth to 5 years. Other programs discussed in this section include: OCSHCN's First Steps point of entry (POE), partnership with the KY Birth Surveillance Registry, and the Healthy Weight initiative. As always, OCSHCN staff and F2F assists families in gaining access to KY's early intervention system and other programs which can help them with their child's development (such as the KY Health Access Nurturing Development Services home visitation program).

KY Hospitals have maintained a high rate of 97% of infants screened for hearing loss prior to hospital discharge. The KY EHDI program is focusing on an initiative to assist birthing hospitals in scheduling infants who do not pass the screening for warranted follow up prior to their discharge. This approach has been proven to improve parent compliance and results in more timely diagnosis of hearing loss or normal hearing. All OCSHCN district offices offer audiology services, including diagnostic Auditory Brainstem Response (ABR). In addition, in order to ensure speed to service, three district offices have been provided with access to screening ABR equipment. In these offices, infants are scheduled for screening evaluations when indicated, to reduce the impact of false positive referrals from hospitals that do not provide outpatient rescreens. Our aim is to furnish two additional district offices with screening ABR equipment to further improve speed to diagnosis. In order to further reduce loss-to-follow up, the University of KY has partnered with the EHDI program and with the University of Louisville 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 will assist families in the process of obtaining a diagnostic evaluation and enrolling in intervention services as needed. 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 is collaborating with The Home of the Innocents to provide intervention services for those children. The needed services are being 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 provided 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 FS. In FY18, 1,232 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 was 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. 489 children were referred to this audiology program in FY18.

In the summer of 2016, the KY EHDI program launched annual surveys in an effort to gather input from stakeholder groups across the state. For example, surveys asked specifically about their role as provider or their experience as families and requested input on areas of improvement. This needs assessment has highlighted several overarching needs in EHDI in KY including the need for expanded representation on our advisory board by individuals serving families across the state and reducing challenges faced by families related to accessing information about hearing loss, identifying sources for follow up and accessing needed services. EHDI is partnering with Hands & Voices to host a family retreat for families with children ages 0 – 3 that have recently been diagnosed with hearing loss. The Care Project, a North Carolina organization, has selected KY as one of 3 states in 2019 for this retreat and all expenses for families are paid as part of that agreement. A Memorandum of Agreement was established with the KY Commission on Deaf and Hard of Hearing (KCDHH) to recruit "Communication Role Models." These communication

models are paired with a family of a newly identified infant in order to assist the families in exploring different communication options and to obtain information in order to select the best option for their family. A video was filmed in which each family described their journey through hearing loss and discussed their experiences with their chosen communication method(s). The video has been completed and is in the final stages of editing. In addition to the video, KCDHH has collaborated with OCSHCN and First Steps to implement 10 sessions of sign language classes across the state. Due to high demand, a second round of classes is being planned for 2019. In order to increase opportunities for children and families to engage in culturally sensitive recreational activities, the EHDI program is collaborating with the University of Louisville School of Audiology 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, where conducted in two of OCSHCN regional clinics, with plans to expand statewide, provide screenings at special events, and create a database, all in the coming year. Part of OCSHCN early screening (early intervention) is the Zika protocol. KY Birth Surveillance Registry (KBSR) partnered with the Division of Epidemiology Reportable Disease Section and OCSHCN to develop a state plan to identify and enroll pregnant women who are Zika-positive in the USZPR and when the infant is born connect them to subspecialty and early intervention services. KBSR is notified at the time of birth, updates the USZPR and contacts the family to make referrals to OCSHCN for neurology clinic and other specialty services. The infant is evaluated by a neurologist and a pediatric audiologist and receives full hearing testing. The family also meets a Family to Family (F2F) representative. The infant returns to clinic at 2, 6, 12, and 24 months of age for a comprehensive physical exam with developmental surveillance and follow up on labs, imaging, hearing test results, early intervention, and ophthalmology referrals. If an abnormality is found on an exam or imaging screen, the infant has appropriate lab work and is referred to pediatric subspecialties. Zika has been added as an established risk for Early Intervention, categorically making exposed children eligible for First Steps.

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. Over 250 referrals per month are being made to the point of entry, and over 2,300 children are being served.

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. 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 leadership and early intervention system point of entry staff joined the Healthy Babies Louisville partnership, a collective of 25 organizations working to ensure that all babies born in Louisville Metro see their first birthday and beyond. Each organization is implementing 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. This partnership continues to be developed.

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 planned or underway, especially with regard to reaching those CYSHCN not enrolled in clinical services. KY's plan is presented on the SPM Detail Sheet (Form 10-B), and the plan as scored is included for reference in the CYSHCN Attachment. During FY16, the first year of implementation, KY scored 81.3% (61/75 possible points). In FY17, KY set a goal of 90% and achieved 90.7% (68/75 possible points). In FY18, KY set a goal of 100% and achieved 94.6% (71/75 possible points). Elements that are fully implemented, many of which are continuous and ongoing in nature, include:

- Targeted outreach to educate providers and communities, including the KY chapter of the American Academy of Pediatrics executive committee
- Funding of a University of Louisville and a University of KY pediatric neurology resident
- Provision of hearing screening training to early intervention points of entry.
- Continuation of the provision of foster care support programs and expanding Medically Complex Foster Care support to include Fictive Kin and relative placement population with a plan to add two nurse consulted inspector (NCI) in FY19
- Funding of a social worker who assures transitions services to the contracted Hemophilia and Sickle Cell programs at the University of Louisville
- Successful replication of Louisville based non-English speaking support group in Lexington
- Improvement in clinic flow resulting in a decreased wait time for families
- Use of social media to alert families of CYSHCN to services, events, resources, etc.
- Increase number of specialty and telehealth clinics in rural areas improving access to care, such as iCare/ASD diagnostic, medical clinics, screening tool, and additional orthopedic telehealth clinic.

A directory of OCSHCN services is made available on the agency's website and promoted on social media. 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. Over 46,000 services were provided to over 8,300 unduplicated patients during the reporting period. 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 ASD clinics, 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 continued 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 is being utilized. This feature is one that will benefit families, decrease no-shows, and free up staff time.

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 has been using 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. In Louisville, the otologists are arriving earlier and their start times tend to be more predictable. OCSHCN looks at ways to continue to improve. A comprehensive rubric looked as ways to better design scheduling, handle no-shows, and other factors which improve physician utilization. Residual wait time is sometimes unavoidable due to physician schedules, but staff do their best to communicate delays to patients when delays happen.

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) sponsored assessment for developmental disabilities clinic is within 4 regions in the state (Bowling Green, 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. 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 collaborates with the Department Community Based Services (DCBS) to offer clinical support for medically complex children from birth until discharge, adoption and or transitioning to adult care providers. OCSHCN currently has nine NCI’s who collectively provide services to all 120 KY counties to identify medical issues, provide individualize plans, family conferences, clinical education and anticipatory guidance as well as coordinating care with the child's primary care provider and referral to strategically placed specialty OCSHCN clinics throughout KY.

OCSHCN is committed to provide children and youth safe and nurturing foster homes that cultivate trust and stability and provide for their health needs as well as a service delivery system that supports access among our community's most vulnerable citizens, the children and youth who are medically complex and in foster care. Nurses stationed in child welfare offices and regional OCSHCN offices now convene individual health planning meetings and reviews, as well as conducting monthly home visits to approximately 140 medically complex children placed in out of home care throughout the state. Annually, over 1,500 visits are conducted by OCSHCN. Medical consultation is also available on behalf of any child in or at risk of placement in the child welfare system (over 8,000) on an as-needed basis.

OCSHCN also 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 funds an ABA therapist and a nurse 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.

Another underserved population, those with Limited English Proficiency, was served through the Una Mano Amiga (UMA) Spanish-speaking support groups (445 individuals attended during FY18, including 191 mothers in the Madres group and 98 parents in the Parents group. 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. See the link below for a news report on Maria Fernanda Nota, MD, who helped to initiate the support groups at La Casita. There is an English and Spanish version of the video. “CCSHCN” is mentioned in both. This was done in honor of Hispanic Heritage month, which was from September 15 – October 15, 2017. http://www.whas11.com/news/local/spanish-news/hispanic-heritage-maria-fernanda-nota-

pediatrician-at-uofl-pediatrics-kosair-charity-center/480442019 .

A newer program, Un Abrazo Amigo (UAA) began serving CYSHCN families for Spanish speakers in the Lexington area in August 2016. Twelve adults attended the first meeting, at which topics included preparedness and availability of medical insurance and waiver programs. Participant evaluations were uniformly satisfied. Dr. Nota, who helped to initiate the support groups at La Casita, replicated the concept in Lexington, KY and initiated “Un Abrazo Amigo” (A Friendly Embrace) in January of 2017. She operated the group until locating a local physician to take over. 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.

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. 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. During this reporting period, informational ads for the agency have been placed in community periodicals focused on children’s services and activities.

OCSHCN’s Facebook page had 1,892 “likes” and 1,955 “followers”, which for followers represents at 28% increase over FY17. The agency posts 5 days each week. The posts cover topics that include health related awareness months, child and youth safety, health tips, and events for CYSHCN and their family. 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

OCSHCN chose improving agency capacity as a priority during the previous 5-year cycle and embarked on an ambitious 13-point improvement plan designed with the assistance of national transitions resource center staff. The transitions program for CYSHCN was originally established in 1998, and has expanded from a small program to the point where transitions preparation is the rule and an established part of the array of services offered for direct services enrollees. During the last few years of the prior 5-year cycle, KY’s scores on the prior transitions NPM trended upwards, based on services provided in the areas of health care transition, as well as preparation for independence, education, and skills needed for a career. OCSHCN believes that the Got Transition Health Care Transition “Process Measurement Tool for Transitioning Youth to Adult Health Care Providers” provides an appropriate scoring method to assess progress in implementing the Six Core Elements. In the first year of scoring, KY achieved a total score of 87.5%. The current reporting year’s activities resulted in a score of 94%. This increase occurred as a result of the development of the plan of care template that includes transition elements as well as the inclusion of an emergency care plan within the portable medical summary.

KY’s 2009/10 NS-CSHCN score of 37.1% of youth 12-17 successfully achieving the transitions outcome trailed the national average of 40%. The 2016 NSCH scores KY at 13.6% as compared to the nation at 16.5%. The following scores were the results calculated for FY18 from OCSHCN clinic survey.

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):	88%
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)	93%
Has your child's doctor or other health care provider (e.g. nurses or social workers) actively worked with your child to: Gain skills to manage your child's 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	90%
Has your child's doctor or other health care provider (e.g. nurses or social workers) actively worked with you or your child 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):	80%

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 years leading up to their aging out.

OCSHCN staff continue those activities which are established, including one on one planning discussions with families enrolled in OCSHCN programs – based on a transition readiness assessment checklist which documents what developmentally appropriate skills have been accomplished, are in progress or are a part of future expectations. During this reporting period, (Nov. 2017) two additional questions were added to the transition checklist based on Got Transitions information – “Understands the importance of organizing and keeping my medical records and receipts” and “Can explain to others how our family’s customs and beliefs might affect health care decisions and medical treatments”. KY’s program has continued quality assurance activities in the form of random chart audits statewide to ensure transition preparation services.

Transfer of care planning activities, begun as a pilot project through the D-70 State Implementation Grant, are now a part of statewide processes – outreach occurs to assist youths with the handoff to adult care. In all OCSHCN regions, adult health care providers have been identified who are willing to take CYSHCN into their adult practices. OCSHCN prepares preparation assurance and a portable medical summary, and assists with the transfer completion. The Transition Administrator conducts regular follow-up calls to aged-out youth – of 113 who have been contacted, 98% have successfully transitioned to adult health care providers.

Beyond the individual and clinical level, OCSHCN remains involved in the KY Interagency Transition Council for Persons with Disabilities. OCSHCN staff and F2F staff activities beyond OCSHCN walls include participation in regional school transition fairs (targeting both middle and high school students), providing education at conferences and school events, and sharing information with families and professionals. F2F staff outreach efforts included exhibiting at the Special Education Transition fairs throughout the state and presenting at the Conferences on Transition and working with “Dude Where’s My Transition Plan”. F2F staff received training on the KY Works and DB101 System allowing them to assist families of children/adults with special needs to understand if they go to work how much money they can make as they transition.

During this reporting period the KY F2F attended 244 events that impacted an estimated 7,798 individuals.

KentuckyWorks is an employment partnership at the University of KY Human Development Institute that has set a goal of raising the employment rate of KY students with disabilities by 20% by 2022. In February 2017, KentuckyWorks held a Statewide Transition Summit and Community Conversation. Representatives from agencies across the state that KentuckyWorks identified as crucial players in the transition of high school students from school to employment were invited to attend the one-day kickoff event. A portion of the day was devoted to a Statewide

Community Conversation, led by national transition expert Dr. Erik Carter of Vanderbilt, for the attendees as a state to discuss and identify what is working well, what we need to improve upon, and critical next steps to improve transition outcomes. Two OCSHCN staff members (Transition Administrator and the F2F HICs Co-Director for the Western half of the state) attended the Summit. At the end of the one-day Summit, KentuckyWorks staff thanked everyone for their input, and stated they would take the information provided by the attendees and would use that to help them in making plans to address needs of students with disabilities to improve the employment rate of students with disabilities. Recently, KentuckyWorks created Transition Training modules which were shared (March 2018) with OCSHCN managers as well as the Youth Advisory Council. As opportunities are made available, OCSHCN will continue to collaborate with the KentuckyWorks initiative.

OCSHCN's Director of Clinic and Augmentative Services and the Transition Administrator were asked by Got Transition staff to present on the Got Transition webinar series about OCSHCN efforts to help patient's transition to an adult provider. Transitions staff presented on the April 26, 2018 Got Transition webinar titled "Transfer to Adult Care". During the reporting period OCSHCN transitions staff also presented at the KY Spina Bifida Association, the Pediatric Alliance, and spoke on KY's transitions program as part of a Transition Panel at the National Academy for State Health Policy, NASHP Annual State Health Policy Conference in Jacksonville, Florida.

OCSHCN staff also presented at the February 2018 AMCHP conference as poster presentation PA26 titled "Incorporating Transition into Care Coordination Programs." The presentation may be found at eventscribe.com/2018/AMCHP/SearchByPosterBucket.asp?bm=auto&f=PosterCustomField50.

III.E.2.c CSHCN Application Year

As the 95 year-old agency's evolution continues, OCSHCN looks forward to continuing to collaborate with peer agencies in a way that will enhance care for KY's children and youth with special health care needs, particularly in the area of access. Through Kentucky's Alliance for Innovation Strategic Action Plan developed in November 2015, OCSHCN has begun to leverage technical assistance resources to strengthen and better integrate the overall system of care for CYSHCN in KY. The learning collaborative opportunity provided OCSHCN with a coherent road map for development and infrastructure building, much of which has been achieved, as evidenced by Altarum's May 2017 site visit to interview partner agencies for the purpose of publishing a brief for MCHB.

OCSHCN conducted a daylong all-staff conference in late August, 2017, which included several breakout sessions and trainings on MCH issues and other topics, as well as a second day that was devoted to strategic planning to advance priorities for the CYSHCN population in KY. OCSHCN worked with the National MCH Workforce Development Center to develop the approach. This involved training of the core team and other stakeholders to ensure implementation planning and clear communication of the vision. The intent of the strategic plan process was to develop a vision of where OCSHCN is moving over the next few years, given mandates, data, priorities, and realities.

OCSHCN is close to having new state administrative regulations in the Kentucky Administrative Regulations (KAR). Three new KARs are set to be approved in mid-July 2019. Once enacted, the new KARs will cover application to OCSHCN clinical programs, billing and fees, and medical staff policy.

In the past two years, OCSHCN has been administering a clinic survey in each of our regional clinics to 20% of the clinic population. The data from this survey is included in OCSHCN supporting documentation. Analysis comparing the clinic survey data to national data collected by NSCH is underway. In the coming year, the survey will be provided outside the clinical setting to capture input from the larger population of those interested in issues involving CYSHCN.

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

OCSHCN will continue to serve and train parents/youth on the importance of shared decision making at all levels of planning/care.

OCSHCN continues to collaborate with several agencies to work heavily with the Hispanic population and will continue to train those families to support/mentor other Hispanic families by becoming Support Parents.

OCSHCN parent consultants, social workers, and other staff will continue to work with F2F to use the KY Health program. This program has many requirements such as paying a premium for Medicaid, possible co-payments, and Partnering to Advance Training and Health (PATH) Community Engagement, which requires low-income adults to work 80 hours a month and report. OCSHCN will continue to assist families in understanding the requirements and helping them complete their reporting.

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. One of the main barriers in the area of participation in family advisory committees (both parent and youth) was the distance that members would have to travel to meet. In FY18 OCSHCN, started working with Zoom Video Communications and meetings have occurred via Zoom with the PAC, YAC, and complex care medical teams. As OCSHCN personnel, providers, and families become more familiar with Zoom, OCSHCN staff thinks opportunities to receive input from more geographical diverse groups will only improve.

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.

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 on Children with Medical Complexity in which one of the goals 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.

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, Healthcare.gov, and other trusted resources with regard to the 1115 Medicaid waiver and Kentucky HEALTH.

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 ASD and staff continues to meet with and develop plans in accordance with the University of Missouri's ECHO Autisms Collaboration project.

OCSHCN's dietitians and other clinical staff will continue to administer the agency's Healthy Weight Plan, focusing this year 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 prepared a "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. The fact sheet has been presented at several national conferences since its inception and has been well received by physicians who see it as a valuable tool to ensure infants receive warranted follow up evaluations. Our agency has been selected by the University of Kentucky to collaborate on a patient navigation program within OCSHCN district offices. The aim of the study is to determine the effectiveness of parent navigation in improving timeliness of follow up among infants who refer on the newborn hearing screening. 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. As mentioned previously, changes to OCSHCN's policy have made diagnostic audiologic follow up (in the event of a "failed" hearing screening) available at no cost to the family through any one of eleven OCSHCN offices. This policy change has encouraged referrals from our community partners, specifically family practice physicians, pediatricians, and otolaryngologists.

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 continue to build infrastructure as per the Access to Care Plan (see attached documents). Supplementing efforts will also include supporting partner providers to take over direct services where possible (or the inverse, assuming duties of departing providers who leave a community gap – such as pediatric ophthalmology in Morehead, where OCSHCN services filled a void). OCSHCN is working towards more integrated and coordinated care, and increased access, considering well-planned telemedicine expansion possibilities into other disciplines beyond neurology and autism, continued assurance of services for medically complex youth in foster care as well as population in or at risk of placement outside the home, 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. A new hybrid clinic model is in place in Morehead (Urology) and a Neonatal Abstinence project is in the developmental stages in partnership with the Department of Behavioral Health), through which OCSHCN staff are able to support additional conditions not on the formal eligibility list. As is mentioned in the annual report, OCSHCN is investigating the possibility of advanced telehealth technology.

Continuous education of medical providers occurs through the Medical Director to support the quality of care, and also includes the pediatric neurology resident program partially funded by OCSHCN funding. The Medical Director hosts a rotation of 2 UofL medical residents per month, and has begun to educate through the UK as well through a lecture to NICU fellows. A provider summit has been proposed by the Children with Medical Complexities (CMC)

team, as follow up to the well received 2015 Access to Care for CYSHCN Summit. OCSHCN has received funding from the HRSA-funded CMC grant and complex medical care clinics which began in FY19.

OCSHCN also partially funds a social work position at the UofL Sickle Cell and Hemophilia pediatric program. At the time of writing, OCSHCN is working with the state's two Hemophilia Treatment Centers to implement contract changes to provide more flexibility and support for operations. At this time, OCSHCN is planning on meeting with the UofL (supported by the Commonwealth Institute of Kentucky) towards furthering the analysis of both Medicaid and hospital discharge data and determining next steps. 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.

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.

F2F is planning a Community Resources Fair in collaboration with the Wendell Foster Campus on Developmental Disabilities this coming year. F2F is still working with the Midwest Genetics Collaborative on developing video's and material on understanding Genetic Telehealth Medicine. OCSHCN will continue working with families and professionals to understand the importance of transition for children with special needs.

Due to many retirements across state government over the last two years the nine Regional Interagency Transition Teams ("RITTs") that are based off of 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) are currently in a regrouping phase. As this regrouping begins, F2F and OCSHCN staff plan to participate on 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.

The Transition Administrator will continue to complete transition checklist audits twice a year (3 transition checklist audits per each OCSHCN office twice a year).

Cross-Cutting/Systems Building

Cross-Cutting/Systems Builiding - Annual Report

1. Previous annual reports addressed the following topics and details of which are now embedded in the primary domains Substance use during pregnancy – Women and Maternal Health Domain
2. Perinatal Advisory Committee – divided between Women and Maternal Health Domain and Perinatal and Infant Health Domain
3. Neonatal Abstinence Syndrome – Perinatal and Infant Health Domain
4. Plan of Safe Care/HEART – Perinatal and Infant Health Domain
5. Tobacco Cessation – divided between Women and Maternal Health Domain and Child Health Domain
6. Oral Health - divided between Women and Maternal Health Domain and Child Health Domain

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, the concept of life course recognizes that there are critical periods from before the time a child is born and throughout the entire life span that influence the health of individuals. Topics and application year plans are discussed in the individual domain documents.

III.F. Public Input

Completion of the 2015 Needs Assessment in KY provided opportunity for MCH to solicit information from the public. Since the formal needs assessment, KY has continued to solicit information from the public and stakeholders at a programmatic level. In November of each year, the MCH latest annual report is published on the MCH website. Contact information for MCH is available on this website.

Consumers continue to have the greatest insight regarding the needs of the MCH population. In the spring of 2018, MCH hosted two regional meetings to provide MCH data and provide a call to action for the plan of safe care. In November 2018, MCH hosted the annual MCH meeting and the first stakeholder's survey was conducted. Since this meeting, many LHDs have provided input about various MCH needs and programs to MCH leadership. Comments have ranged from a need to streamline processes, to needs they feel require Title V funding for their communities such as response to the Hepatitis outbreak, requests to assist with establishing a MMRC, and more.

Stakeholder feedback was used for refinement of KY priorities in 2015. Following up on the 2014 Stakeholder Meeting, a diverse group of 164 stakeholders completed a survey to rank the importance of potential priorities by population domain. Over 80 individuals provided input on strengths, gaps, and strategies for selected topics. MCH, with assistance from OCSHCN, convened a meeting with over 80 participants from diverse backgrounds, and 77 indicated interest in continued participation. This meeting was instrumental for refinement of strategies included in the 5-Year Action Plan.

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. 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

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. The SafeSleepKY website and Facebook page have the ability to reach a program administrator. Questions received by the CHFS or DPH webpages are forwarded to MCH for review and response. A comment period followed after the CYSHCN MCH Fact Sheet appeared on OCSHCN's staff intranet and OCSHCN's website and Facebook page. Comments were invited via phone, email, and Facebook.

Advisory Council Review

As advisory councils meet, the goals for MCH are reviewed specific to that program. Annually, the Child Fatality and Injury Prevention Advisory Team reviews the annual data of child fatality, active review, teams, and trends for KY. This team then drafts a survey for community stakeholders, LHDs, and others for input on preventive goals for the upcoming year. These goals are published in the annual CFR report, and programming for MCH packages are aligned to address the goals. The KOHP held the second annual review of the oral health strategic plan and invited stakeholders to discuss progress and ideas generated at the first meeting. Multiple other committees and councils provided input specific to the program topics.

OCSHCN staff presented overviews of the MCH priorities and a preview of the application/report to the regional OCSHCN clinical managers and administrative branch managers. Information was shared with the Youth Advisory Council at the beginning of the process. Input, questions, and active participation was invited. It is the agency's goal to increase families' comfort level with this process so they may ask questions and provide feedback.

Social Media

The Safe Sleep Facebook is monitored by the child fatality review/prevention nurse. Emails to the website have included comments of need for updated information and requests for material. An established email allows staff to respond timely to those seeking more information. This page is frequently updated by the program coordinator.

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 and stakeholder distributions to promote evidence informed strategies and best practices that may improve the services and resources that are available to all MCH consumers.

Outreach to Specific Stakeholders

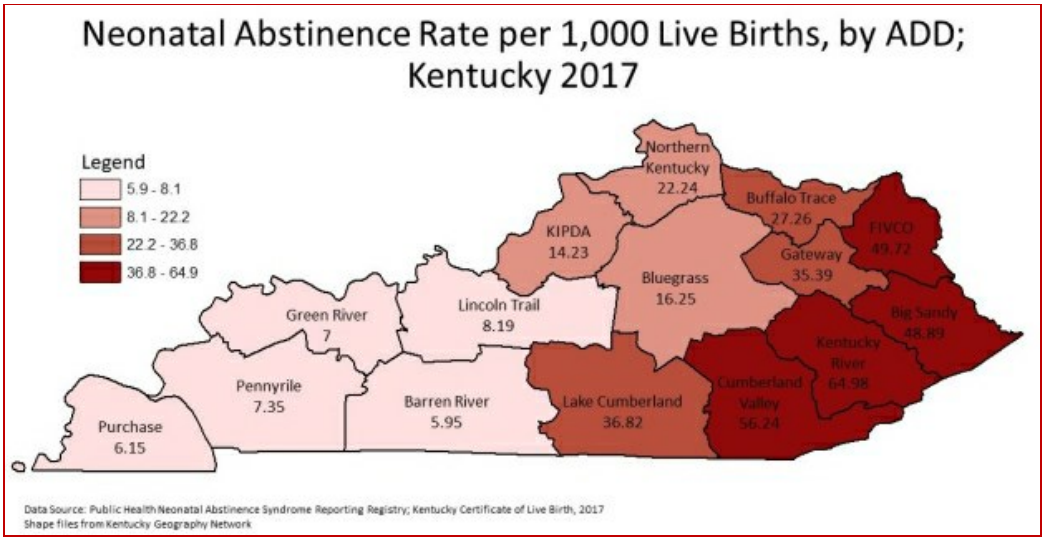
The previously referenced MCH conference was successful with 15 vendors attending and providing additional opportunities of engagement for breastfeeding, oral health, immunizations, March of Dimes, KY Strengthening Families, and more. Collaborative regional meetings have continued across KY to provide the local communities and various community collaboratives with ongoing MCH updates addressing plan of safe care (HEART pilot program), CFR, suicide prevention, coordinated school health, and maternal mortality reduction topics. Requests for MCH program staff to meet at the local level continues. The resulting feedback demonstrated communities are eager for this continued interaction with state staff and other MCH providers in their areas to find solutions for improving outcomes. In addition, they desire to have more data concerning MCH outcomes regarding infant mortality, child fatality, NAS, and obesity to share in discussions with community stakeholders, boards of health, and community leaders. The data provided and passionate desire of the community to improve standards and health outcomes is palpable at these meetings.

In late May 2016, several agencies convened the Kentucky Summit on Access to Care for Children and Youth with Special Health Care Needs, at which the overall goal was to develop a shared vision with a broad group of stakeholders regarding access to care for children and youth with special health care needs in KY. Nearly 90 individuals attended, representing providers (universities, health departments and medical schools), insurers, family members, state agency representatives, and other service organizations and advocates. The meeting included several speakers on CYSHCN issues, including F2F, HRSA, Title V, Medicaid, Behavioral Health, and Kentucky Telecare. KY's Governor addressed the gathering (formally proclaiming the day CYSHCN Awareness Day in KY), and a moderated legislative panel was held in the afternoon with Representatives and Senators sitting on the Health and Welfare Committees. The meeting helped to build awareness of the programs available for children and youth with special health care needs, allowed the state to coordinate work and prevent duplication of effort, shared knowledge about the challenges CYSHCN face, and attempted to drive progress in addressing barriers. Since the summit, OCSHCN invites community stakeholders to be a part of teams that affect the care of CYSHCN in KY. The Data Advisory Team and the Complex Medical Care Team are two examples.

OCSHCN is a user of surveys. Randomly-chosen visitors to clinics are asked to voluntarily and anonymously complete a survey. Over 740 surveys were received during the reporting period with regard to the direct services experience as well as with regard to aspects of the system of care available in communities. As is mentioned elsewhere in this report, OCSHCN is working 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

GIS mapping has created an ability to review multiple variables for a specific geographical area. It is anticipated, as MCH continues to work with the system, GIS technical training could be beneficial. One example of how GIS mapping is used is shown below. This type of mapping allows MCH to determine geographical trends.



MCH sought technical assistance from the CDC to improve the maternal mortality review process beginning in the fall of 2017. Multiple telephone calls and emails ensued. This technical assistance led to MCH organizing the MMRC and having the initial meeting and case review in August of 2018. It is anticipated the CDC technical assistance will continue as the current MMR process expands to develop strategies to improve the review process and to move the program from data collection to prevention strategies. Future technical assistance to assist with strategic planning for reduction of maternal deaths is detailed in the Women/Maternal Health Section.

LHDs have discontinued payment for prenatal services, for the most part, across Kentucky. With Medicaid expansion, most women have an ability to be linked for coverage during pregnancy and LHD tax bases can no longer support this even as a payor of last resort. The perinatal program has continued to provide technical assistance, review the current LHD program, and assist with transition from direct services to ensuring linkage of care with community resources to reduce the financial burden on the LHD.

To improve breastfeeding engagement and duration promotion activities in KY, MCH Nutrition Services Branch plans sought technical assistance from the Coffective® vendor. This vendor has conducted face-to-face meetings with birthing facility representatives, HANDS representatives, WIC staff, regional breastfeeding coordinators, LHD MCH coordinators, and other providers to conduct a needs assessment specific to breastfeeding engagement successes and barriers. The survey will address current practice and capacity for future promotions/endeavors. Once these meetings occur the needs assessment will extend into the hospitals with front line staff and education modules designed to address the KY birthing facility's needs. It is anticipated this process of assessment, education, re-education, and follow-up surveys will span 2 years. Plans are in place for the information learned from this to be presented at the MCH conference November 2019.

OCSHCN areas of needed technical assistance relate to the implementation of specific action steps regarding the two CYSHCN-specific State Performance Measures. In past years, OCSHCN has received technical assistance from the University of Alabama at Birmingham and 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. OCSHCN has had informal discussions with AMCHP's Epidemiology Support team regarding infographics and data visualization projects and capacity. In the summer of 2017, a GSEP student helped advance OCSHCN data visualization and mapping.

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 - OCSHCN Supporting Documents.pdf

Supporting Document #03 - Final 2018 Maternal Mortality Report.pdf

Supporting Document #04 - FINAL NAS 2017 data.pdf

Supporting Document #05 - 2018 Child Fatality Review Annual Report.pdf

VI. Organizational Chart

The Organizational Chart is uploaded as a PDF file to this section - MCH_OCSHCN ORG CHARTS.pdf

VII. Appendix

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Form 2
MCH Budget/Expenditure Details

State: Kentucky

	FY 20 Application Budgeted	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	$ 11,100,869	
A. Preventive and Primary Care for Children	$ 3,791,378	(34.1%)
B. Children with Special Health Care Needs	$ 3,874,203	(34.8%)
C. Title V Administrative Costs	$ 380,000	(3.5%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	$ 8,045,581	
3. STATE MCH FUNDS (Item 18c of SF-424)	$ 28,300,100	
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)	$ 27,995,100	
7. TOTAL STATE MATCH (Lines 3 through 6)	$ 56,295,200	
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	
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	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	$ 191,655,418	

OTHER FEDERAL FUNDS	FY 20 Application Budgeted
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
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
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)	$ 107,719,250
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
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) > Pregnancy Risk Assessment Monitoring System (PRAMS)	$ 153,417
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Birth Defects Tracking Systems	$ 210,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Zika Surveillance Systems Grant Program	$ 0
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Tobacco Control Programs	$ 1,138,751
Department of Health and Human Services (DHHS) > Other > Increasing Quit NOW KY Reach and Sustainability thru Media	$ 666,810
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Family to Family Health Information Centers	$ 91,717
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Kentucky Infants Sound Start	$ 250,000
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

	FY 18 Annual Report Budgeted		FY 18 Annual Report Expended	
1. FEDERAL ALLOCATION (Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)	$ 10,986,565		$ 10,541,220	
A. Preventive and Primary Care for Children	$ 4,663,425	(42.4%)	$ 3,334,068	(31.6%)
B. Children with Special Health Care Needs	$ 3,834,311	(34.9%)	$ 4,157,703	(39.4%)
C. Title V Administrative Costs	$ 473,100	(4.3%)	$ 362,166	(3.5%)
2. Subtotal of Lines 1A-C (This subtotal does not include Pregnant Women and All Others)	$ 8,970,836		$ 7,853,937	
3. STATE MCH FUNDS (Item 18c of SF-424)	$ 28,718,900		$ 26,948,254	
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)	$ 25,975,964		$ 23,700,198	
7. TOTAL STATE MATCH (Lines 3 through 6)	$ 54,694,864		$ 50,648,452	
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)	$ 65,681,429		$ 61,189,672	
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)	$ 116,412,810		$ 118,848,041	
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL (Partnership Subtotal + Other Federal MCH Funds Subtotal)	$ 182,192,197		$ 180,037,713	

OTHER FEDERAL FUNDS	FY 18 Annual Report Budgeted	FY 18 Annual Report Expended
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > State and Local Healthy Homes and Childhood Lead Poisoning Prevention Programs (CLPPPs)	$ 386,146	$ 396,611
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > ACA Maternal, Infant and Early Childhood Home Visiting Program	$ 7,198,829	$ 3,423,379
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > State Systems Development Initiative (SSDI)	$ 106,612	$ 117,115
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC)	$ 101,569,631	$ 105,552,827
US Department of Education > Office of Special Education Programs > Early Identification and Intervention for Infants and Toddlers with Disabilities (Part C of IDEA)	$ 5,734,021	$ 6,689,416
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Early Hearing Detection and Intervention (EHDI) State Programs	$ 239,929	$ 0
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Early Hearing Detection and Intervention (EHDI) State Programs	$ 98,238	$ 0
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Sudden Unexpected Infant Death (SUID) Case Registry Program	$ 109,391	$ 97,571
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Pregnancy Risk Assessment Monitoring System (PRAMS)	$ 153,417	$ 262,907
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Birth Defects and Developmental Disabilities	$ 816,596	$ 0
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Brith Tracking		$ 159,725
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > ZIKA		$ 343,996

OTHER FEDERAL FUNDS	FY 18 Annual Report Budgeted	FY 18 Annual Report Expended
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Tobacco Control, Diabetes Prevention and Control		$ 1,206,013
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Increasing Quit NOW KY Reach and Sustainability thru Media		$ 184,055
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Family to Family Health Information Centers		$ 89,693
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Kentucky Infants Sound Start		$ 208,889
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Hearing Detection and Intervention Information System		$ 115,844

Form Notes for Form 2:

None

Field Level Notes for Form 2:

1.	**Field Name:**	**Federal Allocation, A. Preventive and Primary Care for Children:**
	Fiscal Year:	**2018**
	Column Name:	**Annual Report Expended**
	Field Note: Programming expenses for 1A were greater than budgeted due to an increase in cost of services and cost of population services provided. Funds have been used for children ages 1 to 18.	
2.	**Field Name:**	**Federal Allocation, C. Title V Administrative Costs:**
	Fiscal Year:	**2018**
	Column Name:	**Annual Report Expended**
	Field Note: Administrative costs are below 10% as the MCH Title V Program is partially supported from state funds.	

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 20 Application Budgeted	FY 18 Annual Report Expended
1. Pregnant Women	$ 831,953	$ 731,893
2. Infants < 1 year	$ 1,220,883	$ 1,073,795
3. Children 1 through 21 Years	$ 3,791,378	$ 3,334,068
4. CSHCN	$ 3,874,203	$ 4,157,703
5. All Others	$ 1,002,452	$ 881,595
Federal Total of Individuals Served	$ 10,720,869	$ 10,179,054

IB. Non-Federal MCH Block Grant	FY 20 Application Budgeted	FY 18 Annual Report Expended
1. Pregnant Women	$ 3,915,200	$ 3,501,295
2. Infants < 1 year	$ 1,207,400	$ 847,623
3. Children 1 through 21 Years	$ 38,380,175	$ 32,510,651
4. CSHCN	$ 12,274,800	$ 13,404,415
5. All Others	$ 517,625	$ 384,468
Non-Federal Total of Individuals Served	$ 56,295,200	$ 50,648,452
Federal State MCH Block Grant Partnership Total	$ 67,016,069	$ 60,827,506

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 20 Application Budgeted	FY 18 Annual Report Expended
1. Direct Services	$ 1,614,227	$ 1,480,429
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	$ 1,614,227	$ 1,480,429
2. Enabling Services	$ 4,545,151	$ 4,167,819
3. Public Health Services and Systems	$ 4,941,491	$ 4,892,972
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		$ 74,702
Physician/Office Services		$ 1,387,378
Hospital Charges (Includes Inpatient and Outpatient Services)		$ 394
Dental Care (Does Not Include Orthodontic Services)		$ 284
Durable Medical Equipment and Supplies		$ 11,718
Laboratory Services		$ 116
Other		
Orthodontia		$ 5,837
Direct Services Line 4 Expended Total		$ 1,480,429
Federal Total	$ 11,100,869	$ 10,541,220

IIB. Non-Federal MCH Block Grant	FY 20 Application Budgeted	FY 18 Annual Report Expended
1. Direct Services	$ 1,335,993	$ 1,341,077
A. Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants up to Age One	$ 81,000	$ 56,755
B. Preventive and Primary Care Services for Children	$ 219,000	$ 153,450
C. Services for CSHCN	$ 1,035,993	$ 1,130,872
2. Enabling Services	$ 50,721,607	$ 45,249,514
3. Public Health Services and Systems	$ 4,237,600	$ 4,057,861
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		$ 372,633
Physician/Office Services		$ 928,503
Hospital Charges (Includes Inpatient and Outpatient Services)		$ 12,071
Dental Care (Does Not Include Orthodontic Services)		$ 7,064
Durable Medical Equipment and Supplies		$ 992
Laboratory Services		$ 514
Other		
Orthodontia		$ 19,300
Direct Services Line 4 Expended Total		$ 1,341,077
Non-Federal Total	$ 56,295,200	$ 50,648,452

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: 51,629 **Data Source Year: 2018**

1. Core RUSP Conditions

Program Name	(A) Aggregate Total Number Receiving at Least One Screen	(B) Aggregate Total Number Presumptive Positive Screens	(C) Aggregate Total Number Confirmed Cases	(D) Aggregate Total Number Referred for Treatment
Core RUSP Conditions	51,400 (99.6%)	1,034	123	123 (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)	Hearing Loss	Holocarboxylase Synthase Deficiency
Homocystinuria	Isovaleric Acidemia	Long-Chain L-3 Hydroxyacyl-Coa Dehydrogenase Deficiency	Maple Syrup Urine Disease	Medium-Chain Acyl-Coa Dehydrogenase Deficiency
Methylmalonic Acidemia (Cobalamin Disorders)	Methylmalonic Acidemia (Methylmalonyl-Coa Mutase)	Mucopolysaccharidosis Type 1	Primary Congenital Hypothyroidism	Propionic Acidemia
S, ßeta-Thalassemia	S,C Disease	S,S Disease (Sickle Cell Anemia)	Severe Combined Immunodeficiences	ß-Ketothiolase Deficiency
Trifunctional Protein Deficiency	Tyrosinemia, Type I	Very Long-Chain Acyl-Coa Dehydrogenase Deficiency	X-Linked Adrenoleukodystrophy	

2. Other Newborn Screening Tests

Program Name	(A) Number Receiving at Least One Screen	(B) Number Presumptive Positive Screens	(C) Number Confirmed Cases	(D) Number Referred for Treatment
ARG	51,400 (99.6%)	5	0	0 (0%)
CPT-Ia	51,400 (99.6%)	1	0	0 (0%)
CPT-II	51,400 (99.6%)	4	0	0 (0%)
IBG	51,400 (99.6%)	1	0	0 (0%)
NKHG	51,400 (99.6%)	4	1	1 (100.0%)
OTC	51,400 (99.6%)	15	1	1 (100.0%)
SCAD	51,400 (99.6%)	11	2	2 (100.0%)
TYR-II	51,400 (99.6%)	1	0	0 (0%)
Variant Hbg	51,400 (99.6%)	13	5	5 (100.0%)
X-ALD	51,400 (99.6%)	1	1	1 (100.0%)

3. Screening Programs for Older Children & Women

None

4. Long-Term Follow-Up

Long term follow up on infants that screen positive is conducted by the provider once they are notified of the confirmatory positive screen.

Form Notes for Form 4:

None

Field Level Notes for Form 4:

1.	**Field Name:**	**Total Births by Occurrence**
	Fiscal Year:	**2018**
	Column Name:	**Total Births by Occurrence Notes**
	Field Note: Data Source: KY Vital Statistics Files, Live Birth Certificate files, year 2018; data is preliminary and numbers may change.	

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 2018

Form 5a – Count of Individuals Served by Title V
(Direct & Enabling Services Only)

		Primary Source of Coverage				
Types Of Individuals Served	(A) Title V Total Served	(B) Title XIX %	(C) Title XXI %	(D) Private / Other %	(E) None %	(F) Unknown %
1. Pregnant Women	1,039	49.7	0.0	1.3	48.9	0.1
2. Infants < 1 Year of Age	8,754	82.0	0.0	1.3	14.9	1.8
3. Children 1 through 21 Years of Age	216,105	66.0	0.0	5.0	28.6	0.4
3a. Children with Special Health Care Needs	88,706	71.1	0.0	15.9	13.0	0.0
4. Others	22,158	47.5	0.0	9.1	42.3	1.1
Total	248,056					

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	54,752	No	53,923	33	17,795	1,039
2. Infants < 1 Year of Age	52,410	No	51,629	99	51,113	8,754
3. Children 1 through 21 Years of Age	1,189,179	No	1,262,657	26	328,291	216,105
3a. Children with Special Health Care Needs	305,738	No	246,315	37	91,137	88,706
4. Others	3,210,373	No	2,784,717	10	278,472	22,158

Form Notes for Form 5:

Data source for form 5a: Custom Data Processing; Patient Services Reporting System client database; Services received during calendar year 2018.

Field Level Notes for Form 5a:

1.	**Field Name:**	**Pregnant Women Total Served**
	Fiscal Year:	**2018**
	Field Note: Data source for form 5a: Custom Data Processing; Patient Services Reporting System client database; Services received during calendar year 2018.	
2.	**Field Name:**	**Infants Less Than One YearTotal Served**
	Fiscal Year:	**2018**
	Field Note: Data source for form 5a: Custom Data Processing; Patient Services Reporting System client database; Services received during calendar year 2018.	
3.	**Field Name:**	**Children 1 through 21 Years of Age**
	Fiscal Year:	**2018**
	Field Note: Data source for form 5a: Custom Data Processing; Patient Services Reporting System client database; Services received during calendar year 2018. Count is inclusive of Children with Special Health Care needs total served with enabling and direct services	
4.	**Field Name:**	**Children with Special Health Care Needs**
	Fiscal Year:	**2018**
	Field Note: Data Source: OCSHCN CUP system and FIRST Steps Point of entry numbers. Count for CYSHCN varies significantly from 2017 due to the inclusion of Early Hearing Detection and Intervention (EHDI) program.	
5.	**Field Name:**	**Others**
	Fiscal Year:	**2018**
	Field Note: Data source for form 5a: Custom Data Processing; Patient Services Reporting System client database; Services received during calendar year 2018.	

Field Level Notes for Form 5b:

1.	**Field Name:**	**Pregnant Women**
	Fiscal Year:	**2018**
	Field Note: Data source: Custom Data Processing for Title V Pregnant Women Served for Enabling Services, and Catalyst Reports for Population Health best practice packages, and HANDS 2.0 reports. Women could be duplicated.	
2.	**Field Name:**	**InfantsLess Than One Year**
	Fiscal Year:	**2018**
	Field Note: Data Source: DLS Lab information system unduplicated counts for Number of newborn initial specimens received.	
3.	**Field Name:**	**Children 1 Through 21 Years of Age**
	Fiscal Year:	**2018**
	Field Note: Data Source: Numerator = Custom Data Processing counts for Enabling and Direct services added to Catalyst Population Health Counts for best practice packages. Denominator = Census count for Kentucky for ages 22-70 years of age	
4.	**Field Name:**	**Children With Special Health Care Needs**
	Fiscal Year:	**2018**
	Field Note: Data source: EHDI, F2F, First Steps, Support Groups, Spanish Interpreters, OCSHCN data sources for numerator. There are no additional counts for population health to add to the count of enabling and direct services provided	
5.	**Field Name:**	**Others**
	Fiscal Year:	**2018**
	Field Note: Data Source: Denominator = Custom Data Processing Counts for enabling and direct services added to Catalyst Population health best practice package counts. Numerator = Kentucky Census counts for 2018 ages 22-70.	

Data Alerts:

1.	Children With Special Health care Needs, Form 5a Count is greater than or equal to 90% of the Form 5b Count (calculated). Please check that population based services have been included in the 5b Count and not in the 5a Count.

Form 6
Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX

State: Kentucky

Annual Report Year 2018

I. Unduplicated Count by Race/Ethnicity

	(A) Total	(B) Non-Hispanic White	(C) Non-Hispanic Black or African American	(D) Hispanic	(E) Non-Hispanic American Indian or Native Alaskan	(F) Non-Hispanic Asian	(G) Non-Hispanic Native Hawaiian or Other Pacific Islander	(H) Non-Hispanic Multiple Race	(I) Other & Unknown
1. Total Deliveries in State	51,629	41,196	4,771	3,071	59	545	7	0	1,980
Title V Served	27	21	0	4	0	0	1	1	0
Eligible for Title XIX	20,069	14,358	2,423	1,104	18	241	18	0	1,907
2. Total Infants in State	57,117	46,131	6,205	3,560	0	0	0	0	1,221
Title V Served	51,875	37,375	6,251	3,878	104	775	96	3,396	0
Eligible for Title XIX	33,488	19,539	3,730	1,683	7	337	21	0	8,171

Form Notes for Form 6:

Data Sources: For Deliveries: Total deliveries in state: KY vital statistics files, live birth certificate files, occurrence births for 2018. Title V served: CDP reporting system, PSRS database year 2018. Eligible for Title XIX: KY Medicaid Management Information System, Medicaid data warehouse, year 2018. Currently, race/ethnicity is not a required field for completion for Medicaid enrollment. Due to this, there has been a shift in the race categories. Fewer individuals are reporting race so it appears the Other/Unknown category has increased dramatically when in fact it is a reflection of more individuals not reporting race/ethnicity at time of enrollment.
For Infants: Total infants in the state: US Census Bureau state specific population estimates by single year of age, race, ethnicity for year 2018: Title V served: CDP reporting system, PSRS database year 2018. Eligible for Title XIX: KY Medicaid Management Information System, Medicaid data warehouse year 2018.

Field Level Notes for Form 6:

1.	**Field Name:**	**2. Total Infants in State**
	Fiscal Year:	**2018**
	Column Name:	**Total**

Field Note:
Population estimates for KY for 2018; US Census bureau

Form 7
State MCH Toll-Free Telephone Line and Other Appropriate Methods Data

State: Kentucky

A. State MCH Toll-Free Telephone Lines	2020 Application Year	2018 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	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 x4410	(502) 564-2154 x4410
5. Number of Calls Received on the State MCH "Hotline"		4,230

B. Other Appropriate Methods	2020 Application Year	2018 Annual Report Year
1. Other Toll-Free "Hotline" Names	OCSHCN Toll Free: (800) 232-1160	OCSHCN Consumer Call Line: (800) 232-1160
2. Number of Calls on Other Toll-Free "Hotlines"		5
3. State Title V Program Website Address	https://chfs.ky.gov/agencies/dph/dmch	https://chfs.ky.gov/agencies/dph/dmch
4. Number of Hits to the State Title V Program Website		64,583
5. State Title V Social Media Websites	http://www.safesleepky.com;	https://www.facebook.com/safesleepky
6. Number of Hits to the State Title V Program Social Media Websites		17,823

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	Henrietta Bada, MD, MPH
Title	Director, Maternal and Child Health Division, Department for Public Health
Address 1	275 East Main Street
Address 2	HS2WA
City/State/Zip	Frankfort / KY / 40621
Telephone	(502) 564-4830
Extension	
Email	Henrietta.Bada@KY.Gov

2. Title V Children with Special Health Care Needs (CSHCN) Director	
Name	Shellie A. May, BSN
Title	Executive Director, Office for Children with Special Health Care Needs
Address 1	310 Whittington Parkway
Address 2	Suite 200
City/State/Zip	Louisville / KY / 40222
Telephone	(502) 429-4430
Extension	2071
Email	Shellie.May@KY.Gov

3. State Family or Youth Leader (Optional)	
Name	Laura Beard
Title	MCH Family Consultant
Address 1	275 East Main Street
Address 2	HS2WA
City/State/Zip	Frankfort / KY / 40621
Telephone	(502) 564-2154
Extension	4371
Email	Laura.Beard@KY.Gov

Form Notes for Form 8:

None

Form 9
List of MCH Priority Needs

State: Kentucky

Application Year 2020

No.	Priority Need
1.	Reduce maternal morbidity and mortality rates in Kentucky
2.	Reduce Infant Mortality rate
3.	Reduce child injury rates with focus on reduction of injury related to child abuse and neglect
4.	Reduce overweight and obesity among teens
5.	Improve oral health outcomes for children and pregnant women
6.	Reduce outcomes related to Substance Use Disorder for pregnant women and reduce the number of Neonatal Abstinence Syndrome cases
7.	Transitions Services for CSHCN
8.	Access to Care and Services for CSHCN
9.	Adequate Health Insurance Coverage
10.	Data Capacity for CSHCN

Form 9 State Priorities-Needs Assessment Year - Application Year 2016

No.	Priority Need	Priority Need Type (New, Replaced or Continued Priority Need for this five-year reporting period)	Rationale if priority need does not have a corresponding State or National Performance/Outcome Measure
1.	Maternal Morbidity	Continued	
2.	Infant Mortality	Continued	
3.	Child Abuse and Neglect	Continued	
4.	Overweight and Obesity Among Teens	New	
5.	Oral Health	Continued	
6.	Substance Abuse	Continued	
7.	Transitions Services for CSHCN	Continued	
8.	Access to Care and Services for CSHCN	New	
9.	Adequate Insurance for CSHCN	New	
10.	Data Capacity for CSHCN	New	

Form Notes for Form 9:

None

Field Level Notes for Form 9:

None

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
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
2015	116.3	5.5	454	39,041
2014	110.8	4.6	579	52,262
2013	125.2	5.0	648	51,774
2012	123.7	4.9	642	51,916
2011	117.8	4.8	607	51,541
2010	122.3	4.9	643	52,571
2009	104.2	4.4	563	54,030
2008	90.1	4.1	486	53,961

Legends:

Indicator has a numerator ≤10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM 2 - Notes:

None

Data Alerts: None

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

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

NOM 3 - Notes:

None

Data Alerts:

1.	Data has not been entered for NOM 3. This outcome measure is linked to the selected NPM 2,14.2,. Please add a field level note to explain when and how data will be available for tracking this outcome measure.

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
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
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
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
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:

Indicator results were based on a shorter time period than required for reporting

NOM 7 - Notes:

None

Data Alerts: None

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

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
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
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
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
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
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 - Sleep-related 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
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 - The percent of infants born with fetal alcohol exposure in the last 3 months of pregnancy

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

NOM 10 - Notes:

None

Data Alerts: None

NOM 11 - The rate of infants born with neonatal abstinence syndrome per 1,000 hospital births

Data Source: HCUP - State Inpatient Databases (SID)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
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
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
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
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
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
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
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
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
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
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
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
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
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 or a relative standard error ≥30% and is not reportable

Indicator has a confidence interval width >20% and should be interpreted with caution

Data Source: Youth Risk Behavior Surveillance System (YRBSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2017	20.2 %	1.5 %	37,214	184,217
2015	18.5 %	1.1 %	33,268	180,282
2013	18.0 %	1.2 %	32,435	179,828
2011	16.4 %	1.2 %	27,805	170,039
2009	17.2 %	1.2 %	32,457	188,372
2007	15.5 %	0.8 %	26,183	169,407
2005	15.4 %	0.7 %	24,908	161,714

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
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
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, ages 19 through 35 months, who completed the combined 7-vaccine series (4:3:1:3*:3:1:4)

Data Source: National Immunization Survey (NIS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2017	71.0 %	3.6 %	55,768	78,507
2016	74.5 %	3.6 %	58,369	78,322
2015	73.0 %	3.3 %	57,182	78,299
2014	72.4 %	4.0 %	56,597	78,231
2013	72.7 %	4.1 %	56,137	77,268
2012	68.2 %	3.4 %	53,833	78,887
2011	77.6 %	3.5 %	62,510	80,570
2010	51.8 %	3.4 %	42,330	81,740
2009	43.4 %	3.1 %	36,497	84,127

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM 22.1 - Notes:

None

Data Alerts: None

NOM 22.2 - Percent of children, ages 6 months through 17 years, who are vaccinated annually against seasonal influenza

Data Source: National Immunization Survey (NIS) - Flu

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
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 95% confidence interval half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM 22.2 - Notes:

None

Data Alerts: None

NOM 22.3 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine

Data Source: National Immunization Survey (NIS) - Teen

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
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 half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM 22.3 - Notes:

None

Data Alerts: None

NOM 22.4 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the Tdap vaccine

Data Source: National Immunization Survey (NIS) - Teen

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
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 half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM 22.4 - Notes:

None

Data Alerts: None

NOM 22.5 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the meningococcal conjugate vaccine

Data Source: National Immunization Survey (NIS) - Teen

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
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 half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 or that are inestimable might not be reliable

NOM 22.5 - Notes:

None

Data Alerts: None

NOM 23 - Teen birth rate, ages 15 through 19, per 1,000 females

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
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
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 not able to obtain needed health care in the last year

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

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
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 2 - Percent of cesarean deliveries among low-risk first births

Federally Available Data			
Data Source: National Vital Statistics System (NVSS)			
	2016	**2017**	**2018**
Annual Objective	28	27	26
Annual Indicator	27.4	27.2	28.3
Numerator	5,018	4,819	4,907
Denominator	18,321	17,748	17,321
Data Source	NVSS	NVSS	NVSS
Data Source Year	2015	2016	2017

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	27.5	27.0	26.5	26.0	25.5	25.0

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
Annual objective for 2018 was higher than anticipated goal. KY plans to keep current goals as set.

NPM 4A - Percent of infants who are ever breastfed

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2016	**2017**	**2018**
Annual Objective	68	68.5	69
Annual Indicator	66.9	74.9	73.9
Numerator	32,863	39,855	36,330
Denominator	49,132	53,240	49,132
Data Source	NIS	NIS	NIS
Data Source Year	2013	2014	2015

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	74.0	74.5	75.0	75.5	76.0	76.5

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
Rate fluctuates annually. Annual objective increased to align with work accomplished and future KY plans

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

Federally Available Data			
Data Source: National Immunization Survey (NIS)			
	2016	**2017**	**2018**
Annual Objective	18	19.5	20
Annual Indicator	19.0	18.5	21.1
Numerator	9,175	9,330	9,877
Denominator	48,213	50,546	46,742
Data Source	NIS	NIS	NIS
Data Source Year	2013	2014	2015

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	22.0	22.5	23.0	23.5	24.0	25.5

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
Annual Objective met for 2018. Objective increased accordingly for each year. KY elects to continue this measure as duration rates are low and are below national averages.

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

Federally Available Data	
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)	
	2018
Annual Objective	73
Annual Indicator	83.9
Numerator	40,180
Denominator	47,882
Data Source	PRAMS
Data Source Year	2017

State Provided Data			
	2016	**2017**	**2018**
Annual Objective	72	72	73
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						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	85.0	86.0	87.0	88.0	89.0	90.0

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.	
2.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**
	Field Note: Annual Objective exceeded for 2018. Objective increased accordingly for each year.	

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

Federally Available Data	
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)	
	2018
Annual Objective	
Annual Indicator	35.3
Numerator	16,040
Denominator	45,490
Data Source	PRAMS
Data Source Year	2017

State Provided Data		
	2017	**2018**
Annual Objective		
Annual Indicator	0	
Numerator		
Denominator		
Data Source	none available	
Data Source Year	2018	
Provisional or Final ?	Final	

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	35.5	36.5	37.5	38.5	39.5	40.0

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 indicator.	
2.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
3.	**Field Name:**	**2020**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
4.	**Field Name:**	**2021**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
5.	**Field Name:**	**2022**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
6.	**Field Name:**	**2023**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
7.	**Field Name:**	**2024**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	

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

Federally Available Data	
Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)	
	2018
Annual Objective	
Annual Indicator	45.9
Numerator	20,900
Denominator	45,561
Data Source	PRAMS
Data Source Year	2017

State Provided Data		
	2017	**2018**
Annual Objective		
Annual Indicator	0	
Numerator		
Denominator		
Data Source	No state data is available	
Data Source Year	2018	
Provisional or Final ?	Final	

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	46.5	47.5	48.5	49.5	50.0	51.0

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.	
2.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
3.	**Field Name:**	**2020**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
4.	**Field Name:**	**2021**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
5.	**Field Name:**	**2022**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
6.	**Field Name:**	**2023**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	
7.	**Field Name:**	**2024**
	Column Name:	**Annual Objective**
	Field Note: An annual objective is only available with 2017 PRAMS data. This objective is set conservatively until further data is available for analysis.	

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) - CHILD			
	2016	**2017**	**2018**
Annual Objective	107	107	104
Annual Indicator	108.4	145.0	123.8
Numerator	606	605	687
Denominator	558,942	417,308	555,089
Data Source	SID-CHILD	SID-CHILD	SID-CHILD
Data Source Year	2014	2015	2016

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	120.0	115.0	110.0	105.0	100.0	95.0

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
The annual indicator rose in 2017 and remains above 2016 information. Annual objective was adjusted. With robust injury prevention programming planned for 2020, KY hopes to annual objective will decrease accordingly.

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**
Annual Objective			45
Annual Indicator		30.2	25.8
Numerator		90,306	77,802
Denominator		299,110	301,378
Data Source		NSCH-CHILD	NSCH-CHILD
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	27.0	27.0	27.5	27.5	28.0	28.0

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
Objective adjusted to a more conservative value. Obesity efforts in KY have been a long-standing challenge.

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**
Annual Objective	23	24	25
Annual Indicator	20.2	20.2	22.0
Numerator	37,629	37,629	41,447
Denominator	186,195	186,195	188,822
Data Source	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT	YRBSS-ADOLESCENT
Data Source Year	2015	2015	2017

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH) - ADOLESCENT			
	2016	**2017**	**2018**
Annual Objective			25
Annual Indicator		13.1	17.2
Numerator		44,811	58,697
Denominator		342,824	341,755
Data Source		NSCH-ADOLESCENT	NSCH-ADOLESCENT
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	24.0	24.0	25.0	25.0	26.0	26.0

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**
	Field Note: The annual indicator is increasing at a slower rate than anticipated. Objective adjusted to a more conservative value.	
2.	**Field Name:**	**2020**
	Column Name:	**Annual Objective**
	Field Note: The annual indicator is increasing at a slower rate than anticipated. Objective adjusted to a more conservative value.	
3.	**Field Name:**	**2021**
	Column Name:	**Annual Objective**
	Field Note: The annual indicator is increasing at a slower rate than anticipated. Objective adjusted to a more conservative value.	
4.	**Field Name:**	**2022**
	Column Name:	**Annual Objective**
	Field Note: The annual indicator is increasing at a slower rate than anticipated. Objective adjusted to a more conservative value.	
5.	**Field Name:**	**2023**
	Column Name:	**Annual Objective**
	Field Note: The annual indicator is increasing at a slower rate than anticipated. Objective adjusted to a more conservative value.	
6.	**Field Name:**	**2024**
	Column Name:	**Annual Objective**
	Field Note: The annual indicator is increasing at a slower rate than anticipated. Objective adjusted to a more conservative value.	

NPM 12 - Percent of adolescents with and without special health care needs, ages 12 through 17, who received services necessary to make transitions to adult health care - Children with Special Health Care Needs

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH) - CSHCN			
	2016	**2017**	**2018**
Annual Objective			42
Annual Indicator		13.6	19.0
Numerator		16,553	20,062
Denominator		122,086	105,479
Data Source		NSCH-CSHCN	NSCH-CSHCN
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	43.0	44.0	45.0	46.0	47.0	48.0

Field Level Notes for Form 10 NPMs:

None

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

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH)			
	2016	**2017**	**2018**
Annual Objective			79
Annual Indicator		78.3	77.6
Numerator		746,012	735,981
Denominator		952,247	949,011
Data Source		NSCH	NSCH
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	82.0	84.0	86.0	88.0	90.0	90.0

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 - Child Health

Federally Available Data			
Data Source: National Survey of Children's Health (NSCH)			
	2016	**2017**	**2018**
Annual Objective			24
Annual Indicator		24.6	23.4
Numerator		244,610	233,551
Denominator		992,768	998,969
Data Source		NSCH	NSCH
Data Source Year		2016	2016_2017

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

Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	23.0	23.0	22.5	22.0	21.5	21.0

Field Level Notes for Form 10 NPMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
This indicator is slowly decreasing. 2019 goal adjusted to align with anticipated continued with program outreach/activities and implementation of new Kentucky Regulatory Statute regarding tobacco free school campuses

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
Annual Objective		23.8	22.5
Annual Indicator	24.3	22	20.7
Numerator	1,354	1,114	1,114
Denominator	55,714	50,716	53,923
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
Data Source Year	2015	2017	2017
Provisional or Final ?	Final	Provisional	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	22.0	21.5	21.0	20.5	20.0	19.5

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.	

SPM 3 - Percent of OCSHCN Access to Care Plan components completed

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		90	100
Annual Indicator	81.3	90.7	94.7
Numerator	61	68	71
Denominator	75	75	75
Data Source	CCSHCN Access to Care Plan	CCSHCN Access to Care Plan	OCSHCN Access to Care Plan
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
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
Annual Objective		60	75
Annual Indicator	53.3	65.6	75.6
Numerator	48	59	68
Denominator	90	90	90
Data Source	CCSHCN Data Action Plan	CCSHCN Data Action Plan	OCSHCN Data Action Plan
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	90.0	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
Annual Objective		78	81
Annual Indicator	77.9	80.5	82
Numerator	1,401		185,968
Denominator	1,798		226,859
Data Source	NSCH	NSCH indicator 3.4	NSCH indicator 3.4
Data Source Year	2011-12	2016	2016
Provisional or Final ?	Final	Final	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	82.0	83.0	84.0	85.0	86.0	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 10% the number of maternal deaths of Kentucky residents associated with substance use disorder.

Measure Status:					Active
Annual Objectives					
	2020	**2021**	**2022**	**2023**	**2024**
Annual Objective	40.0	38.0	36.0	34.0	32.0

Field Level Notes for Form 10 SPMs:

1.	**Field Name:**	**2020**
	Column Name:	**Annual Objective**

Field Note:
2018 preliminary data has 80+ maternal deaths identified for review with over 50% potentially linked to substance use.

Form 10
Evidence-Based or –Informed Strategy Measures (ESMs)

State: Kentucky

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
Annual Objective		9	11
Annual Indicator	7	9	13
Numerator			
Denominator			
Data Source	State specific data	State Specific Data	State Specific Data
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	13.0	15.0	17.0	19.0	21.0	21.0

Field Level Notes for Form 10 ESMs:

None

ESM 4.2 - Number of hospitals receiving technical assistance from public health (LHD or State Program) about the 10 steps to successful breastfeeding

Measure Status:	Active

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	32.0	33.0	34.0	35.0	36.0	37.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
30 Birthing hospitals received technical assistance in 2018. All 48 had interaction with the state nutrition services branch for evaluation of breastfeeding engagement.

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
Annual Objective		700	900
Annual Indicator	695	889	743
Numerator			
Denominator			
Data Source	LHD reporting data	LHD MCH Package reporting data	Catalyst LHD reports
Data Source Year	FY2016	FY2017	FY18
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	800.0	800.0	810.0	810.0	820.0	820.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
Goal reset to better align with current program capacity until PH Transformation transitions are better known

ESM 7.1.1 - Implementation of Child Passenger Safety Strategies in local communities

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		25	30
Annual Indicator	19	30	54
Numerator			
Denominator			
Data Source	Catalyst reporting system	Catalyst Reporting System and Safe Kids Coordinato	Catalyst LHD report
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	55.0	56.0	56.0	57.0	57.0	58.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
With PH Transformation, enabling services provided by LHDs for these events may be impacted and reduced. Until more is known, goal has been less aggressively set.

ESM 8.1.1 - Number of early care and education professionals completing online training modules

Measure Status:	Active

State Provided Data		
	2017	2018
Annual Objective	200	2,200
Annual Indicator	2,122	2,394
Numerator		
Denominator		
Data Source	UK HDI	UK HDI
Data Source Year	2017	2018
Provisional or Final ?	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	2,300.0	2,400.0	2,500.0	2,600.0	2,700.0	2,700.0

Field Level Notes for Form 10 ESMs:

None

ESM 8.2.2 - 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
Annual Objectives						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Annual Objective	80.0	100.0	120.0	140.0	160.0	173.0

Field Level Notes for Form 10 ESMs:

1.	**Field Name:**	**2019**
	Column Name:	**Annual Objective**

Field Note:
Four school districts, five LHDs, and 1 state wide LHD meeting had training for this measure in 2018. During 2018, the ability of Coordinated School Health was impacted greatly by loss of staff (over 50%) and transition of grant funding. Vacancies have been filled, and plan for FY 19 should show many more professional development offerings.

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
Annual Objective		85	86
Annual Indicator	84	94	94
Numerator	84	94	94
Denominator	100	100	100
Data Source	HCT Process Measurement Tool	HCT Process Measurement Tool	HCT Process Measurement Tool
Data Source Year	2016	2017	2018
Provisional or Final ?	Provisional	Provisional	Provisional

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	87.0	95.0	96.0	97.0	98.0	99.0

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	

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

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective			28,500
Annual Indicator	15,580	28,000	18,123
Numerator			
Denominator			
Data Source	CDP data system	CDP data system	CDP data system
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	18,500.0	19,000.0	19,000.0	19,500.0	19,500.0	20,000.0

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:**	**2019**
	Column Name:	**Annual Objective**
	Field Note: Based on data reports from 2016 and 2018, Goals reset. It is anticipated with Public Health Transformation the ability of the LHDs to have trained, certified RNs to perform this service in the community will diminish as LHDs move away from direct services.	

ESM 14.2.1 - Implementation of 100% Tobacco-free School Policies

Measure Status:	Active

State Provided Data			
	2016	2017	2018
Annual Objective		39	42
Annual Indicator	37	40.5	42.8
Numerator	64	70	74
Denominator	173	173	173
Data Source	KY Tobacco program	KY Tobacco Program	KY Tobacco Program
Data Source Year	2016	2017	2018
Provisional or Final ?	Final	Final	Final

Annual Objectives						
	2019	2020	2021	2022	2023	2024
Annual Objective	44.0	46.0	48.0	50.0	52.0	52.0

Field Level Notes for Form 10 ESMs:

None

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

Measure Status:	Active
Goal:	To reduce the rate of Kentucky resident infants born with neonatal abstinence syndrome
Definition:	**Numerator:** The number of Kentucky resident infants with neonatal abstinence syndrome **Denominator:** The number of Kentucky resident live births **Unit Type:** Rate **Unit Number:** 1,000
Healthy People 2020 Objective:	MICH-11.4: Increase abstinence from illicit drugs among pregnant women
Data Sources and Data Issues:	Kentucky Neonatal Abstinence Syndrome Reportable Disease Registry and Kentucky Office of Vital Statistics, Live Birth Certificate Files
Significance:	Substance abuse is having a devastating effect across all MCH populations in KY as evidenced in the 2015 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).

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:	**Numerator:** Number of completed items on OCSHCN Access to Care Plan **Denominator:** Number of total items on OCSHCN Access to Care Plan **Unit Type:** Percentage **Unit Number:** 100
Healthy People 2020 Objective:	AHS-6 Reduce the proportion of persons who are unable to obtain or delay in obtaining necessary medical care, dental care, or prescription medicines DH-4 (Developmental) Reduce the proportion of people with disabilities who report delays in receiving primary and periodic preventive care due to specific barriers
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:	**Numerator:** Number of completed items on OCSHCN Data Action Plan **Denominator:** Number of total items on OCSHCN Data Action Plan **Unit Type:** Percentage **Unit Number:** 100
Healthy People 2020 Objective:	PHI-13.3 Increase the proportion of State public health agencies that provide or assure comprehensive epidemiology services to support essential public health services
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:	**Numerator:** Number of children, ages 0-17, who were reported to be adequately insured **Denominator:** Number of children, ages 0-17 **Unit Type:** Percentage **Unit Number:** 100
Healthy People 2020 Objective:	Access to Health Services Objective 1, increase the proportion of persons with health insurance Access to Health Services Objective 6, reduce the proportion of persons who are unable to obtain or delay in obtaining necessary medical care, dental care, or prescription medicines
Data Sources and Data Issues:	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 10% the number of maternal deaths of Kentucky residents associated with substance use disorder.
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:	**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 **Unit Type:** Percentage **Unit Number:** 100
Healthy People 2020 Objective:	MICH-11.4 Increase abstinence from illicit drugs among pregnant women.
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.

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 2.1 - Number of outreach activities (data reports, presentations, and technical assistance) on the topic of cesarean deliveries among low-risk first births.
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:	**Numerator:** Number of data reports, presentations, and technical assistance activities documented by the Kentucky Title V program **Denominator:** None **Unit Type:** Count **Unit Number:** 100
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.

ESM 4.2 - Number of hospitals receiving technical assistance 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

Measure Status:	Active
Goal:	Increase the number of steps the birthing facilities are implementing to achieve the 10 steps to successful breastfeeding
Definition:	**Numerator:** Number of birthing hospitals who are implementing all 10 steps to successful breastfeeding **Denominator:** none **Unit Type:** Count **Unit Number:** 48
Data Sources and Data Issues:	MCH Breastfeeding Program Data Reports (Nutrition Services Branch)
Significance:	Promotion of breastfeeding (10 steps to successful breastfeeding) within birthing hospitals helps improve initiation and duration of breastfeeding

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:	Increase by 10% the number of families in need of a crib that receive one from the local health department
Definition:	**Numerator:** The number of cribs distributed by local health departments through the Cribs for Kids for Community Partners package **Denominator:** None **Unit Type:** Count **Unit Number:** 1,000
Data Sources and Data Issues:	Catalyst Reporting to the Division of Maternal and Child Health for MCH Evidence Informed Strategies. Data is reported on a monthly basis.
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.

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:	**Numerator:** The number of local health departments that implement the Child Passenger Safety package **Denominator:** None **Unit Type:** Count **Unit Number:** 60
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.

ESM 8.1.1 - Number of early care and education professionals completing online training modules
NPM 8.1 – Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day

Measure Status:	Active
Goal:	To increase health activities that occur in early care and education settings throughout the state
Definition:	**Numerator:** Number of online trainings completed by early care and education professionals **Denominator:** None **Unit Type:** Count **Unit Number:** 4,000
Data Sources and Data Issues:	Early care and education TRIS system
Significance:	Early care and education professionals have limited knowledge and training on the incorporation of healthy strategies into early care settings such as day cares. 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.

ESM 8.2.2 - 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

Measure Status:	Active
Goal:	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.
Definition:	**Numerator:** Number of school districts receiving technical assistance or professional development training **Denominator:** Number of Kentucky School Districts **Unit Type:** Count **Unit Number:** 173
Data Sources and Data Issues:	Kentucky Coordinated School Health data
Significance:	This measure will allow KY to address measures taken to reduce the obesity rate among adolescents.

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 necessary to make transitions 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:	**Numerator:** Score on HCT tool, as assessed annually **Denominator:** Possible Score on HCT tool **Unit Type:** Percentage **Unit Number:** 100
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 CCSHCN committee
Significance:	Statewide HCT improvements shall be guided by research-based instrument conforming to consensus statement of best practice and CYSHCN national standards.

ESM 13.2.1 - Fluoride varnish applications for children in local health departments
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:	**Numerator:** The number of children receiving fluoride varnish applications in the local health departments **Denominator:** None **Unit Type:** Count **Unit Number:** 40,000
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.

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:	**Numerator:** The number of Kentucky school districts that implement a 100% Tobacco-free School policy **Denominator:** The number of Kentucky school districts **Unit Type:** Percentage **Unit Number:** 100
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