Kentucky's 2020 Needs Assessment for the Maternal, Infant, and Early Childhood Home Visiting Program

Section 1—Introduction

The Kentucky Department for Public Health (KDPH) is designated as the state agency to apply for funding through the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program, administered by the Health Resources and Services Administration (HRSA) in partnership with the Administration for Children and Families (ACF).

The following background information about MIECHV and the purpose of this needs assessment was adapted from the Supplemental Information Request (SIR) for the Submission of the Statewide Needs Assessment Update (OMB No: 0906-0038) and the Social Security Act, Title V, § 511(c) (42 U.S.C. §711(c)).[1] This act authorizes MIECHV to support voluntary, evidence-based home visiting services for at-risk pregnant women and parents of young children. MIECHV awards funding to states to implement such evidence-based home visiting programs using frameworks that are tailored toward their specific needs, in order to target populations that most need services.

A requirement of this funding is that MIECHV awardees review and update their statewide needs assessment, in order to identify at-risk communities with premature birth, low-birth weight infants, and infant mortality, including infant death due to neglect, or other indicators of at-risk prenatal, maternal, newborn, or child health; poverty; crime; domestic violence; high rates of high-school drop-outs; substance abuse; unemployment; or child maltreatment. These indicators are included in the needs assessment because they are associated with outcomes addressed by MIECHV programs. Home visiting in pregnancy and early childhood can improve the lives of families by preventing child maltreatment, supporting positive parenting, improving physical and mental health, and promoting child development.[2]

[1] Social Security Act, Title V, § 511(c). OMB No: 0906-0038
[2] U.S. Department of Health and Human Services, Administration for Children and Families, Home Visiting Evidence of Effectiveness (HomVEE). Available at: http://homvee.acf.hhs.gov/.

In Kentucky, Health Access Nurturing Development Services (HANDS) provides home visiting services statewide using MIECHV and other funding sources. For that reason, KDPH and the HANDS program conducted a needs assessment that meets the requirements outlined in the SIR to "identify communities with concentrations of defined risk factors, assess the quality and capacity of home visiting services in the state, and assess the state's capacity for providing substance abuse treatment and counseling services".[3]

This narrative explains the findings of the Needs Assessment Data Summary and uses that information to identify communities with a concentration of risk (Section 2); identifies the quality and capacity of existing early childhood home visiting programs (Section 3); discusses the statewide capacity for substance abuse treatment and counseling services (Section 4); synthesizes information from needs assessments conducted by the Title V MCH Block program, Early Head Start programs, and the state child welfare organization (Section 5); and concludes with a summary of the findings and recommendations for the future of home visiting in Kentucky (Section 6).

Section 2— Identifying At-Risk Communities with Concentrations of Risk

According to 2019 America's Health Rankings, Kentucky ranks 43rd in the nation in overall health.[4] Although the ranking is based on many criteria, it reflects the state of health for mothers and children. Kentucky ranks 47th in preterm birth, 34th in low birth weight babies, and 49th in smoking.[28]

Table 1 includes a comparison of national and state indicators illustrating health issues faced by women and children, using data from the 2019 America's Health Rankings. Kentucky lags behind the national average for low birth weight infants, infant mortality, drug deaths, children in poverty, frequent mental distress and smoking. Although the gap is small for some measures, such as low birth weight infants, in areas such as smoking Kentucky fares much worse than other states.

[3] Social Security Act, Title V, § 511(c). OMB No: 0906-0038
[4] America's Health Rankings. Viewed on May 27, 2020. Available at https://www.americashealthrankings.org/explore/annual/measure/Overall/state/KY

Table 1. Selected Kentucky (KY) and United States (U.S.) indicators

Indicator (Rate per 1,000)	KY	U.S.
Low birth weight infants (<2500 grams)[5]	88	83
Infant mortality [6]	6.6	5.8
Drug deaths[7]	0.322	0.192
Children in poverty[8]	230	180
Frequent mental distress[9]	167	124
Smoking[10]	234	161

Given the deep disparities between Kentucky and the rest of the U.S., there is a strong case to consider the entire state a community at-risk. Because the state already has an existing infrastructure with the HANDS present in every county in the state, Kentucky has the opportunity to address the needs and gaps identified from these indicators state-wide through enhancements to the existing public health home visiting program. However, for the purposes of this assessment, the geographic unit of interest is the county. Most statewide and regional government services still have county-based offices and counties have much independence in administration and governance. The process to identify the communities or counties of highest risk is described below.

Process for Determining "At Risk" Communities

KDPH utilized the Simplified Methodology provided by HRSA. The following methodology description is adapted from the SIR for the Submission of the Statewide Needs Assessment Update (OMB No: 0906-0038).

Phase One- HRSA Methodology

HRSA provided state-specific data for 13 indicators that represent the statutorily-defined criteria for identifying target communities for home visiting programs. Selected indicators had reliable, available data at the county level. HRSA obtained this raw county-level data and computed descriptive statistics

[5] CDC WONDER Natality data, 2017
[6] CDC WONDER Mortality data, 2016-2017
[7] CDC WONDER Mortality data, 2015-2017
[8] American Community Survey, 2018
[9] Behavioral Risk Factor Surveillance System, 2018
[10] Behavioral Risk Factor Surveillance System, 2018

including mean, standard deviation, number of missing values, and range. HRSA then computed the z-score (calculated as the difference between the county value and the mean, divided by the standard deviation) for each county. HRSA then used the z-scores for each county to determine the proportion of indicators within each domain that were at least one standard deviation above the mean; if that proportion is at least 50%, the county was determined to be at-risk in that domain. HRSA summed each counties' at-risk domains; those counties with at least two at-risk domains were labeled at-risk counties.

Phase One- Additional Indicators Added

To supplement the data from HRSA, KDPH added three additional domains with a total of ten new indicators and one additional indicator for an existing domain. KDPH followed the HRSA methodology for calculating these z-scores (described above) to ensure continuity. KDPH epidemiology staff chose these additional domains and health indicators to identify at-risk communities based on existing knowledge of Kentucky's MCH disparities. An extensive list of potential new domains and indicators was created and culled based on data availability, suppression of variables for communities with small populations, and alignment with statutory definition of at-risk communities.

The first domain added—pregnancy health—contains indicators for smoking during pregnancy and early and regular prenatal care. Data for both indicators came from Kentucky Office of Vital Statistics and was obtained through the Kids Count Data Center[11]. This domain was chosen because it highlights issues of pregnancy health which lead to adverse health outcomes for both mothers and babies. Kentucky ranks among the states with the highest percent of women who smoke during pregnancy[12], but HANDS is working to change that.

The second domain added was social determinants of health, with indicators for SNAP enrollment, WIC enrollment, housing/cost of living, single parent households, and food insecurity. All indicator data was found through Kids Count Data Center[13]; information displayed there originated from

[11] https://datacenter.kidscount.org
[12] Drake P, Driscoll AK, Mathews TJ. Cigarette smoking during pregnancy: United States, 2016. NCHS Data Brief, no 305. Hyattsville, MD: National Center for Health Statistics. 2018.
[13] https://datacenter.kidscount.org

the Kentucky Cabinet for Health and Family Services, the US Census Bureau, and Feeding America respectively. As increasing family self-sufficiency for overburdened families is a core goal of MIECHV, this domain addresses communities where that need exists.

The new domain of child outcomes included indicators for the rate of children in foster care placements, rate of incarcerated youth, and percent of Medicaid enrolled children who received dental care. Foster care data came from the Kentucky Youth Advocate's 2019 county profiles[14]. Data on youth incarceration and dental care were obtained from the Kids Count Data Center[15] and originated from programs within the Kentucky Cabinet for Health and Family Services. Although HANDS may not directly work on these issues, KDPH added the indicators to align with priorities from other agencies that work with families and children.

In addition to the new domains, KDPH chose to add one indicator to an existing domain. In the area of Child Maltreatment, KDPH added data on Kentucky children living in an environment where substantiated abuse, neglect, or dependency was identified. This data was obtained through the Kentucky CASA Network[16] and derives from a 2018 collaboration between the Department for Community Based Services and the Administrative Office of the Courts. This indicator was added to promote child welfare, which is a priority in Kentucky. The 2018 report on child maltreatment released by the US Department of Health and Human Services found that Kentucky had the highest national rate of abused children at 23.5 per 1,000 children (<17 years of age)[17], but HANDS and partner agencies hope to change that.

Although additional indicators were added, KDPH chose to keep 2 as the cut-off value for number of at-risk domains for counties to be considered high-risk. The table of z-scores can be found in the attached Needs Assessment Data Summary.

At-risk counties from Phase One include Anderson, Bell, Boyd, Boyle, Breathitt, Bullitt, Caldwell, Calloway, Campbell, Carlisle, Carter, Clark, Clay, Daviess, Elliott, Estill, Fayette, Floyd,

[14] https://kyyouth.org/kentucky-kids-count/#countyprofiles
[15] https://datacenter.kidscount.org
[16] https://www.kentuckycasanetwork.org/file_download/ea000657-becb-442a-a976-67bf97ca9006
[17] https://www.acf.hhs.gov/sites/default/files/cb/cm2018.pdf

Franklin, Gallatin, Graves, Hardin, Harlan, Henderson, Jackson, Jefferson, Jessamine, Kenton, Knott, Knox, Lee, Leslie, Letcher, Lewis, Livingston, Lyon, Madison, Magoffin, Martin, Mason, McCracken, McCreary, Morgan, Nicholas, Oldham, Owsley, Perry, Pike, Pulaski, Robertson, Scott, Spencer, Warren, Wolfe, and Woodford counties.

Phase Two

KDPH decided to supplement this needs assessment with the 2018 Annual Report from the Public Health Neonatal Abstinence Syndrome Reporting Registry[18] (2018 data, published 2020). Data from this report could not be added as an indicator, because it is not available for release at the county level. However, this report may capture information that was not covered under indicators in the Substance Use Disorder (SUD) domain. Five Area Development Districts (ADDs), all located in Eastern Kentucky, have rates that were at least 150% of the statewide rate of 16.52 cases per live birth. Cumberland Valley ADD has a NAS rate of 42.71 cases per 1,000 live births, which means that approximately 1 out of every 23 babies born in this area is diagnosed with NAS. The rate of NAS in Kentucky River ADD, Gateway ADD, Big Sandy ADD, and FIVCO ADD is similarly elevated (37.32, 33.88, 31.19, and 24.78 cases per 1,000 live births, respectively). For the purposes of the needs assessment, all counties in these ADDs were considered to be "at-risk" for the SUD domain (if they had not already been designated high-risk counties in Phase One). That included the following counties: Bath, Greenup, Johnson, Laurel, Lawrence, Menifee, Montgomery, Rockcastle, and Whitley counties.

KDPH chose not to include infant mortality as an indicator on the data table, because some counties had such low incidence that their rates were suppressed, even when aggregating several years of data. However, infant mortality is an important outcome and should be included in this needs assessment in some form. KDPH reviewed the national infant mortality rate (5.8 cases per 1,000 live births in 2017)[19]

[18] Retrieved from https://chfs.ky.gov/agencies/dph/dmch/Documents/NAS%20Report%202019_DPH.pdf on June 17, 2020.
[19] Retrieved from https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm on June 17, 2020.

and compared that to the 2014-2018 infant mortality rate for Kentucky counties[20]. For the purposes of the needs assessment, the 20 counties with infant mortality rates that exceeded 150% of the national rate were considered to be "at-risk" for the Adverse Perinatal Outcomes domain (if they had not already been designated high-risk counties in Phase One or earlier in Phase Two). That included the following counties: Adair, Allen, Casey, Fleming, Marion, Monroe, and Webster counties.

KDPH chose not to include childhood insurance status as an indicator on the data table, because the overall rate of uninsured children is so low in Kentucky (3.74% in 2018)[21], according to Foundation for a Healthy Kentucky. However, in 7 counties, the uninsured rate exceeded 150% of the state average. For the purposes of the needs assessment, these counties were considered to be "at-risk" for the socioeconomic status (SES) domain (if they had not already been designated high-risk counties in Phase One or earlier in Phase Two). That included the following counties: Barren, Butler, Casey, Green, Todd, and Washington counties.

KDPH did not feel that teen pregnancy should be considered an indicator in this needs assessment. However, any teen mother who applies for the HANDS program automatically qualifies for some services. For that reason, counties with a higher teen pregnancy rate could potentially have higher-than-expected utilization of HANDS services, especially with outreach to that population. Counties that were included here have teen pregnancy rates that exceed 150% of the 2016 U.S. teen pregnancy rate[22] (which was 20.3 per 1,000 females ages 15-19). Rates from the Foundation for a Healthy Kentucky[23] indicated that 89 counties met that threshold. Of those 89 counties, 37 were not already on the Phase One or Phase Two list. That included the following counties: Ballard, Bath, Bracken, Breckinridge, Carroll, Christian, Clinton, Crittenden, Cumberland, Edmonson, Garrard, Grant, Grayson, Green, Greenup, Hancock, Harrison, Hart, Henry, Hopkins, Larue, Lincoln, McLean, Mercer, Metcalfe, Monroe,

[20] Retrieved from http://kentuckyhealthfacts.org/data/topic/show.aspx?ind=35 on June 17, 2020.
[21]Retrieved from http://kentuckyhealthfacts.org/data/topic/show.aspx?ind=46 on June 17, 2020
[22] Retrieved from https://www.hhs.gov/ash/oah/facts-and-stats/national-and-state-data-sheets/adolescent-reproductive-health/kentucky/index.html on June 17, 2020
[23]Retrieved from http://kentuckyhealthfacts.org/data/topic/show.aspx?ind=54 on June 17, 2020.

Muhlenberg, Ohio, Pendleton, Powell, Russell, Simpson, Taylor, Todd, Trigg, Union, and Wayne counties.

Finally, in previous years, local implementing agencies (LIAs) had provided input to the HANDS central office that billing and financial management became more complicated when some counties in the LIA were eligible for MIECHV funding and others were not. This confusion led to some LIAs under-utilizing MIECHV funds, as they would forget to bill some eligible services in those counties. For that reason, KDPH decided to review LIAs where not all, but at least half, of the counties were designated high-risk. Given the small number of counties and the composition of those LIAs, 11 counties were added to the list. Those were: Boone, Fulton, Hickman, Logan, Meade, Nelson, Owen, Rowan, Shelby, Trimble, and Washington.

Only two of Kentucky's 120 counties were not identified as high-risk by the data, so KDPH explored Community Health Needs Assessments for those communities to determine if they would benefit from MIECHV. The Bourbon County Health Department completed a Community Health Assessment in 2017[24], and many of the top 10 health concerns for the county can be addressed by home visiting. That includes drug and alcohol abuse (1), tobacco use (2), mental health (4), child abuse (7), and domestic violence (9). Additionally, when reviewing local, state, and national data, the trends that were most concerning to stakeholders in Bourbon County included the child poverty rate, the percent of low birth weight infants, percent of mothers who smoke during pregnancy, and the teen birth rate. Again, these are areas where HANDS could make a difference. In the Bourbon County Cooperative Extension Needs Assessment from 2019, the top three issues for youth and families involved "life skills training" such as money management and decision-making, and career readiness[25]. The HANDS program focuses on improving economic self-sufficiency for families, and services in Bourbon County could help meet those goals.

[24] Retrieved from https://bourboncohd.org/wp-content/uploads/2019/10/BCoCHA-10-27-17.pdf on June 19, 2020
[25] Retrieved from https://extension.ca.uky.edu/files/bourbon_extension_community_assessment_2019.pdf on June 19, 2020.

The Marshall County[26] Themes and Strengths assessment from 2015 found that health education programs offered at the local health department (which would include HANDS) were strengths, but the community still needed early childhood development parenting education. Additionally, the lack of substance abuse and mental health care resources was listed as a weakness. Two of Marshall County's four strategic initiatives for 2016-2019 were in the areas of substance abuse and mental health. In its needs assessment[27], a local hospital serving Marshall County also identified health education and mental health as two of the top needs for the area. Specifically, focus groups said that the community needed health education around obstetrics/gynecology and services available during pregnancy. Due to these identified community strengths and needs, and the ability of the HANDS program to address those needs, MIECHV should be used for Bourbon County and Marshall County.

As a result of Phase Two, KDPH identified the following additional counties as at-risk: Adair, Allen, Ballard, Barren, Bath, Boone, Bourbon, Bracken, Breckinridge, Butler, Carroll, Casey, Christian, Clinton, Crittenden, Cumberland, Edmonson, Fleming, Fulton, Garrard, Grant, Grayson, Green, Greenup, Hancock, Harrison, Hart, Henry, Hickman, Hopkins, Johnson, Larue, Laurel, Lawrence, Lincoln, Logan, Marion, Marshall, McLean, Meade, Menifee, Mercer, Metcalfe, Monroe, Montgomery, Muhlenberg, Nelson, Ohio, Owen, Pendleton, Powell, Rockcastle, Rowan, Russell, Shelby, Simpson, Taylor, Todd, Trigg, Trimble, Union, Washington, Wayne, Webster, and Whitley counties.

Section 3—Quality and Capacity of Existing Early Childhood Home Visiting Programs

Early Childhood Home Visiting Models

There are many early childhood home visiting programs in Kentucky, but few of them are voluntary and use home visiting as the primary service delivery strategy. Generally speaking, these programs seek to improve maternal and child health, family economic self-sufficiency, school readiness

[26] Retrieved from http://www.marshallcohealthdepartment.com/about-us/community-health-assessment.php on June 19, 2020.
[27]Retrieved from https://www.mercy.com/-/media/mercy/about-us/community-benefit/implementation-lourdes.ashx?la=en on June 19, 2020.

and achievement, and parenting skills for optimal child development; they seek to prevent child injuries, abuse, or maltreatment.

Below are brief descriptions of six programs along with a chart that provides details on the home visiting approach, specific service, intended recipient of the service, targeted goals, demographics characteristics of individuals or families served, the number of individuals/families served, and the geographic area. Programs that serve specific geographic regions of Kentucky but contract with the HANDS program for home visits are not listed separately here One limitation of this section is that the needs assessment team could not obtain all information for all programs listed, but were constrained by the individual programs' data collection and sharing practices.. Appendix A contains a matrix of programs by their presence in each Kentucky county. Jefferson County has all six programs available, but the other Kentucky counties have 2-4 programs that serve their families.

Health Access Nurturing Development Services (HANDS)

HANDS is Kentucky's statewide home visitation program, administered by KDPH. It was developed in 1998 based on the Hawaii Healthy Start and Healthy Families America models. The goals of the program are positive pregnancy outcomes, optimal child growth and development, healthy/safe homes, and family self-sufficiency. HANDS has a focus on mental health in regards to bonding and attachment and the parent-child relationship. HANDS also includes preventive health education as a critical component. Overburdened families are eligible to participate. The following demographic information was collected in FY20. The majority of caregivers in HANDS are pregnant women (83%), with fewer other female caregivers (16%) and almost no male caregivers (1%). About 2.5% of participants self-reported as Hispanic, 8.0% identified as Black or African American, and less than 5% of participants required translation services. Of all participants, 24% have less than a high school degree or equivalent, 64% are unemployed, 67% have incomes at <100% of the Federal Poverty Line, and 12% are uninsured. HANDS operates through local health departments and serves approximately 9,000 families annually across all of Kentucky's 120 counties. Home Visiting Evidence of Effectiveness (HomVEE) has designated HANDS an evidence-based home visiting model.

Community Collaborative for Children (CCC)

CCC is a federally funded program designed to prevent child abuse and neglect, to support and strengthen families, and to encourage communities to work together to promote optimal child welfare. In Kentucky, CCC is administered through the Department for Community-Based Services (DCBS), Child Protection Branch, and operates through 17 regions covering all 120 counties. CCC uses a parenting curriculum to resolve issues that arise to keep children safe in their homes. CCC serves any family considered low risk of involvement with the state's Child Welfare system to keep the children safe in their homes and improve the self-sufficiency of the family. Referrals for CCC services can come from many sources; parents can refer themselves, community agencies, the faith-based communities, and schools, among others. In FY2019 a total of 702 families were served which included 1,028 individual caregivers and 1,546 individual children.

Early Head Start

Early Head Start is a federal initiative to promote school readiness in children from low-income families. This program serves pregnant women and families with children under age 3. Early Head Start increases parental involvement in child development and education by providing opportunities for community engagement, offering home visits, and linking families with additional needed services. In Kentucky, Early Head Start is administered through 136 centers throughout the state, serving 76 counties, with oversight from the Governor's Office of Early Childhood (OEC). In 2019, Early Head Start served 2,916 Kentucky children ages 0-3. HomVEE has not evaluated Early Head Start's home visiting services.

Healthy Start

Healthy Start is a federal grant program with a site in Jefferson County, Kentucky, that provides home visitation, case management, and educational services in high-risk ZIP codes. The goal of this program is to reduce infant mortality by helping moms have healthy pregnancies and deliver healthy and full-term babies. The ZIP codes served have an infant mortality rate 250% higher than the rest of the county and families face many challenges. Healthy Start helps families achieve goals related to housing, education, and self-sufficiency. Over the past 20 years, the program has served 10,000 families, 97% of

whom are African American. The program is expanding to serve fathers, with the goal of 100 per year. HomVEE states that Healthy Start is not a home visiting model, and this site does not use a HomVEE evidence-based model for its home visiting component.

Parents as Teachers (PAT)

PAT is administered through the Family Resource and Youth Services Centers (FRYSCs) in local schools in some Kentucky districts. As part of this program, families of children birth through three years may be eligible for home visits. The goals of PAT are to increase parent knowledge of early childhood development, provide early detection of developmental and/or health issues, prevent child abuse and neglect, and increase children's school readiness. At least one FRYSC in eight Kentucky counties (Breckinridge, Daviess, Fayette, Hardin, Jefferson, Kenton, Letcher, Pulaski) offered PAT in 2019, and nearly 300 home visits were provided statewide that year. The number of families receiving these visits was not reported. HomVEE has designated PAT as an evidence-based home visiting model.

Early Steps to School Success

Early Steps to School Success is a program of Save the Children, a non-profit organization. The program provides parent-child education, language, and early literacy development, and family support through home visits, group meetings, and community events, with the purpose of improving school readiness, parenting skills, and home/school connections. Early Steps to School Success is implemented in eight Kentucky counties (Clay, Jackson, Jefferson, Knott, McCreary, Owsley, Perry and Whitley), and serves rural, low-income populations. The number of families served in Kentucky was not provided. Pregnant moms and children from birth to three participate in bi-weekly home visiting while children three to five years old participate in a book bag exchange. HomVEE has reviewed Early Steps to School Success but has not designated it an evidence-based home visiting model.

Gaps in Home Visiting Services

In assessing the state of home visiting in Kentucky, KDPH identified gaps in services that occurred across the system, as well as among certain populations or geographic areas. These gaps were

identified through review of indicator data, staff experience, other needs assessments, and documentation from early childhood service partners.

Systems or Statewide Gaps

According to data collected by the Title V Needs Assessment, MCH professionals across the state agree that HANDS are under-utilized and that the program does not serve as many families as it could if enrollment and retention were improved. This concern is common to other Title V and maternal and child public health services such as WIC. HANDS Program data supports this observation. In 2010, when the last MIECHV Needs Assessment was conducted, there were approximately 11,000 families enrolled in the HANDS program each year. As of 2019, about 9,000 families were enrolled. MCH professionals say that self-referrals have decreased because HANDS has lost name recognition with families and that referrals from prenatal providers have decreased because new providers are not familiar with the intended audience or services provided by HANDS. Families and healthcare providers have misconceptions about what services local health departments (LHDs) offer, especially given the public health transition away from direct service provision. MCH professionals noted that Title V services at LHDs have traditionally identified families to serve from within the health department, and that the decrease in direct medical services is correlated with decreases in other programs. The decrease in people physically visiting the health department and the misconceptions about public health services are compounded by the stigma of seeking government aid, which MCH professionals felt was a barrier to families enrolling in HANDS and other public health programs.

Currently, HANDS has different funding sources that serve different types of families. Medicaid reimburses services for multigravida and primigravida families, MIECHV covers only multigravida families, and the state match has covered primigravida families. To ensure the state match funds were disbursed, KDPH has put guidelines on the number of multigravida and primigravida families that should be enrolled at each LIA. When LIAs meet that threshold, they close enrollment until their proportion of families with different funding sources again meets KDPH guidance. This process did help ensure KDPH was compliant with federal match guidelines, but potentially limited the number of families served. In the

most recent non-competing continuation application, KDPH requested to use MIECHV funds to be used for services for both multigravida and primigravida families, which would mean the state match could also be applied to multigravida and primigravida families. The ratio of services will no longer matter, and sites will not have to close intake until they meet their maximum service capacity. Although HANDS is unique among many maternal and child health services—in that visits can be reimbursed by Medicaid although they are not traditional clinical services—many other programs must balance funding and requirements of different sources in order to leverage their resources.

Based on quarterly reports to HRSA, HANDS has an attrition rate that fluctuates between 8%-10%. To date, HANDS has not studied any patterns of attrition to determine if that rate is uniform across LIAs or different demographic groups. Further study of this topic could help the program determine more ways for families to stay involved through the duration of the program. Attrition is not a problem unique to HANDS. Although programs that are mandated by a court or as part of a child welfare plan may not have this issue, it is common among voluntary public health services. More in-depth study of families' reasons for exiting services could help these programs ascertain ways to improve retention and decrease attrition.

In order to address these gaps and increase program enrollment, HANDS plans to implement a two-pronged media campaign in 2021 or 2022. The objective is to educate the audiences about the four main goals of the HANDS program, who the program is for, and the long-term benefits associated with positive pregnancy outcomes. The first prong of the campaign will be targeted toward the general public, particularly parents and caregivers. This prong will rely on social media in addition to traditional media. The second prong of the media campaign will target prenatal, pediatric, and family care providers. Both prongs of the media campaign will be designed and implemented by a professional marketing or advertising company, with the skills and experience to reach the target population.

Gaps Affecting Specific Populations or Areas

In focus groups conducted as part of the Title V Needs assessment and in documentation provided by other early childhood home visiting programs, the emphasis was on serving families in high-

risk communities, not just low-income families. As one MCH professional noted, programs that have strict enrollment criteria limit the number of families who qualify for services and may not reach many who could benefit. HANDS participation is not income-based, which allows the program to serve families who are overburdened in other ways. However, the public may have a false perception that middle-class families are not eligible for HANDS, and these families may fall through the cracks. Educating families and providers about HANDS eligibility through a media campaign may benefit this group. When discussing the HANDS programs' plans and goals for education and awareness, several maternal and child health programs within KDPH, including Title V programs, expressed interest in pooling their resources into a collaborative effort.

Documentation from early childhood service partners notes the lack of services available to young children after infancy but before school enrollment. This loss of learning time and social support services could potentially impact school readiness, which would disproportionately affect families who are already overburdened. Although children up to age three can participate in the HANDS model, traditionally the program has focused on children under age two. A HANDS pilot project to retain children until age three should help address this gap and serve families better.

MCH professionals and the general public both agreed that issues surrounding substance use disorder and mental health are some of the most critical facing mothers, children, and families in Kentucky. In every focus group, interview, and survey, Kentuckians reported that the issues they are most concerned about for pregnant women and their infant children are related to substance use (including tobacco use and vaping) and behavioral or mental health. As the Title V data collection tools often grouped tobacco use (including smoking and vaping) with other types of substance abuse, HANDS was unable to fully differentiate those concerns. Although none of the groups gave suggestions for how HANDS can better reach these families, it is clear from the data that HANDS has a responsibility to find innovative ways to do so. One option may be strengthening the partnership with the Early Childhood Mental Health (ECMH) Program. This program, administered by the BHDID and KDPH, is available to make and receive

referrals to the HANDS program. The ECMH program can assist with screenings, assessments, consultations for young children birth through five as well as offer trainings to staff and families.

MCH professionals and Latinx families noted in the Title V Needs Assessment that government services need to become more culturally and linguistically appropriate. Currently, some LIAs employ home visitors who are bilingual (primarily Spanish); otherwise, LIAs use telephonic interpretation for over 30 languages. Specific concerns included barriers for families with limited English proficiency, implicit bias among providers, structural racism in government institutions, and discrimination based on religion and other cultural aspects. Although none of these comments were made about HANDS in particular, but about local health department services in general, the HANDS program should attempt to address these concerns to better serve families. According to data collected in FY2020, approximately 7.8% of children in HANDS were Black or African American and 2.8% identified as Hispanic, compared to 9.2% and 7.0% among all Kentucky children ages 0-4, respectively[28]. This under-representation means that HANDS may need new strategies to reach and retain families of some demographic groups.

Nearly all sources that were included in this needs assessment agreed on one point—rural areas are underserved, especially for specialist care and mental health. In the experiences of the MCH professionals, agencies such as LHDs have difficulty recruiting and retaining qualified staff in rural areas, when suburban and urban areas can offer higher pay. Even when providers are available, families face barriers such as transportation, limited hours of service, and childcare availability. Perhaps because of this lack of services, the indicator data shows an increased burden of morbidity on populations in rural counties. This health disparity is one that the HANDS program and the rest of the early childhood system of care must continue to address in coming years. MCH professionals said that home visiting is an effective delivery model in rural areas, as it overcomes barriers to care by bringing multiple services to families in-home. Other professionals said that telehealth should be expanded, and that offering home visiting services through teledelivery could make HANDS or other home visitation services more

[28] Data obtained from the Kentucky State Data Center's Population by Sex, Age Group, Race and Hispanic Origin (2010 & 2018) http://ksdc.louisville.edu/data-downloads/estimates/ on June 23, 2020.

efficient, allowing them to serve more families while expending fewer resources. Recent applications of telehealth in light of the Covid-19 pandemic have demonstrated the utility of these practices, although programs that bill for services, follow an evidence-based model, or are written into law may face additional considerations in adapting the program to virtual modalities.

How Home Visiting Meets Families' Needs

In Kentucky, home visiting is a system of care. No one program is comprehensive enough to meet the needs of all of the overburdened families of young children. However, each program has unique contributions to meet the needs of this population. Every county in Kentucky has at least two of the home visiting programs described above (CCC and HANDS), and Jefferson County has all six programs in some areas. Between these programs, tens of thousands of young children and their families receive high-quality services every year in Kentucky. Due to its statewide presence, the strength of the data collection system, and KDPH's ability to effect changes within the program, the remainder of this section will focus on the HANDS program in particular. Other programs in the early childhood system of care may or may not implement uniform data collection, have clear benchmarks, or make their outcomes data publicly available.

The national performance measure (NPM) data submitted to HRSA in December 2019 demonstrates how the HANDS program's strengths translate into improved outcomes for participants. As an example, 94.2% of new mothers enrolled in HANDS receive a postpartum visit in the recommended timeframe (NPM #5), compared to 90.1% of new mothers nationwide[29]. As maternal morbidity and mortality are growing concerns, ensuring that women receive appropriate postpartum medical care is a public health priority in Kentucky which is supported by the work of HANDS. Another strength of HANDS is ensuring that families are screened for any concerns. In the areas of child development (NPM #12), behavioral concerns (NPM #13), and domestic violence (NPM #14), at least 90% of eligible HANDS participant receive on-time screenings (95.3%, 90.0%, and 90.6%, respectively). Although these

[29] Retrieved from https://www.healthypeople.gov/node/4855/data_details on July 9, 2020

measures do not capture the effectiveness of referral and follow-up, screening is an important first step in identifying and addressing concerns. A third area where HANDS has been successful is encouraging safe sleep practices. KDPH implemented a safe sleep campaign in 2017 and has found modest success, but statewide most mothers still do not follow safe infant sleep. KDPH data shows that 95% of SUID cases have at least one unsafe sleep factor[30] and only 17.0% of mothers report that their infant's sleep environment has no unsafe sleep risk factors (from Kentucky 2018 PRAMS data). However, 89.1% of caregivers in HANDS reported always placing their infant in a safe sleep environment (NPM #7). That data indicates that the HANDS program empowers families to engage in their children's health and safety in a positive way.

HANDS activities also address key indicators in several high-risk areas. In order to reduce the high school drop-out rate and unemployment, HANDS first assesses the educational and employment needs of families in the intake screening process and monitors them for changes at least once every six months. HANDS staff use the curriculum to guide conversations with families about their educational and employment goals, then go through a formal goal-setting process to help families determine the steps to achieve those goals. HANDS refers families to educational and employment programs to help address any unmet needs. In order to address preterm birth and low birth weight, HANDS screens participants for the risk factors leading to those outcomes (e.g., compliance with prenatal care, tobacco usage, substance abuse, and stressors such as mental health and domestic violence). HANDS refers women to obstetric care, LHD services, WIC, mental health counseling, and smoking cessation as needed. Home visitors emphasize the importance of prenatal care, healthy lifestyle, prenatal vitamins, and decreasing stress through modules in the curriculum designed for pregnant women. HANDS workers help women set goals related to a healthy pregnancy, focusing on specific actions that women can take. In order to address child maltreatment, HANDS staff ask parents about plans for discipline, methods used to discipline their previous children, and history of Child Protective Services (CPS) involvement. The curriculum has

[30] Annual Report 2019 Public Health Child Fatality Review Program. Retrieved from https://chfs.ky.gov/agencies/dph/dmch/Documents/CFRAnnualReport.pdf on July 10, 2020.

modules on discipline, managing stress, and safety. All HANDS staff are required to complete training on Pediatric Abusive Head Trauma (PAHT) and home visitors educate parents on PAHT. This is not unique to HANDS; all nurses and social workers are required to complete similar trainings to identify and prevent PAHT. Whenever necessary, home visitors make referrals to CPS; supervisory and regional HANDS staff review these referrals. As all Kentuckians are mandatory reporters, other early childhood programs home visiting programs have similar relationships with CPS. Another example of indicators addressed by home visiting is SUD, but those activities will be described in Section 4.

Gaps in Staffing and Resources

In order to succeed, the HANDS program relies on support from the statewide early childhood system of care, as well as its critical infrastructure at the state and local levels. HANDS is not alone in facing staffing difficulties, as many other early childhood programs have problems with recruiting and retaining qualified staff. Gaps in staffing and resources that remain unaddressed could threaten the ability of these programs to serve families.

Central Office Staffing

When fully-staffed, the HANDS central office should have 10 employees who spend at least some of their time on the MIECHV program. That includes a MIECHV grant administrator (vacant), a senior epidemiologist and evaluator (Emily Ferrell), a junior epidemiologist (new position being created in late 2020 or early 2021), a health policy specialist-technical assistance coordinator (Jessica Beuibien-position filled January 2021), a professional development coordinator (vacant), a continuous quality improvement coordinator (new position), an early childhood section supervisor (Holly Lafavers), a quality assurance coordinator (vacant), a data coordinator/billing specialist (vacant), and an administrative specialist (Ashlee Marston). One of those positions will also fulfill MIECHV Project Director duties. The MIECHV evaluator contract was eliminated as of July 2020, and the senior epidemiologist will take on program evaluation duties as needed. The first six positions are supported by MIECHV funds and the others are in-kind. At a regional level, the following HANDS staff also contribute towards MIECHV activities: 4 technical assistance Specialists, 5 quality assurance specialists, and 5 trainers.

As described above, many of the central office positions are vacant; some of them have been vacant for several years. Although the existing staff have thought up innovative ways to be efficient and share the workload, they are not able to support the long-term growth and success of the HANDS program. Other programs do not face long-term vacancies at the state or administrative level, but experience frequent turnover, which has a similar impact on their ability to successfully administer the program. One barrier to filling positions is the state government classification system, which limits flexibility in the program's ability to offer competitive salaries and other benefits. As a result, when jobs are posted there are usually few or no qualified applicants. This problem affects many programs that are housed within state government, including those within child welfare, behavioral health, and education. Additionally, the coronavirus pandemic has resulted in a hiring freeze at the University of Kentucky, which hosts two of the central office positions; as a result, these positions may be difficult to fill for the foreseeable future.

Training

The coronavirus pandemic has also illustrated the need for training and professional development opportunities to be available online. Previously, most trainings were only held face-to-face, which was a barrier for LIA staff in rural or remote areas of the state. In those circumstances, LIAs could be paying salaries for staff who were not yet qualified to perform billable services. Although HANDS had already planned on hiring a professional development coordinator who would be able to create, produce, and host online trainings, the urgency has increased substantially in recent months. Other programs have also had to adapt their trainings to provide the same quality of content delivery while being accessible during the pandemic.

Technology

At the central office and in the field, technology is both an asset and a barrier to the workflow of HANDS. Central Office and LIA staff use a web-based data entry and billing system, which facilitates data collection and financial management. However, the system has limited utility for case management, a weakness that will be addressed in upcoming system enhancements. While this data system is

convenient for use in an office setting, it has limited utility in the field. Due to a lack of devices (tablets or smartphones) as well as limited internet and cellular network connectivity, home visitors at most LIAs cannot enter data in the database while in the field. This concern is not unique among HANDS but is something that is common among home visiting programs in the state. The usual course of action is to take notes on paper forms that are then entered in a database upon return to the office. That duplication of effort is frustrating, but will take substantial effort and cost to address. If teledelivery of home visits continues or expands, new concerns about technology will almost certainly arise. Collaboration between partners in the early childhood system of care could help programs share strategies that have worked for them.

LIA Budgetary Concerns

In recent years, as foot traffic at LHDs has decreased and the workforce has aged into retirement, the local public health system has faced a budget crisis, the effects of which are seen in the local staffing of HANDS and other early childhood programs housed within LHDs. As of July 2020, there are 255.52 FTE home visitors, 49.14 FTE supervisors, and 64.01 FTE other staff to serve the state's home visiting needs. When comparing data from the same group of MIECHV-funded LIAs in early 2018 and early 2020, the number of staff dropped by 5.71%. However, the number of reported vacancies did not change significantly during this time, indicating the LIAs are not looking to replace staff who leave the program or are re-assigned to other duties. During this same time period, the staffing FTE dropped 9.96%. That finding indicates that HANDS staff are being asked to spend a larger percentage of their time on other duties (such as family planning visits, immunization clinics, and more) and have less time to dedicate to HANDS. As this change in duties reduces the number of families served and number of billable services, it decreases the perceived value of the HANDS program to the LIA. Although not all early childhood home visiting programs are housed within LHDs, problems with recruiting and retaining front-line staff are common statewide and may be even more critical in rural areas.

In addition to staffing, these budgetary concerns influence the ability to maintain infrastructure, to perform functions that are not reimbursed (such as reflective supervision), and to engage with the

community through activities such as health fairs. Administrators may feel that expenses that are not crucial to program function, although they may improve enrollment or sustainability, are beyond their programs' means when budgets are limited. Although serving more families has the potential to help sustain programs by generating more revenue, managers are reluctant to take the financial risk of onboarding new staff that they may not be able to sustain.

Section 4—Capacity for Providing Substance Use Disorder Treatment and Counseling Services

Substance Use Disorder

As noted in Section 2, Kentuckians believe that surrounding SUD and mental health are some of the biggest issues facing mothers and children in their state. Issues such as depression, child abuse and neglect, neonatal abstinence syndrome, and child development were all mentioned in the context of substance use. Population-based data sources agree that the problem is critical. Kentucky's rate of drug deaths is more than 1.5 times the national average (0.322 versus 0.192 per 1,000 population)[31]. To combat this pervasive issue, HANDS will need to engage with partners who provide treatment and recovery services including counseling.

The following information about the capacity for such services was primarily provided by the Division of Behavioral Health, Developmental and Intellectual Disabilities (BHDID); Kentucky Department for Medicaid Services (KDMS); and by FindHelpNowKY, an initiative of the Kentucky Injury Prevention Center (KIPRC). Additional information came from documentation provided to HANDS by other agencies for needs assessment purposes, including Title V and DCBS.

Availability of SUD Treatment Services

Information on the availability of SUD treatment services was provided by FindHelpNowKY, a statewide directory including each "addiction treatment facility that is taking new clients right now" and its "treatment offerings and availability"[32]. This publicly-accessible website allows individuals to search

[31] CDC WONDER Mortality data, 2015-2017
[32] https://findhelpnowky.org/ky

for facilities based on gender, pregnancy, geographic location, facility type (such as outpatient, inpatient), medications used in treatment, insurance accepted, hours of operation, and additional services provided. After searching and filtering results, facilities are listed and color-coded by whether or not they are currently accepting new patients. FindHelpNowKY staff provided data from the website, including the number of facilities of each type (residential, inpatient) in each Kentucky county. Appendix B contains a matrix of the capacity for substance abuse treatment and counseling in identified target counties. According to this matrix, there are a total of 531 outpatient or residential treatment facilities across 104 of Kentucky's 120 counties.

When comparing the list of 37 counties that are high-risk for the SUD domain (see Section 2 for more information) to the matrix of services in Appendix B, there are some noteworthy points. Of the 37 high-risk counties, 5 have no SUD treatment facilities, meaning that residents would have to travel to another county to receive services. An additional 6 counties have only one facility (all of which are outpatient only). Although a service is available in those areas, there is no flexibility or variation in services provided in that county; therefore someone seeking residential treatment or another type of service would have to travel outside of their county.

Kentucky Medicaid reimburses a number of SUD treatment and counseling services for specific member groups, when medically necessary. For adults and children, that may include medically managed withdrawal management in an acute care hospital[33]; mental health counseling and SUD treatment services provided by a Community Mental Health Center[34], by a Behavioral Health Service Organization[35,36], or by individual or group behavioral health providers[37]; crisis services[38]; and SUD treatment at outpatient chemical dependency treatment centers[39]. For pregnant and postpartum women, Medicaid may reimburse

[33] 907 KAR 10:012
[34] 907 KAR 1:044
[35] 907 KAR 15:020
[36] 907 KAR 15:022
[37] 907 KAR 15:010
[38] 907 KAR 15:070
[39] 907 KAR 15:080

for prevention education with substance use risk factors and case management services for six months postpartum[40]. Medicaid may also reimburse targeted case management services for individuals with moderate or severe SUD[41], co-occurring SUD and mental health diagnoses, co-occurring SUD and chronic or complex physical health issues[42]. Changes have been filed to state law, anticipated to become effective in early 2021, which will include Medicaid reimbursement for medically monitored withdrawal management and medication-assisted treatment. Individuals under the age of 21 may also be able to receive additional services that are covered by Early Periodic Screening, Detection, and Treatment (EPSDT), if these services are medically necessary and not covered by Medicaid.

Gaps in Services and Barriers to Receiving Treatment

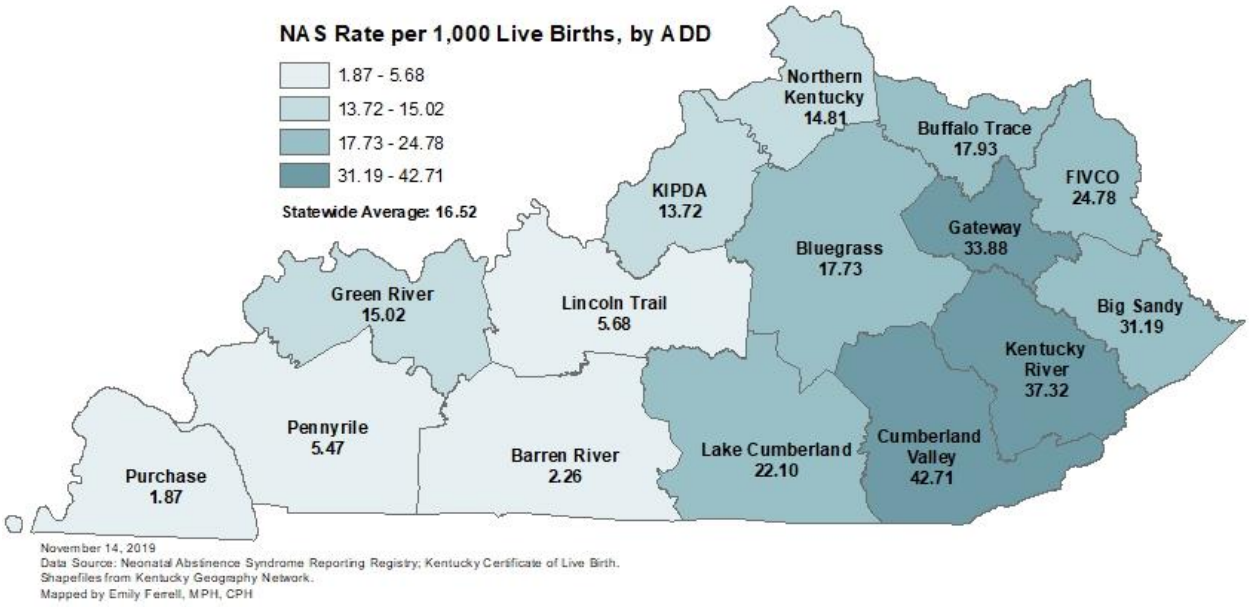
Although there are many treatment facilities in Kentucky, that number alone does not indicate accessibility for all who need treatment. According to data in Appendix B, 16 of Kentucky's 120 counties have no outpatient or residential treatment facilities. An additional 58 counties have no residential treatment facilities (all facilities are outpatient only). The remaining 46 counties have outpatient and residential treatment services available. Although services are, generally speaking, broadly available, specific types of services may be much more limited or difficult to access in any given area. Accessibility is just as important as availability, and pregnant or parenting women face several unique challenges to accessing services. The KDPH report of 2018 NAS cases in Kentucky reveals that most mothers of children with NAS have already had one or more previous live births[43]; these women have the many responsibilities associated with parenting that can be barriers to seeking treatment for themselves. Examples include obtaining reliable and safe childcare, balancing appointments or services for multiple family members, and finding residential services that welcome children as well as mothers. Similarly, pregnant or parenting women who often face barriers to care—for example, those with limited English

[40] 907 KAR 1:044
[41] 907 KAR 15:040
[42] 907 KAR 15:050
[43] Retrieved from https://chfs.ky.gov/agencies/dph/dmch/Documents/NAS%20Report%202019_DPH.pdf on June 17, 2020.

proficiency or limited literacy, co-occurring mental or physical health diagnoses, or domestic violence—face those additional barriers in seeking SUD treatment.

Figure 1, below, shows the NAS rate across Kentucky Area Development Districts (ADD). There are large discrepancies across Kentucky with rates ranging from 1.9 to 42.7 cases per 1,000 live births. The Appalachian region has particularly high NAS rates, and Kentucky's rural counties have NAS rates nearly twice as high as urban counties[44]. This same trend was found for the counties found to be high-risk in the SUD domain, with rural areas being over-represented. As rural areas are less likely to offer services, let alone a variety of service options, these populations face particular challenges in accessing SUD treatment. Additional barriers to treatment relate to the social determinants of health, including income, employment, insurance status and coverage, availability of transportation, access to telephone and/or internet, and other intangible factors.

Figure 1. NAS Rate per 1,000 Live Births, by ADD



[44] Retrieved from https://chfs.ky.gov/agencies/dph/dmch/Documents/NAS%20Report%202019_DPH.pdf on June 17, 2020.

Availability of Wraparound Services

In Kentucky, there are a variety of programs that offer wraparound services to support pregnant women and families affected by SUD. Most of these programs are limited to specific communities and are not statewide. Information about these programs came from their staff.

The Sobriety, Treatment and Recovery Teams (START) program is an intensive intervention model for parents with SUD who are involved with the child welfare system. It integrates SUD recovery services, family preservation, and community partnerships. It started in 2007, based on the Sobriety, Treatment, and Reducing Trauma program in Cleveland, Ohio. In 2019, START operated in Boone, Campbell, Daviess, Kenton, Jefferson, Boyd, and Fayette counties, using funding from the Title IV-E waiver demonstration project and the Kentucky Opioid Response Effort (KORE) grant. As of June 2019, START has served 1,387 families, 2,095 adults, and 2,714 children.

Kentucky Strengthening Ties and Empowering Parents (KSTEP) emphasizes collaboration between families, DCBS, non-profit behavioral health providers, and CMHCs to achieve positive outcomes. DCBS collaborates with non-profit behavioral health agencies to provide in-home services and with CMHCs to provide quick access to SUD treatment. In-home providers, CMHCs, and DCBS staff have weekly case conferences. KSTEP launched in July 2017. As of March 19, 2019, there have been 207 referrals and 193 cases have been accepted. Since the involvement of those families with KSTEP, 254 children have remained in their home, 13 were placed with relatives, and 3 were placed in out-of-home care. Since implementation in July 2017, KSTEP has experienced 36 unsuccessful closures and 76 successful closures.

The Healing Empowering Actively Recovering Together (HEART) program addresses pregnant or parenting women who have been diagnosed with SUD or whose infants have been diagnosed with NAS. Currently, HEART is located in one county, but will soon expand to a second site. The program builds on HANDS by integrating and co-locating group parenting classes with peer recovery sessions and

community resources. After evaluation, the program has been designated an Emerging Practice by the Association of Maternal and Child Health Programs[45].

Kentucky is also participating in Project SCOPE, a distance-learning project developed by the Wyoming Center of Excellence. This is a multistate endeavor to build capacity at the local level in providing services to families dealing with addiction. This work cuts across several state agencies and brings expertise to rural areas.

Kentucky Moms Maternal Assistance Towards Recovery (KY Moms MATR) is located in all 14 regional CMHCs administered by BHDID and has a presence in all 120 counties. KY Moms MATR provides community outreach, case management, and prevention services to pregnant and postpartum women who have been diagnosed with or are at risk for SUD. Case managers engage participants in services to increase their readiness for treatment and reduce their risk of harm. KY Moms MATR case management clients are not required to enroll in therapy services or in active recovery. Individuals with a mental health disorder or concern are referred to behavioral health professionals as deemed necessary.

Project LINK provides community outreach and case management services to pregnant and postpartum women with a SUD diagnosis in Louisville. Project LINK is housed within a CMHC and partners with KY Moms MATR to provide services to pregnant and postpartum women who are enrolled or planning to enroll in therapy services.

Opportunities for Collaboration

Although many of the wraparound programs above involve collaboration between different local and state organizations, those are limited by the scale of their individual projects. Increasing collaboration between the state and local level at the same time as expanding the pilot sites to serve larger geographic areas will help the service delivery and sustainability of the programs described above. As these programs expand, HANDS may benefit from signing formal agreements of cooperation (such as Memoranda of Agreement) with partners in order to build a strong foundation for future collaborations. HANDS should

[45] http://www.amchp.org/programsandtopics/BestPractices/InnovationStation/Pages/Innovation-Station.aspx

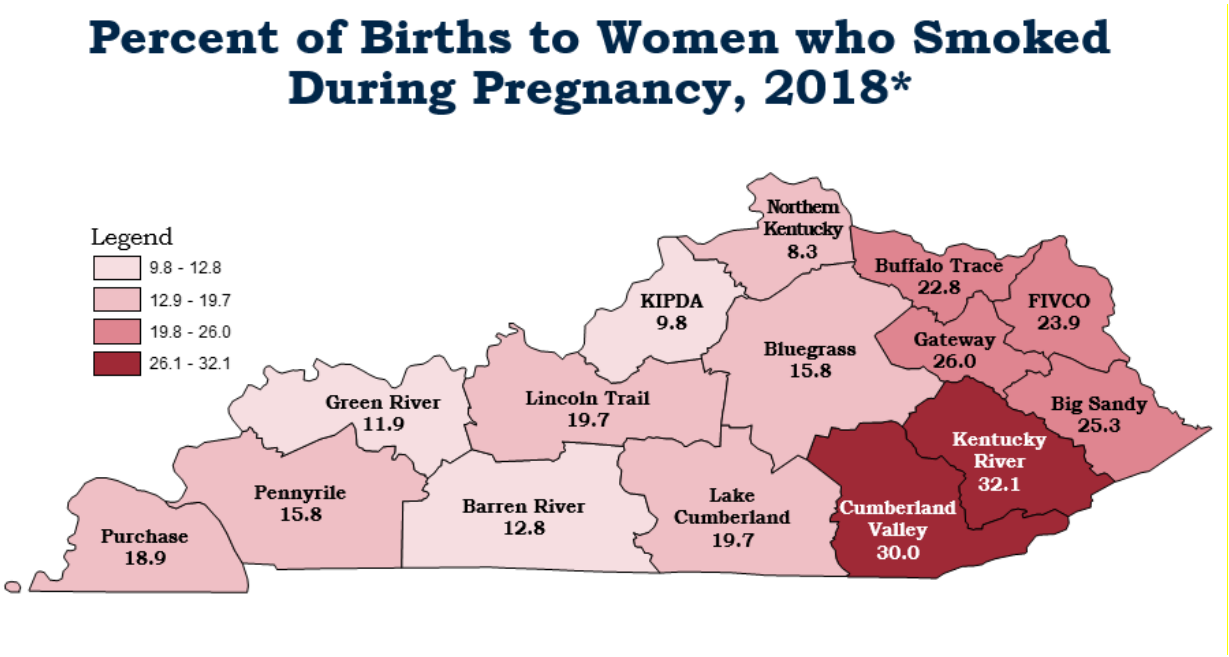
also consider collaborating with organizations that work to promote health by addressing the social determinants of health. Building collaborations between these programs, SUD treatment programs, and home visiting services will promote the goals of all groups involved.

Tobacco Use

While tobacco is associated with a variety of chronic health conditions, including coronary artery disease and stroke, smoking causes about 90% of all national lung cancer deaths.[46] According to the American Lung Association, Kentucky ranks last place with the highest age-adjusted incidence rate of lung cancer in the nation.[47] For 2018. 23.4% of Kentuckians reported smoking at least 100 cigarettes in their lifetime as we as currently smoking daily or some days compared to 16.1% nationally.[48] While there is very little difference between gender and smoking habits in Kentucky, there is a drastic difference based on annual income and highest level of educational attainment. For Kentucky, 37.4% of those adults who reported smoking had below a high school education and 38.8% made less than $25,000 a year. This compares to 9.7% of Kentucky smokers who had a college degree and 13.7% who made $75,000 or more a year. Smoking among pregnant women continues to be an issue in Kentucky where 16.9% of mothers in 2018 reported smoking during pregnancy compared to just 6.5% nationally[49,50]. Rates are elevated statewide but are highest in eastern Kentucky (Figure 2).

[46]Retrieved August 19, 2020 from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.htm
[47] Retrieved August 19, 2020 from https://www.lung.org/research/state-of-lung-cancer/states/kentucky
[48] Retrieved August 19, 2020 from https://www.americashealthrankings.org/explore/annual/measure/Smoking/state/KY
[49] Source: Kentucky Office of Vital Statistics Birth Certificate Data, 2018
[50] Retrieved August 19, 2020 from https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13-508.pdf

Figure 2. Percent of Births to Women who Smoked During Pregnancy, 2018.



Availability of Tobacco Treatment Services

Numerous resources are available to assist smokers with cessation throughout the state. According to Kentucky's Public Health Practice Reference, all pregnant women should be screened at the first prenatal visit about their use of alcohol, tobacco, and other drugs (ATOD) and exposure to secondhand smoke; and they should be asked about use of ATOD and exposure to secondhand smoke at each additional health department visit. Patients should be educated and referred appropriately. Repeated screening is recommended in order to emphasize that substance abuse is an important issue and that the health care provider cares enough to provide. It also provides opportunities for education on the risks of substance use on the developing fetus. Tobacco control specialists are located in all LHDs throughout Kentucky and provide information about smoking-related issues and the programs available in their areas. They complete community activities including Cooper/Clayton Method to Stop Smoking classes, distribution of tool kits, and policy activities. Although HANDS services do not occur in the LHD setting, the program screens clients for tobacco use and makes referrals to appropriate counseling services.

Kentucky's Tobacco Quit Line is a free telephone service that helps Kentuckians quit smoking and using tobacco products. Individuals contacting this hotline receive support and advice from an experienced quit specialist, a personalized quit program with self-help materials, and the latest information about cessation aids. There is a pregnancy-specific module to address the needs of those callers.

Gaps in Services and Barriers to Receiving Treatment

In Kentucky, there are 26 smoke-free community-wide ordinances or regulations (25 of 120 counties) including 38 municipalities that are covered by comprehensive smoke-free workplace ordinance laws.[51] Initiatives such as smoke-free community ordinances discourage smoking and create positive environments for Kentuckians to stop smoking. In addition to factors that contribute to general tobacco use regardless of gender or age, there are a number of common misconceptions and myths which affect a women's decision to continue smoking throughout pregnancy.[52]

Opportunities for Collaboration

Partnerships that focus on women of childbearing age in Eastern Kentucky (where smoking during pregnancy is most prevalent) seem to be the perfect fit for HANDS. Since misconceptions and myths play a role in this sub-population, collaboration could also extend to prenatal providers and other trusted stakeholders that have the potential influence and inform health decisions for women.

Alcohol Use

Excessive drinking among Kentucky adults varies by gender, age, race and even household income[53]. Due to differences in size and metabolic processes, excessive drinking (also referred to as binge drinking) definitions vary for men and women. BRFSS defines excessive drinking as consuming four or more drinks on one occasion in the past 30 days, for women, while for men it refers to consuming five or more drinks. For the 2018 Kentucky Behavioral Risk Factor Surveillance System, 11.5% of Kentucky

[51] Retrieved on August 19, 2020 from https://www.uky.edu/breathe/tobacco-policy/smoke-free-communities
[52]Retrieved on August 19, 2020 from https://women.smokefree.gov/pregnancy-motherhood/quitting-while-pregnant/myths-about-smoking-pregnancy
[53] https://www.americashealthrankings.org/explore/annual/measure/ExcessDrink/state/KY

women and 20.8% of Kentucky men reported excessive drinking.[45] One of the few areas where Kentucky exceeded national numbers for excessive drink was for race. Specifically, 28.1% of Hispanic Kentuckians reported excessive drinking compared to 19.1% nationwide.[45] Excessive drinking habits broken down by income vary in a less traditional manner in that individuals with higher incomes appear more likely to engage in risky drinking. Only 9.5% of Kentucky residents who had household income of less than $25,000 reported excessive drinking compared to 19% of Kentucky residents with a household income of $75,000 or more[45].

Availability of Alcohol Treatment Services

Kentucky has a number of alcohol abuse treatment facilities across the state but many of them provide alcohol abuse treatment as a supplement to other SUD treatments.[54] There are also a number of treatment facilities where treatment is provided with an emphasis on religious tenets.[55] In addition to more traditional and medically-focused treatment facilities, there are a number of formal and informal support groups including 12 step programs, trauma therapy, mindfulness-based sobriety and acceptance and commitment therapy.[56]

Gaps in Services and Barriers to Receiving Treatment

Causative factors for any kind of substance abuse are generally the same regardless of the substance, but social stigmas and perception of substance use risk for alcohol and drugs can vary significantly. A 2014 sampling of young adults found that 33.4% of respondents perceived great risk from weekly binge drinking while 78.8% and 62.2% perceived great risk from trying heroin and monthly cocaine use, respectively.[57] Part of the difference in perceptions may be due to the legality of alcohol use for adults over 21 years. This difference in perceptions may also explain why there are fewer facilities and services dedicated specifically to treatment for alcohol abuse.

[54] Recovery.org
[55] Addicted.org
[56] https://www.gatewayfoundation.org/faqs/effects-of-drug-alcohol-addiction/
[57] https://www.samhsa.gov/data/sites/default/files/report_2418/ShortReport-2418.html

Opportunities for Collaboration

Because alcohol abuse and misuse look different for different age groups, genders and socioeconomic backgrounds, opportunities for collaboration that take into account a variety of high-risk populations should be pursued and supported where possible. A one-size-fits-all approach will undeniably miss important pockets of those affected. Additionally, opportunities for collaboration exist regarding the way alcohol abuse and misuse are understood and surveilled. Unlike many public health issues, alcohol abuse and misuse often lack consistent definitions with data collection in the way of understanding perceptions for high-risk individuals. Continued surveillance and collaboration with existing partners could help identify more meaningful ways to reach this population.

Section 5—Coordinating with the Title V MCH Block Grant, Head Start, and CAPTA Needs Assessments

Throughout this process, KDPH collaborated with agencies that provide services for pregnant women, children, and families, to ensure a holistic view of the state. KDPH reviewed the 2015 and 2020 Title V MCH Block Grant Needs Assessments, the Child and Family Services Plan for 2020-2024 (produced by DCBS to meet CAPTA requirements), and needs assessments from selected Head Start Offices across the state. Additionally, KDPH reviewed community health needs assessments, annual reports, and other documents from universities, hospitals, LHDs, and non-profit organizations across the Commonwealth.

Title V

Collaboration

As the Title V program and HANDS are both housed within the Division of Maternal and Child Health at KDPH, the two work closely together. Staff from both groups collaborated on both needs assessments to identify barriers, challenges, and priorities for children and families. The 2015 Title V Needs Assessment provided historical context and draft versions of the 2020 Title V Needs Assessment

reflected up-to-date input from stakeholders. KDPH synthesized this information with other sources and incorporated it throughout this document.

Methodology

As part of their process, Title V collected qualitative data by partnering with a university's research center to conduct interviews and focus groups with MCH professionals around the state, plus one focus group with Latinx families. Overall, 125 stakeholders participated in focus groups and 18 more were interviewed. Stakeholders developed four lists: maternal and child health initiatives that are working well, community needs by population, barriers to improving the priority needs, and actions to improve the priority needs. The qualitative analysis captured the beliefs, values, and opinions of key representatives throughout the state in regards to health-related programs, successes, or barriers impacting women, infants, children (including those with special health care needs), and adolescents. The HANDS program received a report of these qualitative findings and extracted themes relevant to home visiting.

The Title V Program also collected and disseminated quantitative data in several forms. In 2019, the program produced 120 perinatal fact sheets, using 2017 Office of Vital Statistics birth and death data. These fact sheets were tailored to each of the 15 Area Development Districts (ADD) and addressed 8 maternal and child health domains including births, breastfeeding, infant mortality, low birth weight, births to Medicaid enrolled mothers, prenatal care, prenatal smoking, and preterm birth. From May 2019-March 2020, Title V administered a 21-question survey to consumers/families via LHDs, the Office of Children with Special Health Care Needs (OCSHCN) clinics, hospitals, and social media. The survey addressed problems affecting population domains (women, babies and children, teenagers, CYSHCN); services for CYSHCN; access to care; and demographics. A total of 395 surveys were returned, representing 58 of Kentucky's 120 counties (48%). The Title V Program also distributed a 47-question stakeholder survey through professional meetings and social media from September 2019- March 2020. The survey collected demographic information as well as thoughts on health issues, challenges, and successes for various population domains (women, infants, children, teenagers, CYSHCN). A total of

1198 surveys were returned. A KDPH epidemiologist analyzed the results of both surveys and incorporated relevant findings throughout this document.

Selected Findings

MCH professionals and families spoke passionately about the topics they think are most concerning for mothers, infants, and young children. When limiting these concerns to areas that MIECHV works toward, several themes emerged. Mental health, substance use disorder and substance exposure (including tobacco exposure), and social-emotional development were some of the most common concerns. Kentuckians also have unmet needs related to chronic disease and health literacy, parenting and life skills education, access to care, and social and emotional supports. HANDS emerged as one of the most successful MCH initiatives, but there were concerns about declining participation statewide and outreach to specific populations.

DCBS

Collaboration

HANDS and DCBS have ongoing partnerships at both the state and local levels. They share data to meet national reporting requirements and support program evaluation. Staff from both programs refer families to each other when families could benefit from additional services. Because child welfare has historically been a concern in Kentucky, as discussed in Section 2, KDPH felt that input from DCBS was essential in this needs assessment process. In addition to consulting with staff of programs such as CCC and START, KDPH also reviewed the Child and Family Services Plan for 2020-2024 in order to extract information relevant to the HANDS program. This information was incorporated throughout the MIECHV Needs Assessment to enrich discussion of child welfare concerns.

Methodology

The Child and Family Services Plan addresses progress towards Child and Family Outcomes and identifies strategies to meet them. This plan was written in 2019 and developed with stakeholder input from Administrative Office of the Courts (AOC); KDMS; Court Appointed Special Advocates (CASA); Division of Family Support (DFS); Prevent Child Abuse Kentucky (PCAK); the Department of Juvenile

Justice (DJJ); BHDID; Orphan Care Alliance (OCA); the Children's Alliance; FRYSC parent representatives; Children's Justice Act (CJA); various service providers including those receiving Community-Based Child Abuse Prevention Program (CBCAP) funding; various partners from different universities, including the training resource consortium; Early Childhood Education; and KDPH.

Selected Findings

The Child Family Safety Plan highlights several areas that are mutual concerns for DCBS and HANDS. These include protecting children from abuse and neglect, preserving family relationships and connections, enhancing parents' capacity to meet their children's needs, and offering services to address children's physical and mental health. Emerging priorities for 2020-2024 include improving child safety, reducing the recurrence of maltreatment, expanding prevention services, and facilitating parental engagement with strengths-based approaches. Strategies to address these concerns include enhancing partnerships with local programs, KDPH, and OCSNCHN. Because this report found that children under age 4 are at highest risk for maltreatment, DCBS will continue to encourage referrals to early childhood programs including HANDS.

Head Start

Collaboration

Early Head Start and HANDS collaborate at the state and local levels. Locally, in the 76 counties where both programs offer services, there is coordination to make sure that families receive the appropriate resources without duplication of effort. On the state level, Early Head Start staff and HANDS staff are both represented on the Early Childhood Council and other workgroups that address issues of child well-being and development. Because these programs share so many goals and often utilize similar strategies, joining together is a logical course to improve outcomes for Kentucky children.

Methodology

The Kentucky Governor's Office of Early Childhood (OEC) provided information about the Head Start programs in the state. This included select quantitative variables that addressed the programs' reach across the state. Needs assessments are conducted by individual Head Start and Early Head Start sites, in

order to meet the requirements of Head Start Performance Standards (45 CFR 1302.11), and there is no statewide needs assessment. For that reason, KDPH reviewed selected local Early Head Start community assessments, representing diverse geography and demographics. As a general rule, these assessments incorporated both quantitative data (secondary analysis of data from publicly-available governmental sources) and qualitative data, which sites collected through surveys and focus groups with families. Generally speaking, the quantitative data explored the context of the region and need for services, and the qualitative data explored the families' experiences with Head Start. Findings from these needs assessments were incorporated into this document to reflect the population served by both programs.

Selected Findings

Because the community assessments were done on such a local level, each assessment had different priorities and concerns. However, there were a few common themes in these assessments that were also echoed in the MIECHV needs assessment. The first challenge is recruiting participants early—so they enroll as soon as they are eligible—and retaining them in the program as long as they remain eligible. Some assessments mentioned difficulty reaching specific populations, such as foster families, homeless families, and families with substance use disorder. Finally, a common concern was maintaining a qualified workforce and reducing turnover among staff. HANDS also faces these issues, which are described in other sections of this document.

Additional Collaborations

This document also incorporates a variety of sources, which are referenced in the text and the footnotes. These additional sources were added to increase the depth and breadth of the assessment. These community needs assessments were conducted by universities, hospitals, LHDs, and non-profit organizations. In particular, KDPH chose to review assessments that were conducted in communities in eastern and western Kentucky. These geographic regions have relatively small populations and are geographically distant from the capitol and the major cities, so they are often under-represented in statewide needs assessments. Additionally, several of these needs assessments were conducted by organizations that do not traditionally focus on maternal and child health (such as cooperative extension

offices) but their findings relate to the purpose of the HANDS program, and KDPH felt that their perspective was important to include here. Additionally, selected partners from the early childhood and SUD treatment systems of care were asked to review this draft document and provide feedback. Specifically, they were asked to comment on the following: whether or not they agreed with the findings and how well the findings applied to their target population; examples from their program that support the findings; and suggested revisions to the content of the report. This feedback was synthesized into the needs assessment to reflect the full systems of care. Partner organizations that were given the opportunity to provide input on the needs assessment draft are listed in Table 2 below. Many of these partners listed in Table 2 contribute through joint participation in workgroups, providing screening or assessments for children and parents, referring families to HANDS or accepting referred HANDS families to their own program, and providing training to families or early childhood staff.

Table 2. List of Organizations, by Type, Collaborating on MIECHV Needs Assessment.

Early Childhood System of Care	
Agency	**Program**
KDPH	Title V (includes oversight of Healthy Start)
	First Steps
DCBS	Division of Childcare
	Commissioner's Office Policy Liaison
	Division of Protection and Permanency (includes Community Collaborative for Children)
KDMS	Medical Director
BHDID	Early Childhood Mental Health Program
Kentucky Department of Education	Head Start
	Family Resource and Youth Service Centers (including Parents as Teachers)
University of Kentucky	Human Development Institute
SUD Treatment System of Care	
Agency	**Program**
KDMS	Medical Director
KDPH	Title V (includes oversight of HEART)
KIPRC	FindHelpNowKY
BHDID	Adult Substance Use and Recovery Services Treatment Branch

The information above helped prioritize the priority populations listed in the legislation. From that process, we identified communities at risk, matched that with the study of quality and capacity of

existing programs, acknowledged gaps and specific communities of need, and framed potential programs to meet the needs of these gaps and high-risk communities. To demonstrate their commitment to promoting health and well-being for women and children, a variety of collaborators and partners wrote letters of support for the HANDS program. Letters from Title V, DCBS, BHDID, the Kentucky Department of Education, Head Start, and KIPRC are attached in Appendix C.

Dissemination Plan

As described earlier in Section 5, numerous partners collaborated on this needs assessment. All of the partners listed in Table 2 were offered the opportunity to review and provide feedback on sections of the draft needs assessment; these partners were also given instructions on how to obtain copies of the final needs assessment document. All regional and state HANDS staff had the opportunity to provide feedback on the document and will receive copies of the final version. When the finalized needs assessment is ready, it will be made accessible to LIA HANDS program coordinators and LHD leadership. In turn, these partners will be able to share the document in their community as they feel appropriate.

Section 6—Needs Assessment Summary and Results

The planning process for this needs assessment began in January 2020, when a group consisting of home visiting staff, early childhood professionals, and epidemiologists convened to review the requirements and develop a course of action. To create Section 2, epidemiologists from the Program Support Branch of KDPH assessed the quantitative data, located alternate sources, and advised on all changes or additions to indicators.

The final list of indicators by domain is as follows: Socioeconomic Status (SES) Domain- poverty, unemployment, high school dropout, income inequality; Adverse Perinatal Outcomes Domain- preterm birth, low birth weight; Substance Use Disorder (SUD) Domain- alcohol, marijuana, illicit drugs, pain relievers; Crime Domain- crime reports, juvenile arrests; Child Maltreatment Domain- child maltreatment, substantiated abuse or neglect; Pregnancy Health Domain- smoking during pregnancy, receiving early and regular prenatal care; Social Determinants of Health (SDOH) Domain- SNAP, WIC,

housing, food insecure, single-parent household; and Child Outcomes Domain- foster care, incarcerated youth, dental care.

The Title V program provided access to their 2020 Needs Assessment data. Home visiting staff reviewed this needs assessment and other qualitative data sources, in order to obtain a holistic view of Kentucky's counties. Home visiting staff and epidemiologists collaborated on determining the final list of high-risk counties. Ultimately, all 120 counties were included because not only do individual counties face their own distinct challenges to health, but also because there are deep disparities between Kentucky and the rest of the U.S

As part of Section 3, home visiting staff collaborated with countless other early childhood agencies in order to obtain the information about services available to children in Kentucky. These agencies were asked specific questions or prompts, asked for copies of their own needs assessments or evaluations and given the opportunity to provide additional input in the narrative. For a few agencies, KDPH staff did not make contact but had to rely on publicly-available information, such as annual reports. The programs that provide maternal or early childhood home visiting in Kentucky include HANDS, Community Collaborative for Children (CCC), Early Head Start (EHS), Healthy Start, Parents as Teachers, and Early Steps to School Success. Most of these programs are provided in a limited number of counties. However, HANDS and CCC home-based services are provided in every county across the state.

KDPH identified ways in which home visiting meets families' needs and gaps in home visiting services and resources. Strengths include the collaborative system of care; a home visiting program that translates to improved participant outcomes in the areas of postpartum care screenings, and safe sleep; and a curriculum that addresses participant risk factors. Identified gaps include underutilization of services; misconceptions about eligibility; lack of services for toddlers; services addressing SUD and mental health; culturally competent services; lack of coverage in rural areas; and lack of resources in staffing, budgets, and technology.

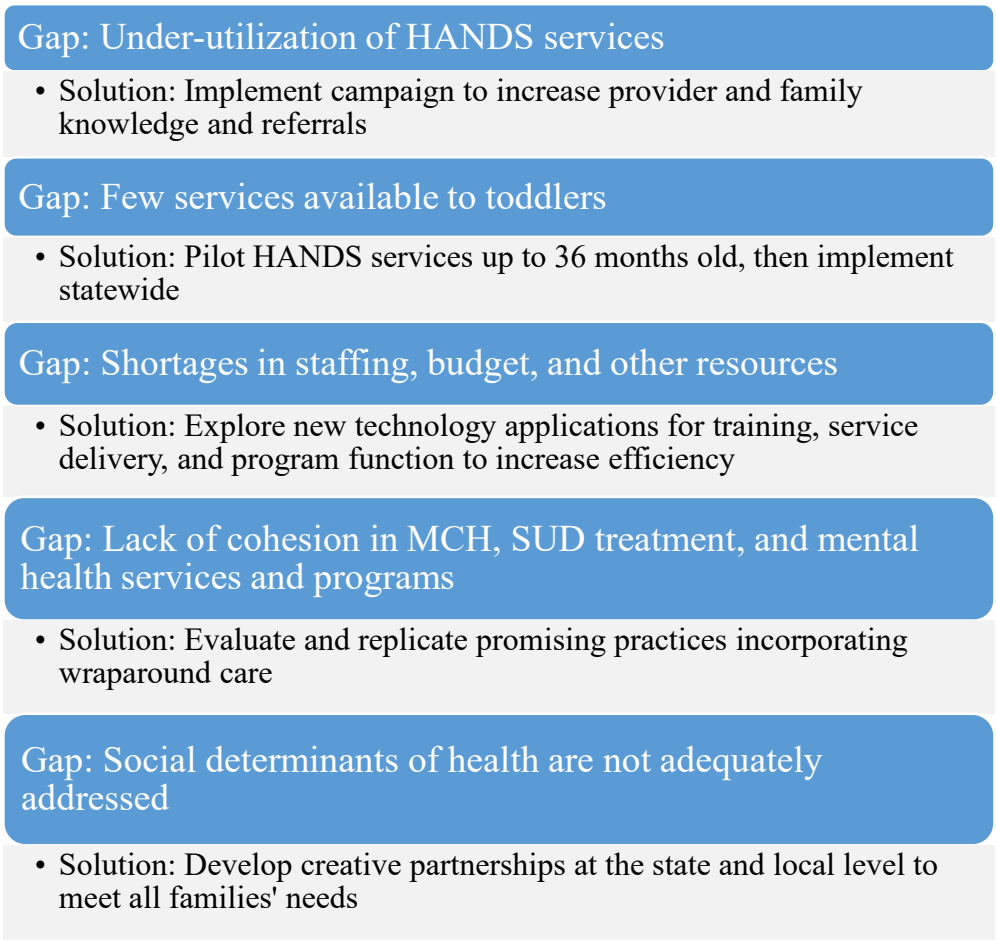
In Section 4, home visiting staff collaborated with behavioral health and injury prevention agencies in order to obtain the information about SUD treatment services available in Kentucky. These agencies were asked specific questions or prompts, asked for copies of their own needs assessments or evaluations and given the opportunity to provide additional input in the narrative. As in Section 3, there were a few agencies that KDPH did not contact but used existing documentation. Although there are many resources for SUD treatment statewide, their location, accessibility, and availability vary widely. Examples of promising programs that provide wraparound services, although they may only serve a small number of people, include START, KSTEP, HEART, Project SCOPE, KY Moms MATR, and Project Link. Tobacco use is a particular issue in Kentucky, even though there are many resources for treatment statewide. Little data is available on alcohol abuse in Kentucky, but it is often addressed at SUD treatment facilities.

KDPH identified ways in which SUD treatment services meet families' needs and gaps in existing services. Strengths include the number of SUD treatment centers across Kentucky and their availability; laws that allow Medicaid to reimburse a variety of SUD treatment and mental health services, including case management; and the variety of promising practices incorporating wraparound services across the state. Identified gaps include the limited availability of specific SUD treatment services, especially in the rural or Appalachian regions of the state; and the need for SUD treatment programs to address the social determinants of health.

In Section 5, KDPH outlined the collaborations with partner agencies, including Title V, DCBS, and Early Head Start. These programs serve families and children statewide, and their recent needs assessments echoed many of the findings of this one. Identified strengths included: the availability of services for mothers and children; and partnerships between different agencies and programs, especially at the local level. Identified gaps included: a need for health literacy and life skills education among Kentucky parents; insufficient availability of mental health and SUD treatment providers, especially in rural areas; enrolling and engaging the families who need services; and workforce turnover and staffing issues.

When compiling all of this information, KDPH identified five main needs and strategies to address them. With the collaboration of the partners named in this report and the support of state leadership, these strategies are achievable. Gaps and strategies are outlined in Figure 3, with more information below.

Figure 3. Priorities for MIECHV



First, HANDS and other MCH services are under-utilized by families who qualify and could benefit from participation. In order to address this need, KDPH will implement a coordinated statewide campaign to increase provider knowledge of HANDS program services and family interest in receiving services. In particular, HANDS should address enrollment and retention among racial and ethnic minorities, rural families, families affected by SUD, and families who do not meet income criteria for other government programs.

Second, many MCH services only apply during pregnancy or infancy; in particular, there are few services offered for children between the ages of 3 and 5 years old. HANDS should pilot services for 3-year-olds, evaluate the project, and consider scaling up to statewide implementation.

Third, HANDS has limited resources at the state and local level. Applications of technology including telehealth, distance learning for staff, and improved data management processes may help the program operate more efficiently and effectively. Other strategies may be needed to recruit and retain staff, but those efforts will ultimately save the program time and resources. When possible, the central office should support local agencies in implementing these solutions, which may require flexibility with financial guidance.

Fourth, there is a lack of cohesion between MCH, SUD treatment, and mental health services. The many pilot projects and promising practices statewide should be evaluated and replicated to serve more families. The HANDS program, which has experience in statewide implementation of an evidence-based program, should assist in this process whenever possible. Additionally, KDPH should work with other state agencies to develop a statewide strategic plan to address SUD treatment for pregnant women and parents.

Fifth, existing MCH programs do not adequately address the social determinants of health. At the local level, HANDS programs should engage in creative partnerships to ensure that participants' needs are met. KDPH should formally collaborate with other state agencies to promote their common goals.

Although these gaps are challenging, there are feasible solutions. With the continued support of partners across the state of Kentucky, HANDS will work to improve services for the mothers, children, and families in Kentucky.

Appendix A—Early Childhood Home Visiting Services by County

Presence of Early Childhood Programs by County						
County	**HANDS**	**Community Collaborative for Children**	**Early Head Start**	**Healthy Start**	**Parents as Teachers**	**Early Steps to School Success**
Adair	X	X				
Allen	X	X				
Anderson	X	X				
Ballard	X	X				
Barren	X	X	X			
Bath	X	X	X			
Bell	X	X	X			
Boone	X	X	X			
Bourbon	X	X	X			
Boyd	X	X				
Boyle	X	X				
Bracken	X	X				
Breathitt	X	X				
Breckinridge	X	X	X		X	
Bullitt	X	X	X			
Butler	X	X				
Caldwell	X	X				
Calloway	X	X	X			
Campbell	X	X	X			
Carlisle	X	X	X			
Carroll	X	X	X			
Carter	X	X				
Casey	X	X	X			
Christian	X	X	X			
Clark	X	X	X			
Clay	X	X	X			X
Clinton	X	X	X			
Crittenden	X	X	X			
Cumberland	X	X				
Daviess	X	X	X		X	
Edmonson	X	X				
Elliott	X	X				
Estill	X	X	X			
Fayette	X	X	X		X	
Fleming	X	X				
Floyd	X	X				

Presence of Early Childhood Programs by County						
County	**HANDS**	**Community Collaborative for Children**	**Early Head Start**	**Healthy Start**	**Parents as Teachers**	**Early Steps to School Success**
Franklin	X	X	X			
Fulton	X	X	X			
Gallatin	X	X	X			
Garrard	X	X	X			
Grant	X	X				
Graves	X	X	X			
Grayson	X	X	X			
Green	X	X				
Greenup	X	X				
Hancock	X	X	X			
Hardin	X	X			X	
Harlan	X	X	X			
Harrison	X	X	X			
Hart	X	X				
Henderson	X	X	X			
Henry	X	X	X			
Hickman	X	X	X			
Hopkins	X	X	X			
Jackson	X	X	X			X
Jefferson	X	X	X	X	X	X
Jessamine	X	X				
Johnson	X	X				
Kenton	X	X	X		X	
Knott	X	X	X			X
Knox	X	X	X			
Larue	X	X				
Laurel	X	X	X			
Lawrence	X	X				
Lee	X	X				
Leslie	X	X	X			
Letcher	X	X	X		X	
Lewis	X	X	X			
Lincoln	X	X	X			
Livingston	X	X	X			
Logan	X	X	X			
Lyon	X	X	X			
Madison	X	X	X			
Magoffin	X	X				

Presence of Early Childhood Programs by County						
County	**HANDS**	**Community Collaborative for Children**	**Early Head Start**	**Healthy Start**	**Parents as Teachers**	**Early Steps to School Success**
Marion	X	X	X			
Marshall	X	X	X			
Martin	X	X				
Mason	X	X	X			
McCracken	X	X	X			
McCreary	X	X				X
McLean	X	X	X			
Meade	X	X	X			
Menifee	X	X	X			
Mercer	X	X				
Metcalfe	X	X	X			
Monroe	X	X				
Montgomery	X	X	X			
Morgan	X	X	X			
Muhlenberg	X	X	X			
Nelson	X	X				
Nicholas	X	X	X			
Ohio	X	X	X			
Oldham	X	X				
Owen	X	X	X			
Owsley	X	X	X			X
Pendleton	X	X				
Perry	X	X	X			X
Pike	X	X				
Powell	X	X	X			
Pulaski	X	X			X	
Robertson	X	X				
Rockcastle	X	X	X			
Rowan	X	X	X			
Russell	X	X				
Scott	X	X	X			
Shelby	X	X	X			
Simpson	X	X				
Spencer	X	X	X			
Taylor	X	X				
Todd	X	X	X			
Trigg	X	X	X			
Trimble	X	X	X			

Presence of Early Childhood Programs by County						
County	**HANDS**	**Community Collaborative for Children**	**Early Head Start**	**Healthy Start**	**Parents as Teachers**	**Early Steps to School Success**
Union	X	X	X			
Warren	X	X	X			
Washington	X	X				
Wayne	X	X				
Webster	X	X	X			
Whitley	X	X	X			X
Wolfe	X	X				
Woodford	X	X				

Appendix B— Substance Use Disorder (SUD) Facilities by County

Count by County of Substance Use Disorder (SUD) Facilities Participating in FindHelpNowKy.org				
County	**Outpatient* Only**	**Residential** Only**	**Residential & Outpatient**	**TOTAL**
Adair	5	0	0	5
Allen	1	1	0	2
Anderson	1	0	0	1
Ballard	0	0	0	0
Barren	3	0	0	3
Bath	2	0	1	3
Bell	4	0	0	4
Boone	5	1	0	6
Bourbon	3	1	0	4
Boyd	12	3	1	16
Boyle	5	1	0	6
Bracken	1	0	0	1
Breathitt	3	0	0	3
Breckinridge	0	0	0	0
Bullitt	3	0	0	3
Butler	1	0	1	2
Caldwell	1	0	0	1
Calloway	3	0	0	3
Campbell	2	0	0	2
Carlisle	0	0	0	0
Carroll	2	0	0	2
Carter	1	1	1	3
Casey	2	0	0	2
Christian	5	3	1	9
Clark	4	0	0	4
Clay	3	1	1	5
Clinton	2	0	0	2
Crittenden	0	0	0	0
Cumberland	1	0	0	1
Daviess	5	1	3	9
Edmonson	1	0	0	1
Elliott	1	0	0	1
Estill	2	0	0	2
Fayette	42	1	6	49
Fleming	1	1	1	3
Floyd	8	1	1	10

Count by County of Substance Use Disorder (SUD) Facilities Participating in FindHelpNowKy.org				
County	**Outpatient* Only**	**Residential** Only**	**Residential & Outpatient**	**TOTAL**
Franklin	7	0	0	7
Fulton	0	0	0	0
Gallatin	1	0	0	1
Garrard	0	0	0	0
Grant	2	0	0	2
Graves	1	0	2	3
Grayson	2	0	1	3
Green	1	0	0	1
Greenup	2	0	1	3
Hancock	1	0	0	1
Hardin	11	0	8	19
Harlan	2	0	1	3
Harrison	6	0	0	6
Hart	1	0	0	1
Henderson	1	1	0	2
Henry	0	0	0	0
Hickman	0	0	0	0
Hopkins	3	0	0	3
Jackson	2	0	1	3
Jefferson	49	4	16	69
Jessamine	4	1	2	7
Johnson	4	1	0	5
Kenton	16	0	4	20
Knott	1	0	0	1
Knox	3	0	1	4
Larue	1	0	0	1
Laurel	9	2	1	12
Lawrence	3	0	4	7
Lee	1	0	0	1
Leslie	1	0	0	1
Letcher	3	0	0	3
Lewis	1	0	0	1
Lincoln	3	0	0	3
Livingston	0	0	0	0
Logan	2	0	0	2
Lyon	0	0	0	0
McCracken	9	1	2	12
McCreary	1	0	0	1

Count by County of Substance Use Disorder (SUD) Facilities Participating in FindHelpNowKy.org				
County	**Outpatient* Only**	**Residential** Only**	**Residential & Outpatient**	**TOTAL**
McLean	1	0	0	1
Madison	11	1	0	12
Magoffin	1	0	1	2
Marion	3	0	0	3
Marshall	2	0	0	2
Martin	2	1	0	3
Mason	3	0	0	3
Meade	1	0	0	1
Menifee	2	0	0	2
Mercer	1	1	0	2
Metcalfe	1	0	0	1
Monroe	1	0	0	1
Montgomery	3	0	2	5
Morgan	1	0	0	1
Muhlenberg	4	0	0	4
Nelson	3	2	0	5
Nicholas	3	0	0	3
Ohio	0	0	0	0
Oldham	2	0	0	2
Owen	1	0	0	1
Owsley	1	0	0	1
Pendleton	2	1	0	3
Perry	6	0	0	6
Pike	11	1	2	14
Powell	2	0	0	2
Pulaski	5	1	3	9
Robertson	0	0	0	0
Rockcastle	2	0	0	2
Rowan	5	3	0	8
Russell	3	2	0	5
Scott	6	0	1	7
Shelby	1	0	1	2
Simpson	3	2	0	5
Spencer	0	0	0	0
Taylor	3	1	0	4
Todd	0	0	0	0
Trigg	0	0	0	0
Trimble	0	0	0	0

Count by County of Substance Use Disorder (SUD) Facilities Participating in FindHelpNowKy.org				
County	**Outpatient* Only**	**Residential** Only**	**Residential & Outpatient**	**TOTAL**
Union	1	0	0	1
Warren	11	3	2	16
Washington	1	0	2	3
Wayne	3	0	0	3
Webster	1	0	0	1
Whitley	5	0	2	7
Wolfe	1	0	0	1
Woodford	1	0	0	1
Total	**409**	**45**	**77**	**531**

Data Current as of 6/16/20, provided by FindHelpNowKY.org

* Outpatient facilities include those that offer outpatient treatment, intensive outpatient treatment, and medication-assisted treatment.

** Residential can be short-term, long-term, or family residential; additionally, it can be inpatient and/or detox (medical or non-medical).

Appendix C— Letters of Support

University of Kentucky | College of Public Health
Kentucky Injury Prevention and Research Center

KIPRC KENTUCKY INJURY PREVENTION AND RESEARCH CENTER

June 26, 2020

Emily E. Ferrell, MPH, CPH
Principal Investigator, Kentucky MIECHV Grant
Kentucky Department for Public Health
275 E. Main St HS2WA
Frankfort, KY 40621

Dear Ms. Ferrell,

I am pleased to write this letter of support for the Kentucky Department for Public Health's 10 Year Needs Assessment for the HANDS Program. Our agency endorses and supports the HANDS Program's work to build a quality, comprehensive system that serves pregnant women, parents, caregivers, and children.

We understand that the HANDS Program engaged in secondary data analysis using quantitative and qualitative sources, in addition to drawing from resources provided by stakeholders, as part of the needs assessment process. As the director of the Kentucky Injury Prevention and Research Center, I will encourage our injury prevention programs to continue collaborating with the HANDS program to serve overburdened families in at-risk communities, by identifying and addressing strengths and gaps in our programs.

We agree with the HANDS Program that federal MIECHV funding should support: home visiting in all 120 Kentucky counties for primigravida and multigravida families, service expansion up to age three, initiatives to increase referrals and recruitment into the program, and services that promote mental health and address substance use disorder. We look forward to working with the HANDS program in the future to address these priorities and serve Kentucky's maternal, infant, and early childhood populations.

Sincerely,

Terry Bunn

Terry Bunn, PhD
Director, Kentucky Injury Prevention and Research Center
Professor, College of Public Health, University of Kentucky

see blue.
333 Waller Ave. | Suite 242 | Lexington, KY 40504 | P: 859-257-4954 | E: KIPRC@uky.edu | www.uky.edu

EDUCATION and WORKFORCE DEVELOPMENT CABINET
GOVERNOR'S OFFICE OF EARLY CHILDHOOD

Andy Beshear
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Jacqueline Coleman
Lieutenant Governor
and Secretary

500 Mero Street, 5th Floor
Phone 502-564-4440
Frankfort, KY 40601

Mary Pat Regan
Deputy Secretary

Amy Neal
Executive Director

June 10, 2020

Emily E. Ferrell, MPH, CPH
Principal Investigator, Kentucky MIECHV Grant
Kentucky Department for Public Health
275 E. Main St HS2WA
Frankfort, KY 40621

Dear Ms. Ferrell,

I am pleased to write this letter of support for the Kentucky Department for Public Health's 10 Year Needs Assessment for the Health Access Nurturing Development Services (HANDS) Program. The Kentucky Governor's Office of Early Childhood endorses and supports the program's work to build a quality, comprehensive system that serves pregnant women, parents, caregivers, and children.

We understand that the program engaged in secondary data analysis using quantitative and qualitative sources, in addition to drawing from resources provided by stakeholders, as part of the needs assessment process. As the Executive Director, I will ensure our office continues its collaborative partnership with the Kentucky's Home Visitation program to serve families in Kentucky communities, by identifying and addressing strengths and gaps in our programs.

We agree with that federal MIECHV funding should support: home visiting in all 120 Kentucky counties for primigravida and multigravida families, service expansion up to age three, initiatives to increase referrals and recruitment into the program, and services that promote mental health and address substance use disorder. We look forward to working with our home visitation partners in the future to address these priorities and ensure more children start school strong.

Sincerely,

Amy Neal
Executive Director
Kentucky Governor's Office of Early Childhood

Cabinet for Health and Family Services
DEPARTMENT FOR BEHAVIORAL HEALTH,
DEVELOPMENTAL AND INTELLECTUAL DISABILITIES
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Andy Beshear
Governor

Eric C. Friedlander
Secretary

Wendy T. Morris
Commissioner

June 8, 2020

Emily E. Ferrell, MPH, CPH
Principal Investigator, Kentucky MIECHV Grant
Kentucky Department for Public Health
275 E. Main St HS2WA
Frankfort, KY 40621

Dear Ms. Ferrell,

I am pleased to write this letter of support for the Kentucky Department for Public Health's 10 Year Needs Assessment for the HANDS Program. Our agency endorses and supports the HANDS Program's work to build a quality, comprehensive system that serves pregnant women, parents, caregivers, and children.

We understand that the HANDS Program engaged in secondary data analysis using quantitative and qualitative sources, in addition to drawing from resources provided by stakeholders, as part of the needs assessment process. As the Director, I will encourage our behavioral health treatment and prevention programs to continue collaborating with the HANDS program to serve overburdened families in at-risk communities, by identifying and addressing strengths and gaps in our programs.

We agree with the HANDS Program that federal MIECHV funding should support: home visiting in all 120 Kentucky counties for primigravida and multigravida families, service expansion up to age three, initiatives to increase referrals and recruitment into the program, and services that promote mental health and address substance use disorder. We look forward to working with the HANDS program in the future to address these priorities and serve Kentucky's maternal, infant, and early childhood populations.

Sincerely,

Koleen L Slusher

Koleen Slusher, DBH Director

CABINET FOR HEALTH AND FAMILY SERVICES
DEPARTMENT FOR PUBLIC HEALTH

Andy Beshear
Governor

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Commissioner

June 11, 2020

Emily E. Ferrell, MPH, CPH
Principal Investigator, Kentucky MIECHV Grant
Kentucky Department for Public Health
275 E. Main St HS2WA
Frankfort, KY 40621

Dear Ms. Ferrell:

On behalf of the Kentucky Department for Community Based Services (DCBS), I am pleased to write this letter of support for the Kentucky Department for Public Health's 10 Year Needs Assessment for the HANDS Program. Our agency endorses and supports the HANDS Program's work to build a quality, comprehensive system that serves pregnant women, parents, caregivers, and children.

DCBS understands that the HANDS Program engaged in secondary data analysis using quantitative and qualitative sources, in addition to drawing from resources provided by stakeholders, as part of the needs assessment process. As the DCBS Deputy Commissioner, I will encourage our human and social services programs, namely child welfare, to continue collaborating with the HANDS program to serve overburdened families in at-risk communities, by identifying and addressing strengths and gaps in our programs. HANDS has evidenced as a critical resource in the service array preventing child maltreatment.

DCBS agrees with the HANDS Program that federal MIECHV funding should support: home visiting in all 120 Kentucky counties for primigravida and multigravida families, service expansion up to age three, initiatives to increase referrals and recruitment into the program, and services that promote mental health and address substance use disorder. DCBS looks forward to working with the HANDS program in the future to address these priorities and serve Kentucky's maternal, infant, and early childhood populations.

Sincerely,

Elisabeth M Caywood
Deputy Commissioner

CABINET FOR HEALTH AND FAMILY SERVICES
DEPARTMENT FOR FAMILY RESOURCE CENTERS AND VOLUNTEER SERVICES

Andy Beshear
Governor

275 East Main Street, 3C-G
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Eric C. Friedlander
Secretary

Melissa Goins
Executive Director

June 3, 2020

Emily E. Ferrell, MPH, CPH
Principal Investigator, Kentucky MIECHV Grant
Kentucky Department for Public Health
275 E. Main St HS2WA
Frankfort, KY 40621

Dear Ms. Ferrell,

I am pleased to write this letter of support for the Kentucky Department for Public Health's 10 Year Needs Assessment for the HANDS Program. Our agency endorses and supports the HANDS Program's work to build a quality, comprehensive system that serves pregnant women, parents, caregivers, and children.

We understand that the HANDS Program engaged in secondary data analysis using quantitative and qualitative sources, in addition to drawing from resources provided by stakeholders, as part of the needs assessment process. As the Director, I will encourage our Family Resource and Youth Services Center programs to continue collaborating with the HANDS program to serve overburdened families in at-risk communities, by identifying and addressing strengths and gaps in our programs.

We agree with the HANDS Program that federal MIECHV funding should support: home visiting in all 120 Kentucky counties for primigravida and multigravida families, service expansion up to age three, initiatives to increase referrals and recruitment into the program, and services that promote mental health and address substance use disorder. We look forward to working with the HANDS program in the future to address these priorities and serve Kentucky's maternal, infant, and early childhood populations.

Sincerely,

Melissa Goins
Director

CABINET FOR HEALTH AND FAMILY SERVICES
DEPARTMENT FOR PUBLIC HEALTH

Andy Beshear
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Eric C. Friedlander
Secretary

Steven J. Stack, MD
Commissioner

June 2, 2020

Emily E. Ferrell, MPH, CPH
Principal Investigator, Kentucky MIECHV Grant
Kentucky Department for Public Health
275 E. Main St HS2WA
Frankfort, KY 40621

Dear Ms. Ferrell,

I am pleased to write this letter of support for the Kentucky Department for Public Health's 10 Year Needs Assessment for the HANDS Program. Our agency endorses and supports the HANDS Program's work to build a quality, comprehensive system that serves pregnant women, parents, caregivers, and children.

As part of the needs' assessment process, the HANDS Program engages in secondary data analysis using quantitative and qualitative sources, in addition to drawing from resources provided by stakeholders. As the Title V Director for Kentucky, I continue to encourage our Maternal and Child Health programs to work in collaboration with the HANDS program to serve overburdened families in at-risk communities, by identifying and addressing strengths and gaps in our programs.

We agree with the HANDS Program that federal MIECHV funding should support: home visiting in all 120 Kentucky counties for primigravida and multigravida families, service expansion up to age three, initiatives to increase referrals and recruitment into the program, and services that promote mental health and address substance use disorder. These are priority areas for Kentucky. We will continue to work with HANDS program in addressing these priorities and serving Kentucky's maternal, infant, and early childhood populations.

Sincerely,

Henrietta Bada, MD, MPH
Director, Division Maternal and Child Health
Director, Title V Grant